

Standing Committee on State Development

# **Genetically Modified Food**

Interim Report  
(Issues Paper)

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## **Terms of Reference**

The following terms of reference were referred to the Committee by the Hon Richard Amery MP, Minister for Agriculture and Minister for Land and Water Conservation, who requested that, to assist the ongoing debate in the area of genetically modified food, the Standing Committee on State Development inquire into and report on issues relating to genetically modified food and, in particular:

- 1)** the likely public and private benefits and costs of genetically modified food to the State of New South Wales;
- 2)** the impacts of genetically modified food technology upon the agricultural and food processing sectors; and
- 3)** the identification of any possible adverse consequences to trade, food safety and the environment from the introduction of genetically modified food technology.

*(Reference received on 11 November 1999)*

## Committee Membership

<b>The Hon Tony Kelly MLC</b>	Australian Labor Party	Chair
<b>The Hon Dr Brian Pezzutti RFD MLC</b>	Liberal Party	Deputy Chair
<b>The Hon Ian Cohen MLC</b>	The Greens	
<b>The Hon Michael Costa<sup>1</sup></b>	Australian Labor Party	
<b>The Hon John Johnson MLC<sup>2</sup></b>	Australian Labor Party	
<b>The Hon Ian Macdonald MLC<sup>3</sup></b>	Australian Labor Party	
<b>The Hon Ian West MLC<sup>4</sup></b>	Australian Labor Party	

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<sup>1</sup> The Hon Michael Costa MLC was appointed to the committee on 19 September 2001 according to Resolution of the House, *Minutes of the Proceedings of the Legislative Council No 119* p 1158.

<sup>2</sup> The Hon John Johnson MLC was discharged from the committee on 4 September 2001 according to Resolution of the House, *Minutes of the Proceedings of the Legislative Council No 115*, p 1124.

<sup>3</sup> The Hon Ian Macdonald MLC was discharged from the committee on 27 March 2001 according to Resolution of the House, *Minutes of the Proceedings of the Legislative Council No 92*, p 892.

<sup>4</sup> The Hon Ian West MLC was appointed to the committee on 27 March 2001 according to Resolution of the House, *Minutes of the Proceedings of the Legislative Council No 92*, p 892.

<sup>5</sup> Director to the Committee until 13 July 2001.

<sup>6</sup> Director to the Committee from 16 July 2001.

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## Chair's Foreword

The Standing Committee on State Development's inquiry into genetically modified food has taken place against a backdrop of growing community debate over the impact of introducing gene technology into the agricultural and food processing sectors.

While it is evident that significant benefits from gene technology may flow on to these industries, concerns and a great deal of uncertainty remain over the impact of such technologies upon food safety, human health, the environment and trade. The reference from the Hon Richard Amery MP, Minister for Agriculture and Land and Water Conservation, to the Committee in November 1999 reflected these concerns.

The Committee's Interim Report provides a timely analysis of the nature and use of gene technology, as well as an overview of the emerging regulatory system to monitor, control and disseminate information relevant to the application and distribution of genetically modified food and its technologies. A brief outline is provided of the potential benefits and risks of the technology intended as a discussion point for further submissions and for consideration in the final report.

The report also examines the development, nature and scope of the Commonwealth's *Gene Technology Act 2000*, as well as inquiring into the experiences and outlooks of other state jurisdictions on genetically modified food. To this end the Committee undertook an interstate visit to Tasmania to investigate that State's imposition of a moratorium upon the growing of GM plants and plant materials.

Rather than listing a number of recommendations for the NSW Government to consider, this Committee has generated a wide range of issues for its further investigation, as well as stimulating further discussion within the wider community on this vital matter for the future of food production in the State.

The Committee believes consideration should be given to the definition of the precautionary principle in both the State and Federal legislation, an economic analysis of the potential costs and benefits for trade and the community as a whole, community information, rights and its reaction to GM food, labelling, the benefit of GM-free zones, as well as the impact on animal products fed on genetically modified crops.

It is my hope and that of the Committee's that the report will provide a solid foundation upon which further investigation and discussion can take place over this most contentious area of public policy.

I would like to take this opportunity to thank the committee secretariat for the considerable effort taken in the organisation of this lengthy inquiry and the preparation of the report. I also wish to acknowledge the Committee's gratitude to the efforts of the Hon John ('Johno') Johnson (now resigned) whose contribution to the State Development Committee over many years has been of the highest calibre and will be greatly missed.

**Hon Tony Kelly MLC**  
Committee Chairman

## Summary of issues for further consideration

- Issue 1** **Page 27**  
 Due to continuous new developments and risks in gene technology, should a lesser standard of precaution be applied with respect to protection of the environment particularly given the direct relationship of gene technology to human health?
- Issue 2** **Page 28**  
 Should the NSW gene technology mirror legislation contain a definition of the precautionary principle as appears in the NSW *Protection of the Environment Administration Act 1991* to avoid inconsistency with NSW environment legislation?
- Issue 3** **Page 28**  
 Should the NSW Government urge the Federal Government to review the wording of the precautionary principle in the *Gene Technology Act 2000* with a view to eliminating the words “cost-effective” from the definition?
- Issue 4** **Page 34**  
 Should the NSW Government develop policy guidelines regarding release of GMOs in New South Wales which have been approved by the Gene Technology Regulator. Should the policy guidelines require consideration of a number of factors in assessing individual GMO types, including:
- the commercial position of GM-free status of certain NSW regions;
  - the commercial position of GM-free status for NSW as a whole;
  - the impact of market perceptions on introducing GMOs into presently GM-free areas.
- Issue 5** **Page 42**  
 Should the NSW Government make representations to the Ministerial Council, seeking the development by the insurance industry of an appropriate insurance scheme for licensed GM dealings?
- Issue 6** **Page 42**  
 Should the *Gene Technology Act* create civil liability for environmental damage?
- Issue 7** **Page 47**  
 Should the *Gene Technology Act* create offences for intentional damage to crops and what penalties should apply?
- Issue 8** **Page 47**  
 Should the NSW Government provide prominent links from NSW Agriculture and Environment Protection Authority websites directly to the GTR website publicising trial site locations and the Record of GMO and GM Product Dealings?
- What other information should be provided to the public?

- Issue 9** **Page 49**  
Should the gene technology legislation be reviewed?  
  
If so, what is an appropriate review period?
- Issue 10** **Page 63**  
The committee will further investigate the potential economic costs and benefits of genetically modified food. This will include examination of implications for individuals and community as a whole – economic, social, cultural and environmental.
- Issue 11** **Page 63**  
The committee will further investigate the implications of the precautionary principle for New South Wales, including perceived risks and benefits.
- Issue 12** **Page 63**  
The committee will address the issue of labelling regulations in Australia and consumer information rights.
- Issue 13** **Page 64**  
The committee will look at the rights and responsibilities of producers of genetically modified food products in relation to the community as well as producers of non-genetically modified food products. In particular, the committee will investigate the implications of the Commonwealth gene technology regulatory framework for state government, local government and community interests.
- Issue 14** **Page 64**  
The committee will examine public reactions to, and perceptions of, genetically modified organisms. The committee will attempt to ascertain the rationale behind consumer and public sentiment regarding acceptance or rejection of genetically modified food.
- Issue 15** **Page 64**  
The committee will investigate the issues concerning informed choice.
- Issue 16** **Page 64**  
The committee will research the implications of genetically modified food on international trade. This will include examination of potential costs and benefits to New South Wales on export markets in relation to either restricting or facilitating the production of genetically modified food.
- Issue 17** **Page 64**  
The committee will examine the implications of feeding genetically modified crops to animals that are utilised for food products from a market perspective.

## Glossary

<b>allergen</b>	An allergen is a substance from outside the body that triggers an allergic reaction. Common allergens include grass, pollen and components of dust. Some proteins in foods may also cause allergic reactions in sensitive individuals.
<b>allergy or allergic reaction</b>	Adverse overreaction of the immune system caused by the production of antibodies against allergens. Most allergic reactions involve the allergen entering the body (breathed in, through the skin or via food) and latching on to special immune system cells. The allergens cause these cells to release chemicals that give rise to the symptoms of the allergy.
<b>amino acid</b>	The basic building block of a protein. There are about 20 different amino acids. Long chains of amino acids make up a protein.
<b>antibiotic</b>	Chemical that can be used to kill or inactivate bacteria within a person or animal. Antibiotics are widely used in medicine to treat diseases caused by bacteria. The first antibiotic discovered — penicillin — is produced naturally by some types of mould. Antibiotics can be produced naturally, using microorganisms or via synthetic means.
<b>antibiotic resistance</b>	The ability of bacteria to tolerate antibiotics and remain unaffected by them. Resistance may evolve naturally in bacteria after years of exposure to antibiotics. It is controlled by genes and can be spread between bacteria. Many medically important bacteria have become resistant to one or more antibiotic drugs. Bacteria that have resistance to many different antibiotics are a major medical worry as they may result in infections that are untreatable.
<b>ANZFA</b>	Australia New Zealand Food Authority
<b>ANZFSC</b>	Australia New Zealand Food Standards Council
<b>AQIS</b>	Australian Quarantine and Inspection Service
<b>biotechnology</b>	A broad term originally used to describe the application of biology in the creation of helpful products (for example, agriculture, brewing and baking). Recently, the word has come to refer more to modern methods of using organisms and biological processes to create either genetically modified organisms or products (such as insulin and many pharmaceuticals) manufactured using the techniques of genetic engineering.
<b>bacteria</b>	Single celled organisms capable of reproduction and growth. Bacteria can be beneficial or harmful.
<b>Bt</b>	Bacillus thuringiensis, a bacterium commonly found in soil. It produces a protein (Bt toxin) which is naturally toxic to some insects. Different Bt toxins (from different strains) affect different insect types.
<b>cell</b>	The smallest functional unit of a living organism. (This excludes viruses) Most animals, plants and fungi are made up of many cells. A cell contains a number of functional parts called organelles as well as DNA.
<b>clone</b>	Genetically engineered replicas of DNA sequences, or referring to replicas of whole organisms. Genes, cells or entire organisms can be cloned using the techniques of modern biotechnology. Usually, no two organisms, even if they belong to the same species, are genetically identical — but cloned organisms are. Some organism cloning occurs naturally, for example, when a new plant is formed from a cutting, or when humans produce identical twins.
<b>chromosome</b>	A structure made of DNA and protein structure by forming a complex with proteins. Most living things above the level of bacteria carry their DNA in the form of chromosomes.
<b>Cross-pollination</b>	Mating system where plants are pollinated with pollen grains from another individual.
<b>CSCG</b>	Commonwealth State Consultative Group on Gene Technology
<b>CSIRO</b>	Commonwealth Scientific and Industrial Research Organisation
<b>DNA</b>	A molecule made up of units, each unit consisting of deoxyribose (a sugar), a

<b>(deoxyribonucleic acid)</b>	phosphoric acid and a base in a specific order. Each DNA molecule consists of two strands in the shape of a double helix. The chemical of which genes are made (except for the genes of some viruses). The sequence of bases in the DNA molecule represent the instructions for making proteins. These proteins are essential for all biochemical processes within the body. In nature, DNA is copied every time new cells are made. DNA is usually contained within the nucleus of the cell.
<b>DNA cloning</b>	The process whereby many copies of fragments of DNA from any source can be created by inserting them into a plasmid or a bacterial virus and then growing these in bacterial or yeast cells.
<b>Double helix</b>	The shape of the DNA molecule. The helix consists of two strands of nucleotides joined crosswise by specific base pairing. The structure resembles a twisted ladder.
<b>gene</b>	A portion of DNA carrying instructions. Genes usually code for the production of a protein molecule, but some are the blueprint for the formation of other molecules. Some sections do not code for anything. Genes are said to be active or 'expressed' when they are being 'read' and used for the production of something.
<b>genetic code</b>	The code in which the instructions of life are written. The genetic code refers to the sequence of bases in a DNA molecule. There are four possible bases, and their sequence spells out how to build proteins. In turn, the proteins are responsible for constructing and operating the features of the organism.
<b>genetically modified organism (GMO)</b>	An organism with genetic material that has been altered by genetic engineering (or gene technology).
<b>genetic engineering</b>	Another word for gene technology.
<b>gene expression</b>	Manifestation of a characteristic that is specified by a gene. In industrial biotechnology, the term is often used to mean the production of a protein by a gene that has been inserted into a new host organism.
<b>gene technology</b>	The ability to manipulate, modify and transfer genes or segments of DNA.
<b>genetics</b>	The study of heredity and variations in living organisms. The term 'molecular' genetics is used to describe the study of genes and their function (ie genetics at a molecular level).
<b>genetic modification</b>	The deliberate changing of the genetic material in an organism. Scientists can determine whether or not the change will be passed onto offspring. Usually in GMO's, the modification is passed on. Genetic modification is a general term that can cover many processes. (It is possible to modify genes and not have the modification passed on to offspring.)
<b>genome</b>	The total genetic material of an individual or species.
<b>GMAC</b>	Genetic Manipulation Advisory Committee
<b>GMO</b>	genetically modified organism
<b>GTR</b>	Gene Technology Regulator
<b>herbicide</b>	A chemical effective at killing plants. Widely used in agriculture, horticulture and gardening to control unwanted plants (referred to as weeds). Herbicides can be considered as a sub-group within the broader definition of "pesticide".
<b>hybrid</b>	Offspring resulting from the cross of two different varieties or species. The greater the genetic distance between the parents (that is, the more different the parents are), the more likely the hybrid is to be sterile. A mule is an example of a hybrid, and results from the cross of a donkey and horse. Hybrids, especially fertile hybrids, occur much more readily in plants than in animals. An example of a commonly used hybrid plant is wheat, which contains the genes of three closely-related plants.
<b>IGA</b>	Intergovernmental Agreement on Gene Technology
<b>IOGTR</b>	Interim Office of the Gene Technology Regulator
<b>marker gene</b>	A gene, whose presence is easily detectable, which is inserted into a GMO along with the desired gene. The presence of the marker gene allows scientists to know that the insertion of the genes has been successful.

