



Australian Government
Department of Agriculture,
Fisheries and Forestry

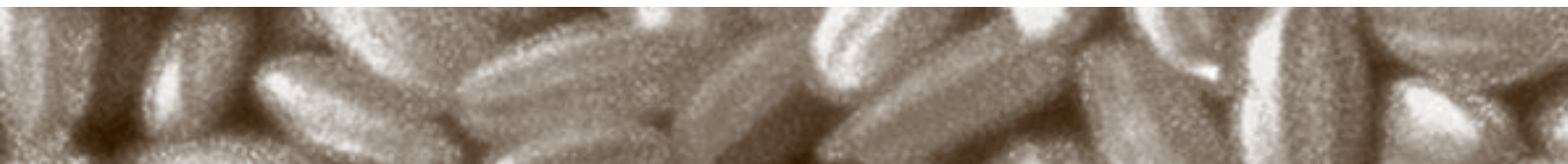


A farmer's choice?

Legal liability of farmers growing crops

A Research Paper prepared for the Department of Agriculture, Fisheries and Forestry by the Australian Centre for Intellectual Property in Agriculture

Mark Lunney Robert Burrell



A farmer's choice?

Legal liability of farmers growing crops

Mark Lunney Robert Burrell

The Australian Government does not necessarily endorse the views expressed in this report. No person should act on the basis of the views contained in this report without first obtaining specific professional advice. The Australian Government does not guarantee and accepts no legal liability whatsoever arising from or connected to the accuracy, reliability, currency or completeness of any material or views contained in this report.

© Commonwealth of Australia 2006

ISBN 0-9757221-7-4

Contents

A. Executive Summary	i
B. Context	iii
1. Scope of the Paper	1
2. Crops and ‘Damage’	3
(a) Damage and the Law of Negligence	3
(i) Crops and Damage to Property	3
(ii) Elements of ‘Damage to Property’	4
(iii) Physical Change or Not?	4
(iv) Examples from the United Kingdom	5
(v) Regulation and Damage	7
(vi) Damage and Loss of Value	8
(b) Damage to Property and the Duty of Care	9
(i) The Duty of Care and Negligence	9
(ii) Effect of Damage being ‘Damage to Property’	10
(iii) Pure Economic Loss and the Duty of Care	10
(c) Summary – Damage and the Duty of Care	10
3. Reasonable Foreseeability and Risk	11
(a) Reasonable Foreseeability and the Duty of Care	11
(i) The Roles of Reasonable Foreseeability	11
(ii) What does ‘reasonable foreseeability’ mean?	12
(iii) Reasonable Foreseeability and Crops	12
(b) Foreseeability and Breach of Duty	13
(i) Foreseeability and the Probability of Harm	13
(ii) Probability of Harm	14
(c) Reasonable Foreseeability and Risk – Summary	15

4. Agricultural Uses and the Law of Nuisance	17
(a) Nuisance and Amenity Damage	17
(b) Nuisance and ‘Fault’	18
(i) Reasonable User of Land	18
(ii) Reasonable User and Locality	18
(iii) Reasonable User and Extra-Sensitive Use of Land	19
(c) Nuisance and Remedies	19
(d) Summary – Nuisance and Agricultural Uses	20
5. Liability of Farmers for Crops Planted by Others	21
6. The Impact of the Regulatory Environment on Liability	23
(a) Licences under the Gene Technology Act 2000 (Cth) and State Moratorium Legislation	23
(b) Food Standards Australia and New Zealand	25
(c) Australian Pesticides and Veterinary Medicines Authority	26
7. Liability and Environmental Protection Legislation	27
8. Liability for Trespass	29
9. The Problem of Causation	31
10. Comparative Jurisdictions	33
(a) New Zealand	33
(b) The United Kingdom	34
(c) United States	35
11. Conclusions	39

A. Executive Summary

- A.1** The purpose of the paper is to analyse the private law liability of farmers growing crops. The approach taken in this paper is a legal approach. The liability of a farmer growing crops has been considered in light of the potential legal actions that might be brought against such a farmer. In particular, the paper has concentrated on the legal liability of farmers growing crops to adjoining landowners in respect of the damage to property and economic losses that may be caused to the adjoining landowner. This is the liability to which a farmer growing crops is most likely to be exposed. The legal basis for this liability will generally lie in the law of tort and the paper considers in detail the torts of negligence and private nuisance, the torts which are most likely to be used to sue a farmer growing a crop.
- A.2** Section 2 of the paper considers the importance of the characterisation of the damage which a plaintiff suffers in determining liability in both negligence and private nuisance. Section 3 of the paper deals with the notion of ‘risk’ in the context of actions for negligence and private nuisance. Section 4 of the paper considers the potential liability of a grower of a crop in the tort of private nuisance. Section 5 of the paper evaluates the potential liability of a farmer where a crop is present on his land which he did not plant, either through being planted by a previous owner or having self-sown. Section 6 considers the regulatory structures applicable to crops and the effect such structures may have on liability. Section 7 outlines briefly the possibilities for using environmental legislation to establish liability against a farmer growing a crop. Section 8 of the paper considers briefly the potential liability of a farmer growing crops in the tort of trespass to land, whilst Section 9 details the potential difficulties involved in proving causation in all of the torts considered. Section 10 of the paper provides a summary of the liability of a farmer planting a crop to a neighbour in a number of other jurisdictions.
- A.3** The conclusions of this paper are that, under the existing law of negligence and private nuisance, the chances of a successful action against a farmer growing a crop by a neighbour in most cases are small. This conclusion is premised on the fact that in the torts considered the conduct of the plaintiff is judged at the time of the conduct – here, at the time of the planting of the crop – and risk and damage is assessed at that time. A farmer is not liable merely because the consequences of planting the crop turn out to be different from what was predicted at the time the crop was planted. Much depends on the existing scientific evidence, but certainly where a new crop has gone through an existing regulatory approval process – as for GM crops – the farmer planting the crop has strong arguments to defeat claims brought in negligence and private nuisance. This conclusion is reinforced by the failure to discover any reported cases where such actions have been brought, although this might be explained by the fact that many of the innovations behind new crops are relatively recent.

B. Context

- B.1** In recent years there has been a growing debate about potential legal liability for farmers whose crops transfer to neighbouring properties. One of the problems that has prevented this debate reaching any sort of resolution is that there is a great deal of uncertainty about the law in this area. Consequently, it is, at present, very difficult for farmers to make informed decisions about the legal implications of the type of crops they grow.
- B.2** Perhaps the greatest concern is that unfounded or exaggerated concerns about legal risk may have a negative impact on the uptake of new crops with potentially detrimental consequences for Australian agriculture. Whilst in ‘legal terms’ the question of farmer liability for growing crops arises in relation to all crops, the growing popularity of organic farming and the move towards GM crops has meant that the question of legal liability has been discussed primarily in relation to possible contamination by GM crops of organic or other “GM free” crops.
- B.3** The aim of this paper is not to identify a vision for Australian farming. In particular, it is not intended that the paper be seen as providing support for pro-GM, organic or any other group of farmers. Rather, the paper attempts to provide a detailed legal analysis of the potential risks to any farmer in growing a crop, be it GM or otherwise.
- B.4** The rapid development of biotechnology in the agricultural sector is providing a number of challenges for policy-makers and farmers alike. The challenges, however, are different. The decision whether the increased use of biotechnology in agriculture is, ultimately, desirable involves a consideration of broad matters of social, economic and environmental policy. Conversely, the decision for a farmer to grow a crop is more likely to be based on a practically-oriented cost-benefit analysis. It is essential the decisions made by individual farmers – which are crucial to the future of Australian farming – are based on realistic appraisals of the legal risks.
- B.5** In order better to inform this report, the Australian Centre for Intellectual Property in Agriculture (‘ACIPA’) has sought the views of farmers. Participants at more than 20 ACIPA workshops held in rural centres across Australia between February and May 2005 were asked to comment on their perception of the risks attaching to the introduction of new crop varieties. The majority of participants were grain farmers, farmers in the horticultural sector and cotton farmers.
- B.6** Although none of the participants had direct experience of being sued or being threatened to be sued, or of suing or wanting to sue, in relation to crop spread, a significant number of participants stated that they were concerned about legal risks attaching to GM crops and a number stated that they would be reluctant to grow GM crops without a clearer indication of their potential liability. In contrast, in relation to traditionally bred varieties, growers were entirely unconcerned about potential liability through crop spread. Both these results suggest a clear need for much greater information to be passed to farmers.
- B.7** Accordingly, this paper looks at legal liability in the most common scenario in which a farmer growing a crop might be exposed to liability – where the crop spreads, either by seed or pollen drift, to the land of an adjoining farmer. It does not consider the potential liability of others in this scenario – seed manufacturers and seed distributors, for example – because the potential liability of these parties does not address the primary concern of the farmer: his own liability for growing the crop.¹

- B.8** A number of fictitious scenarios demonstrate potential claims arising out of a farmer growing a crop. Farmer Giles grows a pesticide-resistant GM crop. Farmer Smith grows the same crop (non-GM crop) on an adjoining property. After harvesting it is found that Farmer Smith's crop is not GM-free. This may have occurred in a number of ways: it may be that pollen from Farmer Giles' GM crop has cross-pollinated Farmer Smith's crop to produce a number of hybrids, or seed from the GM crop may have self-sown on Farmer Smith's land and accidentally been harvested as part of Farmer Smith's non-GM crop. Farmer Smith alleges that, as he can no longer sell his crop as non-GM, the profit on his crop has been reduced. A variation of this scenario is that the Farmer Smith, who has agreed to supply a distributor with a GM free crop, is successfully sued by the distributor for breach of contract and Farmer Smith attempts to recover this amount from Farmer Giles.
- B.9** Another possible case is where Farmer Smith discovers the presence of Farmer Giles' crop on his land (volunteer plants) but this causes him no immediate financial loss as he can still sell his own crop at the same price despite the possibility of the presence of some GM contamination. Nonetheless, Farmer Smith is annoyed because he feels his choice to farm 'GM-free' has been taken away and he sues Farmer Giles for the loss of this freedom of choice.
- B.10** The legal principles applicable to these scenarios are considered in the paper. Other scenarios can be envisaged², but the examples given are representative of the most likely situations where it is thought liability might arise. It is hoped that the paper will go some way to assessing the potential liability of a farmer growing a crop in such circumstances.
- B.11** Since this report was written, an important decision on the potential liability of GM seed manufacturers/distributors (*Hoffman v Monsanto*, 2005 SK.C. LEXIS 330, Saskatchewan Court of Queen's Bench, GA Smith J, 11 May 2005) has been delivered by the Saskatchewan Court of Queens Bench.³ References to the decision have been incorporated into the report where appropriate. However, the limited relevance of this decision to the subject of this paper should be noted. First, the plaintiffs in the case were a group of organic farmers and the defendants were the seed manufacturers of GM canola. Only peripherally does the case consider the potential liability of the grower of a new crop to a neighbouring farmer. Secondly, the nature of the proceedings required the court to consider whether the case as pleaded against the defendants was arguable. In such proceedings the court assumes that the facts as pleaded by the plaintiffs are true, and any evidence included in the pleadings is not subject to cross-examination by the opposing party nor does the judge make any findings of fact. Accordingly, even in the context of the seed manufacturer's liability, the decision is only a preliminary step in determining the question of legal liability.
- B.12** With the riders of the previous paragraphs firmly in mind, it can nonetheless be noted that in the *Hoffman* case all of the common law claims – negligence, nuisance, the rule in *Rylands v Fletcher*, and trespass to land, were struck out as disclosing no reasonable cause of action.⁴ In other words, even assuming everything the plaintiffs had pleaded was true, there was no legal basis for holding the defendants liable to the plaintiffs. Although some of the holding was attributable to the particular pleadings used by the plaintiffs, it does suggest that there are a number of hurdles that might prevent liability in tort being imposed in respect of the spread of GM pollen and seed.

¹ It is true that the liability of the farmer may be diminished if others are found liable in respect of the same damage for which the farmer is sued (by being required to pay some of any damages awarded). But it is no defence to say that others were also legally responsible for causing the damage; the farmer remains primarily liable to pay any damages awarded and if no-one else is found liable or if they cannot pay, the entire liability will rest with the farmer.

² See A Clarke, J Stanley & A Taji, 'GM Crops – Science, Agricultural and Potential Legal Issues' *Australian Centre for Agriculture and Law*, University of New England, Ag Law Papers 2004, Bk 2.

³ A US District Court considered some of the same issues in 2002 in an action by corn producers against the manufacturer of Starlink corn (*In Re Starlink Corn Products Liability Litigation* (2002) 212 F Supp 2d 828). However, Canadian tort law is closer to Australia than is the US tort law and the particular issues raised in *Hoffman v Monsanto* are closer to those raised in this paper than those raised in the US litigation, hence the particular importance of the *Hoffman* case.

