chapter |

15.

Recommendations

15. Recommendations

In this chapter, we set out all our recommendations in a consolidated list, noting the chapters in which they appear.

Chapter 6: Research

Recommendation 6.1

that applications to develop genetically modified organisms in PC1 and PC2 containment be assessed by the Institutional Biological Safety Committees (IBSCs) on a project rather than organism basis.

Recommendation 6.2

that all approval forms, standards and regulations relating to the development of genetically modified organisms in containment be reviewed and updated.

Recommendation 6.3

that a separate, simplified form be developed for low-risk (Categories A and B) applications to IBSCs.

Recommendation 6.4

that the Hazardous Substances and New Organisms Act 1996 (HSNO) be amended to allow for the efficient importation of low-risk genetically modified organisms, through delegation of the approval process to the IBSCs.

Recommendation 6.5

that approvals to develop or import genetically modified organisms be deemed to cover their holding and breeding.

Recommendation 6.6

that HSNO be amended to clarify that research involving genetic modification of human cell lines or tissue cultures is covered by the Act.

Recommendation 6.7

that approval for development of genetically modified animal cell lines be delegated to the IBSCs.

Recommendation 6.8

that HSNO be amended to provide for a further level of approval called conditional release.

Recommendation 6.9

that HSNO be amended to cover procedures used in mammalian cloning, such as nuclear transfer or cell fusion.

Recommendation 6.10

that IBSCs include at least one Maori member, appointed on the nomination of the hapu or iwi with manawhenua in the locality affected by an application.

Recommendation 6.11

that the funders of research portfolios be resourced to include the costs of compliance with HSNO.

Recommendation 6.12

that the Environmental Risk Management Authority (ERMA) require research on environmental impacts on soil and ecosystems before release of genetically modified crops is approved.

Recommendation 6.13

that public research funding be allocated to ensure organic and other sustainable agricultural systems are adequately supported.

Recommendation 6.14

that public research funding portfolios be resourced to include research on the socio-economic and ethical impacts of the release of genetically modified organisms.

Chapter 7: Crops and other field uses

Recommendation 7.1

that, prior to the release of any Bt-modified crops, the appropriate agencies develop a strategy for the use of the Bt toxin in sprays and genetically modified plants, taking into account:

- **the concept of refugia**
- **limitations on total planted area**
- **home gardener use.**

Recommendation 7.2

that the appropriate agencies develop a labelling regime to identify genetically modified seed, nursery stock and propagative material at point of sale.

Recommendation 7.3

that the Ministry of Agriculture and Forestry (MAF) develop a strategy to allow continued production of genetic modification-free honey and other bee products, and to avoid cross-pollination by bees between genetically modified and modification-free crops, that takes into account both geographical factors (in terms of crop separation strategies) and differences in crop flowering times.

Recommendation 7.4

that, in connection with any proposal to develop genetically modified forest trees, an ecological assessment be required to determine the effects of the modification on the soil and environmental ecology, including effects on soil microorganisms, weediness, insect and animal life, and biodiversity.

Recommendation 7.5

that, wherever possible, non-food animals, or animals less likely to find their way into the food chain, be used as bioreactors rather than animals that are a common source of food.

Recommendation 7.6

that, wherever possible, synthetic genes or mammalian homologues of human genes be used in transgenic animals to avoid the use of genes derived directly from humans.

Recommendation 7.7

that MAF develop an industry code of practice to ensure effective separation distances between genetically modified and unmodified crops (including those grown for seed production), such a code:

- **to be established on a crop-by-crop basis**
- **to take into account**
  - **existing separation distances for seed certification in New Zealand**
  - **developments in international certification standards for organic farming**
  - **emerging strategies for coexistence between genetically modified and unmodified crops in other countries**
- **to identify how the costs of establishment and maintenance of buffer zones are to be borne.**

Chapter 8: Food

Recommendation 8.1

that the Food Administration Authority monitor research studies on stock feed and act on any that indicate a need for stock feed to be assessed in relation to human health.

Recommendation 8.2

that Government facilitate the development of a voluntary label indicating a food has not been genetically modified, contains no genetically modified ingredients and has not been manufactured using a process involving genetic modifification.

Recommendation 8.3

that, as a matter of priority, the Food Administration Authority disseminate information on the labelling regime for genetically modified foods and consumer rights in relation to foods made available for consumption at restaurants and take-away bars.

Recommendation 8.4

that the Food Administration Authority produce and distribute consumer information on the use of gene technology in the production of food.

Chapter 9: Medicine

Recommendation 9.1

that all gene therapy, whether in the public or the private sectors, require formal medical ethical oversight.