<b>micro-organism</b>	a microscopic living thing, such as all bacteria and viruses, many types of fungi and other single-celled life forms.
<b>NHMRC</b>	National Health and Medical Research Council
<b>nucleus</b>	The organelle in plant and animal cells which houses the DNA.
<b>organism</b>	Any living thing.
<b>pesticide</b>	<p>A chemical designed to kill a particular organism such as animal, insect, plant or thing considered to be a pest. Under section 5 of the <i>Pesticides Act 1999 (NSW)</i>, the word “pesticide” has the same meaning as “agricultural chemical product” in the Commonwealth Agvet Code. An “agricultural chemical product” includes a substance used for destroying, stupefying, repelling, inhibiting the feeding of, or preventing infestation by or attacks of, any pest in relation to:</p> <ul style="list-style-type: none"> <li>• plant, a place or a thing or</li> <li>• destroying a plant or</li> <li>• modifying the physiology of a plant or pest so as to alter its natural development, productivity, quality or reproductive capacity; or</li> <li>• attracting a pest for the purpose of destroying it.</li> </ul>
<b>protein</b>	A type of molecule occurring in all living things. Proteins are made from about 20 basic units (See amino acid). There is a huge variation in protein size and function depending on how the units are put together. The instructions for how to assemble proteins are usually contained within DNA molecules. Within cells, proteins carry out most of the chemical functions necessary for life — for example, building other proteins, carrying out chemical reactions, controlling what enters and leaves the cell, making structures, controlling the expression of genes.
<b>recombinant DNA</b>	The hybrid DNA produced by joining DNA that has originated from different organisms — the DNA is ‘recombined’.
<b>recombinant DNA technology</b>	The techniques and tools employed to produce recombinant DNA.
<b>RNA (ribonucleic acid)</b>	A messenger molecule which copies the information from DNA (which is housed in the nucleus), and transports the code outside the nucleus to cellular machinery which reads the code and puts together a long chain of amino acids (called a “protein”). The RNA molecule is very similar to DNA.
<b>species</b>	Living things of the same kind that are potentially able to breed together and produce fertile offspring (i.e., offspring that themselves can reproduce). Usually, different species cannot interbreed but this rule is not absolute (for example, a horse and donkey can interbreed to produce a mule, although this animal cannot reproduce, see hybrid). Even within one species, interbreeding may not always occur because of natural barriers. Among some plants and many micro-organisms, the concept of a species does not always work. In these groups, species that appear different may be able to successfully create offspring under certain circumstances.
<b>TGA</b>	Therapeutic Goods Administration
<b>transgenic</b>	Refers to an organism containing one or more deliberately inserted genes from another species. Examples are bacteria containing the gene for human insulin and plants that contain the gene for a naturally occurring insecticide (Bt toxin).
<b>virus</b>	A microscopic particle comprising a core of DNA or RNA surrounded by a protein coat. A virus is not able to reproduce without infecting a cell. The virus takes over the cellular machinery, and the cell becomes a ‘virus factory’.





# Chapter 1 Introduction

## Background to this inquiry

**1.1** On 11 November 1999, the Standing Committee on State Development received correspondence from the Hon Richard Amery MP, Minister for Agriculture and Minister for Land and Water Conservation, requesting the committee to investigate a number of issues in relation to genetically modified food.

**1.2** In particular, the Minister indicated to the committee that it would be appropriate to:

...examine the likely public and private benefits and costs of genetically modified food to the State of New South Wales. While significant benefits are projected to the agricultural and food processing sector and the environment from this technology, uncertainties remain, such as the possibility of adverse trade, food safety and environmental outcomes.<sup>7</sup>

## Conduct of this inquiry

**1.3** Following receipt of the terms of reference, the committee issued a media release announcing the Minister's request to inquire into genetically modified foods. The intent of the media release was to specifically communicate the following points to the community:

..the committee's inquiry into the issue will help in broadening community and government understanding as to the underlying issues and concerns relating to genetically modified foods.

As we head into the next century, the issue of genetically modified foods is perhaps the most challenging issue confronting agricultural production and food processing industries today.<sup>8</sup>

**1.4** At its meeting on 25 November 1999, the committee decided to advertise in major national, metropolitan and non-metropolitan press, calling for submissions. Advertisements were placed in the following press during the period 8 - 16 December 1999.

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<sup>7</sup> Correspondence from the Hon Richard Amery MP, Minister for Agriculture and Minister for Land and Water Conservation, to the Hon Tony Kelly MLC, Chairman, received 11 November 1999.

<sup>8</sup> Media Release: "State Development Committee to investigate issue of genetically modified foods", the Hon Tony Kelly MLC, Chairman, 12 November 1999.

**Table 1: Publications, position and date of advertising of committee's terms of reference**

<b>PUBLICATION</b>	<b>POSITION</b>	<b>INSERTION DATE</b>
<b>Metropolitan</b>		
The Sydney Morning Herald	Early General News	11 December 1999
The Sunday Telegraph	Early General News	12 December 1999
<b>Non-metropolitan</b>		
Albury Border Mail	Early General News	11 December 1999
Bathurst Western Advocate	Early General News	11 December 1999
Broken Hill Truth	Early General News	11 December 1999
Byron Shire Echo	Early General News	8 December 1999
Coffs Harbour Advocate	Early General News	11 December 1999
Dubbo Daily Liberal	Early General News	11 December 1999
Goulburn Post	Early General News	10 December 1999
Grafton Daily Examiner	Early General News	11 December 1999
Griffith Area News	Early General News	10 December 1999
Illawarra Mercury	Early General News	11 December 1999
Lismore Northern Star	Early General News	11 December 1999
Maitland Mercury	Early General News	11 December 1999
Newcastle Herald	Early General News	11 December 1999
Orange Central Western Daily	Early General News	11 December 1999
Tamworth Northern Daily Leader	Early General News	11 December 1999
Tweed Daily News	Early General News	11 December 1999
Wagga Daily Advertiser	Early General News	11 December 1999
<b>Non-metropolitan magazines</b>		
Country Leader	Early General News	Week beg. 6 December 1999
Hunter Valley Town & Country	Early General News	Week beg. 6 December 1999
North Coast Town & Country	Early General News	Week beg. 6 December 1999
North West Magazine	Early General News	Week beg. 6 December 1999
Northern Farmer	Early General News	Week beg. 6 December 1999
Rural News	Early General News	10 December 1999
South East Town & Country	Early General News	Week beg. 6 December 1999
Southern Weekly	Early General News	13 December 1999
The Land	Early General News	13 December 1999
Western Magazine	Early General News	Week beg. 6 December 1999

- 1.5** At the time of preparing this report, the committee had received 51 submissions to the inquiry. The following table outlines the submissions by respondent type:

**Table 2: Number and percentage of submissions by organisation type**

<b>Respondent type</b>	<b>No. of submissions</b>	<b>Percentage of total (%)</b>
Private citizen	28	54.9%
Private organisation / interest group	20	39.2%
State / Federal Government agency	3	5.9%
<b>TOTAL</b>	<b>51</b>	<b>100%</b>

- 1.6** Also at the time of preparing this report, the committee had conducted three hearings in Sydney (21 March 2000), Yamba (22 March 2000) and Queanbeyan (26 June 2000) with 12 witnesses attending these hearings (see Appendix 2).
- 1.7** The day following the Queanbeyan hearing, the committee conducted a field trip to CSIRO Plant Industry at Black Mountain, Canberra, to examine its research into genetically modified organisms. Among other things, the committee witnessed greenhouse trials of genetically modified cotton and pea plants, conducted a tour of the Plant Industry public education displays on genetic engineering and also the laboratories.
- 1.8** The committee conducted a research and information gathering visit in Tasmania between 5 February and 8 February 2001 as part of its three ongoing inquiries. In particular, on 5 February 2001, the committee met with the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment and Minister for Police and Public Safety. During the meeting, the committee discussed a variety of agricultural and regional development based topics including Tasmania's moratorium on genetically modified plants and plant products. On 6 February 2001, the State Development Committee's Senior Project Officer attended hearings on the inquiry into gene technology conducted by the Tasmanian Joint House Select Committee on Gene Technology. As Tasmania is the only state that has taken a strong interim position on field trials of genetically modified plants and plant products, a case study is presented in Chapter 5 to explain the Tasmanian position.
- 1.9** On 12 March 2001, the committee sent requests for information to each of the states and territories of Australia to ascertain positions taken by those states and territories regarding genetically modified organisms. An outline of those positions appears in Chapter 5.
- 1.10** The committee conducted a research and information gathering visit to Bourke from 26-27 April 2001 as part of this inquiry and also its inquiries into opportunities for strengthening rural towns in NSW and into the international competitiveness of agriculture in NSW. The committee met with councillors and staff of Bourke Shire Council, local business people and agricultural producers to discuss various agricultural and regional issues.<sup>9</sup> During the meeting with Bourke Shire Council, the Mayor, Clr Wayne O'Malley informed the committee that the Council had recently resolved to have future involvement in genetically

<sup>9</sup> Further details of these meetings are provided in the Minutes at the end of this report.

modified food and fibre crops through encouraging the establishment of research facilities to be set up in the area.<sup>10</sup> The committee conducted a site visit to cotton field owned by Darling Farms and witnessed a cotton harvest. The committee will provide further information in relation to the Bourke visit in its final report.

- 1.11** The Committee recognises the importance of understanding international perspectives on genetically modified foods if New South Wales is to place itself strategically in the global food marketplace as an exporter of agricultural commodities. Further, the Committee considered that analysing the legislative and policy mechanisms for food safety and supply chain reliability at international level was essential to ensuring New South Wales maintains world's best practice in these areas.
- 1.12** Europe was viewed as a necessary destination for the Committee to liaise with head office staff from the international and European communities in relation to genetically modified food. In recent years a number of European countries have provided the most strident opposition at consumer level to the introduction of genetically modified food. The Committee valued the importance of observing first hand the degree of consumer support for organic and non-genetically modified foods at supermarket and street level.
- 1.13** To achieve these objectives, the committee established a sub-committee, comprising the Chair and Deputy Chair to conduct an overseas research and information gathering exercise. The travel was conducted in conjunction with investigations into another Committee inquiry<sup>11</sup> to ensure the best value for money was attained. Committee investigations involved discussion with the following private and public sector agencies across four European nations from 14 July 2001 to 2 August 2001:

<b>Date</b>	<b>Location</b>	<b>Organisation</b>	<b>Primary contact</b>
16 July 2001	Rome, Italy	The Food and Agriculture Organisation of the United Nations, (FAO)	Mr José Esquinas-Alcazár Secretary, Genetic Resources for Food and Agriculture
23 July 2001	Brussels, Belgium	European Commission, Agriculture Directorate – General	Ms Helen Williams, representative, European Commission, Agriculture Directorate – General.
24 July 2001	London, England	House of Lords, United Kingdom Parliament	Lord Peter Jenkin of Roding and Baroness Diana Maddock
24 July 2001	London, England	New South Wales Government Trade and Investment Office	Ms Diana Morphew, Senior Manager, New South Wales Government Trade and Investment Office
26 July 2001	Dublin, Ireland	Department of Health and Children; Food Safety Authority	Ms Maeve O'Brian, Assistant Principal Food Unit, Department of Health and Children.

<sup>10</sup> Resolution 177/2001, Minutes of Meeting, Bourke Shire Council, 23 April 2001: "Resolved that Council's determination on future involvement in genetically modified food and fibre crops be to request that research facilities be set up in this totally controlled remote area.", [www.bourke.nsw.gov.au/minutes.htm](http://www.bourke.nsw.gov.au/minutes.htm), accessed 10 May 2001.

<sup>11</sup> Inquiry into opportunities for strengthening rural towns in New South Wales.

## Previous inquiries into genetically modified organisms

- 1.14** The committee is aware of a number of previous federal parliamentary inquiries on the issue of gene technology.
- 1.15** In 1992, a report by the House of Representatives Committee on Industry, Science and Technology, entitled *Genetic Manipulation: The Threat or the Glory?*, recommended that the Commonwealth should pass legislation to regulate genetically modified organisms and, in particular, their release outside contained facilities.
- 1.16** On 19 June 2000, the Standing Committee on Primary Industries and Regional Services, tabled its report entitled *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*.<sup>12</sup>
- 1.17** Following this inquiry, the Senate Community Affairs Committee conducted an inquiry into the *Gene Technology Bill 2000*. The report of the Senate committee entitled, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000* was published on 1 November 2000.<sup>13</sup>
- 1.18** The committee is also aware of state parliamentary inquiries that are being conducted or have been completed. Refer to Chapter 4 for further information.
- 1.19** The committee notes that the New Zealand Royal Commission on Genetic Modification reported to the New Zealand Government in July 2001. The inquiry was established to advise on the options available to New Zealand to deal with genetic modification, and to advise on appropriate changes to the relevant regulatory and policy arrangements.<sup>14</sup>

## Scope and nature of this report

- 1.20** At its meeting on 31 January 2001, the committee decided to produce an issues paper as an interim report on the current position of gene technology in Australia.<sup>15</sup> This report is intended to examine the new federal gene technology regulatory framework, the present positions of the Australian states and territories and raise issues for further consultation.
- 1.21** This report is not intended to debate the many varied and complex arguments on the relative merits of genetically modified organisms in terms of public health, the environment, economics and trade. This aspect of the committee's work will be subject of the committee's final report. No recommendations are provided in this report. Issues for further consultation and consideration arising from this interim report are identified throughout the report. A list of issues for consultation and for consideration in the final report is provided at Chapter 5.