1. Scope of the Paper

- 1.1 The primary aim of this paper is to consider the potential legal liability of farmers growing crops on their farm.
- 1.2 There are a number of ways in which this project might have been focussed. However, the approach taken here is to concentrate on the potential liability in the torts of negligence and private nuisance that may attach to the farmer in respect of damage caused by the crop to adjoining farmers. There are a number of reasons for this approach.
- 1.3 First, the liability that is imposed on a farmer in this way is liability imposed through the law of tort. Very broadly, the law of tort is part of the general law and parties are subject to it whether they wish to be or not. Although it is possible to modify the application of the law of tort by prior agreement between the parties, this is unlikely to occur in the case of damage caused by the planting of a crop as the potential litigants – neighbouring farmers – are unlikely to have made provision for liability arising in respect of the planting of a crop.
- 1.4 Similarly, this paper does not address the liability position as between the farmer planting the crop and the seed distributor or producer. There are undoubtedly some important legal issues raised in these situations, but, again, the liability of the parties will almost certainly be determined by the contract between them. As it will only be in very rare situations that seed will be supplied on a non-contractual basis, the potential for liability to arise other than under the law of contract is very limited.
- 1.5 Secondly, focussing on the law of tort (especially the main torts relevant in this area, negligence and private nuisance) draws attention to two of the most controversial and important aspects of any potential liability for growing a crop – the notion of damage and the notion of risk.
- 1.6 Damage is central to the law of torts, not only because some torts require proof of damage to be actionable whilst others do not, but also because the type of damage of which the plaintiff complains can be central to whether the plaintiff has a claim or not. In the context of growing crops, this leads to a detailed analysis of the manner in which the harm was caused. It also brings into focus another important point. Because of the close link between damage and actionability, the law of tort is useful as a means of recovering compensation only in respect of harms that are in some sense ‘personal’ to the plaintiff. In particular, the narrow scope of damage limits the circumstances in which a plaintiff can claim for more abstract notions of damage to the ‘environment.’ This paper does not consider in detail the nature of environmental damage, but in discussing the liability in tort it must be recognised that legislative regimes for environmental protection provide wider definitions of damage for the purposes of requiring licences and clean-up operations.⁵ The extent to which such legislation imposes obligations on the grower of a crop and to which it provides remedies for affected parties to sue in respect of any losses caused by planting the crop, whilst outside the scope of this paper, is clearly an area in which further research may be required.

⁴ Some of the claims under Canadian environmental legislation were not struck out, but as these depend on the wording and effect of Canadian legislation these claims are not considered in this paper.

- 1.7 Apart from damage, the law of tort, especially negligence, draws attention specifically to the notion of risk. Generally, the law of tort does not impose obligations on defendants in respect of conduct which does not pose a risk of some kind of harm to another.⁶ There are some exceptions, the most important being torts of strict liability where the defendant is made liable irrespective of whether the conduct of the defendant was ‘risky’ or not. Even in these cases, however, a form of risk assessment may be reintroduced by the legal rules that apply to ‘remoteness of damage’, the rules that determine the extent of a defendant’s liability to the plaintiff.⁷
- 1.8 Even though risk is central to the notion of the liability in negligence (and in some respects private nuisance), the term does not appear in the legal definitions of these torts. Instead, risk is encapsulated in the prominent role given to foresight or foreseeability in these torts. In the tort of negligence, the defendant is only required to take care in respect of risks that are reasonably foreseeable; in other words, only if the defendant’s conduct creates a sufficiently high degree of risk of injury can legal liability be imposed in the law of negligence.
- 1.9 In the context of growing crops, this raises a number of specific points. The first is that the notion of risk is inextricably linked to the available scientific evidence in relation to the crop being grown. Partly for this reason, this paper does not consider in detail questions of risk relating to physical injury that might be caused by growing a new crop, although the principles discussed below apply equally to this kind of injury. Secondly, where that risk has been assessed by some kind of regulatory body as part of the process of regulatory approval for the new crop, the question arises to the status of that ‘risk assessment’ in a private law action for damages. These issues will be considered in detail in the paper.
- 1.10 A final, introductory point should be made. This paper considers generally potential liability that arises from the planting of crops. It must be recognised, however, that many of the controversial issues that arise in this context are in respect of genetically-modified (GM) crops. In some cases issues only arise in respect of such crops.

⁵ See, for example, *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 528; *Environment Protection Act 1993* (SA) s 5.

⁶ This is the basic test in *Donoghue v Stevenson* [1932] AC 562.

⁷ Thus the basic rule of remoteness of damage in the torts of negligence and private nuisance is that the damage be of a type or kind that is reasonably foreseeable – see *Wagon Mound (No. 1)* [1961] AC 388.

2. Crops and ‘Damage’

- 2.1 The notion of damage is integral to the torts of negligence and private nuisance. In both torts it is a pre-requisite to liability that the plaintiff suffer damage as a result of the tort. What is damage in this context?
- 2.2 First and foremost, damage, in relation to the law of tort, must be personal to the plaintiff. The law of tort does not generally allow plaintiffs to sue in respect of what might be called ‘community’ harms; hence, absent some damage personal to the plaintiff, ‘environmental harm’ is not compensable in the law of tort.⁸ This reflects the compensatory goal of the law of tort and this paper proceeds on the basis that the liability of the farmer of growing crops is commensurate with the ability of a person being affected being able to sue to receive compensation in respect any loss caused by the growing of the crop.
- 2.3 Broadly, a plaintiff might suffer some kind of injury to the person (be it physical or mental), some kind of injury to a property right, and some kind of economic injury. Even though the remedy that the law provides is usually economic (an award of damages) this should not disguise the fact that a broken leg is a different kind of harm than loss of profits. It is necessary to make these distinctions because the branches of the law of tort with which we are concerned – negligence and private nuisance – do not compensate all forms of damage equally and do not compensate some forms of damage at all.

(a) Damage and the Law of Negligence

- 2.4 It is generally accepted that the law of negligence requires damage to be categorised before questions of liability can be determined. This is because different types of damage receive different levels of protection. In particular, damage that can be classified as damage to the person, or damage to property, receives greater protection than do purely economic losses.

(i) Crops and Damage to Property

- 2.5 How might the planting of a crop cause damage? The main concern here appears to be the possible spread of the crop to adjoining properties where it is not desired. However, the mere fact that the crop is present on an adjoining farmer’s property against his will does not of itself amount to damage. This is because the particular type of damage – which might be described as frustration, or stress, or displeasure – is not a type of damage for which the law of negligence provides redress.⁹
- 2.6 Where the crop does spread to an adjoining property there are a number of ways in which it might cause damage recognised by the law of negligence. First, seed of the crop might be blown onto an adjoining property with the result that the crop self-sows. If the crop is identifiable, the adjoining farmer may be put to expense in removing it (perhaps necessary to ensure minimum purity standards for the crop being grown by the adjoining farmer). Alternatively, pollen from a crop may be able to

⁸ Cane, ‘Are Environmental Harms Special?’ (2001) 13 *Journal of Environmental Law* 13.

⁹ However, damages can be awarded for such harms where a form of harm that is recognised by the law of negligence is also suffered. Thus damages may be awarded for ‘pain and suffering’ where this is due to the plaintiff’s physical injury, but not where the only claim is for pain and suffering.

cross-pollinate with an existing crop on an adjoining farmer's land thereby creating a new kind of 'hybrid' crop. This hybrid may be worth less than the original crop (for example, in the case of non-GM crops cross-pollinated with a GM crop, by losing a non-GM certification).

- 2.7 Although the two cases look similar, there may be differences between them. Whether the cases are treated similarly will depend on the characterisation of the loss as pure economic loss or damage to property.

(ii) Elements of 'Damage to Property'

- 2.8 However the loss is categorised, one common feature must be noted. The notion of damage or loss necessarily involves the idea of loss of monetary value. This is best illustrated in the context of damage to property. A car that is hit by another car is damaged because there has been a change in the physical structure of the car *and* that change has resulted in the car being worth less. Conversely, when the car is repaired, there has also been a change in the physical structure of the car, but after the repair the car is now worth more than it was. The car is therefore not damaged.

- 2.9 It is in the cross-pollination scenario that this issue is of most importance. If cross-pollination results in a change in the structure of the plant and a consequent reduction in value, then it can plausibly be argued that the crop has been damaged. This was the approach taken in *Re Starlink Corn Products Liability Litigation*¹⁰ where it was held:

*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.*¹¹

However, there is no direct Commonwealth authority on the point although some academic writing has also suggested that the physical change brought about by cross-pollination – a change in the genetic make-up of the plant – should be sufficient to amount to damage to property.¹²

(iii) Physical Change or Not?

- 2.10 The factual situations that are closest to the cross-pollination scenario are cases involving pollution or contamination from the unintended spread of spray and water resulting in contamination. However, these cases do not raise the issue of the nature of the damage suffered, it being assumed that some property was damaged as a result of the spread. One case which appears to take a different view is *Van Son v Forestry Commission of New South Wales*¹³, in which the plaintiff sued for the adverse effect on her water supply caused by the defendant's conduct in managing the surrounding forest. The result was that the water was stirred up and became cloudy so that it could not be used for renewing her supply of tank water as well as reducing the recreational value of the water. One possible argument was that the interference amounted to a physical interference with the land (through damaging the

¹⁰ The *Starlink* litigation took place after corn for human consumption was found to be contaminated by the presence of a protein (Cry9C), found in Starlink corn developed by Aventis, which was not approved for human consumption.

¹¹ However, this was not said as part of a final judgment, as the hearing was to determine whether the plaintiffs' claims were arguable. The persuasiveness of the comment is also weakened as the court treated, without discussion, the commingling of contaminated Starlink corn with non-contaminated corn as making the entire mixture 'damaged property', a point of some difficulty discussed at paras 2.10-2.16 below.

¹² Rodgers, 'Liability for the Release of GMO's into the Environment: Exploring the Boundaries of Nuisance' [2003] *CLJ* 371, 386; cf. Ludlow, 'The economic impact of genetically modified organisms as actionable damage in torts' (2005) 13 *TJL* 159. The point was not raised for decision in *Hoffman v Monsanto*, above para B.11, although it seems that the plaintiffs did not argue (para [103]) that cross-pollination amounted to damage to property.

¹³ Unreported, Supreme Court of New South Wales, Equity Division, 3 February 1995. Cohen J.

water). However, the case proceeded on the basis that the claims did not amount to physical damage to the property. This result can perhaps be defended if the impurity (as was the case) arose from the increased presence of soil particles. There may be a difference between dirty water and damaged water. A more difficult question is whether the fact that the property cannot be used as profitably as a result of the contamination amounts to ‘damage to property’ but it is submitted that it does not. In the absence of some recognisable change to the physical structure the property is not damaged; it may be worth less but this is economic loss, not damage to property.¹⁴

2.11 Another contamination case illustrates this point. The plaintiff in *Lawrence v Kempsey Shire Council*¹⁵ complained that the defendant’s activity (sewerage treatment) in the adjoining creek resulted in his property being damaged. A number of heads of damage were alleged, the most significant being the eradication of native grasses and their replacement by weeds unsuitable for livestock resulting in a reduced amount of livestock feed being produced from the land. Such damage is clearly damage to property – the native grass had died and weeds had replaced it and the property value had been reduced as a result of this change.

(iv) Examples from the United Kingdom

2.12 There are no reported cases in Australia that raise specifically the issue of the degree of change necessary to constitute damage to real property in the context of tort liability.¹⁶ The most detailed consideration of contamination as damage to property arises in a number of cases from the United Kingdom under the *Nuclear Installations Act 1965* (UK). Although the context is statutory, the wording of the relevant provision (which makes the statute applicable only in respect of ‘physical damage to property’) makes the analogy strong.

2.13 In *Blue Circle Industries v Ministry of Defence*¹⁷ the defendant’s ponds flooded onto the plaintiff’s adjoining land after some heavy rain with the result that radioactive plutonium intermingled with the soil on the plaintiff’s land. Under the relevant legislation, compensation was payable for ‘damage to property’. One issue that arose was whether it could be said that the land had been damaged as a result of the intermingling of the radioactive plutonium with the soil. It was held both at first instance and by the Court of Appeal that the property had been damaged by the intermingling. Aldous LJ stated:

*The plutonium intermingled with the soil in the marsh to such an extent that it could not be separated from the soil by any practical process... The land itself was physically damaged by the radioactive properties of the plutonium which had been admixed with it. The consequence was economic, in the sense that the property was worth less and required the owner to expend money to remove the topsoil, but the damage was physical.*¹⁸

¹⁴ Ludlow, ‘The economic impact of genetically modified organisms as actionable damage in torts’ (2005) 13 *TLJ* 159, citing *P & S Ranicar v Frigmobile Pty Ltd* (1983) 2 ANZ Ins Cases 60-525 (Tas SC) and *McMullin v ICI Australia Operations Pty Ltd* (1997) 72 FCR 1.

¹⁵ (1995) 87 LGERA 49; on appeal *Kempsey Shire Council v Lawrence*, unreported, Supreme Court of New South Wales, Court of Appeal, 2 February 1996, Kirby P, Clarke & Sheller JJA.

¹⁶ The issue of ‘damage’ was considered by Wilcox J in *McMullin v ICI Australia Operations Pty Ltd* (1997) 72 FCR 1 in the context of damage to cattle where, broadly, the notion that damage required a physical change and a deleterious consequence as a result of that change was endorsed. See Ludlow, ‘The economic impact of genetically modified organisms as actionable damage in torts’ (2005) 13 *TLJ* 159.

¹⁷ [1999] Ch 289.

¹⁸ *Ibid* 300-301.

¹⁹ [2004] Env LR 19.

2.14 A more recent example is provided by a Scottish case, *Magnohard Ltd v United Kingdom Atomic Energy Authority*.¹⁹ Here, the petitioners owned land, including a beach, that adjoined the Dounreay Nuclear Power Station in Scotland. Particles of nuclear matter were found on the plaintiff's beach, the result of the method of cleaning adopted by the respondent to clean an offshore diffuser. In this case the amount of intermingling was much less than in the *Blue Circle* case. Only sporadic particles of nuclear material were deposited on the beach. Nonetheless, Lady Paton, in the Outer House of the Court of Session, found that there was damage to property under the relevant legislation. She said:

*[P]hysical damage has occurred and continues to occur by reason of the sporadic and unpredictable deposit of tiny radioactive particles, which become immixed with the fine grains of sand on the beach without leaving any visible sign to alert a user of the beach as to which parts of the beach might contain a radioactive particle. Damage in my view occurs as soon as a radioactive particle is deposited on the beach.*²⁰

2.15 A couple of points should be noted about these cases. The first is the statutory context, in particular, the provisions of the legislation that required clean-up operations to occur if certain levels of contamination were found. The courts may have been more willing to find damage to property if it resulted in some amelioration of any expenses the plaintiff had to incur as a result of the clean-up. More generally, the cases show how little of the composition of the land must be altered to constitute at least the first aspect of damage to property – a physical change. However, to say that damage occurs as soon as a – i.e. one – radioactive particle lands on the plaintiff's land is probably too broad. First, the alteration must be subject to a *de minimus* exception. Could one particle on a beach 100 kilometres long be viewed as changing the physical character of the beach? Secondly and related to the previous point, the alteration must result in a loss of value. Even if one was to say that spilling a litre of oil on a beach resulted in a physical alteration of the beach, it would hardly be likely to cause a loss in value.