Recommendation 9.2

that Toi te Taiao : the Bioethics Council develop ethical guidelines for xenotransplantation involving genetic modification technology.

Recommendation 9.3

that products be clearly defined in legislation as medicines, pharmaco foods, functional foods or dietary supplements.

Recommendation 9.4

that imported medicines and pharmaco foods that include live genetically modified organisms be approved for use by Medsafe without a requirement for additional approval from ERMA.

Recommendation 9.5

that, in respect of applications for approval as Animal Remedies of genetically modified organisms or products manufactured by processes using genetic modification techniques, the specified information which the Director-General of Agriculture and Forestry requires to be contained in applications under the Agricultural Compounds and Veterinary Medicines Act 1997 (ACVM) include full information on the efficacy and the form of the genetic modification used in manufacture; and

that such information be included as one of the categories of relevant risks and benefits under section 19 of the Act.

Recommendation 9.6

that, as protocols identify useful therapeutics for serious disease control, approvals through ERMA and Medsafe be sought in advance for the importation of live genetically modified organisms in the form of vaccines.

Chapter 10: Intellectual property

Recommendation 10.1

that the New Zealand Plant Variety Rights Act 1987 be amended to introduce the concept of essential derivation.

Recommendation 10.2

that the Patents Act 1953 be amended by adding a specific exclusion of the patentability of human beings and the biological processes for their generation, in line with section 18 of the Patents Act 1990 (Commonwealth).

Recommendation 10.3

that a Maori Consultative Committee be established by the Intellectual Property Office of New Zealand to develop procedures for assessing applications, and to facilitate consultation with the Maori community where appropriate.

Recommendation 10.4

that New Zealand be proactive in pursuing cultural and intellectual property rights for indigenous peoples internationally.

Recommendation 10.5

that New Zealand pursue the amendment of the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights and associated conventions to include a reference to the avoidance of cultural offence as a specific ground for exclusion or reservation.

Recommendation 10.6

that all parties concerned work to resolve the WAI 262 and WAI 740 claims currently before the Waitangi Tribunal as soon as possible.

Recommendation 10.7

that HSNO and ACVM be amended to give appropriate protection to all commercially sensitive or confidential supporting information provided with applications for approval.

Chapter 11: Te Tiriti o Waitangi

Recommendation 11.1

that section 8 of HSNO be amended to provide that effect is to be given to the principles of the Treaty of Waitangi.

Chapter 12: Liability issues

Recommendation 12.1

that Toi te Taiao : the Bioethics Council, in association with the Human Rights Commission, address the issue of genetic discrimination.

Recommendation 12.2

that for the time being there be no change in the liability system.

Chapter 13: Major conclusion

Recommendation 13.1

that the methodology for implementing HSNO section 6(e) be made more specific to:

- **include an assessment of the economic impact the release of any genetically modified crop or organism would have on the proposed national strategy of preserving opportunities in genetically modified and unmodified agricultural systems**
- **allow for specified categories of genetically modified crops to be excluded from districts where their presence would be a significant threat to an established non-genetically modified crop use.**

Recommendation 13.2

that before the controlled or open release of the first genetically modified crop, the Minister exercise the call-in powers available under HSNO section 68 in order to assess the likely overall economic and environmental impact on the preserving opportunities strategy.

Recommendation 13.3

that MAF develop formalised local networks to encourage constructive dialogue and communication between farmers using different production methods, and to provide for mediation where necessary.

Recommendation 13.4

that sterility technologies be one tool in the strategy to preserve opportunities, especially in the case of those genetically modified crops most likely to cross-pollinate with non-genetically modified crops in the New Zealand context (eg, brassicas, ryegrass, ornamentals).

Chapter 14: The biotechnology century

Recommendation 14.1

that HSNO section 68 be extended to include significant cultural, ethical and spiritual issues as grounds for the Minister's call-in powers.

Recommendation 14.2

that Government establish Toi te Taiao : the Bioethics Council to:

- **act as an advisory body on ethical, social and cultural matters in the use of biotechnology in New Zealand**
- **assess and provide guidelines on biotechnological issues involving significant social, ethical and cultural dimensions**
- **provide an open and transparent consultation process to enable public participation in the Council's activities.**

Recommendation 14.3

that Government establish the office of Parliamentary Commissioner on Biotechnology to undertake futurewatch, audit and educational functions with regard to the development and use of biotechnology in New Zealand.

Recommendation 14.4

that the Ministry of Research, Science and Technology develop on a consultative basis a medium- and long-term biotechnology strategy for New Zealand.