<sup>12</sup> Standing Committee on Primary Industries and Regional Services, *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*, June 2000.

<sup>13</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000.

<sup>14</sup> see [www.gmcommission.govt.nz](http://www.gmcommission.govt.nz)

<sup>15</sup> Minutes of Proceedings of the Standing Committee on State Development, No 24, 31 January 2001.

- 1.22** References to genetically modified products in this report will generally refer to crops and not livestock even though some issues raised in this report equally relate to livestock. This reflects the fact that production of genetically modified plants is less difficult than genetically modifying livestock.
- 1.23** Chapter two of this report provides an outline of the implications of what gene technology is and how it is applied to the production of food. It further provides a brief outline of the arguments on the potential risks and benefits of genetically modified organisms. As an analysis of public safety, environmental, economic and trade issues for New South Wales will be produced in the final report, this chapter intends to merely highlight the points raised for and against.
- 1.24** Chapter three discusses the regulatory and administrative arrangements that have been implemented by the recently enacted gene technology legislation. It briefly presents an outline of the previous regulatory system and its deficiencies. Specifically, the chapter examines the main measures in the *Gene Technology Act 2000* and discusses some of the significant changes made to that Act as passed by the Federal Parliament.
- 1.25** Chapter four briefly outlines the positions taken by states and territories with regard to genetically modified foods. The Tasmanian experience has been detailed as case study as it is the only state to have taken a prominent position with respect to genetically modified plants and plant products and implemented a moratorium on their release.
- 1.26** Every effort has been made to ensure the information presented in this report is current. As this subject is being actively debated and there is a lack of universal agreement on the best approach to take with developments from gene technology, the regulatory environment will continue to evolve for some time to come. As the committee intends to present a final report at a later date, it will be in a position to provide a review of the new regulatory measures and provide further recommendations to the New South Wales Government on genetically modified food.

## Chapter 2 What is gene technology?

### Public interest in genetically modified food

- 2.1** The expansion of genetically modified ('GM') crop types being trialled has resulted in increasing public awareness of genetically modified organisms ('GMOs'). Consequently this has prompted significant debate on the potential benefits and the potential risks involved in accepting the commercial production of GM foods. While there is greater community acceptance of the use of gene technology in pharmaceuticals and medicine, public concern related to GMOs in food remains high. This has been expressed in calls for a ban or moratorium on all trial and general releases of GM crops and for clearer labelling of food products containing GMOs or GM products.<sup>16</sup>
- 2.2** The major issue underlying most concerns with accepting GMOs may be encapsulated in the words of the Hon David Llewellyn MHA, the Tasmanian Minister for Primary Industries, Water and Environment, and Minister for Police and Public Safety, where he stated:
- ...it is the unknown and the concern about the unknown where virtually overnight we are modifying natural things that have evolved over a long period of time, and we are not really considering the consequences of those actions.<sup>17</sup>
- 2.3** Due to the complex nature of the gene technology debate, it is necessary to briefly outline the various key concepts and terms utilised. It is intended that this chapter provide easily understandable information on gene technology, without excessive scientific explanation of the concepts.

### DNA and genes

- 2.4** All living things are made of cells and each cell contains inherited genetic information in the form of genes. A gene is made of a length of DNA ('Deoxyribonucleic acid') that has a message encoded in its chemical structure. Genes are the instructions that give organisms their characteristics.<sup>18</sup> The chemicals in DNA are the same for every living organism, however the ordering or sequence of the chemicals varies and it is this variation that determines the physical appearance and features of an organism. Changes in the sequence of genes, turning off certain genes or inserting new sequences will create changes to an organism.<sup>19</sup>

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<sup>16</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 19.

<sup>17</sup> Tasmanian House of Assembly, *Hansard*, 28 June 2000, p 84.

<sup>18</sup> Under s.10 of the *Gene Technology Act 2000*, an 'organism' is defined as any biological entity that is viable, capable of reproduction or capable of transferring genetic material.

<sup>19</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_is\\_biotechnology.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_is_biotechnology.asp), accessed 12 April 2001.

- 2.5** However DNA sequences alone are not the sole determinant of physical appearance and features of an organism. Interaction with other genes and the environment are factors that also impact on the determination of physical appearance and features of an organism. In order to assess risks and make informed decisions it is imperative that these factors be acknowledged. This has been revealed scientifically with the disclosures of the Human Genome Project.

## Gene technology

- 2.6** Gene technology involves the transferring of a single gene between differing plants and animals or removing a gene from its original position and placing it into a new position in the same organism. The reference to gene technology may be used interchangeably with references to genetic “modification”, “manipulation” or “engineering”. Plants or animals which have a new gene inserted into them are referred to as being “transgenic”. A plant, animal or organism which has had the sequence of its genes changed is a “genetically modified organism”.<sup>20</sup>

- 2.7** Section 10 of the *Gene Technology Act 2000* defines gene technology as:

any technique for the modification of genes or other genetic material, but does not include:

- (a) sexual reproduction; or
- (b) homologous recombination; or
- (c) any other technique specified in the regulations

## Major uses for gene technology

- 2.8** Gene technology may be used in a range of applications including:

- Agriculture - such as genetic modification of crops to incorporate pest resistance or pesticide<sup>21</sup> tolerance or the slowing of the ripening process in fruit and flowers;
- Medicine and therapeutic goods - for example, the modification of micro-organisms to produce products such as insulin or the identification and treatment of genetic disease;
- Industrial uses - for example, producing enzymes for use in paper pulp production or bio-remediation by using micro-organisms to decompose toxic substances and clean-up industrial sites or environmental accidents.

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<sup>20</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_is\\_biotechnology.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_is_biotechnology.asp), accessed 5 March 2001.

<sup>21</sup> see Glossary for definition of “pesticide” which for the purposes of this report includes herbicides and fungicides.



## Creation of genetically modified organisms

- 2.9** Traditional methods of creating new species of organisms have either involved a process of selective breeding, plant cloning or grafting. These processes do not involve altering an organism's genes to achieve new products. With gene technology, scientists use laboratory techniques to copy and transfer genes between species in order to modify the expressions or characteristics of organisms.<sup>22</sup>
- 2.10** The DNA in all living things are composed of the same chemical language. As a result it is physically possible to transfer a gene, as well as the physical characteristics it controls, from one organism to another without seeming to alter other characteristics of that organism.
- 2.11** Section 10 of the *Gene Technology Act 2000* defines "a genetically modified organism" as:
- (a) an organism [any biological entity that is viable, capable of reproduction or capable of transferring genetic material] that has been modified by gene technology; or
  - (b) an organism that has inherited particular traits from an organism (the initial organism), being traits that occurred in the initial organism because of gene technology; or
  - (c) anything declared by the regulations to be a genetically modified organism, or that belongs to a class of things declared by the regulations to be genetically modified organisms.
- 2.12** The Act specifically excludes human beings from this definition where a human being may undergo a certain type of cell gene therapy. A GMO will also not include an organism that is declared a non-GMO in the regulations to the Act.

### Methods of DNA transfer in plants

- 2.13** Two common methods are used for introducing DNA into plant cells. The first method involves the use of microbes that normally infect plants. The new piece of DNA is placed in a bacterium or virus, which acts as a courier to carry the DNA into the plant cell. The new DNA is then incorporated into the cell's own DNA.<sup>23</sup> The second method of introducing a new gene into a plant cell involves a 'gene gun'. Tiny gold particles are coated with DNA and a high-pressure air gun then fires them into the plant cells.
- 2.14** Use of either method requires the cells containing the new gene to be grown under tissue culture into a fully functional plant complete with the new and desirable characteristic. These plants are then propagated by conventional methods. At present, scientists are only able to change characteristics controlled by a single gene. Present knowledge does not yet

<sup>22</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000.

<sup>23</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 5 March 2001.

permit scientists to alter a trait affected by many genes or those significantly influenced by environment.<sup>24</sup>

### **Example of a genetically modified plant: the weevil-resistant pea**

**2.15** An example of how gene technology has been applied to prevent crop losses by pests is the weevil-resistant pea developed by CSIRO Plant Industry.<sup>25</sup> Each year significant losses occur to both the yield and quality of Australian field pea crops from pea weevil attack. Kidney beans are not attacked by weevils because the plant contains a gene that inhibits the ability for a weevil to digest starch.

**2.16** Traditional plant breeding techniques have been unsuccessful in transferring this trait to field peas. CSIRO scientists identified the protecting gene and introduced it into a variety of field pea. The modified peas have been shown to be 99 per cent resistant to pea weevil attack. As the gene is now contained in one variety, it can be transferred to related varieties using traditional crossbreeding techniques.<sup>26</sup>

### **Future developments in plant gene modification**

**2.17** Scientists are researching new methods of manipulating genes known as ‘master genes’ which control other genes. Master genes regulate critical processes, such as photosynthesis or seed formation, by coordinating the many genes which must work together to produce a particular response. A change to a single master gene can establish a cascade of events within a plant to potentially achieve a wider range of intended productivity benefits. For example, the timing of flowering in agriculture affects yields, quality and harvest efficiency. The initiation of flowering is triggered by environmental cues, such as sunlight hours and temperature. CSIRO researchers have identified master genes that appear to stimulate a response to these cues and cause the plant to switch from vegetative growth to reproduction.<sup>27</sup>

## **Potential benefits and risks of genetically modified food**

**2.18** The obvious question concerning genetically modified food is “why do we need it?”. The proponents of genetic engineering argue that this scientific innovation could provide new opportunities for improved human health, protection from infection, control of diseases, better economic return and reduced environmental impact. It is argued by those proponents, that some risks are worth taking due to the expanding world population,

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<sup>24</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 5 March 2001.

<sup>25</sup> The committee discussed the development of this plant during its site visit at CSIRO Plant Industry headquarters in Canberra on 27 June 2000.

<sup>26</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 5 March 2001.

<sup>27</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 5 March 2001.

increasing environmental pollution and the human desire to live longer.<sup>28</sup> The opponents believe that these risks may not outweigh the potential benefits from genetically modified food as there is not enough conclusive proof that gene technology is safe and there is no guarantee that scientists will not discover problems at a later stage with genetically modified food now deemed “safe”.

**2.19** The potential advantages and risks of GM foods can be classified under three main impact areas:

- commerce,
- public health and safety and
- the environment.

### **Commercial implications**

**2.20** According to information from Biotechnology Australia, in the past three years, the global market in genetically modified crops increased from \$US75 million to \$US1.5 billion. In 2000 the market value was expected to reach \$US3 billion.<sup>29</sup>

**2.21** The first genetically modified crops were planted in China in 1992. In 1996, transgenic crops covered 1.7 million hectares. By 1998, that area had increased to almost 28.2 million hectares globally. In 1998, the most common transgenic crops in the world were soybean and corn followed by cotton, canola and potato. Over 50 individual products of gene technology are now commercially grown. Worldwide plantings were forecast to reach 60 million hectares by 2000.<sup>30</sup>

**2.22** Until 1999, the planting of GM crops increased rapidly, however, with the exception of cotton, this rate of growth has been arrested, and even reversed in the case of corn and canola. An Australian Bureau of Agricultural and Resource Economics report indicates that:

This slowdown largely reflects the problems of acceptance with significant blocs of consumers and perhaps poorer than expected agronomic performances of some crops.<sup>31</sup>

**2.23** Information obtained from Biotechnology Australia indicates that to meet the challenges posed by changing world trade, Australian researchers must develop valuable intellectual

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<sup>28</sup> R Hindmarsh, G Lawrence and J Norton, *Altered Genes – Reconstructing Nature: the Debate*, Allen & Unwin, Sydney, 1998, p 7.

<sup>29</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp)

<sup>30</sup> M Foster, “Plant gene technology – Australia’s Competitiveness and the role for government”, *Outlook 99*, Proceedings of the National Outlook Conference, Canberra, 17 – 18 March, vol 2, *Agriculture*, ABARE Canberra, p 229.

<sup>31</sup> M Foster, “Commercialising GM Crops – Assessing the costs and benefits”, *Outlook 2001*, Proceedings of the National Outlook Conference, Canberra, 27 February – 1 March, vol 2, *Agriculture and Regional Australia*, ABARE Canberra, p 178.

property in the area of gene technology. The CSIRO sees gene technology as vital to Australia's future, environment and competitive position in the world.<sup>32</sup>

**2.24** The large agrichemical companies possess extensive financial resources that allow them to rapidly identify and patent critical genes and then limit access. These companies are vertically integrating their businesses by buying seed, distribution and food processing companies. They are acquiring small biotechnology companies, merging with others and forming alliances with each other to maximise their genetic resources. Intellectual property rights, often owned by different organisations may cover each of the many sections that make up a gene. Patents also cover many critical techniques and key enabling technologies. It is argued that without access to this vital intellectual property, Australia may be left behind in the gene technology revolution. The trade of intellectual property rights is becoming increasingly important if Australian agribusiness intends to operate within the field.<sup>33</sup>

**2.25** Australian scientists lead the world in a number of areas of genetic endeavour, including cereal rust resistance and plant flowering control. Public research organisations such as the CSIRO are currently forming partnerships with other research institutions, major Australian companies and with large international companies. Grower organisations and rural industry research organisations are also entering into association with these research alliances to develop Australian agribusiness interests.<sup>34</sup>

**2.26** Some potential commercial advantages and risks of gene technology include (but are not limited to):

*Advantages*

- Genetically modifying the characteristics of crops has the potential to increase production efficiency through resistance to disease and boosted yields,
- increased production could be achieved without increasing the use of chemical pesticides that also increase production costs, and
- gene technology provides a more accurate and precise means of introducing new characteristics into plant species and can increase the pool from which scientists can select beneficial traits.