2.16 An example of a case which fell on the other side of the line is *Merlin v British Nuclear Fuels Plc*.²¹ Here the plaintiff claimed damages, again under the *Nuclear Installations Act 1965* (UK), for the loss in value of his home after it was discovered that radionuclides from the defendant's plant were present in the house. It was held that the notion of 'damage to property' required there to be physical damage to tangible property. As the radionuclides did not damage the fabric of the property there was, accordingly, no damage to property for the purposes of the Act. It can be seen that the line between this case, and the Dounreay case above, is not at all easy to draw. On one level it may come down to the nature of the property and how it is characterised. A mass of soil, or sand for that matter, may be described as being comprised of its constituent parts. Subject to the *de minimus* rule, a number of contaminated parts might plausibly be said to 'damage' the whole. In *Merlin*, however, the fabric of the house was not constituted in the same way. The presence of the radionuclides in the house did not alter the physical character of the property – defined as the fabric of the house – so there was no damage to property.

²⁰ Ibid [155].
²¹ [1990] 2 QB 557.

(v) Regulation and Damage

- 2.17 Another difficulty that can arise in determining the question of damage to property is the regulatory requirements relating to the property in question. This issue has recently been highlighted, although in a different context, in *Dovuro Pty Ltd v Wilkins*.²² In this case a batch of seed was sold by the defendant to the plaintiffs. At the time the seed complied with the relevant regulatory requirements; however, after the seed had been planted regulations were changed with the effect that the seeds then contained prohibited noxious weeds. The plaintiffs incurred expense in complying with the eradication orders and sued for these costs. The case was decided against the plaintiffs on the (lack of) reasonable foreseeability that the regulations might change so that the seeds would become unfit for use. It was assumed that this loss was pure economic loss as the original planting could not be regarded as physical damage to property.²³
- 2.18 A change in regulatory standards may also have an impact on the nature of the damage itself. In *Cambridge Water Company v Eastern Counties Leather*²⁴ the plaintiff brought an action in respect of the costs associated with finding and extracting water from alternative sources due to the contamination of one of the plaintiff's boreholes by a chemical (PCE) for which the defendant was, factually, responsible. Because of the way the case was decided it was not necessary for the House of Lords (the highest court in the United Kingdom) to characterise the nature of the damage suffered by the plaintiff. In fact, the manner in which the loss was occasioned is striking. When the water was first affected by the chemical entering the borehole there was no regulatory prohibition on the plaintiff using that water as a source of supply for domestic use. At that stage, could it have been said that the intrusion of the chemical into the water source 'damaged' the water? It could certainly be said that the physical composition of the water was changed as result of the PCE being present in it. However, that change (arguably) did not result in any 'loss' – the water could be used for exactly the same purpose as it was being used for prior to the chemical entering the water supply. However, some time after the chemical first entered the water supply, the regulatory environment changed such that the amount of the PCE that was in the water made it unsuitable for domestic supply. At that point a loss was suffered – the plaintiff could no longer use the water for the purpose it had before. But was the loss damage to property or pure economic loss? In other words, must the reduction in value coincide with the physical alteration? Or could the plaintiff have argued that the loss was still damage to property as the conduct of the defendant had, in the end, resulted in a physical change to the property and a loss of value? In principle, the loss should occur coincidentally with the physical change in the character of the property although there are difficulties with either position. If the contrary view were adopted at what point would the cause of action accrue? It could not accrue until the loss accrued (i.e. when the regulatory change was made) but this might be many years after the original act causing the physical change occurred.

²² (2003) 77 ALJR 1706.

²³ Ludlow, 'The economic impact of genetically modified organisms as actionable damage in torts' (2005) 13 *TLJ* 159, citing the judgment of Gyles J in the decision of the Full Court of the Federal Court.

²⁴ [1994] 2 AC 264.

- 2.19** How would this apply in the crop scenario? Assume that pollen drift has resulted in cross-pollination of a non-GM food crop. Further assume that at the time of the cross pollination the cross-bred loses no commercial value because the consequence of the cross-pollination – say the introduction of a particular protein – is not regarded as having any health consequences (and accordingly has no commercial consequences). Assume that the existing crop is harvested, seeds are kept for the next harvest, and cross-bred plants comprise some of the next crop. Before that crop is harvested, a regulatory authority intervenes and declares that crops containing this particular protein cannot enter the food chain. The result is the loss of value of the harvest. The argument in paragraph 2.18 suggests that this is not damage to property.²⁵
- 2.20** It may even be argued that ‘damage’ caused as a result of a change in the regulatory environment is not damage caused by the conduct of the defendant. In *Hoffman v Monsanto*²⁶ the defendant seed manufacturers argued that the damage claimed by the organic farmers did not result from the release of GM canola but from the actions of third parties who promulgated the standards affected by the inevitable adventitious presence of GM canola and by the decision of individual organic farmers to abide by those standards. This is an argument about causation: no matter how one classifies the damage it was caused by the change in the regulatory environment, not the defendant’s conduct.²⁷
- 2.21** The argument thus far has concentrated on the effect of cross-pollination. There is, however, another, perhaps more common method in which an adjoining farmer’s land might be affected. That is where seed drifts onto a neighbouring property and self-sows. Here the crop itself cannot be said to be damaged; if anything has been damaged it is the land itself rather than the crop.²⁸ Once sown, a crop is part of the land itself, and if the presence of the crop renders the land less valuable it could plausibly be argued that the land has been damaged. The physical composition of the land has been altered (by the presence of the crop) and there has been a resultant drop in the market value of the land.

(vi) Damage and Loss of Value

- 2.22** In all of the examples given, damage only occurs if the change in the property results in a loss of value. Whether a crop can be said to have ‘damaged’ the land or other crops will thus depend on the effect of the change on the value of the crop or land. If the effect is cost-neutral, there will be no loss and damage to property. In this context, most of the discussion has focussed on the effect of GM crops ‘contaminating’ an adjoining farmer’s land. It has been assumed that the non-GM farmer may suffer a loss as a consequence because the market is prepared to pay a premium for non-GM produce. There is certainly evidence to support this proposition in relation to organic crops.²⁹ However, the evidence is not all one way³⁰, and there is some scepticism as to whether the premium, if there is one, paid for non-GM food will remain.³¹ Even if premiums are paid, a recent study by the Rural Industries Research and Development Corporation noted that ‘where price premiums for non-GM varieties exist they are small, meaning that the market for certified non-GM foods may simply become a niche market similar to the market for organics products.’³²

²⁵ Ludlow, ‘The economic impact of genetically modified organisms as actionable damage in torts’ (2005) 13 *TJL* 159, reaches the same conclusion as to the nature of the damage but by a different route.

²⁶ Para B.11 above, [106].

²⁷ Causation is discussed in Section 9 of the paper.

²⁸ In *Hoffman v Monsanto*, para B.11 above, [103], this was an argument of the plaintiffs in respect of the claim for private nuisance, and it was not dismissed as being unarguable (although the private nuisance claim was so dismissed for other reasons).

²⁹ See Chang, ‘Labelling of Organic and GM Foods in Australia’, *Working Paper Series in Agricultural and Resource Economics*, University of New England, August 2004.

³⁰ In relation to the price differential between conventional and GM canola see Foster M, Berry P and Hogan J, *Market Access Issues for GM Products: Implications for Australia* (ABARE Report, 2003) 16.

³¹ See the studies cited in Ludlow, ‘Cultivating Chaos: State Responses of Genetically Modified Organisms’ [2004] *Deakin L Rev* 1, fn 29.

³² Kym Anderson and Lee Ann Jackson, *Global Responses to GM Food Technology: The Implications for Australia* (RIRDC Publication No. 05/016, RIRDC Project No. UA-57A).

2.23 It is not the concern of this paper to assess these claims, but the variance of opinion illustrates a couple of points. First, the question of damage may be a question of evidence.³³ No-one may doubt that a car with a dented door is worth less than one in pristine condition, but the same is not self evidently true in respect of GM and non-GM crops. It will depend on what the evidence suggests as to value. Secondly, the notion of damage to property is not immutable.³⁴ It may change over time. For example, if, in time, GM crops were to have a premium attach to them (perhaps because of beneficial health properties) it is quite conceivable that the GM farmer might have an action for damage to property in respect of contamination by non-GM seed and pollen.³⁵ Outside the realm of GM crops the issue does not appear to have been investigated but the same reasoning would apply.

(b) Damage to Property and the Duty of Care

2.24 Why it is necessary to draw a distinction between ‘damage to property’ and other forms of loss? To answer this it is necessary to consider what elements of the cause of action in negligence must be satisfied before a successful claim can be brought.

(i) The Duty of Care and Negligence

2.25 A successful action in negligence generally requires that a number of elements be satisfied. First, the plaintiff must establish that the defendant owed him/her a legal duty to take care in the activity in which he/she was engaging. If there is no legal duty to take care imposed on a person, under the common law system she cannot be liable in negligence. Secondly, the defendant must be in breach of that duty of care by acting carelessly. Finally, there must be causal link between the negligence of the defendant and the damage of which the plaintiff complains.

2.26 The primary means of establishing the first element, the duty of care, was laid down in the landmark case of *Donoghue v Stevenson*.³⁶ If the damage of which the plaintiff complains was, in broad terms, a *reasonably foreseeable* consequence of the defendant’s actions then the defendant is under a legal duty to take care.

2.27 The importance of the nature of the damage suffered by the plaintiff is two-fold. First, it is that damage – the type suffered by the plaintiff – that must have been reasonably foreseeable by the defendant for a duty to arise. We will consider the question of foresight of damage later in Section 3. Secondly, for certain types or categories of damage, the requirement of reasonable foresight is a necessary *but not sufficient* condition of imposing a duty. In this context, it is generally assumed that, where damage to property is suffered, a duty of care may be imposed merely by showing that damage to property was a reasonably foreseeable result of the defendant’s conduct. However, if the damage is categorised as purely economic loss – that is, where the plaintiff’s complaint is simply, say, for lost profits, reasonable foresight of that loss is not sufficient to impose a duty of care.³⁷ Additional factors are required.

³³ Whilst the relevant regulatory standards (whether set by government or voluntarily) might affect the value of a contaminated group, it is not determinative of the question. Thus an organic crop ‘contaminated’ by cross-pollination is not damaged if it can be sold for the same price after the contamination regardless of whether the contamination renders the crop non-GM according to some external standard. Cf. Ludlow, ‘The economic impact of genetically modified organisms as actionable damage in torts’ (2005) 13 *TLJ* 159.

³⁴ It has been argued that the notion itself is a construct and can be adapted to reflect wider social values: Witting, ‘Physical Damage in Negligence’ [2002] *CLJ* 189.

³⁵ Interim Office of the Gene Technology Regulator, Submission No. 77 to the Senate Committee on Community Affairs for its report on the Gene Technology Bill 2000 (Cth) (Canberra, October 2000), p. 146, cited in Ludlow, ‘Genetically modified organisms and private nuisance liability’ (2005) 13 *Tort L Rev* 92.

³⁶ [1932] AC 562.

³⁷ *Perre v Apand* (1999) 198 CLR 180; *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* (2004) 78 ALJR 628.

(ii) Effect of Damage being ‘Damage to Property’

2.28 As will be noted in Section 3, whatever the categorisation of the damage, difficult questions of reasonable foresight of damage remain in the context of contamination caused by growing crops. However, if foresight can be established, a plaintiff who has suffered damage to property is likely to be owed a duty of care in respect of that damage without showing anything more.

2.29 This is not the only benefit to the plaintiff in having the damage categorised in this way. If the damage of the plaintiff is categorised as damage to property, the plaintiff is entitled to recover for that loss *as well as any other economic losses that are consequential to the damage to property*. Moreover, the plaintiff can do this without having to establish a separate duty of care for these losses. In the context of damage to property caused by crops, this would allow the plaintiff to claim for loss of profits on any crop that was rendered less valuable as a consequence of the damage to property, and, arguably, to any loss in capital value of the land. In the GM context this is particularly important as contamination might reduce the capital value by reducing its utility to a potential non-GM farmer.

(iii) Pure Economic Loss and the Duty of Care

2.30 As was noted by the Parliamentary Library, in its submission to the Senate Committee considering the *Gene Technology Bill 2000* (Cth): ‘Legal liability for negligently inflicted economic loss is still in a state of uncertainty’.³⁸ To impose a legal duty on the grower of a crop to take care to avoid damaging the economic interests of his neighbour, a number of additional factors to that of reasonable foresight must be established.³⁹ One of additional factors the plaintiff must establish is that imposing liability on the defendant would not lead to indeterminate liability. It is clear that this does not mean that only one farmer need be affected, but it does mean that the class of potential plaintiffs, and the amounts for which they might be claiming, be ascertainable. This will not always be the case where the damage is caused by seed spread or pollen drift.⁴⁰ Further, a court is more likely to hold that a duty exists where the defendant had knowledge of the risk and its extent. This may be very difficult to establish in the case of a farmer who knows little of the risks that scientific research may associate with the spread of GM seed and pollen.⁴¹ Finally, the plaintiff must have been vulnerable, in the sense that he could have taken no steps to protect himself from the risk of injury. This will most likely be satisfied in this scenario: the plaintiff has no control over the conduct of farming operations on the defendant’s land and it is very rare that the defendant and the plaintiff would have had the opportunity to agree in advance how to allocate loss in the event of seed or pollen drift from a crop onto the plaintiff’s land.

(c) Summary – Damage and the Duty of Care

2.31 If the plaintiff can establish that the loss that is suffered as a result of contamination from a neighbour’s crop is damage to property, it will be much easier to establish that the defendant owed the plaintiff a legal duty to take care to avoid causing the plaintiff that loss. It will be difficult, perhaps much more difficult, to do so where the loss suffered is purely economic. Whatever the categorisation of the damage, however, the plaintiff must establish that the damage was a reasonably foreseeable consequence of defendant’s conduct. This may be difficult to establish in the context of the growing of a crop.

³⁸ Commonwealth Senate Committee on Community Affairs, *A Cautionary Tale: Fish Don’t Lay Tomatoes: A Report on the Gene Technology Bill 2000* (November 2000), PP no 263/00, para. 6.22.

³⁹ *Perre v Apand* (1999) 198 CLR 180; *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* (2004) 78 ALJR 628.

⁴⁰ In *Hoffman v Monsanto*, para B.11 above, one ground for dismissing claims in negligence was that the claims were for pure economic loss and that imposing a duty of care might lead to indeterminate liability.

⁴¹ For the example given in para. B.8, this consideration might be very difficult to establish against a grower (as opposed to a distributor/manufacturer).

3. Reasonable Foreseeability and Risk

(a) Reasonable Foreseeability and the Duty of Care

(i) The Roles of Reasonable Foreseeability

- 3.1 Before any duty to be careful can be imposed on a defendant, the conduct of the defendant must give rise to a reasonably foreseeable risk of injury. Accordingly, the notion of foreseeability must be examined as well as the extent to which the epithet 'reasonable' operates as a restriction on foreseeability.
- 3.2 The concepts of 'foreseeability' or 'reasonable foreseeability' play an important role in the tort of negligence. They are relevant not only to the duty of care enquiry but also to the questions of breach of duty (the question of whether the defendant has actually been careless or not) and remoteness of damage (assuming the defendant has been careless, are there any limits on the damage for which the defendant should be liable?). Moreover, the differing contexts in which the terms are used is not always recognised or identified. This is not surprising as there is academic debate over the extent to which the concepts can or should be applied to the various elements necessary to establish liability in negligence.
- 3.3 With that rider in mind, it is possible to separate the uses of terms in a way that is pertinent to the notion of risk. The first use of reasonable foreseeability – in the duty of care enquiry – requires the risk to reach a certain level of probability or likelihood before the defendant must take care in respect of that risk. Conversely, when the question is whether the defendant's response to that risk has been adequate (i.e. has defendant been careless?), the probability of the risk occurring (over and above its reasonable foreseeability) is a factor to be considered. Finally, the manner in which the risk materialises may influence to extent to which the defendant should be held liable (i.e. for what damage should the defendant pay?).⁴²
- 3.4 Thus before any liability could be found against a farmer growing a crop, the first question to be determined is the 'reasonably foreseeable' risks that such conduct creates.⁴³ It is clear that to answer this question the primary recourse will be to scientific assessments of risk and to the knowledge of those assessments that may be attributed to a reasonable farmer growing the crop. As is well-known, such assessments of risk may vary considerably in the case of certain new crops (i.e. GM crops). It is important to remember, however, that the assessment of whether the scientific evidence meets the necessary legal standard is a legal, not a scientific question. To answer it requires further analysis of the notion of 'reasonable foreseeability'.

⁴² This final point (the 'remoteness of damage' point) is not considered further in this paper as it is assumed that the risks materialise in a way that was foreseeable (cross-pollination, seed spread). It should be noted, however, that if the risks materialise in an unforeseen way this will limit the potential liability of a defendant.

⁴³ Parliamentary Joint Select Committee (Tas), *Report on Gene Technology* (2001), p. 107.

(ii) What does ‘reasonable foreseeability’ mean?

- 3.5 For much of the last twenty-five years a tendency had been identified whereby ‘reasonable foreseeability’ was equated with ‘foreseeability’. This trend was traced to the decision of the High Court of Australia in *Wyong Shire Council v Shirt*, where Mason J said the following:

*Consequently, when we speak of a risk of injury as being “foreseeable” we are not making any statement as to the probability or improbability of its occurrence, save that we are implicitly asserting that the risk is not one that is far-fetched or fanciful...The considerations to which I have referred indicate that a risk of injury which is remote in the sense that it is extremely unlikely to occur may nevertheless constitute a foreseeable risk. A risk which is not far-fetched or fanciful is real and therefore foreseeable.*⁴⁴

This approach, which effectively equated ‘reasonable foreseeability’ with ‘foreseeability’, was easy to satisfy (described judicially as ‘undemanding’). In particular, there was a concern that this approach operated with hindsight bias: once the injury had occurred it was difficult to dismiss it as not having been foreseeable.

- 3.6 In recent times there has been an increasing judicial trend to move away from an undemanding test of foreseeability. There is little doubt that this has been associated with the trend, both judicial and extra-judicial, to limit the scope of the tort of negligence. In *Tame v New South Wales; Annetts v Australian Stations*⁴⁵ a number of members of the High Court stressed that the requirement was one of *reasonable* foreseeability. According to McHugh J, the enquiry was not solely factual; although foreseeability might require a factual assessment, the concept of reasonableness necessarily incorporated value judgments.⁴⁶
- 3.7 The return to prominence of reasonableness as a criterion for establishing a duty of care will be important for farmers. In all cases, recourse will first be had to the relevant scientific evidence to produce a basic assessment of risk. However, it will be a judicial assessment as to whether the level of risk creates a reasonably foreseeable risk of injury. This is a partly a value judgment based on the judiciary’s view of community expectations as to the appropriate range of the protection to be afforded in respect of the growing of crops. Again, whilst this applies generally to any crop, it is clear that the greatest controversies will range around GM crops.

(iii) Reasonable Foreseeability and Crops

- 3.8 It is also clear that different kinds of contamination present different kinds of risk and, accordingly, the answer to the question of reasonable foreseeability may receive differing answers. Thus the propensity of seed to spread and self-sow on adjoining land may be very different from the likelihood that pollen drift may result in cross pollination and the chances of cross-pollination varies dramatically from crop to crop.⁴⁷
- 3.9 It is not only the spread of the pollen or seed that must be foreseen; the effect of the spread must also be foreseen. For example, a farmer might foresee that the seed from a crop might spread to a neighbour’s land and self-sow. However, if such an event was unlikely to have any adverse consequences, damage (however categorised) might be judged to be unforeseeable.⁴⁸

⁴⁴ (1980) 146 CLR 40, 46-7.

⁴⁵ (2002) 76 ALJR 1348.

⁴⁶ *Ibid.*, 1366.

⁴⁷ Ludlow, ‘Cultivating Chaos: State Responses of Genetically Modified Organisms’ [2004] *Deakin L Rev* 1, fn 29.

3.10 In the absence of a concrete case involving actual scientific assessments of risk it is difficult to predict whether a court would be prepared to find a sufficiently low risk of foreseeable harm as to deny the existence of a duty of care. What is clear, however, is that the increased emphasis on 'reasonable' in 'reasonable foreseeability' has made this a more likely outcome than might previously have been thought.⁴⁹

(b) Foreseeability and Breach of Duty

(i) Foreseeability and the Probability of Harm

3.11 To establish liability in negligence it is not sufficient merely to establish a duty of care. It must also be found that the duty has been breached (i.e. that the defendant has been careless). Foreseeability also plays a role in this enquiry.

3.12 Although the duty of care is based on the presence of reasonably foreseeable risks, breach of duty is based, partly, on the *probability* of the risk. The more likely the risk is to materialise, the more likely it is that the defendant will have to take steps to minimise or eradicate the risk.

3.13 Prior to recent High Court decisions and tort reform legislation, there was a concern that the probability of the risk was being given less prominence in assessing the breach of duty enquiry. In particular, if it could be said that there was a foreseeable risk, and an inexpensive way of avoiding that risk, the defendant was to be found negligent.

3.14 This issue was addressed by the Ipp Report which recommended that it be restated that the breach of duty enquiry was a composite one involving the weighing of a number of elements. In particular, the low cost of avoiding the risk should not always be seen as determinative.⁵⁰

3.15 These recommendations were taken up by the state legislatures in passing their tort reform legislation (which apply to the types of harm that might be caused by growing a crop). For example, s 5B of the *Civil Liability Act 2002* (NSW) states:

- (1) A person is not negligent in failing to take precautions against a risk of harm unless:
 - (a) the risk was foreseeable (that is, it is a risk of which the person knew or ought to have known), and
 - (b) the risk was not insignificant, and
 - (c) in the circumstances, a reasonable person in the person's position would have taken those precautions.
- (2) In determining whether a reasonable person would have taken precautions against a risk of harm, the court is to consider the following (amongst other relevant things):
 - (a) the probability that the harm would occur if care were not taken,
 - (b) the likely seriousness of the harm,
 - (c) the burden of taking precautions to avoid the risk of harm,
 - (d) the social utility of the activity that creates the risk of harm.

⁴⁸ In *Hoffman v Monsanto*, para B.11 above, [64], it was held that, even though the spread of pollen from GM crops was foreseeable, it was not alleged that the damage the plaintiffs were alleged to have suffered was foreseeable hence the claim in negligence was struck out.

⁴⁹ In *Hoffman v Monsanto*, para B.11 above, [61]-[64], the defendants seem to have conceded that the adventitious presence of GM canola was not simply foreseeable but inevitable. However, the Canadian law of negligence does not limit the existence of the duty of care so much by way of reasonable foreseeability as by the concepts of 'proximity' and 'policy'. On both of these latter grounds it was held that the claims in negligence be struck out. In any event, the failure to allege the escape of GM canola was not determinative of the foreseeability of *damage* point because the plaintiffs failed to allege it was foreseeable that the adventitious presence of the GM canola would cause damage. For these reasons it is suggested that the cas

⁵⁰ *Review of the Law of Negligence*, September 2002, paras 7.5-7.19.

Section 5B(2) sets out the factors that have traditionally been associated with determining whether conduct amounts to a breach of duty. Before one gets to these, however, the risk must be both foreseeable and not insignificant. Thus, if the risk is insignificant there is no negligence in failing to take steps to prevent its occurrence, no matter how inexpensive the elimination or reduction of the risk might have been. Only if the risk is both foreseeable and not insignificant would a court have to consider the reasonableness of the response to the risk (as set out in s. 5B(2)).

(ii) Probability of Harm

- 3.16** How does s 5B of the *Civil Liability Act 2002* (NSW) and its equivalents relate to the potential liability attaching to the growing of crops? First, there will be no breach of duty (carelessness) unless the risk created by the growing of the crops is not insignificant (as set out in s 5B(1)(b)). It is not clear whether 'not insignificant' is synonymous with 'reasonably foreseeable'. If it is, it is simply a different way of expressing what reasonable foreseeability of the risk requires and adds nothing to deciding whether the elements of the tort have been satisfied. Alternatively, it may operate as an additional limitation on establishing liability. Even if a duty of care is owed because the risk of growing the crop that materialised was reasonably foreseeable, there is no breach because the reasonably foreseeable risk was 'insignificant'.
- 3.17** How might this apply to a concrete case? Imagine the evidence was that pollen from a crop might spread for up to a distance of two kilometres. The nearest neighbouring farm is that distance away. At that distance the risk of cross-pollination between the crop and the neighbouring farmer's crop is estimated at two percent. However, the risk could be reduced even further if the crop was planted in a different field. If an action for negligence was launched, the plaintiff would first have to establish that the risk was sufficiently great as to be reasonably foreseeable. This has been discussed above at paras 3.5-3.10. However, even if this is satisfied, the plaintiff farmer must go on to establish breach of duty which requires a further classification that the risk is 'not insignificant'. It must be at least arguable that a two percent risk of cross-pollination may be classified as an insignificant risk which requires the farmer growing the crop to do nothing.

Even if the two percent risk is regarded as 'not insignificant', liability will only arise if the weighing of factors set out in s 5B(2) leads to a conclusion that the failure to act was unreasonable. For example, it may be more costly for the farmer growing the crop to plant in a different field. If this was allied to a low level of risk of property damage or pure economic loss the failure to take any steps to prevent the risk of cross-pollination eventuating may not be deemed careless.

- 3.18** If the risk is low, any steps that are actually taken by the grower to minimise the (already small) risk are likely to result in a finding of no liability. For example, if a farmer set pollen traps or planted existing crops on borders or planted the crop as far away from neighbouring crops as was possible, to make a finding that the defendant farmer had breached the duty of care a court would be required to say that: 1) the risk of damage was reasonably foreseeable; 2) the risk of damage was not insignificant; and 3) the steps taken to minimise the risk were not sufficient. Given many of the risks associated with cross-pollination and volunteer plants may be low, it will be difficult for a court to be satisfied that these three factors have been met.

- 3.19 It should also be noted that the conduct of the defendant farmer is judged in light of the available evidence at the time of the conduct alleged to be negligent.⁵¹ It is irrelevant that conduct which appeared unobjectionable at the time later appears to have been full of risks. Of course, the state of scientific evidence on the impact of a crop may be such that the risk is uncertain, in which case it may be argued that to go ahead and plant a new crop is itself careless. However, it should not be necessary that there be an absolute consensus of scientific opinion. If a majority, or perhaps even respectable minority, of scientific evidence suggests a limited risk, a farmer *may* not be negligent by relying on that opinion even if it later turns out to be wrong.
- 3.20 An additional factor of importance for GM crops is the presence of a licence issued by the Gene Technology Regulator.⁵² This will be discussed in Section 6.