*Risks*

- Contamination of traditional or organic crops by genetically modified crops may:
  - compromise domestic and international trade opportunities,
  - damage seed collected by growers through transmission of characteristics such as sterility genes from GM crops,

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<sup>32</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp)

<sup>33</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 2 April 2001.

<sup>34</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 2 April 2001.

- developing countries and poor people cannot afford to buy food or crop seeds grown by traditional methods and therefore are unlikely to be able to afford GM plant varieties or food derived from GM technology,
- certain GM crops do not produce viable seed, therefore the seed cannot be used for the next season's crop as with conventional seed which is an additional cost to growers,
- transfer to large scale production of GM food could increase supply way above demand or fail due to market resistance,
- if the market for certain conventional varieties diminishes there may be:
  - loss of biodiversity,
  - loss of control by growers over seed gene pool,
- susceptibility of GM crops to disease may result in diminished yields and profitability, and
- target pest resistance may develop to varieties of GM crops.

### **Public health and safety implications**

#### **2.27**

Some potential public health and safety advantages and risks of gene technology include (but are not limited to):

#### *Advantages*

- introduction of pesticide and pest resistant varieties of plant food crops can potentially make crop production safer for rural communities through reduced tillage, or reduced or zero application of pesticides, and
- gene technology may introduce beneficial characteristics in staple crops such as an increased vitamin and protein content.

#### *Risks*

- The deliberate selection of genes and their transfer between species that are often completely unrelated does not happen normally among plants and animals, so we may be tampering with complex systems,
- added genes could potentially make 'safe' plants produce poisonous or allergy-causing substances that could cause adverse effects for some people,
- marker genes inserted into plants could potentially produce a substance that destroys certain antibiotics, or may cause antibiotic resistance, and
- there is not enough conclusive proof that gene technology is safe and there is no guarantee that scientists will not discover problems at a later stage with genetically modified food now deemed "safe".

## **Environmental implications**

**2.28** Some potential environmental advantages and risks of gene technology include (but are not limited to):

### *Advantages*

- As indicated, gene technology could assist to reduce the usage of a range of pesticides and therefore minimising harm to the environment,
- gene technology could provide farmers with increased flexibility in farm management and an opportunity to further implement integrated pest management strategies to reduce the volume of chemical use while maintaining and even increasing yield and quality,
- higher agricultural productivity may reduce the need for land clearing and encourage sustainable land use,
- if crops have genes inserted from hardier plants, they may be able to tolerate situations such as salinity, drought or poor soil so that agriculture does not always need to use the best land or damage non-agricultural species in the area, and
- reduced application of fertilisers could reduce leaching of fertilisers into watercourses.

### *Risks*

- where genes for the creation of pesticides are inserted into plants not naturally creating such chemicals, the modified plant could degrade into other products, which are further changed by the rest of the plant's chemical reactions, turning into a compound not normally present,
- naturally occurring insecticides such as Bt toxin are one of few insecticides permitted for use on organic crops. Increased use of GM Bt toxin producing crops may cause resistance to develop in some insects, leaving organic farmers with less low-impact insect control methods,
- increased use of specific types of agricultural chemicals on genetically modified pesticide tolerant crops may result in increased concentration of that chemical in soil and resultant environmental damage,
- insect resistant crops which harm non-target insects could adversely affect Integrated Pest Management strategies, and
- transfer of genes may occur between pesticide tolerant GM crops and related species resulting in pesticide resistant weeds.

## **Genetically modified food released in Australia**

**2.29** An issue of concern raised in the GMO debate is the safety and prevalence of GM foods already incorporated into products on the market for general consumption in Australia. Other concerns raised regard, appropriate labelling and consumer information.

### **Control over genetically modified food products**

- 2.30** Information published by Biotechnology Australia indicates that all food sold in Australia must pass a thorough and rigorous safety assessment by the Australia New Zealand Food Authority (ANZFA)<sup>35</sup> before approval is given for its sale by the Australia New Zealand Food Standards Council (ANZFSC).<sup>36</sup> The ANZFA has adopted guidelines for the safety assessment of foods produced using gene technology which are based on protocols and principles developed by the World Health Organization and the Food and Agriculture Organization.<sup>37</sup>
- 2.31** Experts such as food toxicologists, molecular geneticists, biologists and nutritionists that are employed by ANZFA assess the characteristics of the genetically modified commodities used in foods to determine if the foods have been changed in any way which would make them unsafe. Assessments are made utilising the ANZFA guidelines along with information supplied by the food biotechnology companies.<sup>38</sup>

### **Control over genetically modified crops**

- 2.32** Currently there are three types of commercially grown genetically modified crop in Australia. Two of these are genetically modified carnations developed in Australia, one type with longer vase life and one with 'blue' colour, for the international cut flower market.<sup>39</sup> The third commercially grown crop is cotton containing the INGARD<sup>®</sup> gene developed by Monsanto. The CSIRO and commercial partners released this crop to growers in 1997. This cotton provides three main products including, fibre for use in products such as fabric and cotton balls, oil used for cooking and meal used for animal feed.<sup>40</sup>
- 2.33** All gene technology research in Australia, as well as undergoing the traditional scientific peer review process, is overseen by a number of regulatory bodies. One of these bodies was the Genetic Manipulation Advisory Committee (GMAC). Approval by GMAC was required before a genetically modified organism could be released for small scale testing, field trials, or commercialisation. GMAC would conduct scientific testing and risk assessment before any release was approved. GMAC was replaced by the Gene Technology

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<sup>35</sup> Explanation of the regulatory regime in relation to GMOs is discussed at Chapter 3.

<sup>36</sup> The ANZFSC consists of all Australian and New Zealand State and Territory health ministers. It is the policy body which determines the rules and regulations governing food production in both countries.

<sup>37</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/biotechnology\\_and\\_food.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/biotechnology_and_food.asp), accessed 5 March 2001.

<sup>38</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/biotechnology\\_and\\_food.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/biotechnology_and_food.asp), accessed 5 March 2001.

<sup>39</sup> Agriculture, Forestry and Fisheries Australia, *Agricultural Biotechnology: What is happening in Australia in 2000*, [www.affa.gov.au](http://www.affa.gov.au), accessed 17 October 2001.

<sup>40</sup> [www.biotechnology.gov.au/Community\\_Issues/Fact\\_Sheets/what\\_will\\_it\\_mean\\_for\\_australi.asp](http://www.biotechnology.gov.au/Community_Issues/Fact_Sheets/what_will_it_mean_for_australi.asp), accessed 5 March 2001.

Technical Advisory Committee (GTTAC) under the new regulatory scheme on 21 June 2001.<sup>41</sup>

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<sup>41</sup> Further discussion regarding the regulatory regime follows in Chapter 3.



## Chapter 3 The regulatory system

The stated objective of the gene technology legislation is well documented through early drafts of both gene technology bills and explanatory guides. The objective was ultimately enshrined in section 3 of the *Gene Technology Act 2000*,

...to protect the health and safety of people, and to protect the environment by identifying risks posed by or as a result of gene technology, and by managing those risks through regulating certain dealings with GMOs.

Genetically modified organisms should be regulated to not only provide confidence to the community that that human health and the environment are being sufficiently protected, but that industry and farmers also understand the requirements imposed on them.<sup>42</sup>

### Legislative arrangements prior to the Gene Technology Act

- 3.1** To provide a context for the development of the *Gene Technology Bill 2000*, elements of the previous regulatory system are outlined in the next section.

#### Regulatory agencies

- 3.2** Until May 1999, the Federal Government monitored the use of gene technology, through various regulatory agencies. The nature of each GMO determined which agencies were responsible for regulating it.
- 3.3** Food is regulated by the Australia New Zealand Food Authority (ANZFA) under the *Australia New Zealand Food Authority Act 1991* and accompanying state and territory legislation. ANZFA works with the Australia New Zealand Food Standards Council, to develop and maintain laws and systems which ensure the safety and regulate the labelling of food in Australia and New Zealand. ANZFA is the only regulatory agency that administers a standard specific to GMOs<sup>43</sup>. The other agencies assess GM products in the same way as other products within their purview.<sup>44</sup>
- 3.4** The Therapeutic Goods Administration (TGA) provides a national framework for the regulation of therapeutic goods, such as GM pharmaceuticals. Its powers are derived under the *Therapeutic Goods Administration Act 1989* to ensure the quality, safety and efficacy of therapeutic goods in Australia.<sup>45</sup> Regulation of therapeutic goods is achieved through:

<sup>42</sup> Australian Food and Grocery Council, p 10, submission to the Standing Committee on Primary Industries and Regional Services.

<sup>43</sup> Standard A18 – Foods Produced using Gene Technology, *Food Standards Code*.

<sup>44</sup> [www.biotechnology.gov.au/community\\_issues/regulatory\\_bodies/regulatory\\_bodies.asp](http://www.biotechnology.gov.au/community_issues/regulatory_bodies/regulatory_bodies.asp), accessed 2 April 2001.

<sup>45</sup> [www.biotechnology.gov.au/community\\_issues/regulatory\\_bodies/regulatory\\_bodies.asp](http://www.biotechnology.gov.au/community_issues/regulatory_bodies/regulatory_bodies.asp), accessed 2 April 2001.

- a risk management approach to pre-market evaluation and approval of therapeutic products intended for supply in Australia,
- licensing of manufacturers, and
- post-market surveillance.

- 3.5** The TGA also provides advice to other regulatory authorities on toxicology, pre-market assessment and public health issues relating to agricultural, veterinary and industrial chemicals.<sup>46</sup>
- 3.6** The National Health and Medical Research Council (NHMRC) is a statutory authority established under the *National Health and Medical Research Council Act 1992* within the portfolio of the Minister for Health and Aged Care. The NHMRC provides for research funding and advice on all aspects of health and health care delivery in Australia. The NHMRC also supervises research involving human gene therapy through its Gene and Related Therapies Research Advisory Panel.<sup>47</sup>
- 3.7** The National Registration Authority (NRA) is responsible for the system that evaluates, registers and regulates agricultural and veterinary chemicals. Agricultural and veterinary chemicals fall under the *Agricultural and Veterinary Chemicals Code Act 1994*, which are also administered through accompanying state and territory legislation. The NRA was involved in regulating the release of Ingard<sup>®</sup> cotton, as the genetic modification of the cotton plants had caused the plants to produce a pesticide. It would also be involved with respect to pesticide tolerant crops in so far as it would need to approve the use of the relevant pesticide taking into account that modified crop.
- 3.8** The National Occupational Health and Safety Commission (NOHSC) is responsible for encouraging community awareness, and developing policies and strategies for occupational health and safety. Industrial chemicals, which are covered by the *Industrial Chemicals (Notification and Assessment) Act 1989*, are administered by the NOHSC and accompanying state and territory legislation.<sup>48</sup>
- 3.9** The Australian Quarantine and Inspection Service (AQIS) regulates imports through the *Quarantine Act 1908*, the *Imported Food Control Act 1992*, and the *Export Control Act 1982*. Imports and exports are also regulated by wildlife protection legislation administered by Environment Australia. The AQIS develops policies and procedures relating to incoming passengers, mail, animals and plants, that have quarantine significance. This includes genetically manipulated products imported into Australia that may pose a pest and disease risk.<sup>49</sup>

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<sup>46</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes.- A Report on the Gene Technology Bill 2000*, November 2000, p 28.

<sup>47</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes.- A Report on the Gene Technology Bill 2000*, November 2000, p 28.

<sup>48</sup> [www.biotechnology.gov.au/community\\_issues/regulatory\\_bodies/regulatory\\_bodies.asp](http://www.biotechnology.gov.au/community_issues/regulatory_bodies/regulatory_bodies.asp), accessed 2 April 2001.

<sup>49</sup> [www.biotechnology.gov.au/community\\_issues/regulatory\\_bodies/regulatory\\_bodies.asp](http://www.biotechnology.gov.au/community_issues/regulatory_bodies/regulatory_bodies.asp), accessed 2 April 2001.

- 3.10** The work of the Genetic Manipulation Advisory Committee was designed to support all the above regulatory arrangements.

### **The Genetic Manipulation Advisory Committee**

- 3.11** The Genetic Manipulation Advisory Committee (GMAC) was established on 15 September 1987. Up until May 1999 it was responsible for issuing guidelines for contained research, overseeing the research, development and use of all genetic modification techniques and the environmental release of genetically modified organisms.<sup>50</sup> GMAC was an independent committee of scientific experts (in fields such as molecular biology, ecology, plant genetics, agriculture and biosafety engineering) which assessed the risks to human health and the environment that were presented by the application of gene technology and provided advice on how the risks can be managed. The auditing and monitoring system overseen by GMAC had no legislative backing. Compliance with GMAC guidelines and GMAC recommendations was voluntary and there was no legal basis for imposing penalties or other action for non-compliance.
- 3.12** GMAC was responsible for advising the existing regulators, such as the TGA, ANZFA and the NRA, about the safety of GMOs as products. While GMAC provided reliable scientific advice about the risks posed by gene technology, and how to manage such risks, the system was not supported by legislation. This meant that there was no legally enforceable way to audit or monitor the use of gene technology or penalise breaches.<sup>51</sup>

### **The Interim Office of the Gene Technology Regulator<sup>52</sup>**

- 3.13** In May 1999, the Federal Government implemented interim arrangements for the regulation of gene technology while legislation to change the current gene technology regulatory system was developed with community and state and territory government input. Part of the arrangements included establishing the Interim Office of the Gene Technology Regulator (IOGTR) within the Department of Health and Aged Care.<sup>53</sup> Until new legislative controls took effect, the Minister for Health and Aged Care, in consultation with other ministers, was responsible for decisions on the general release of GMOs.