(c) Reasonable Foreseeability and Risk – Summary

- 3.21 The notion of reasonable foreseeability defines the risks to which the tort of negligence responds. A finding that a risk is reasonably foreseeable is a composite one, involving a factual assessment of the likelihood of the risk and a value judgment as to whether the risk is sufficient to impose legal obligations in respect of it.
- 3.22 Liability in negligence can only be imposed in respect of risks that are deemed to be reasonably foreseeable. In the tort of negligence, even if a risk is deemed reasonably foreseeable, the assessment of whether a defendant has been in breach of duty (carelessness) also requires an assessment of the probability of the risk.
- 3.23 Reasonable foreseeability is judged by reference to the evidence available at the time that the defendant engages in the conduct alleged to constitute the tort of negligence. Conduct should not be judged with the benefit of hindsight.

⁵¹ *Dovuro Pty Ltd v Wilkins* (2003) 77 ALJR 1706.

⁵² *Gene Technology Act 2000* (Cth).

4. Agricultural Uses and the Law of Nuisance

- 4.1 Apart from the law of negligence, the cause of action most commonly suggested as available against a grower is private nuisance.⁵³ A cause of action in private nuisance depends on the unlawful interference with a person's use and enjoyment of property.
- 4.2 The law of nuisance has some similarities with the law of negligence. In particular, both require that the damage of which the plaintiff complains be a reasonably foreseeable result of the interference. Thus the limit on negligence that this requirement imposes (see paras 3.5-3.10) applies equally to private nuisance.
- 4.3 One important difference between the law of negligence and private nuisance is the 'damage' for which the plaintiff can sue. The tort protects interests in land, and this includes not only physical damage to the land (i.e. contamination) but also the amenity interest of the land. Physical damage to land has been discussed in paras 2.5-2.23 and the same arguments apply here to determine whether damage can be categorised as 'physical damage to land'. The amenity interest in land is difficult to define comprehensively but encompasses actions which interfere with the ability of the land to be enjoyed by the owner. Thus an excess of noise, or smell, or vibrations may amount to an interference with amenity even if no actual damage to the land results.

(a) Nuisance and Amenity Damage

- 4.4 Because amenity damage is a broad concept, it may be that an action in private nuisance is more likely to succeed against a farmer than an action in negligence. Take the following example: a farmer grows a crop, say a GM crop, pollen spreads to adjoining land or volunteer plants appear on the neighbouring property. However, the evidence is that this has no effect on the price at which the adjoining farmer can sell his crop i.e. there is no damage to property or pure economic loss (see paras 2.5-2.23). This would preclude an action in negligence. But can it be argued that the loss of the ability of the neighbouring farmer to grow crops unaffected by GM contamination is a loss of the amenity value of the land for which a remedy might be claimed in private nuisance?
- 4.5 It can certainly be argued that the loss of the ability to use one's land as one might wish – in this case to farm in a particular manner – might amount to amenity damage to the land and be actionable. There are no reported cases dealing directly with this issue⁵⁴; however some analogies can be drawn with contamination cases. In *Van Son v Forestry Commission of New South Wales*⁵⁵ it was held that conduct of the defendant that resulted in the plaintiff's water supply being made 'cloudy' was actionable because the interference amounted to amenity damage. In *Kempsey v Lawrence*⁵⁶ one argument of the plaintiff was that the number of cattle that could be carried on the land was reduced because of the change in the pasture but this was related to the damage to the property caused by the spread of exotic weeds and

⁵³ See generally Ludlow, 'Genetically modified organisms and private nuisance liability' (2005) *Tort L Rev* 92.

⁵⁴ In *Hoffman v Monsanto*, para B.11 above, [106]-[108], it was held that it was arguable that, even though there was no physical damage to land, the cross-pollination of organic crops with the pollen of a neighbouring GM crop might constitute an interference with the use and enjoyment of property. However, the reasoning seems to have been based on the (possibly) close analogy with cases on the spread of weeds or herbicides but in those cases there had been physical damage to land (damage to crops). The point was also made in the context of a claim for private nuisance that was eventually struck out as di

⁵⁵ Unreported, Supreme Court of New South Wales, Equity Division, 3 February 1995, Cohen J.

⁵⁶ (1995) 87 LGERA 49; on appeal *Kempsey Shire Council v Lawrence*, unreported, Supreme Court of New South Wales, Court of Appeal, 2 February 1996, Kirby P, Clarke & Sheller JJA.

might thus be viewed as economic loss consequential upon the damage to property rather than damage to the amenity of the land. At the margins courts have limited the ‘rights’ of the landowner that are deserving of protection. Thus, the law of private nuisance does not protect the right to receive television reception⁵⁷ nor does it protect the privacy of activities of those on the land.⁵⁸ Some abstract rights are capable of being protected if they can be granted by one landowner to another: the right of access granted by one landowner to another by an easement is an example. Infringements of such rights can be protected by the law of private nuisance. However, the ‘right to farm’ is probably too vague to be able to be the subject of such a grant.⁵⁹ However, it has been said that the categories of interference with amenity are never closed⁶⁰, but it seems unlikely that a claim based solely on an interference with the right of an owner to farm land in a particular way would be actionable.⁶¹

(b) Nuisance and ‘Fault’

(i) Reasonable User of Land

4.6 Although there are some dissentients, it is generally agreed that the person whose conduct creates the alleged nuisance does not need to be careless for liability to arise. Rather, a court must assess whether the defendant’s conduct amounts to an ‘unreasonable user’ of land. ‘Reasonable user’ is a composite concept which attempts to capture the reciprocity inherent in the law of nuisance. Some interferences by a neighbour with one’s use and enjoyment of land must be tolerated as must the neighbour tolerate some interference with his own use and enjoyment. It is a question of balance, and the notion of ‘reasonable user’ requires the court to set the allowable level of interference with the use and enjoyment of property.

(ii) Reasonable User and Locality

4.7 There are a number of factors that are used in determining the question of ‘reasonable user’. In the context of growing crops, the most important are the nature of the damage and the sensitivity of the use. As regards damage, if the damage for which the plaintiff sues can be described as physical damage to property (see paras 2.5-2.23), the court does not consider the locality in which the nuisance takes place. Conversely, if the damage is classified as interference with amenity, locality is considered.⁶² To illustrate how this might be applied in practice take the following example: a GM farmer grows a crop the result of which is the cross-pollination of a neighbour’s non-GM crop. The area is one where there are a large number of GM farmers. In determining whether the GM farmer’s use of land is an unreasonable user, the characterisation of the damage will determine whether evidence of the locality – a locality in which growing GM crops is common – will be considered. If the damage is damage to property it will not be considered and the growing of the GM crops is more likely to be found to constitute a nuisance as it is very rare that a use of land that causes damage to a neighbour’s property can be classified as a reasonable use.⁶³ Conversely, if the damage is only damage

⁵⁷ *Hunter v Canary Wharf Limited* [1997] AC 655.

⁵⁸ *Victoria Park Racing and Recreation Grounds Co Ltd v Taylor* (1937) 58 CLR 479.

⁵⁹ *Law of Torts* (2002) para 22-24.

⁶⁰ *Victoria Park Racing and Recreation Grounds Co Ltd v Taylor* (1937) 58 CLR 479, 523-524, per McTiernan J.

⁶¹ Cf. Ludlow, ‘The economic impact of genetically modified organisms as actionable damage in torts’ (2005) 13 *TLJ* 159. Perhaps the argument would be different if the interference posed a risk to the physical health of the occupant.

⁶² *St Helen’s Smelting Company v Tipping* (1865) 11 HL Cas 642.

LS 236.

to the amenity value of the land, the locality is considered and may well be determinative. A non-GM farmer might well have to 'put up' with interference to the amenity of his land if there are a large number of GM farmers in the locality.

(iii) Reasonable User and Extra-Sensitive Use of Land

4.8 Traditionally, another factor has been considered in determining the question of reasonable user, irrespective of the classification of the damage, namely, if the plaintiff is putting his land to an 'extra-sensitive use', the defendant cannot be liable in private nuisance for a use of land that interferes with this use.⁶⁴ Thus, for example, a farmer growing a very delicate crop would not be able to sue a neighbouring farmer growing a crop the effect of which was to damage the extra-sensitive crop. This scenario has also been brought up in the context of GM crops: an organic farmer might be deemed to be using land in a sensitive way and hence have no action for contamination caused by cross-pollination or seed drift from the GM farmer's land.

4.9 It is very unlikely that this factor will play a role in determining liability in private nuisance for growing crops. First, there are no reported cases where this issue has been determinative of liability. This has led to a recent decision of a court in England that the sensitivity or otherwise of the plaintiff's use of land is not a separate factor to be applied in determining the question of reasonable user.⁶⁵ Secondly, it is not clear what characterises a use of land as extra-sensitive. It must be doubtful whether the use of land to grow organic produce is sensitive, especially in the context of GM contamination, because the same contamination can affect both organic and non-GM crops equally.

(c) Nuisance and Remedies

4.10 Finally, the question of remedy must be considered. In negligence the remedy is damages but in private nuisance, if the nuisance is continuing at the date of the trial, the plaintiff normally has the right to an injunction to prevent the continuance of the conduct as well as damages for any injury already caused. The difficulties with ordering an injunction in the context of cross-pollination or the presence of volunteer plants are numerous but at least one difficulty should be noted specifically. The defendant may have 'stopped' the objectionable conduct years ago, but the land may continue to be a source of contamination (i.e. through residual volunteer plants). Any injunction in such circumstances would appear to be a mandatory injunction, but the courts are much less willing to order mandatory injunctions than prohibitory injunctions.⁶⁶ Whether this traditional reticence could be overcome in this scenario would depend on, amongst other things, whether it was possible to specify with sufficient precision the conduct required of the defendant by the injunction. Analogies are likely to be drawn from cases involving orders for repair of environmental damage.

⁶³ Lee, 'What is Private Nuisance?' (2003) 119 *LQR* 298.

⁶⁴ *Robinson v Kilvert* (1889) 41 Ch D 88.

⁶⁵ *Network Rail Infrastructure Limited (formerly Railtrack PLC) v. CJ Morris (trading as Soundstar Studio)* [2004] EWCA Civ 172.

⁶⁶ *Law of Torts* (2002) 312-318.

(d) Summary – Nuisance and Agricultural Uses

- 4.11** There is some scope for farmers growing crops to be sued in private nuisance. However, a number of significant hurdles would need to be overcome. First, the damage to the plaintiff's land would need to be reasonably foreseeable. This is discussed in Section 3 and it may present difficulties in the context of bringing an action for damage caused by crops. Secondly, the use of the land by the defendant would need to constitute an unreasonable user. If the damage to plaintiff only constitutes amenity damage, the locality in which the damage occurs may prevent the use being characterised as an unreasonable user. As discussed above at paras 2.22-2.23, an interference with the land that does not result in a loss of value to the land will not constitute damage to the land.
- 4.12** However, if the damage to the plaintiff amounts to damage to the land itself and such damage is reasonably foreseeable, then an action for private nuisance might succeed. From the plaintiff's perspective, such an action has the advantage that it is not necessary that the defendant be proved to have been careless. As long as the conduct of the defendant amounts to an unreasonable user of land it is irrelevant whether the defendant's conduct was careless or not. As conduct that causes damage to the land is likely to be deemed an unreasonable user of land, an action for private nuisance is likely to expose the defendant to liability.

5. Liability of Farmers for Crops Planted by Others

- 5.1 This paper has thus far considered the liability of farmers for crops that are planted by them. This section addresses the potential liability of a farmer in respect of crops that are present on his land but which he did not plant (either planted by a previous owner or present naturally on the land).
- 5.2 Although the law of negligence is slow to impose a duty on people to act (as opposed to be careful when acting), one exception is where the defendant is in occupation or control of land.⁶⁷ In such circumstances, if the defendant knows or has reason to know that the condition of the land may pose a risk to others or to their land, the defendant comes under a duty to take reasonable steps to minimise that risk. The same features also apply, broadly, to a claim in private nuisance brought in similar circumstances.
- 5.3 In a crop scenario, an issue arises as to whether a farmer can be liable for any damage caused by the crop even though he did not plant it. The first question to be answered is whether the farmer has knowledge of the existence of the crop. If yes, liability will depend on 1) whether the existence of the crop created a reasonably foreseeable risk of damage; and 2) whether the defendant took reasonable care to prevent the risk from materialising. Point 1) has been discussed in Section 3, but in relation to 2) a slightly different standard is adopted from that used in an ordinary negligence action. Where a defendant is required to act, an assessment of the relative means of the owner/occupier of the land and the person(s) subjected to the risk, is undertaken.⁶⁸ As the defendant did not create the risk, but is nonetheless being asked to abate it, it might seem unfair to require the defendant to spend considerable resources to comply with the requirements of the law of negligence.
- 5.4 The actual determination of whether there was a failure to take reasonable care will usually depend on the ease or obviousness of the precautions that might have been taken. In *Goldman v Hargrave*⁶⁹, the leading Australian case on the subject, a lightning strike set a large redgum tree on fire. The defendant, the occupier of the land, took some steps to prevent the risk of a fire starting as a result of the strike, but failed to douse the tree with water. This was held to constitute a negligent failure to act. Applying this, a finding of carelessness will require a failure to use a relatively obvious and inexpensive way of avoiding the risk. Many scenarios can be imagined where it will be expensive to take steps to avoid the risk. The extent of the presence of the crop may not be known, nor may the extent of the risk. The only way of eradicating the risk may be to remove the crop itself and remove traces of it from the soil, a potentially expensive undertaking. However, it has also been suggested that the discharge of the duty in such cases may be satisfied by communicating with the neighbour(s) and allowing them to undertake the necessary work to eradicate the risk.⁷⁰
- 5.5 Whilst each case will depend on evidence as to the degree of risk associated with the presence of the crop, it is likely that courts will be slow to impose too onerous an obligation on 'innocent' farmers. Perhaps notification to neighbours will be sufficient, especially where remedial action would be costly.

⁶⁷ *Goldman v Hargrave* [1967] 1 AC 645.

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*, see also *Holbeck Hall Limited v Scarborough Borough Council* [2000] QB 836.

- 5.6 It will be even more difficult to find a farmer liable where the allegation is not that he knew of the existence of the crop but that he ought to have known of its presence. Of course, farmers cannot close their eyes to the obvious. However, it would be an onerous obligation to require that the farmer, on pain of potential legal liability, to carry out inspections. Whilst in some cases inspections might be easily carried out, in others it may require considerable time and effort, especially if the presence of the crop is not evident from a visual inspection.
- 5.7 It may be that a distinction will be drawn between professional farmers and ‘hobby’ farmers. It is very unlikely that a professional farmer would not have made enquiries as to the previous use of the land, or not have the experience to know what had been grown. Conversely, the hobby farmer may not have the expertise to determine different crop types. For both professional and amateur, however, it would be wise to seek advice as to the previous crops grown on the land and seek indemnities from the vendor if appropriate. Although such indemnities are unusual in residential conveyances, they are more common in the sale of rural land.
- 5.8 In respect of crops that are self-sown, it appears that growers at least in South Australia may have a defence to a claim that they failed to take steps to prevent GM crops from spreading to a neighbouring farmer. As long as the original introduction of the GM crop to the land was not knowingly undertaken by or on behalf of any person who is, or who has been, an owner or occupier of the land, then no action may be brought in a South Australian court or under South Australian law against a person who is an owner or occupier of the land on account of the fact that the GM crop is present on the land or that the person has dealt with the GM crop.⁷¹ The defence does not apply to an owner or occupier who has deliberately dealt with a GM crop in order to gain a commercial benefit.⁷²

⁷¹ *Genetically Modified Crops Management Act 2004* (SA) s 27(2).

⁷² *Ibid*, s 27(3)(a).

6. The Impact of the Regulatory Environment on Liability

6.1 Depending on the crop involved, a number of regulatory requirements must be met before the crop can be used. As far as the growing of a crop is concerned, the main regulatory requirements imposed are in respect of GM crops. For this reason, this first part of this section will focus on the regulatory requirements of the *Gene Technology Act 2000* (Cth) and the state moratorium legislation.

(a) Licences under the Gene Technology Act 2000 (Cth) and State Moratorium Legislation

6.2 Before a deliberate release of a GM crop into the environment may take place (here, the planting of a GM crop), the person planting the crop must have the authority of a licence to do so issued by the Gene Technology Regulator.⁷³

6.3 The licence procedure under the Act is complicated and it is not necessary to describe it in detail. However, part of the process requires the Gene Technology Regulator to engage in a risk assessment before granting a licence.⁷⁴ This requires the Regulator to consider, amongst other things, the risks posed to health or safety of humans and to the environment and the long and short term potential of the GMO (“genetically modified organism”) to be harmful to other organisms and its ability to transfer, spread, or persist in the environment.⁷⁵ Unless satisfied that the risks are insignificant or able to be managed, a licence cannot be granted.

6.4 There are number of ways in which the presence of a licence may affect liability. The first is that the licence might be used as evidence by the defendant that the risk present in planting the GM crop was thought sufficiently low that a licence should be granted. Such low risks might make damage to neighbouring properties not reasonably foreseeable with the result that no duty of care would be owed in negligence and no liability would arise in nuisance. Alternatively, the presence of a licence may lead a court to deny the existence of a duty of care in relation to the release of the GM crop into the environment because this would be inconsistent with express government policy.⁷⁶ Conversely, even if this hurdle is overcome, the existence of the licence might be used to argue that the risk was insignificant; hence, there would be no breach of duty. Finally, the presence of the licence might go towards showing that the reasonable response to such risks was to do nothing – that the probability of the risk occurring was so low that it could be ignored without there being a breach of duty.

6.5 An example of how this process might work can be seen in the UK case *R v Secretary of State for the Environment, Transport and the Regions ex parte Watson*⁷⁷, a public law challenge to the granting of a licence to trial GM crops. In that case the distance between the GM and non-GM crops was to be two kilometres. The advice given to the Department of Transport, Environment and the Regions (UK) was that the risk of cross-pollination from the GM maize was, in the circumstances, about 1 GM hybrid kernel in every 40,000 at a distance of 200 metres. The English Court of Appeal was able to accept that

⁷³ *Gene Technology Act 2000* (Cth) Part IV.

⁷⁴ *Ibid.*, s 50.

⁷⁵ Sharon Mascher, ‘Sowing the Seeds of Discontent? Australia’s New Gene Technology Act’ (2003) 12 *J Env L & Prac* 341.

⁷⁶ *Hoffman v Monsanto*, para B.11 above, [71].

⁷⁷ *The Times*, 31 August, 1998 (Court of Appeal Civil Division, UK).

the risk of cross-pollination at a distance of two kilometres was minimal and that there were accordingly no grounds on which to grant leave to judicially review the decision to grant the licence. Such a risk assessment would also be strong evidence in an action in negligence that the risk could be ignored (subject to compliance with the terms of the licence).

- 6.6** However, this final point may act as a double-edged sword as the licence may require certain precautions to be carried out as a condition of the licence. Compliance with these licence conditions will be strong evidence that the defendant has not been careless, but, conversely, a failure to comply with any such conditions is strong evidence that the defendant has been careless.
- 6.7** In the examples given above the licence is operating in an evidentiary capacity – it is evidence as to whether certain requirements of the actions of negligence and nuisance have been satisfied. However, the licence may also operate to prevent liability by operating as a defence. Here, the defendant says merely that he has complied with the terms of the licence and this, without more, prevents liability from arising.
- 6.8** It is certainly possible for an authority given under statute to operate as a defence to private law actions brought as a result of the conduct authorised by the statute. First, the conduct may be specifically authorised by a statute. Historically, the defence of statutory authority was widely accepted by the courts but in modern times the defence has been strictly construed. If the authority is only permissive – it says simply that the activity is to be carried out, but not where, when or how - it will operate as a defence only if the activity is carried out without negligence and there was no alternative way of carrying out the activity so that it did not cause a nuisance.⁷⁸ In the context of GM crops, any general licence would only be permissive so, even if the licence was held to be equivalent to a permissive statutory authority, it would need to be shown that there was no location where the crops might have been grown that would not have resulted in a nuisance.
- 6.9** Whilst it is possible that a licence might amount to statutory authority, a closer analogy lies in consents under the planning legislation. Planning consent makes lawful that which would otherwise be unlawful under the planning legislation, so it might be said that a licence under the *Gene Technology Act* makes lawful deliberate releases that would otherwise contravene the Act. There is authority that a planning permission cannot authorise a nuisance⁷⁹, although it may change the character of the area in which the activity is being carried out (and thus influence the ‘locality’ enquiry in private nuisance).⁸⁰ Thus the grower of a GM crop remains liable in nuisance even if acting under a licence. However, if there are a number of growers all growing GM crops under licence in a particular area, then the locality of that area may change and, when considering whether the defendant was engaged in a reasonable user of land, this change of locality may mean the defendant’s conduct is no longer considered an unreasonable user of land.
- 6.10** A remote possibility is that a court could decide that the presence of a licence under the *Gene Technology Act* is a defence (as long as the defendant has complied with its terms). In other words, the risk assessment and consultation process may be held to ‘cover the field’ in relation to questions of risk and liability so there would be no scope at all for private law actions.

⁷⁸ Trindade & Cane, *The Law of Torts in Australia* (3rd ed, 1999) 641-644.

⁷⁹ *Wheeler v JJ Saunders* [1996] Ch 19.

⁸⁰ Such was the case in *Gillingham Borough Council v Medway (Chatham) Dock Co Ltd* [1993] QB 343 (redevelopment of old Chatham naval dockyards).

- 6.11 There are a number of reasons why this interpretation is unlikely. First, if it had been intended that the legislation was to operate in this way, it would have been easy enough to say so in the legislation. In fact, the legislation is silent as to the effect of a licence on potential civil liability and courts should be slow to create an immunity by implication.⁸¹ Secondly, the risk assessment carried out by the Regulator is not comprehensive. The economic consequences (which include damage to property) of introducing the GM crop into the environment are excluded from the risk assessment process, which is limited to the risks to human health and the environment.⁸² The result is that the costs and benefits, in economic terms, of deliberately releasing the GM crop are excluded, yet the seriousness of the harm and the cost of preventing the harm are integral parts of the breach of duty enquiry in an action for negligence. For this reason it is also unlikely that compliance with the licence would provide an automatic defence.⁸³
- 6.12 Many of the above arguments apply equally in respect of permits issued under state GM moratorium legislation. Generally, the state legislation does not make explicit the considerations upon which a permit is to be granted. However, it has been argued that, unlike the risk assessment carried out by the Gene Technology Regulator, some express consideration of the relevant economic impacts of releasing a GM crop will have been considered by the relevant Minister before a permit will be issued.⁸⁴ Thus compliance with the terms of such a permit will be additional evidence that the grower has exercised reasonable care in growing the crop, and that the use of land by the grower is a 'reasonable user' for the purpose of determining liability in private nuisance.

(b) Food Standards Australia and New Zealand

- 6.13 Although it is not necessary to grow a new crop, an application must be made and subsequent approval is needed from Food Standards Australia and New Zealand (FSANZ) before a new crop can be sold as a food crop.⁸⁵
- 6.14 In the case of GM crops, FSANZ has produced Standard 1.5.2 which regulates the sale of GM foods in Australia. Part of the requirements of Standard 1.5.2 is a mandatory pre-market safety assessment of the GM food before approval.⁸⁶
- 6.15 An approval for the sale of GM food from FSANZ could be used if the farmer was sued for injury caused by the GM food (in this case, personal injury). As in the case of a licence under the *Gene Technology Act*, it is likely that such an approval would be evidence that the farmer had not been careless in selling the crop as a food product. In the absence of an express provision that an approval operated as a defence, it is very unlikely that it could be relied upon to provide a defence to any action brought in respect of the damage caused by consuming the GM crop.

⁸¹ Stallworthy, "Environmental Liability and the Impact of Statutory Authority" (2003) 15 *Env Law* 3.

⁸² *Gene Technology Act 2000* (Cth) s 51. The Gene Technology Regulator has stressed that, as part of the Department of Health, she deals exclusively with risks that may be posed by genetically modified organisms (GMOs) to human health and safety or to the environment – see Media Release, "Rigorous Assessment Confirms Invigor® Canola Safe as Non-GM Canola", Office of the Gene Tech *J Env L & Prac* 341.

⁸³ Ludlow, "Genetically modified organisms and private nuisance liability" (2005) 13 *Tort L Rev* 92. However, this paper disagrees with the author of the article that the national regulatory scheme will be of little assistance to those defending themselves against tort claims, as compliance with licence conditions is good evidence that the conduct of the farmer was reasonable.

⁸⁴ *Ibid*, 111.

⁸⁵ See the website of FSANZ <<http://www.foodstandards.gov.au/>> (at 30 May 2005).

⁸⁶ <<http://www.foodstandards.gov.au/whatsinfo/gmfoods/index.cfm>> (at 30 May 2005).

(c) Australian Pesticides and Veterinary Medicines Authority

- 6.16 The Australian Pesticides and Veterinary Medicines Authority (APVMA) is responsible for approving the use of certain products in agriculture and veterinary medicine.⁸⁷
- 6.17 Part of the regulatory process requires the APVMA to issue a permit for use. Before a permit is issued, the APVMA must be satisfied of a number of matters, including that the product would not be an undue hazard to the safety of people exposed to it during its handling or people using anything containing its residues; that it would not be likely to have an effect that is harmful to human beings; and that it would not be likely to have an effect that is harmful to animals, plants or things or to the environment.⁸⁸ There are also detailed provisions relating to Biological Agricultural Products.⁸⁹
- 6.18 To the extent that a new crop could be used as a product or part of product regulated by APVMA, it could be argued that the presence of a permit would provide a farmer growing the crop with a defence to a civil action. As in the previous examples, however, it is unlikely it would operate as a complete defence but it could be used as evidence that the farmer had exercised reasonable care in growing the crop. It should also be noted that the purpose for which the assessment is carried out – to assess risks in relation to use as a pesticide or veterinary medicine – is a different purpose from a risk assessment in respect of the growing of the crop. For that reason, the presence of a permit issued by the APVMA is unlikely to carry as much weight as a licence under the *Gene Technology Act*.

87 <<http://www.apvma.gov.au/>> (at 30 May 2005).

88 <http://www.apvma.gov.au/minor_use/general.shtml#Assessing%20permits> (at 30 May 2005).

89 <<http://www.apvma.gov.au/guidelines/bioagprod.pdf>> (at 30 May 2005).