<sup>50</sup> [www.health.gov.au/tga/gene/gmac/backgrnd.htm](http://www.health.gov.au/tga/gene/gmac/backgrnd.htm), accessed 17 April 2001; GMAC ceased to exist on 21 June 2001 and the core of its functions are now conducted by the Gene Technology Technical Advisory Committee.

<sup>51</sup> Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, p 8.

<sup>52</sup> As of 21 June 2001, the Interim Office of the Gene Technology regulator was replaced by the Office of the Gene Technology Regulator.

<sup>53</sup> At the same time, GMAC was moved from the Department of Industry, Science and Resources to the DHAC.

**3.14** The IOGTR was responsible for:

- regulating all aspects of the development, production and use of GMOs and their products, where no existing regulatory body had responsibility;
- working with other regulatory bodies to ensure the consistent application of standards and to harmonise genetic safety assessments across all systems of regulation; and
- undertaking or commissioning research in risk assessment.

**3.15** Other aspects of the interim arrangements designed to improve the transparency, accountability and rigour of the regulatory process included:

- revision of GMAC's operations to include more public input, more publicly available information and a broader basis for GMO risk assessment than previously established. Biosafety and agricultural sustainability were issues that required consideration; and
- the finalisation of contracts and agreements between the government and proponents of commercial releases of GMOs to provide for assurance of greater compliance with GMO release conditions.<sup>54</sup>

**Limitations of interim arrangements****3.16** During its inquiry into gene technology, the Standing Committee on Primary Industries and Regional Services drew attention to the limitations of regulatory arrangements. Several major critical observations made of the interim system included:

- the lack of a clear regulatory pathway and regulatory delays deterred owners of gene technology as it did not provide any certainty in the infrastructure needed to commercialise GM varieties,
- compliance with guidelines developed by GMAC was voluntary. GMAC lacked the statutory power to enforce its decisions, and no penalties were applied to persons who fail to observe the guidelines, and
- the buffer zones around GM crops were insufficient to protect organic and GM free crops growing nearby.<sup>55</sup>

**3.17** A major driver for the move from a voluntary to a regulatory 'controlled' system was community perceptions about gene technology and that industry "cannot be relied upon to be sufficiently rigorous and objective in evaluating risk and implementing appropriate management strategies".<sup>56</sup>

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<sup>54</sup> Information drawn from Standing Committee on Primary Industries and Regional Services, *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*, June 2000, p 125.

<sup>55</sup> Standing Committee on Primary Industries and Regional Services, *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*, June 2000, pp 126-128.

<sup>56</sup> Interim Office of the Gene Technology Regulator, Submission No 77 to Senate Community Affairs Committee, p 20.

**3.18** In particular, the Standing Committee on Primary Industries and Regional Services expressed concern regarding an investigation of a breach of GMAC guidelines:

The committee was very concerned to hear allegations earlier this year that Aventis (formerly AgrEvo) trials of herbicide tolerant canola in the Mount Gambier area of South Australia had breached GMAC guidelines. It is even more worried by the manner in which the IOGTR has investigated the alleged breaches, in particular its tardiness in completing its investigation. The IOGTR began its examination of the allegations on 24 March 2000 and, as at 18 May, the results of this examination had not even been forwarded to the Minister for Health and Aged Care, let alone been publicly released.

The committee is of the view that the alleged breaches would have been much less likely to have occurred if stringent, transparent regulatory processes...had been in place. The committee is unanimous in believing that rigorous, independent regulatory processes must be instituted as quickly as possible. A more prompt, open, transparent approach must be taken to breaches of guidelines. It is essential that the IOGTR act much more efficiently and effectively than the IOGTR has been able to if it is to reassure the Australian people that their interests are being strenuously protected. If this does not happen, public confidence in GMOs and their regulation will be badly prejudiced.<sup>57</sup>

**3.19** As well as the insufficient legal enforcement powers to control or penalise breaches, it was recognised that the range of applications for gene technology is changing very rapidly. Certain GMOs are being developed which do not fall neatly within the mandate of the existing regulatory bodies. These “gap” GMOs included:

- the growing of GM agricultural crops,
- the growing or breeding of GM animals or fish,
- the use of GM micro-organisms designed to decompose toxic substances (bio-remediation),
- the use of GM viruses and GM vaccines, and
- other items such as stockfeed, which may be produced from genetically modified crops such as cotton.

**3.20** Another driver for improved legislation arose from more GMOs approaching advanced stages of development, the producers of which will be seeking to release the GMO into the environment, either for the purposes of field trials or for commercial release.<sup>58</sup>

<sup>57</sup> Standing Committee on Primary Industries and Regional Services, *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*, June 2000, p 129, paras 7.17-7.18.

<sup>58</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, p 8.

## Development of the Gene Technology Bill 2000

- 3.21** The *Gene Technology Bill 2000* ('the Bill') was developed in several stages.<sup>59</sup> A paper entitled *Regulation of Gene Technology* was circulated for limited public consultation in November 1998 by the Commonwealth and State Consultative Group on Gene Technology (CSCG). The CSCG was a group formed of Commonwealth, State and Territory officials on gene technology working together to develop ways to regulate GMOs. Views were considered from each jurisdiction regarding broad policy principles and desired features of the system of regulation. The CSCG then agreed to a set of policy principles to guide development of the regulatory system.
- 3.22** From the agreed policy principles, officials formulated details on how the regulatory system should work. The CSCG considered:
- what sort of legislation was appropriate,
  - how decisions would be made,
  - how GMOs would be regulated, and
  - how the public would be kept informed and be able to provide input to the scheme.
- 3.23** In October 1999, on behalf of the CSCG, the IOGTR circulated a discussion paper on the proposed new regulatory system entitled, *Proposed national regulatory scheme for genetically modified organisms – How should it work?*. Based on comments received from over 130 submissions by a broad range of stakeholders, a consultation draft of the Bill was produced and circulated in December 1999 with an explanatory guide. Extensive public consultation then occurred including public forums that drew a great deal of interest from the community. On the basis of these consultations, a number of changes were made to the draft Bill to reflect the issues and comments raised by the community.
- 3.24** On 22 June 2000, the Federal Government introduced a package of three Bills into Federal Parliament for the regulation of gene technology in Australia. Those Bills were:
- the *Gene Technology Bill 2000*,
  - the *Gene Technology (Consequential Amendments Bill) 2000*, and
  - the *Gene Technology (Licence Charges) Bill 2000*.

## Senate committee on the Gene Technology Bill

- 3.25** On 28 June 2000, the Commonwealth Senate referred the provisions of the Bill to the Senate Community Affairs Committee for inquiry and report, with particular reference to:

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<sup>59</sup> The majority of the following information is obtained from: The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, pp 8-16.

*Objectives*

- (a) whether measures in the Bill to achieve its object 'to protect health and safety of people and to protect the environment' are adequate;
- (b) whether the proposed regulatory arrangements and public reporting provisions will provide sufficient consumer confidence in the regulation of the development and adoption of new gene technologies;

*The Office of Gene Technology Regulator*

- (c) the structure of the Office of the Gene Technology Regulator (OGTR) and its assessment processes compared with other proposed stakeholder models and similar overseas bodies;
- (d) whether the powers and investigative capability of the OGTR are adequate to ensure compliance with conditions imposed in licences;
- (e) whether the proposed cost recovery and funding measures for the OGTR are appropriate and will allow for adequate resourcing of the Office;

*Other proposed bodies*

- (f) the role and membership of the proposed Ministerial Council;
- (g) the functions and powers of the Gene Technology Community Consultative Committee and the Gene Technology Advisory Committee;
- (h) procedures for review of decisions and, in particular, the rights of third-parties to seek review of decisions;

*Other issues*

- (i) liability and insurance issues relating to deliberate and accidental contamination of non-genetically modified crops by genetically-modified crops and how those issues are being addressed in international regulatory systems;
- (j) the validity and practicability of any proposed clause allowing individual States the right to opt out of the scheme and the implications of such an option in the context of Australia's international trade and related obligations; and
- (k) the alleged genetically-modified canola contamination in Mount Gambier and the processes followed by the Interim Office of Gene Technology in investigating and reporting on the allegations.<sup>60</sup>

**3.26** The Senate committee made a series of recommendations with the intention of improving and strengthening the gene technology legislation. The Senate committee's recommendations are discussed in this chapter where corresponding legislative issues have been considered.

## **The Gene Technology Act 2000**

**3.27** The Act was assented to on 21 December 2000 and the new regulatory scheme it creates commenced on 21 June 2001.

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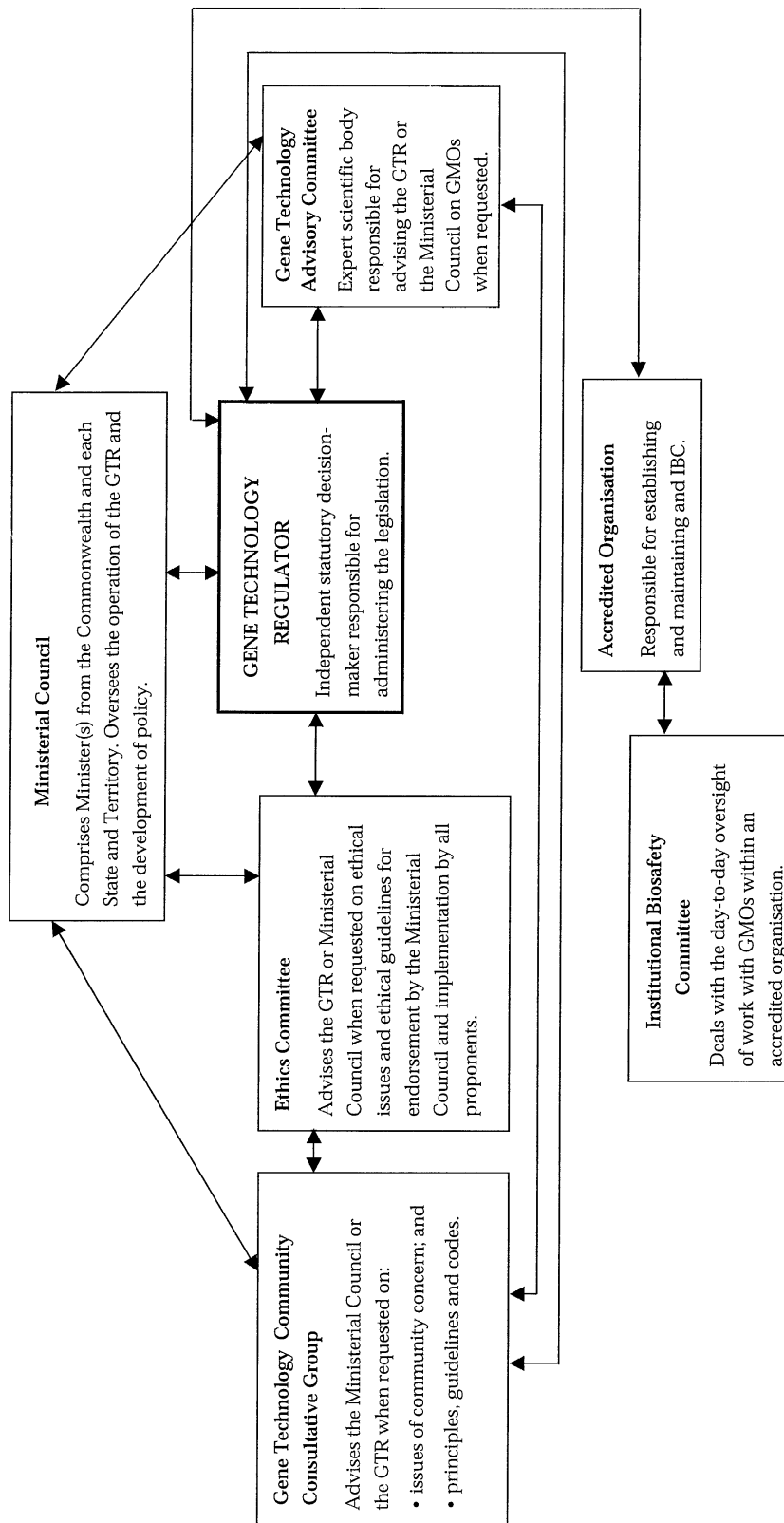
<sup>60</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes.- A Report on the Gene Technology Bill 2000*, November 2000, pp 1-2.

**3.28** The aim of the Act is to provide a nationally consistent scheme for regulation and application of gene technology. The Act establishes six key measures to achieve its objectives:

- a statutory officer, the Gene Technology Regulator (the GTR) to administer the legislation and make decisions under the legislation;
- a scientific committee, an ethics committee and a community committee to advise the GTR and the Ministerial Council on gene technology;
- regulation of dealings with GMOs and prohibits persons from dealing with GMOs unless the dealing is:
  - exempt,
  - a notifiable low risk dealing (that is, contained research work which has been demonstrated to pose minimal risk to workers, the general public or the environment),
  - on the Register of GMOs, or
  - licensed by the GTR.
- a scheme to assess the risks to human health and the environment associated with various dealings with GMOs, including opportunities for extensive public input;
- provides for monitoring and enforcement of the legislation; and
- creates a centralised, publicly available database of all GMOs and GM products approved in Australia (the Record of GMO and GM product dealings).

**3.29** Details of these measures are outlined in the following sections. Figure 3.1 depicts the governance structure for gene technology regulation.



**Figure 3.1 Governance structure for gene technology legislation**

Source: Standing Committee on Primary Industries and Regional Services, *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*, 19 June 2000, p 135.

## Considerations to achieve the object of the Act

**3.30** Section 4 of the Act states that the object of the Act is to be achieved by a regulatory framework which:

- (a) provides an efficient and effective system for the application of gene technologies; and
- (b) operates in conjunction with the Commonwealth and State regulatory schemes relevant to GMOs and GM products.

**3.31** The Act, as amended, provided an additional provision that adds the “precautionary principle” to the legislation. Section 4(aa) now provides that:

...where there are threats of serious or irreversible environmental damage, a lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation;

**3.32** The phrasing of the precautionary principle is well-established in international and Australian contexts. The principle was adopted in Australia through the *Intergovernmental Agreement on the Environment*, signed by the Commonwealth, states and territories in May 1992. It states:

Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

**3.33** This phrasing is used in the NSW *Protection of the Environment Administration Act 1991* (s.6(2)(a)) which establishes the objectives for decision making by the NSW Environment Protection Authority where it states:

If there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.

**3.34** The international *Convention in Biological Diversity* outlines the terms of the precautionary principle in a similar manner:

...where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat.<sup>61</sup>

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<sup>61</sup> United Nations Environment Programme, *Convention on Biological Diversity*, [www.biodiv.org/convention/](http://www.biodiv.org/convention/), accessed 23 April 2001. The Cartagena Protocol on Biosafety that was adopted by the Conference of the Parties to the Convention on 29 January 2000, seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology, [www.biodiv.org/biosafety/](http://www.biodiv.org/biosafety/), accessed 23 April 2001. As at 17 October 2001, 103 countries had signed the Protocol. Although Australia is a party to the Convention it has not yet signed the Protocol, [www.biodiv.org/world/parties.asp](http://www.biodiv.org/world/parties.asp), accessed 17 October 2001.

**3.35** The committee acknowledges that the report of the Senate Community Affairs Committee outlines a detailed discussion addressing arguments and precedents for and against the inclusion of the Precautionary Principle in the legislation. Accordingly it is not intended to duplicate these efforts in this report. The Senate Committee however did not make specific recommendations in this regard. The Senate Community Affairs Committee did make the following comments:

To avoid uncertainty, the Committee considers that any reference to the precautionary principle should be expressed in terms consistent with those used in Australian precedents including the EPBC Act.<sup>62</sup>

**3.36** And later,

The Committee considers that the precautionary approach would be underpinned in the Bill if the precautionary principle appeared as one of the objects in the same form as it appears in the EPBC Act.<sup>63</sup>

**3.37** The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC), referred to in the above passages, outlines the precautionary principle in a similar manner to other legislative instruments. However, the EPBC Act omits use of the word “full” before “scientific certainty”. By implication this is a less stringent test than one requiring absolute scientific certainty. Nevertheless, the *Gene Technology Act 2000* employs the more strict rule which is consistent with the NSW environment protection test and the Intergovernmental Agreement.

**3.38** The Standing Committee on State Development notes that although the Act applies the more stringent precautionary test, it then proposes use of “cost effective” measures to prevent environmental degradation. This places what may be inferred as a qualifier on the extent of measures that may be taken in a given situation. It is the committee’s view that where potentially serious environmental and health hazards are posed by a situation, an effective response must not be negated by economic expediency. While this aspect of the test does not contradict NSW environment legislation, if the test were implemented in NSW gene technology complementary (‘mirror’) legislation it certainly may be inconsistent with existing NSW environmental legislation.

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### Issue 1

Due to continuous new developments and risks in gene technology, should a lesser standard of precaution be applied with respect to protection of the environment particularly given the direct relationship of gene technology to human health?

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<sup>62</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes.- A Report on the Gene Technology Bill 2000*, November 2000, p 40.

<sup>63</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes.- A Report on the Gene Technology Bill 2000*, November 2000, p 45.

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**Issue 2**

Should the NSW gene technology mirror legislation contain a definition of the precautionary principle as appears in the NSW *Protection of the Environment Administration Act 1991* to avoid inconsistency with NSW environment legislation?

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**Issue 3**

Should the NSW Government urge the Federal Government to review the wording of the precautionary principle in the *Gene Technology Act 2000* with a view to eliminating the words “cost-effective” from the definition?

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**A nationally consistent scheme**

**3.39** During the development of the Bill, the Commonwealth, state and territory governments undertook a significant deliberative process to consider the best way to regulate gene technology. Eventually it was agreed that a national scheme for gene technology, administered by a single central national regulator responsible for managing any risks posed by GMOs to human health or the environment was the only acceptable option. It was considered that a national scheme of legislation, relying on Commonwealth legislation and complementary legislation in each jurisdiction would achieve:

- maximum national consistency of gene technology regulation;
- minimise discrepancies between jurisdictions and potential gaps or loophole with legislation applying equally to all companies, research institutions, and individuals, as well as Commonwealth and State/Territory agencies in Australia;
- a streamlined and certain pathway for businesses seeking approval for dealings with GMOs; and
- minimise the costs of compliance to government and business that operate in more than one jurisdiction.<sup>64</sup>

**The Gene Technology Agreement**

**3.40** Underpinning the national gene technology regulatory scheme is an Intergovernmental Agreement that outlines the understanding between governments, which allowed the scheme to be developed. It is intended that this Agreement:

- describe the main components of the cooperative national scheme and commit all governments to introduce substantially similar legislation in each jurisdiction;

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<sup>64</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, pp 26-27.

- set out the functions and membership of the Gene Technology Ministerial Council. The Council will:
  - issue policy principles, policy guidelines and codes of practice to underpin the activities of the GTR and the operation of the regulatory framework;
  - consider and agree to changes, as required, to the national legislative framework;
  - oversee periodic reviews of the legislative framework.
- provide for the maintenance of a nationally consistent scheme over time, including provisions for the amendment of the gene technology legislation;
- describe the roles and responsibilities of each of the jurisdictions in the administration and enforcement of the scheme; and
- provide for the review of the implementation and effectiveness of the national scheme within five years.<sup>65</sup>

**3.41** The committee notes that the Commonwealth has no ability to ensure that the national scheme is uniformly amended and that cooperation of all states and territories is required to incorporate amendments, if the continued operation of a uniform national scheme.

**3.42** The committee also notes that the definition of the Intergovernmental Agreement, referred to as the Gene Technology Agreement in s.10 of the Act, was amended from its originally proposed definition. The definition has changed to define the agreement as commencing on signature by the Commonwealth and at least four states and territories, rather than on signature of all States and Territories as was previously set out in the Bill that was introduced into Parliament.

**3.43** On 11 September 2001, the national gene technology regulatory scheme came into effect after the Queensland Premier, the Hon Peter Beattie MP, became the fourth state or territory Premier to sign the Gene Technology Intergovernmental Agreement.<sup>66</sup> The Ministerial Council created under that Agreement will not convene until all states and territories have signed the Agreement.<sup>67</sup>

**3.44** The changes made to the definition allow the Agreement and complementary state legislation to come into force without the obstacle of one or two states or territories delaying signature to the Agreement. This change could account for the possibility that a state such as Tasmania may delay or even opt-out of joining the national regulatory scheme. At the least, it may be envisaged that a state may require an extended period of time to determine its policy directions.

<sup>65</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, pp 81-82.

<sup>66</sup> The Hon. Peter Beattie MP, Premier & Minister for Trade, *Media Statement*, “Premier Triggers National Gene Technology Regulation”, 11 September 2001; the agreement was previously signed by the ACT, Victoria and South Australia.

<sup>67</sup> Telephone conversation with Office of the Gene Technology Regulator, 18 and 22 October 2001.

**GM-Free zones**

- 3.45** The *Gene Technology Bill* made no provision for a state or territory to be able to reject GMOs or GM products within their jurisdiction.
- 3.46** Interestingly, during the development of the Bill, the Commonwealth-State Consultative Group on Gene Technology (CSCG) agreed to a set of policy principles which included policy principle 7(d) which stated:
- If a participating jurisdiction considers that the release of a GMO or a GMO product will pose an unacceptable risk within its territory, then it may decline to allow release within its own territory or impose additional conditions on release within its own territory.
- 3.47** This principle was later omitted by the CSCG. The IOGTR has indicated that this original policy principle intended that states, territories or the Commonwealth, might have health, environment or economic reasons for making decisions concerning the release of GMOs regardless of a decision by the national regulator. The CSCG reconsidered and decided that the new central national regulator, accountable to all states and territories, should be the authoritative regulator of all risks to the environment and to human health.<sup>68</sup>
- 3.48** The Tasmanian Government expressed significant reservations that the Bill excluded an opt-out clause from the legislation. It lobbied for the legislation to contain a clause which would permit a state or territory to have a right to independently decide to refuse or 'opt out' of releasing a GMO or GM product within its jurisdiction where release would pose an unacceptable risk within its own territory. The Tasmanian Government advised that if the State could not have the power to make decisions to protect its own market advantages, that it would not be a party to the Intergovernmental Agreement.<sup>69</sup>
- 3.49** The Federal Government initially ruled out the possibility for Tasmania to opt-out of authorised GMO releases.<sup>70</sup> Correspondence received by the Tasmania Government from Senator, the Hon Grant Tambling, Parliamentary Secretary to the Minister for Health and Aged Care, indicated that the Ministerial Council could be an appropriate vehicle for achieving an opt-out. It was suggested that the Ministerial Council:
- ...could issue a policy guideline or code of practice that would prevent the GTR from issuing a licence in a jurisdiction that had opted out from having that licence apply or had GM-free zones.<sup>71</sup>

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<sup>68</sup> The Interim Office of the Gene Technology Regulator, submission to Senate Community Affairs Committee inquiry into the Gene Technology Bill 2000, [www.health.gov.au/tga/gene/genetech/iogtrsub.htm](http://www.health.gov.au/tga/gene/genetech/iogtrsub.htm), accessed 11 April 2001.

<sup>69</sup> *Tasmanian Government Submission: Senate Community Affairs References Committee Inquiry Into Gene Technology*, August 2000, p 9; see at: [www.dpiwe.tas.gov.au/gmo/senatesub.htm](http://www.dpiwe.tas.gov.au/gmo/senatesub.htm)

<sup>70</sup> Comments attributed to the Prime Minister as reported by Harriet Binet, *PM warns over GE 'go it alone' stand*, The Hobart Mercury 22 June 2000.

<sup>71</sup> *Tasmanian Government Submission: Senate Community Affairs References Committee Inquiry Into Gene Technology*, August 2000, p 7; see at: [www.dpiwe.tas.gov.au/gmo/senatesub.htm](http://www.dpiwe.tas.gov.au/gmo/senatesub.htm)

- 3.50** The Tasmanian Government responded that they had some concern with this approach, in particular, that the constitution of Ministerial Council would make it uncertain as to whether such a policy guideline would be issued, or would not be changed at a future date.<sup>72</sup>
- 3.51** The IOGTR advised the Senate Community Affairs Committee, that in February 2000, officials from all jurisdictions, except Tasmania, agreed the inclusion of an opt-out provision in Commonwealth legislation would present problems, with respect to section 99<sup>73</sup> of the Australian Constitution and Australia's international obligations potentially under the GATT<sup>74</sup>, SPS<sup>75</sup> and TBT<sup>76</sup> World Trade Organisation agreements.
- 3.52** Legal advice was submitted by both the Commonwealth and Tasmania that presented conflicting arguments with respect to whether an opt-out provision could lead to a breach of section 99. What is apparent from the information is that there is no clear precedent on the interpretation of section 99 in this context. As the Senate Committee noted:
- Ultimately such a provision could only have its constitutionality upheld by determination of the High Court.<sup>77</sup>
- 3.53** With respect to the World Trade Organisation Agreements, opposing arguments were presented with respect to whether an opt-out provision would breach trade agreements. Advice presented by the IOGTR to the Senate Community Affairs Committee suggested that measures taken purely to respond to consumer concerns about a product which do not have a scientific basis will be found to be in breach of Australia's international trade obligation.<sup>78</sup>
- 3.54** The Tasmanian Government strongly disputed that WTO agreements would be breached. The main points of the Tasmanian argument may be outlined as follows:
- as yet no jurisprudence exists on GMOs in the context of WTO agreements;
  - if the SPS Agreement applied to GMOs, it may be possible for an opt-out where Australia could establish that a particular state or territory had SPS characteristics different from the rest of Australia;

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<sup>72</sup> *Tasmanian Government Submission: Senate Community Affairs References Committee Inquiry Into Gene Technology*, August 2000, p 7; see at: [www.dpiwe.tas.gov.au/gmo/senatesub.htm](http://www.dpiwe.tas.gov.au/gmo/senatesub.htm)

<sup>73</sup> Section 99 of the Australian Constitution provides that the Commonwealth must not, by any law or regulation of trade, commerce, or revenue, give preference to any state over another state.

<sup>74</sup> General Agreement on Tariffs and Trade 1994

<sup>75</sup> Agreement on the Sanitary and Phytosanitary Measures.

<sup>76</sup> Technical Barriers to Trade Agreement.

<sup>77</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 160.

<sup>78</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 160-161.