7. Liability and Environmental Protection Legislation

- 7.1 The scope of this paper is the private law liability of a farmer growing a crop. The potential for such a farmer to cause environmental damage and be responsible for paying fines or costs of reinstating the land to an acceptable condition under environmental legislation has not been considered.
- 7.2 However, because there may be scope for a private law action by an individual damaged by the growing of a crop under environmental protection legislation, some reference to it is necessary. The first point to note is that the scope of such legislation varies significantly between the states as well as federally.⁹⁰ Some legislation is quite specific in respect of the type of activity that falls within the legislation whilst others provide for 'general environmental duties'. It is this latter kind of duty that may provide the basis for private law actions in respect of growing crops. Although it is possible that the specific provisions (i.e. dealing with particular kinds of activity such as waste management or mining, or dealing with particular areas such as wilderness or world heritage listings) may apply to growing a crop, the most likely scenario is that such crops will be grown in land ordinarily used for farming.
- 7.3 Before a private law action for damages could be brought under such legislation, a plaintiff would have to show that the growing of a crop caused damage and that the conduct (growing the crop) contravened a provision of the legislation. The definition of damage for the purposes of environmental protection legislation varies but in most jurisdictions it would entail damage to property and some forms of economic losses. This is important because it is only if there is an offence against the environmental protection legislation can the legislation be used as the basis of a civil claim. If damage under the legislation does not correspond, at least in some respects, to the damage suffered by the plaintiff, there would be no breach of the legislation and it could not be used as the basis of a private law action.
- 7.4 Even if the plaintiff can satisfy this requirement, it must also be shown that a breach of the legislation gives rise to a private right of action. However, it is unlikely that an action for breach of statutory duty will lie under most environmental protection legislation.⁹¹ Such an action usually lies when no remedy is specified for breach of the statute⁹² and this is not the case in most environmental protection legislation. Secondly, the plaintiff must be a member of a class that the legislation was enacted to protect.⁹³ Environmental protection legislation is passed in the general public interest rather than for the protection of any particular group so this will not be satisfied. A farmer is therefore unlikely to be liable for breach of statutory duty.
- 7.5 However, the environmental protection legislation of two states – South Australia and Tasmania – provides expressly for private individuals to sue for breaches of the relevant environmental protection legislation.⁹⁴ Moreover, both these states impose a general duty to take reasonable steps not to cause harm to the environment. Environmental harm is defined broadly and would include damage to crops

⁹⁰ The primary legislation is as follows: *Environment Protection and Biodiversity Conservation Act 1999* (Cth); *Environment Protection Act 1970* (Vic); *Environmental Pollution and Control Act 1994* (Tas); *Environment Protection Act 1993* (SA); *Environmental Protection Act 1994* (Qld); *Environmental Protection Act 1986* (WA); *Environmental Planning and Assessment Act 1979* (NSW); *Protection of the Environment Operations Act 1997* (NSW); *Environment Protection Act 1997* (ACT); *Waste Management and Pollution Control Act 1998* (NT).

⁹¹ In Queensland it is expressly stated that a breach of the 'general environmental duty' does not give rise to civil liability – *Environmental Protection Act 1994* (Qld) s 24(3).

⁹² *The Law of Tort* (2002) para 15.15.

⁹³ *Ibid*, para 15.13.

⁹⁴ *Environment Protection Act 1993* (SA) s 104; *Environmental Pollution and Control Act 1994* (Tas) s 48(5). In NSW the *Protection of the Environment Operations Act 1997* (NSW) s 219 allows a person to commence proceedings for an offence against the

and property and, probably, the resulting economic loss.⁹⁵ The result is that a farmer may be liable to a neighbour where the neighbour suffers environmental damage in the form of damage to property. The same is also true for any other breach of the Act, but a breach of the general environmental duty is the most likely breach in respect of the growing of a crop. It must be stressed, however, that a breach of this general duty requires a finding that the farmer did not take all reasonable steps to minimise the risk of environmental damage. The factors taken into account in deciding this question are very similar to ones used to decide the breach of duty question in negligence⁹⁶ and it may be that the actions under these Acts add little to the common law action for negligence.

- 7.6 It is clear that acting pursuant to a permit granted under the environmental protection legislation will prevent any action under that legislation (assuming compliance with the terms of the permit). However, there is authority to suggest that a permit granted for a specific purpose under legislation other than the environmental protection legislation may not operate to prevent a breach of the latter.⁹⁷ It is difficult to see how this could operate in respect to GM crops: a licence under the *Gene Technology Act* will have taken into account environmental risks and it would defeat the purpose of the licence if it did not free the licensee from potential actions under the environmental protection legislation.
- 7.7 Although this paper has focussed on the tortious liability of the farmer, it should be pointed out that a breach of the provisions of an environmental protection statute can give rise to liabilities to reinstate the land so as to repair the environmental damage. The extent to which an individual farmer growing a crop may be liable in this way merits further research. However, some of the difficulties that attach to claims in tort may also attach to this kind of claim. For example, it may be difficult to attribute causal responsibility to any one farmer for the environmental damage sought to be rectified by a reinstatement order.

⁹⁵ *Environmental Protection Act 1993* (SA) s 5; *Environmental Pollution and Control Act 1994* (Tas) s 5.

⁹⁶ For example, *Environmental Management and Pollution Control Act 1994* (Tas) s 23A, which lists the following factors: (a) the nature of the harm or nuisance or potential harm or nuisance; (b) the sensitivity of the environment into which a pollutant is discharged, emitted or deposited; (c) the current state of technical knowledge for the activity; (d) the likelihood and degree of success in preventing or minimising the harm or nuisance of each of the measures that might be taken; (e) the financial implications of taking each of those measures.

⁹⁷ *Gard v Gibsons Ltd* [2004] TASSC 108.

8. Liability for Trespass

- 8.1** Another ground of tortious liability that may apply to a farmer growing a crop is the law of trespass. However, it is only in the most unusual situations that liability might be established.
- 8.2** Trespass to land involves the intentional and direct interference with another's possession of land. The most common example is someone walking onto another's land without permission. In the context of growing crops, a trespass would be committed if the farmer intentionally threw seed or pollen onto a neighbour's land or was reckless as to whether his conduct would allow this to happen.
- 8.3** It may be possible under Australian law to commit a 'negligent trespass' (thus overcoming some of the limits noted above).⁹⁸ Even if this is so, many of the situations in which a farmer might be liable would not satisfy the directness requirement.⁹⁹ For example, planting a crop which, several months later, produced pollen which was carried by the wind onto a neighbour's property would not be a sufficiently 'direct' interference to satisfy the requirements of trespass to land. Perhaps harvesting a crop where the spread of seed to adjoining fields is an immediate consequence of the harvesting could satisfy directness.
- 8.4** Assuming these difficulties can be overcome, why might trespass to land expose a farmer to liability more readily than the other torts discussed here? The reason again lies in the classification of damage. The gist of the tort of trespass to land consists of an interference with possession. Where that interference results in damage to property, there may be little difference between trespass to land and other torts. But it is not necessary that actual damage to property be caused. As long as there is an interference with possession, that is enough. For example, walking on a neighbour's land without permission may not damage the land at all but it still amounts to a trespass to land. In legal terms, this is described as being actionable *per se* – without proof of damage.
- 8.5** Assuming that the spread of pollen or seed from one piece of land to another is capable of amounting to a trespass to land, it becomes actionable even if the spread causes no damage to property. However, once the tort becomes actionable, any consequential losses are recoverable subject to the usual rules of remoteness of damage. In the present context the argument runs as follows: the farmer is responsible for direct interference with his neighbour's possession of land by seed and pollen. The interference does not result in anything the law classifies as 'damage to property'. However, the spread of the seed results in the neighbouring farmer losing his GM-free status. It is arguable that the losses attributable to that loss of status could be recovered as losses consequential to the original trespass to land – even though the original interference resulted in no damage to property.

⁹⁸ Balkin & Davis, *Law of Torts* (3rd ed, 2004) 125.

⁹⁹ The trespass to land claim in *Hoffman v Monsanto*, para B.11 above, [133], failed for lack of a direct interference.

8.6 The likelihood of a farmer attracting such a liability must be placed in perspective. First, much will depend on the original classification of damage. If it amounts to damage to property, there is unlikely to be much difference between actions in trespass and actions in negligence, save in those rare situations where the conduct of the farmer can be classified as intentionally and directly interfering with the possession of his neighbour. Secondly, the directness requirement will be difficult to satisfy. Finally, there is no authority to support the view that consequential losses can be claimed upon proof of an interference with possession that does not cause damage to the land.¹⁰⁰ Accordingly, when assessing the potential liability of a farmer growing a crop, the potential liability in trespass is real but, in practice, likely to be remote.

¹⁰⁰ See the cases cited in Repp, 'Biotech Pollution: Assessing Liability for Genetically Modified Crop Production and Genetic Drift' (2000) 36 *Idaho L Rev* 585; Flood, 'Pollen Drift and Potential Causes of Action' (2003) 28 *Iowa J Corp L* 473; Vollendorf, 'Genetically Modified Organisms: Someone is in the Kitchen with DNA – Who is responsible when someone gets burned?' (2001) 21 *Miss C L Rev* 4.

9. The Problem of Causation

- 9.1 The difficulties of attributing causation in relation to pollen and seed drift damage have been well documented¹⁰¹ and are relevant to actions in negligence, private nuisance and trespass to land. It is another factor that suggests that the potential liability of an individual farmer growing crops is likely to be limited.
- 9.2 In some cases it will be relatively easy to pin-point the source of the contamination. However, where there are a number of adjoining farmers growing a crop of the same kind, it will be virtually impossible to establish, individually, which of the farmers were responsible. A strict approach would require that the action would fail, for it could not be said that any one farmer was responsible for all or even any of the contamination.
- 9.3 To overcome this, a potential plaintiff might appeal to ‘common-sense’ notions often used by the High Court of Australia in deciding difficult questions of causation.¹⁰² However, it is far from clear whether it is ‘common sense’ to say that all the adjoining farmers were responsible – perhaps not. Nor is much assistance gleaned from the tort reform legislation that deals with causation.¹⁰³ Alternatively a plaintiff might seek to rely on *Fairchild v Glenhaven Funeral Services Ltd*¹⁰⁴, a well-known decision involving a plaintiff suffering from mesothelioma caused by exposure to asbestos dust. In that case the House of Lords relaxed the ordinary rules of causation and held, effectively, that a defendant who created a risk that the plaintiff might contract mesothelioma was to be deemed to have caused it. This was so even though there were other possible causes of the injury that could not be excluded. The policy reasons for making this leap were particular to the case and there is no certainty that a court would feel the same need to depart from the ordinary rules of causation in the interests of justice where the plaintiff suffers merely property damage or economic loss. Most of the cases where the ordinary rules of causation have been relaxed have involved injury to the person.¹⁰⁵
- 9.4 Accordingly, whilst causation may present no difficulties in some cases, it is likely to be a formidable hurdle in others. Application of the ordinary rules of causation would limit the liability of a farmer growing crops in many circumstances unless a court was convinced to relax the ordinary rules of causation and accept that the creation of risk (by growing the crop) was itself sufficient to establish some form of causal responsibility.

101 See for example Lee, ‘Regulatory Solutions for GMO’s in Europe: The Problem of Liability’ (2003) 12 *JELP* 311.

102 *March v E & M Stramare Pty Ltd* (1991) 171 CLR 423.

103 See, for example, *Civil Liability Act 2002* (NSW) s 5D.

104 [2003] 1 AC 32.

105 For recent examples see *Rufo v Hosking* [2004] NSWCA 391; *Chester v Afshar* [2004] 3 WLR 927.

10. Comparative Jurisdictions

(a) New Zealand

- 10.1** As in most jurisdictions, much of the discussion relating to liability for crops has focussed on GM crops and the focus has been on the damage such crops may cause. A Royal Commission was held on this topic in 2001 and the issue of liability was referred to the New Zealand Law Commission as a result of a recommendation of the Royal Commission. The Law Commission produced a report in May 2002, some of which dealt with the liability aspects of growing GM crops.
- 10.2** The basic common law liability structure in relation to the liability of a farmer is similar to the position under Australian law.¹⁰⁶ Thus, the primary actions available against the grower of a crop will be negligence and private nuisance where the complaint relates to damage to property or economic losses.¹⁰⁷ Broadly, the same distinctions between damage to property and purely economic losses, in terms of the duty of care in negligence, apply in New Zealand.
- 10.3** One difference between the common law approaches of the jurisdictions is the availability of an action under the rule in *Rylands v Fletcher*.¹⁰⁸ This action lies where the defendant brings onto his land something that is likely to do mischief if it escapes in the course of a non-natural use of land. In some respects it is a form of strict liability and it has been regarded recently as an extension of the law of private nuisance to isolated escapes. In the present context, it may be said that the planting of the crop amounts to bringing something onto the land. Although the escape need not be foreseeable, there is English authority that any damage that results from the escape must be reasonably foreseeable.¹⁰⁹ This limits the scope of the tort in this context: if it was not reasonably foreseeable that the crop might cause damage to a neighbour, it does not matter whether the escape is due to carelessness (negligence) or under *Rylands v Fletcher* (strict liability). As the escape of weeds has been used to found a claim, it may be argued that the escape of GM seed or pollen is analogous¹¹⁰, although it may also be difficult to show that growing the crop constitutes a non-natural use of land.
- 10.4** The difficulties with the *Rylands v Fletcher* action and its rare use in practice, led the High Court of Australia in 1994 to declare that it no longer formed part of the law in Australia.¹¹¹ At least in theory, the availability of this action remains a difference between the law of Australia and New Zealand.¹¹²
- 10.5** The main regulatory requirement for new crops (apart from FSANZ which deals with food crops) is the *Hazardous Substances and New Organisms Act 1996*. In October 2003 the Act was amended to provide for civil liability to arise in respect of a new organism where: 1) the developing, field testing, importing or releasing of a new organism was done in contravention of the Act; 2) possessing or disposing of any

¹⁰⁶ *Royal Commission on Genetic Modification*, July 2001, Chapter 12, 'Liability Issues', paras 32-38; Law Commission (NZ), *Liability for Loss Resulting from the Development, Supply, or Use of Genetically Modified Organisms*, Study Paper 14, May 2002, paras 40-48.

¹⁰⁷ As New Zealand has a universal accident compensation scheme, the position differs where personal injury is suffered.

¹⁰⁸ (1866) LR 1 Ex 265 (Ex Ch) affirmed in (1868) LR 3 HL 330.

¹⁰⁹ *Cambridge Water Company v Eastern Counties Leather* [1994] 2 AC 264.

¹¹⁰ Liability only arises for the escape of something from land under the defendant's control. It is the failure to show an arguable case on this point that led to the claim under *Rylands v Fletcher* being dismissed in *Hoffman v Monsanto*, para B.11 above, [97], t

¹¹¹ *Burnie Port Authority v General Jones* (1994) 179 CLR 520.