- if GMOs are governed by the GATT agreement, it may be possible for an opt-out where the refusal to allow the release of a particular GMO was necessary for the protection of human, animal or plant life;
- if a measure to opt-out is a “technical regulation” and within the ambit of the TBT, it is likely that the legitimate objectives of “protection of human health or safety, animal or plant health, or the environment” mentioned in the Agreement are objectives to which the opt-out would apply;
- even if regional approaches are not possible under the SPS agreement, a GM-free policy or zone based on ensuring the purity and quality of product from the zones to respond to consumer demand or cultivate a certain marketing image, would not offend WTO agreements;
- the relevant WTO agreements do not apply so as to prohibit restrictions;
- opt-out arrangements should not be considered as an all or nothing approach and should be provided as a measure for giving effect to sovereign states rights to control agricultural industries. For example, being able to refuse to permit any dealings with GMOs throughout the entire state through to permitting licensed dealings with certain GMOs throughout the entire state, or a regional part within the state.<sup>79</sup>

**3.55** Other arguments tendered in favour of Tasmania’s position included:

- the State has a unique environment, a unique identity and the natural barrier of its geographic location and isolation has assisted it to remain relatively pest and disease free, providing a ‘clean, green, quality’ image which is a comparative advantage which can attract a premium for Tasmanian products;
- Tasmanian primary producers who may be unable to compete effectively in mass product markets, have a comparative advantage in servicing these premium-priced niche markets;
- consumer rejection of GE products is rapidly increasing in some international markets with a consequent growing demand for organic and certified non-GE products and the ability to compete in these expanding markets relies heavily on marketing and marketing perceptions; and
- the forfeiture of GM free product status could affect the viability of some companies operating in Tasmania with a consequent loss to export potential.<sup>80</sup>

**3.56** The Senate Community Affairs Committee recognised the arguments advanced by various Tasmanian groups and supported the strengthening of state rights and powers within the proposed national regulatory system. It stated:

With the Regulator having to accept State or Territory viewpoints to prevent the release of GMOs within their jurisdictions and the capacity to establish GM-free

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<sup>79</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 160-162.

<sup>80</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 163-165.



zones, the national regulatory system established in the Bill should effectively provide an opt-out. The Committee considers that the relevant provisions of the Bill should be strengthened to ensure that this scenario is entrenched in the Bill so as to achieve an outcome acceptable for the States without undermining the integrity of the national system.

- 3.57** Accordingly, the Senate Committee recommended that, provisions in the Bill requiring the GTR to accept State or Territory viewpoints to prevent the release of GMOs within their jurisdictions be strengthened.<sup>81</sup>
- 3.58** The provision for the existence of GM free zones was accepted by Parliament. Section 21 of the Bill was amended to allow the Ministerial Council to issue policy principles recognising areas designated under state or territory law for the purpose of preserving the identity of GM crops and non-GM crops for marketing purposes.
- 3.59** The issue of GM free zones and the possible implications for NSW will be addressed in the final report of the State Development Committee. The committee notes the Tasmanian Government's and the Senate Community Affairs Committee's recognition of the potential commercial benefits of introducing GMOs, as well as commercial advantages to producers of non-GM products.
- 3.60** The State Development Committee acknowledges that at present, there is a global demand for identified non-GM and organic produce. It is imperative that each state or territory be permitted to identify the commercial advantages for regions or products that would benefit from non-GM status.
- 3.61** Much debate regarding GMOs appears to concern either full acceptance or complete rejection of GMOs. Due to the uncertainty surrounding the risks and benefits of each individual GMO type, a case-by-case approach to acceptance or refusal of GMOs is essential. A state or territory must be able to choose from a range of measures in a GMO assessment policy whether this is to:
- refuse to permit any dealings with GMOs throughout the entire state,
  - permit licensed dealings with certain GMOs throughout the entire state,
  - refuse to permit any dealings with GMOs in a region within the state, and
  - permit licensed dealings with certain GMOs in a region within the state.
- 3.62** The merits of segregating GM crops from non-GM crops was recognised by the Federal Government in a media release on 19 July 2001. The Hon Warren Truss MP, Minister for Agriculture, Fisheries and Forestry announced that his department, Agriculture, Fisheries and Forestry Australia would undertake a 3-year project to examine the feasibility of segregating genetically modified products to preserve the identity of Australian agricultural products. Mr Truss said:

Consumers world-wide are becoming more discerning about the food they buy and Australia's agricultural and food enterprises will have to decide whether to

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<sup>81</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes- A Report on the Gene Technology Bill 2000*, November 2000, p 166.

supply genetically engineered (GE) or non-GE products, or a combination of both to a range of markets here and overseas.

**3.63** Further he stated:

Australian agriculture needs to be mindful of all types of crops and production techniques if it is to remain competitive and innovative, particularly those involving gene technology.<sup>82</sup>

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**Issue 4**

Should the NSW Government develop policy guidelines regarding release of GMOs in New South Wales which have been approved by the Gene Technology Regulator. Should the policy guidelines require consideration of a number of factors in assessing individual GMO types, including:

- the commercial position of GM-free status of certain NSW regions;
  - the commercial position of GM-free status for NSW as a whole;
  - the impact of market perceptions on introducing GMOs into presently GM-free areas.
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## The Gene Technology Regulator

### Functions and powers

**3.64** Part 3 (sections 25-30) of the *Gene Technology Act* outlines the functions and powers of the Gene Technology Regulator. (GTR) The gene technology legislative scheme is administered by the GTR.

**3.65** The GTR is an office holder with significant independence, similar to the Auditor-General and the Tax Commissioner (s.30). Under section 27, the GTR will:

- perform functions in relation to GMO licences as set out in Part 5 (eg. the licensing of GMOs);
- develop draft policy principles and policy guidelines, as requested by the Ministerial Council;
- develop codes of practice;
- issue technical and procedural guidelines in relation to GMOs;
- provide information and advice to other regulatory agencies about GMOs and GM products;
- provide information and advice to the public about the regulation of GMOs;
- provide advice to the Ministerial Council about:

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<sup>82</sup> The Hon Warren Truss MP, Minister for Agriculture, Fisheries and Forestry, Media Release, *AFFA to examine the feasibility of segregating different crop types*, 19 July 2001.

- the operations of the GTR and the Gene Technology Technical Advisory Committee; and
- the effectiveness of the legislative framework for the regulation of GMOs, including in relation to possible amendments of relevant legislation.
- undertake or commission research in relation to risk assessment and the biosafety of GMOs;
- promote the harmonisation of risk assessments relating to GMOs and GM products by regulatory agencies;
- monitor international practice in relation to the regulation of GMOs;
- maintain links with international organisations that deal with the regulation of gene technology and with agencies that regulate GMOs in countries outside Australia; and
- other functions as are conferred on the GTR by the Act, the regulations or any other law.

### **Appointment**

**3.66** Sections 118-126 of the Act set out provisions for the appointment and employment conditions for the GTR. The Bill required the GTR to give to the Minister written notice of all interests, pecuniary or otherwise where there may be a conflict of interest (s.120). Although the Bill contemplated present conflicts of interest, it did not bar individuals from appointment as a Regulator. Further, the Bill did not account for associations the GTR may have previously had which could influence the Regulators decisions and diminish the perceived and real independence required of a GTR.

**3.67** The Senate Community Affairs Committee reported that submissions it received argued that the Bill failed to establish adequate safeguards to ensure the independence of the GTR. Accordingly the Senate Community Affairs recommended that:

...an individual with a financial or other interest in a regulated entity be precluded from holding the office of Regulator.

...an individual who has worked for a regulated entity be precluded from holding the office of Gene Technology Regulator until the expiration of a two-year period.<sup>83</sup>

**3.68** In accordance with these recommendations, s.118 of the Bill was amended to include two additional subsections:

(5) The Governor-General must not appoint a person as the Regulator if, at any time during the period of 2 years immediately before the proposed period of appointment, the person was employed by a body corporate whose primary commercial activity relates directly to the development and implementation of gene technologies.

<sup>83</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 81.

(6) The Governor-General must not appoint a person as the Regulator if the person has a pecuniary interest in a body corporate whose primary commercial activity relates directly to the development and implementation of gene technologies.

**3.69** The State Development Committee is satisfied that the addition of these provisions to the Act will convey the necessary perceived and real independence of the GTR and assist in developing public confidence in the GTR's functions.

### **Reporting requirements**

**3.70** Under s.136 of the Act, the GTR is required to prepare an annual report for tabling in Parliament. The GTR may also report to Parliament on certain matters that he or she initiates (s.137).

**3.71** In its report to Parliament in June 2000, the House of Representatives Standing Committee on Primary Industries and Regional Services argued that the transparency of the regulator's operations would be improved if the regulator reported more frequently than annually for the first three years of the GTR's existence. Accordingly, it recommended that the regulator report to the parliament at least quarterly for the first three years of its existence.<sup>84</sup>

**3.72** This recommendation was followed up by the Senate Community Affairs Committee, which recommended that:

...the Bill be amended to include a requirement for quarterly reporting by the Regulator and that these reports include relevant information on the functions and operations of the Regulator including facilities licensed and breaches of licence conditions.<sup>85</sup>

**3.73** The Bill was amended and s.136A was inserted into the Act which outlines specific reporting guidelines:

- (1) As soon as practicable after the end of each quarter, the Regulator must prepare and give to the Minister a report on the operations of the Regulator during that quarter.
- (2) The report must include information about the following:
  - (a) GMO licences issued during the quarter;
  - (b) any breaches of conditions of a GMO licence that have come to the Regulator's attention during the quarter;
  - (c) auditing and monitoring of dealings with GMOs under this Act by the Regulator or an inspector during the quarter.

Note: Auditing and monitoring may include spot checks.

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<sup>84</sup> Standing Committee on Primary Industries and Regional Services, *Work in Progress: Proceed with Caution – Primary Producer Access to Gene Technology*, June 2000, p 139.

<sup>85</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 82.

(3) The Minister must cause a copy of the report to be laid before each House of the Parliament within 15 sitting days of the day on which the report was given to the Minister.

(4) In this section:

*quarter* means a period of 3 months beginning on 1 January, 1 April, 1 July or 1 October of any year.

**3.74** The State Development Committee considers that this amendment is not only important from a transparency perspective, but that it also serves as a further public accountability measure for those dealing with GMOs or GM products.

### **Gene technology advisory committees**

**3.75** The Act establishes three key advisory groups to assist the GTR and the Ministerial Council on Gene Technology.

#### **Gene Technology Technical Advisory Committee**

**3.76** The Gene Technology Technical Advisory Committee (GTTAC) is a “scientific committee” which replaces GMAC. The committee will provide scientific and technical advice to the GTR and the Ministerial Council on matters including gene technology, GMOs and GM products, and applications made under the legislation. The scientific committee will also advise the GTR and the Ministerial Council on other matters relating to policy principles, policy guidelines, codes of practice and technical and procedural guidelines for GMOs and GM products (s.101).

**3.77** The committee is comprised of up to 20 members (s.100(2)) appointed by the Commonwealth Minister for Health following consultation with the GTR, other relevant Commonwealth Ministers, State and Territory Ministers and relevant scientific, consumer, health, environmental and industry organisations (s.100(4)). The members will include experts in a broad range of relevant scientific fields including various fields of biology, ecology, public health and risk assessment (s.100(5)), as well as a layperson (s.100(6)). Expert advisers (not being committee members) may be appointed by the Minister from time to time to assist the committee in its deliberations on specific applications or classes of applications (s.102). The members are subject to strict disclosure of interest provisions contained in regs.25-26 of the *Gene Technology Regulations 2000* made under the Act.

**3.78** During the Bill’s passage through Parliament, an amendment was made which also requires the representation on GTTAC from a member of each of the Consultative and the Ethics Committees (s.100(7A)). This amendment is consistent with a recommendation of the Senate Community Affairs Committee.<sup>86</sup> Prior to this amendment, a member of GTTAC was required on the Consultative Committee (108(4)(a)) and the Ethics Committees (111(6)(a)) without reciprocal membership from those Committees.

<sup>86</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 128.

- 3.79** The committee members to GTTAC were appointed on 8 October 2001 and will convene in the near future.<sup>87</sup>

### **Gene Technology Community Consultative Group**

- 3.80** The Gene Technology Community Consultative Group (“Consultative Committee”) is a committee with community based representation. It will be a broadly based consultative committee established to provide views to the Ministerial Council and the GTR on general community concerns regarding gene technology and the content of policy guidelines, codes of practice and technical and procedural guidelines which will guide the GTR’s decision-making (s.107). The Explanatory Guide to the Bill explains the reasoning behind the Consultative Committee:

Given the high level of community interest in gene technology, it is important that both the GTR and the Ministerial Council remain “in touch” with community views on issues surrounding the regulation of gene technology. Both the GTR and Ministers will benefit from the community’s input into the development of the policy guidelines and codes of practice which will underpin the regulatory scheme.<sup>88</sup>

- 3.81** The Committee may for example, choose to advise on issues such as how they think community consultations might most effectively be undertaken or raise issues of ethical concern that they wish to be examined by the Ethics Committee.
- 3.82** The Consultative Committee consists of up to 12 members who possess skills or experience relevant to gene technology in one or more areas such as the environment, consumer and community issues, public health, local government and primary production (s.108(3)). The committee is subject to strict disclosure of interest provisions in the same way as the members of the scientific committee (reg.36).
- 3.83** During the Bills passage through Parliament, an amendment to the Bill was made to s.107, which provides an additional function to the Consultative Committee. The committee will provide advice on request of the Regulator or the Ministerial Council on “matters of general concern identified by the Regulator in relation to applications made under this Act” (s.107(aa)).
- 3.84** The committee members to the Consultative Committee were appointed on 8 October 2001 and will convene in the near future.<sup>89</sup>

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<sup>87</sup> Telephone conversation with Office of the Gene Technology Regulator, 18 October 2001.

<sup>88</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, p 53.

<sup>89</sup> Telephone conversation with Office of the Gene Technology Regulator, 18 October 2001.