¹¹² The English House of Lords has recently held that this action remains part of the law of England, although the circumstances of its application are narrow: *Transco plc v Stockport Metropolitan Borough Council* [2004] 2 AC 1.

new organism imported, manufactured, developed or released in contravention of the Act; or 3) failing to comply with any controls relating to a new organism imposed by an approval under the Act or specified in any regulations under the Act. It is irrelevant whether the person intended the breach or was exercising reasonable care at the time of the breach.¹¹³ Liability is strict, not absolute, as some defences are available.¹¹⁴ As is made clear in the commentary to the amendments, the aim was to introduce an action in favour of those adversely affected by a new organism which did not require proof of fault.¹¹⁵ However, some of the defences – that the action or event could not reasonably have been foreseen or provided against by the defendant; or that the defendant did not know and could not reasonably have known of the breach – appear to reintroduce some element of fault into the action. The 2003 amendments also allow the regulator to commence proceedings for a civil penalty for the same infringements that give rise to the civil claim.¹¹⁶

- 10.6** These provisions make compliance with the authority to deal with new organisms the touchstone of liability. Although the Act allows for the possibility of other common law actions, it is assured that the statutory action will be the preferred remedy.

(b) The United Kingdom

- 10.7** The basic common law position remains similar to the position in Australia. Like New Zealand, an action might be possible under the rule in *Rylands v Fletcher*, but the difficulties noted above in relation to this action apply equally in England.
- 10.8** As in most jurisdictions, the most controversial crops are GM crops. In the United Kingdom the Department for Environment, Food and Rural Affairs (“DEFRA”) has primary responsibility for the regulation of GM crops. There are currently no GM crops being grown commercially in the UK and it is not expected that any such crops will be grown until 2008. There are a number of sites where GM crops are grown for the purpose of conducting scientific assessment of risk. Government policy is that the safety of each crop will be determined on a case-by-case basis.¹¹⁷
- 10.9** The regulatory process by which the deliberate release of a GM crop into the environment is authorised is complex. Legislation has been passed to comply with the requirements of EC Directive 2001/18/EC on the Deliberate Release of GM organisms into the environment.¹¹⁸ Where the release is for non-commercial or research and development purposes (a Part B release), DEFRA must decide whether the safety conditions set out in the regulations implementing Directive 2001/18/EC are established. Advice is taken from the Advisory Committee on Release to the Environment (ACRE).¹¹⁹ For commercial releases (Part C releases) the approval process requires the authorisation of the European Commission and Member States under the Directive.¹²⁰

¹¹³ *Hazardous Substances and New Organisms Act 1996* (NZ) s 124G.

¹¹⁴ *Ibid.*, s 124H.

¹¹⁵ See <http://www.mfe.govt.nz/issues/organisms/law-changes/liability.html> (at 30 May 2005).

¹¹⁶ *Ibid.*, s 124B. The penalties are to a maximum of \$500,000 for an individual, or, for a body corporate, \$10,000,000 or three times the value of any commercial gain resulting from the breach, or, if this cannot be readily ascertained, 10% of the turnover of the body corporate.

¹¹⁷ Margaret Beckett, Secretary of State for Environment, statement to the House of Commons on 9 March 2004.

¹¹⁸ *Environmental Protection Act 1990* (UK) Part VI, *Genetically Modified Organisms (Deliberate Release) Regulations 2002* (UK).

¹¹⁹ http://www.defra.gov.uk/environment/gm/eu/pdf/gm-guide_draft.pdf (at 30 May 2005).

¹²⁰ *Ibid.*

- 10.10** Directive 2001/18/EC must now be read in light of Directive 2004/35/CE dealing with 'Environmental Liability with regard to the prevention and remedying of environmental damage.' This Directive complements the Directive 2001/18/EC by providing a regime to deal with environmental harm caused by any deliberate release of a GM organism into the environment.¹²¹
- 10.11** This is not the place to engage in a detailed analysis of the regulatory structure relating to GM crops in the United Kingdom. What is relevant for the arguments presented in this paper is that the risk assessments required to be carried out are primarily concerned with environmental damage and damage to human health.¹²² The propensity of the GMO to cause damage to property or economic losses is not the direct concern of the risk assessments carried out as part of the regulatory process. In any event Directive 2004/35/CE makes it clear that the Directive does not grant private parties a right to compensation as a consequence of environmental damage or of an imminent threat of such damage.¹²³ Even plainer is Recital 14, which declares that the Directive does not apply to cases of personal injury, to damage to private property or to any economic losses.
- 10.12** As far as private law actions are concerned, the result is most probably as follows. The failure to comply with licencing requirements will be strong evidence of negligence and the receipt of the appropriate regulatory approvals will be strong evidence that reasonable care has been used in relation to the release. However, it is unlikely the approvals will operate as a complete defence to a private law action for damages because of the focus of the regulatory regime on environmental harm as opposed to private interests.

(c) United States

- 10.13** Liability in tort is primarily a state law matter in the United States and there is some variety amongst the jurisdictions. The basic common law rules remain the same amongst the majority of jurisdictions and, as a common law system, those rules are similar to those operating in other parts of the common law world, including Australia.
- 10.14** However, a number of states have more restrictive rules on recovery of pure economic loss in the law of negligence. For example, in *Sample v Monsanto Co*, the plaintiffs claimed in a class action against a seed distributor on the basis that they lost revenue when European Union rejected GM seed and boycotted all American corn and soy as a result. The claims were rejected on a summary judgment (i.e. without a full trial) because no damage to property had been alleged and pure economic loss was not recoverable in negligence.¹²⁴ This doctrine may restrict the potential for successful claims against a grower of crops where the loss is classified as purely economic.
- 10.15** Most states of the United States provide for strict liability in the conduct of ultra-hazardous or abnormally dangerous activities. However, it has been doubted whether the planting of a crop approved under a federal regulatory process (see para 10.17, below) designed to evaluate risks could normally be considered an ultra-hazardous activity.¹²⁵ Even if this could be established, a

¹²¹ Although not all forms of GM are covered, new crops are likely to fall under the ambit of the legislation.

¹²² See *Environmental Protection Act 1990* (UK) s 107; Directive 2001/18/EC Article 2(8).

¹²³ Directive 2004/35/CE Article 3(3).

¹²⁴ *Sample v Monsanto Co* (2003) 283 F Supp 2d 1088.

¹²⁵ See generally Grossman, 'Genetically Modified Crops in the United States: Federal Regulation and State Tort Liability' (2003) 86 *Enviro LR* 5.2.

number of other factors are also used to determine liability. These include whether the activity is inappropriate to the place where it occurs, and the value of the activity to the community. Strict liability has been used to impose liability for the aerial spraying of pesticides in respect of damage to crops of neighbouring farmers¹²⁶, but it has been suggested that this is the exception, and that normally liability will only be imposed if negligence is established.¹²⁷

- 10.16** A possible restriction on the liability of farmers growing crops in the United States relates to the 'right to farm' legislation. The purpose of this legislation, present in every state of the United States, is to protect or discourage the conversion of farmland into residential land. Although there is considerable variance, most such laws operate to protect an existing agricultural operation from changed circumstances arising, usually, from an encroachment of urban development. This paper has concentrated on the possible liability of a farmer growing crops to an adjoining farmer and the most likely complaint in this context relates to the growing of a crop. However, the complaint by the neighbouring farmer is not that the *use* of the land for farming causes a nuisance, but the particular *method* of farming causes a nuisance. The 'right to farm' legislation was passed to protect existing agricultural uses of land from claims that, given the change in character of the area through expanding urbanization, the agriculture use was now a nuisance. The neighbouring farmer is not making this kind of complaint thus the right to farm legislation will not protect a farmer growing a crop. As well, some of the legislation only applies if the farmer was careful, so in those circumstances an action in negligence may be available.¹²⁸
- 10.17** The regulatory structure for new crops is primarily federal. In the context of GM crops, the main three bodies are the United States Department of Agriculture (USDA), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA). Each agency evaluates scientific evidence as part of the risk assessment exercises necessary for the particular approval given by the agency. The most extensive is carried out by the Animal and Plant Health Inspection Service (APHIS), part of the USDA, which engages in an environmental assessment to determine whether field trials may take place.
- 10.18** Although the regulatory process is extensive, it does not attempt to allocate liability for personal damage (personal injury, property, or pure economic loss) nor for environmental damage.¹²⁹ This is left to the common law. The same arguments as to the effect of meeting regulatory standards discussed in Section 6 may also apply, although perhaps with less weight, as it has been said that the current regulatory regime is 'minimal and inadequate.'¹³⁰

¹²⁶ The leading case concerns damage to an organic farmer but liability has also been imposed for damage to conventional crops: Blomquist, 'Applying Pesticides: Toward Reconceptualizing Liability to Neighbors for Crop, Livestock and Personal Damages from Agricultural Chemical Drift' (1995) 48 *Oklahoma Law Review* 393, 403-408.

¹²⁷ *Ibid.*

¹²⁸ *Ibid.*

¹²⁹ Endres, 'GMO: Genetically Modified Organism or Gigantic Monetary Obligation? The Liability Schemes for GMO Damage in the United States and the European Union' (2000) *Loyola Law International & Comparative Law Review* 453.

¹³⁰ *Ibid.* Since this article was written greater efforts to ensure compliance have been taken through the establishment of Biotechnology Regulatory Services in 2002 (as an arm of APHIS) – see <http://www.aphis.usda.gov/brs/compliance2.html> (at 30 May 2005).

10.19 The most interesting development in the United States lies in a recent Bill passed by the Vermont Senate. The legislation imposes liability on the manufacturer of a genetically modified seed or plant part for injury caused to any person by the release into Vermont of any genetically engineered crop produced from such seed or plant part. Injury is defined widely to include a variety of economic losses including loss of profits, increased transportation costs, and losses due to the loss of export markets. Although individual members of other state legislatures have introduced similar legislation¹³¹, the Vermont legislation, for the second time, has passed the Senate.¹³²

10.20 The legislation provides only for the manufacturer to be liable. Individual farmers are protected against liability when they unknowingly deal with genetically engineered seed but this will not apply to a farmer who knowingly plants a GM crop. However, the manufacturer is given a defence where the farmer to whom the seed was supplied: 1) acted with gross negligence to cause the release of the genetically engineered crop; 2) the farmer had a signed contract with the manufacturer; 3) the farmer had received a training manual from the manufacturer, and 4) by following the manufacturer's contract and training manual the farmer would not have caused the injury. If the manufacturer can establish these facts, it may be wondered whether the individual farmer might then become liable. Although the legislation does not say this, a strong case can be made for saying that a farmer who acts with gross negligence to release a GM crop so that it causes damage and who could have acted to avoid that damage by following the manufacturer's contract and training manual, has been careless and may expose himself to liability in negligence.

¹³¹ For example, Montana in 2003 (SB 266, HB 522), North Dakota in 2003 (SB2304), New York in 2003 (AB1911), and Vermont in 2003 (HB350).
¹³² A Bill passed the Senate (SB164) the previous year and was sent to the House of Representatives but was presumed 'dead' at the end of 2004.

11. Conclusions

- 11.1 This paper has focused on the liability in tort of growers of crops, in particular, the potential of the farmer to be liable to adjoining farmers in respect of property damage and purely economic losses.
- 11.2 Much academic writing has concerned itself with the risks associated with the growing of a particular kind of crop – a GM crop. Whilst this paper has attempted to consider liability issues for crops generally, it cannot be denied that much of the debate has been caused by concerns over GM crops.
- 11.3 Because of the focus on GM crops, the discussion of ‘risks’ in academic literature has taken place at a number of levels. For example, it may be that GM crops pose significant risks to the environment and biodiversity. Understandably, the debate has taken place in terms of whether the introduction of GM crops is a good thing.
- 11.4 This paper is not concerned with the question of risk at that global level. It looks at the primary risks to a farmer growing a crop – whether or not that crop be GM.
- 11.5 In this context, the notion of risk plays out in two private law actions – negligence and private nuisance. In negligence, ‘risk’ relates to the reasonable foreseeability of damage as a result of growing a crop (the ‘duty of care’ issue) and the probability of the risk materializing (the breach of duty enquiry). In private nuisance, risk also relates to the reasonable foreseeability of damage, as liability cannot arise unless the risk that materialized was a reasonably foreseeable consequence of the planting of the crop.
- 11.6 As noted throughout the paper, risk assessments are primarily a matter of science. However, the legal significance of the risk – whether the risks of growing a crop should give rise to a legal liability – is a matter for lawyers.
- 11.7 Viewed from a lawyer’s perspective, the risks of growing crops – even GM crops – do not appear, on the current scientific evidence, to be sufficiently high as to suppose that liability in the torts of negligence or private nuisance would be frequently imposed. This is particularly so where the regulatory requirements of planting a GM crop require a detailed risk assessment before the crop can be commercially released, as it will often be reasonable for a farmer to rely on that risk assessment. Of course, it may be that the risks are higher than first thought but the law of negligence and private nuisance judges conduct at the time it takes place. That the risk assessments may turn out later to be incorrect may be a concern to policy-makers, but it does not convert conduct that was reasonable at the time into unreasonable conduct.
- 11.8 Apart from fault-based liability, it is also unlikely that liability would be imposed in the tort of trespass to land. Moreover, in all of these torts difficult issues of causation would need to be overcome for liability to be established.

- 11.9** Apart from actions in tort, there also seems little risk of environmental protection legislation being used by a neighbouring farmer. Although there is some overlap between damage suffered by an individual and environmental damage, the overlap is fortuitous. Another limitation is the fact that the legislation itself must be breached before it can be used as the basis for a claim and this may be difficult to establish.
- 11.10** One area in which further research is required is the extent to which a farmer growing a crop may be liable under the environmental protection legislation for the reinstatement costs of repairing environmental damage. Potentially this liability could be extensive, although, as in the private law claims, it may be difficult to establish that the conduct of the farmer in growing the crop was the sole cause of the damage.
- 11.11** Other jurisdictions appear to treat the common law liability of a farmer to a neighbour in much the same way as Australia. This comparative analysis suggests that, if reform in this area is needed, it should be done through statute where the inter-relationship between the broad issues of concern over the risk of new technologies and the private law rights and obligations of the users of new technology can be balanced.