### **Gene Technology Ethics Committee**

- 3.85** The Gene Technology Ethics Committee will provide advice to the GTR and the Ministerial Council on the ethics of gene technology, appropriate ethics guidelines and any necessary prohibitive directives.
- 3.86** The committee will advise the GTR and the Ministerial Council on ethical issues relating to gene technology, and the content of policy principles and codes of practice which will cover dealings with GMOs (s.112). Once developed by the committee, the policy principles and codes of practice will be issued by the Ministerial Council. The policy principles will be prohibitive in nature (describing activities that must not be conducted on ethical grounds) and the codes of practice will be permissive in nature. The codes of practice will describe the types of ethical considerations that must be taken into account by researchers proposing to undertake work involving gene technology.
- 3.87** The Ethics Committee will comprise up to 12 members with expertise in ethics matters concerning the environment, health, law, religious practices, and animal health and welfare (s.111(5)). The committee will also include a member of GTTAC as well as a member of Australian Health Ethics Committee (s.111(6)). Expert advisers (not as committee members) may be appointed by the Minister from time to time to assist the work of the Committee (s.113). Members of the committee are subject to strict disclosure of interest provisions, in the same way as the members of the other committees (reg.38).
- 3.88** The Ethics Committee members were appointed on 8 October 2001 and will convene in the near future.<sup>90</sup>

### **Regulation of GMO dealings**

- 3.89** The legislation is intended, as part of a nationally consistent scheme, to regulate dealings with organisms that have been modified by gene technology (s.5). To 'deal with' a GMO within the Act means to:
- conduct experiments,
  - make, develop, produce or manufacture,
  - breed,
  - propagate,
  - use the GMO in the course of manufacture of a thing that is not the GMO,
  - grow, raise or culture, or
  - import a GMO.
- 3.90** The legislation will also regulate some GM products, but only where those products are not regulated by an existing agency (s.15). Generally, GM products are already regulated by agencies such as the TGA and ANZFA. The GM products which are not already covered

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<sup>90</sup> Telephone conversation with Office of the Gene Technology Regulator, 18 October 2001.

by an existing national regulation scheme will be regulated by the GTR under the new legislation.

**3.91** The legislation revolves around a system of prohibitions and approvals that are set out in Parts 4, 5 and 6 of the Act. Every dealing with a GMO will need to be licensed by the GTR, unless the dealing is an 'exempt dealing', a 'notifiable low risk dealing' or on the Register of GMOs (s.31).

### **Exempt dealings**

**3.92** An exempt dealing is defined under reg.9 of the *Gene Technology Regulations 2000*, as a dealing which:

- is conducted in an enclosed, secure environment;
- does not involve an intentional release of the GMO into the environment; and
- is of a kind mentioned in Part 1 of Schedule 1 (which provides a list of specific items classified as exempt dealings).

**3.93** Where the GTR is confident that a certain dealing involves a very low risk, the class of dealing with the GMO will be recorded in the regulations as exempt (eg. contained research involving a very well understood process for creating and studying a GMO). This will mean that no licence is required, provided that the activity remains within the specified parameters. There will be no exemptions for any release of a GMO into the environment (eg. field trials and commercial releases). This reflects the current approach under the GMAC system.<sup>91</sup>

### **Notifiable low risk dealings**

**3.94** Part 6 Division 2 of the Act establishes a mechanism for the regulations to regulate certain dealings that do not involve the intentional release of GMOs in the environment (s.73). Notifiable low risk dealings are defined in reg 16 which categorises dealings such as production of a GM plant where the plant will not be grown to flowering stage or where disease in human, animals, plants or fungi cannot occur (Sch 2 Part 1).

**3.95** These dealings may proceed provided that certain conditions, spelt out in the regulations, are observed (reg.17). This will include requirements that the specified dealings be undertaken only in contained facilities, overseen by Institutional Biosafety Committees and notified to the GTR.

### **Register of GMOs**

**3.96** Dealings with GMOs may be entered on the GMO Register after a period of time once the GTR is satisfied that the dealing is authorised by a GMO licence, or is a GM product and is

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<sup>91</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, p 17.



a GMO by definition in the regulations (s.78). Dealings will not be entered onto the Register until the GTR is satisfied that the risks posed are minimal, that it is not necessary to hold a GMO licence in order to protect the health and safety of people or to protect the environment (s.79). The inclusion of the GMO Register was designed to enable the GTR to enter GMOs on the Register after a period of licensing and demonstration of the absence of risk. The effect of entry on the Register is that anyone may deal with the GMO without the need for a single licence holder.<sup>92</sup>

- 3.97** Although not originally proposed, the Act was amended to allow GM Products that have not previously been licensed to also be placed on the GMO Register. This ensures that an appropriate level of regulation can also be applied to non-viable GM products that pose negligible biosafety risks such as, non-viable stockfeed derived from GM plants.<sup>93</sup>

### **Insurance**

- 3.98** The Act does not create civil liability provisions for environmental damage. Although the Act confers power on the Regulator to order a clean-up and to recover costs if a licence is breached, this also may not be sufficient remedy in all cases and the person suffering harm may only have recourse through common law principles of negligence, trespass or nuisance.

- 3.99** An issue raised in submissions to the Senate Community Affairs Committee inquiry into gene technology was that there is no requirement in the Bill for the GTR to consider whether the applicant has access to insurance coverage for the proposed GMO dealing. The Senate committee agreed with this view and recommended that in setting licence conditions, the Regulator should satisfy him or herself that applicants have made provision for suitable insurance coverage to cover the risks associated with the dealings.<sup>94</sup>

- 3.100** This recommendation was subsequently incorporated into the Act as an additional licence condition available to the GTR:

- (3) Licence conditions may also include conditions requiring the licence holder to be adequately insured against any loss, damage, or injury that may be caused to human health, property or the environment by the licensed dealing.

- 3.101** The State Development Committee notes the inclusion of this provision into the Act as an additional safeguard to protect the public safety and environment in the event of unforeseen consequences from a GMO release or breach. The Committee acknowledges that the insurance industry may be uncertain with respect to gene technology. If the GTR is

<sup>92</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, p 46.

<sup>93</sup> Interim Office of the Gene Technology regulator, *Summary of Major Amendments to Gene Technology Bill 2000*, p 2, <http://www.health.gov.au/tga/gene/genetech/billamend.htm>, accessed 9 April 2001.

<sup>94</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 102.

empowered to impose licence conditions seeking a licence holder to be insured, then it is imperative that licence holders have access to appropriate insurance coverage.

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**Issue 5**

Should the NSW Government make representations to the Ministerial Council, seeking the development by the insurance industry of an appropriate insurance scheme for licensed GM dealings?

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**Issue 6**

Should the *Gene Technology Act* create civil liability for environmental damage?

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**A risk assessment scheme**

**3.102** Any dealings with GMOs that have not been deemed exempt or low risk notifiable dealings, must be licensed by the GTR (s.32).

**3.103** Underpinning the licensing system (in Part 5 to the Act), is a system of scientific risk assessment and extensive consultation. The Explanatory Guide to the Bill provides a plain English explanation of the risk assessment process applied to the application for a GM crop field trial:

**Stage 1** – The applicant provides the GTR with a full data package containing all information required by regulations and explanatory guidelines. For example, the applicant provides information about: the parent organism; the characteristics of the GMO (including the methods used for modification, the vectors used etc); the new traits of the GMO (including the stability of the new organism); any health impacts of the GMO (including any increased toxic or allergenic effects); the proposed release (including information about the receiving environment); potential environmental impacts; proposed monitoring techniques; methods or procedures to minimise the spread or persistence of the GMO; and contingency planning in the case of any unexpected effects of the GMO.

**Stage 2** – The GTR undertakes a preliminary check of the information to ensure that all relevant information has been included in the application and makes an initial assessment of whether the activity may have a significant impact on the environment. The GTR also checks to make sure that the application is consistent with policy principles. Policy principles are issued by the Ministerial Council, on the advice of the ethics committee or the community group. If the application is inconsistent with a policy principle (including any ethical guidelines issued by the Ministerial Council) or animal welfare legislation, the GTR must refuse to accept the application.

**Stage 3** – If the GTR considers that the proposed dealing with the GMO may have a significant impact on the environment, the GTR calls for public submissions on the possible risks and means of managing the risks. The GTR would advertise in newspapers and in the Commonwealth Gazette, place notices on the GTR's website, and direct-mail all persons on the GTR's mailing list. The GTR also seeks advice on possible risks from the Commonwealth Environment

Minister, the scientific committee, the States and Territories, relevant Commonwealth agencies and local councils.

**Stage 4** – The GTR prepares a comprehensive risk assessment and risk management plan, based on the information provided by all parties and information generated by the GTR. In preparing the plan the GTR considers:

- advice from the scientific committee;
- information provided by State, Territory and local governments about any local or regional environmental issues;
- advice provided by the Commonwealth Environment Minister and State Environmental Protection Agencies;
- advice provided by health agencies, including the potential health effects of the GMO;
- advice provided by members of the public;
- the data provided by the applicant – if necessary, the GTR may also commission independent verification of such data;
- information generated by the Office of the GTR (including literature searches and any independent research conducted).

Full details of the GTR's risk assessment process will be detailed in guidelines issued under the legislation. Extensive public consultation will be undertaken on those guidelines.

**Stage 5** – For all releases of GMOs into the environment (both low risk and higher risk), the GTR conducts a round of public consultation on the draft risk assessment and risk management plan (which is a draft determination). Again, the draft risk assessment and risk management plan would be advertised in newspapers, on the GTR's website, in the Gazette and direct-mailed to all interested persons. This second round of consultation enables public scrutiny of the draft decision to ensure that the GTR has taken into account all relevant matters and has undertaken a comprehensive assessment of the application.

**Stage 6** – The GTR makes a decision on the application and if the application is approved, applies conditions to manage any risks. For example, conditions may be applied about where the crop may be grown, measures for limiting the spread of the GMO, how the crop must be disposed of and the type and level of monitoring of the crop that is required.<sup>95</sup>

### 3.104

Section 51 of the Act provides for general matters to be taken into account by the GTR in preparing risk assessment and risk management plans. These matters consist of various advices, risk assessments and submissions by relevant authorities. As foreshadowed in the annotation to Stage 4, the Second Draft of the *Gene Technology Regulations 2000* provided specific matters to be taken into accounts when considering a proposed dealing (at clause 14). These are:

- (a) any previous assessment, in Australia or overseas, in relation to allowing or approving dealings with the GMO; and
- (b) the potential of the GMO concerned to:
  - (i) be harmful to other organisms; and

<sup>95</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, pp 18-20.

- (ii) adversely affect any ecosystems; and
- (iii) transfer genetic material to another organism; and
- (iv) spread, or persist, in the environment; and
- (v) have, in comparison to related organisms, selective advantage in the environment; and
- (vi) be toxic, allergenic or pathogenic to human beings.

## Monitoring and enforcement

**3.105** One of the major criticisms of the previous regulatory regime was the absence of ability for regulatory bodies to enforce compliance. The new legislative scheme provides the GTR with the capability to not only properly monitor activities involving GMOs but also to take appropriate action for breaches of conditions.

**3.106** In their Minority Report to the Senate Community Affairs Committee inquiry into the Bill, the Government Senators indicated that the inspection powers were significant.

Inspection powers are similar to those granted to the Australian Federal Police, Customs agents and inspectors appointed under the Therapeutic Goods Act and are substantial, and consistent with Commonwealth criminal law policy.<sup>96</sup>

**3.107** Under Part 11 of the Act, the GTR will be able to appoint inspectors with extensive powers of entry, search, recording and seizure to investigate suspected breaches of the legislation (ss.153-156) or where there are reasonable grounds for suspecting a dangerous situation (s.158). The Act also empowers an inspector to commission independent expert assistance to examine and monitor evidential material in relation to risks posed by GMOs (s.157).

**3.108** The enforcement provisions under Part 10, empower the GTR to issue written directions to licence holders and persons covered by a licence, requiring them to take action, such as remediation, to comply with the Act (s.146). Further, if a person does not take steps to comply with directions within a reasonable period of time, costs incurred by the GTR in making arrangements to remedy the situation may be recovered from the licence holder or the person covered by the licence.

**3.109** The GTR may also seek an injunction restraining a person from engaging in conduct that could lead to an offence or is an offence under the Act (s.147).

### Penalties

**3.110** The Act provides for a range of monetary penalties where:

- GMO dealings occur without a licence; (s.32)
- GMO dealings occur without a licence – strict liability; (s.33)

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<sup>96</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, (Minority report by Government Senators) p 184.

- GMO dealings breach licence conditions; (s.34)
- GMO dealings breach licence conditions - strict liability; (s.35) or
- a breach of conditions on GMO Register. (s.36)

**3.111** The strict liability offences (ss.33 and 35) carry lesser penalties of 50 units for having committed an offence and 200 penalty units for aggravated offences. Sections 32 and 34 carry far heavier penalties of 500 penalty units for an offence and 2,000 penalty units for an aggravated offence.<sup>97</sup>

**3.112** In examining the issue of the adequacy of these penalties, the Senate Community Affairs Committee looked to existing legislation such as the *Protection of the Environment Operations Act 1997* (NSW) where the penalties for individuals who cause water and air pollution are \$120,000 and \$60,000 for each day the offence continues. That Act also provides a the maximum penalty for wilfully or negligently causing harm to the environment by disposal of waste, leaks or spillage is \$250,000 or 7 years imprisonment. Based on such considerations, the Senate committee recommended that the Bill be amended to:

- require that monetary penalties for breaches of a condition of a licence, especially in the case of a breach of condition of licence that causes significant damage or is likely to cause significant damage, be substantially increased;
- provide, in addition to a monetary penalty, a further penalty for each day a breach of a licence continues; and
- provide for terms of imprisonment to be imposed for major offences relating to breaches of condition of a licence.

**3.113** Although the first of these recommendations was not accepted by the Parliament in amending the Bill, the latter recommendations were adopted. Imprisonment terms have been included for ss.32 and 34 with a maximum 2 years, or 5 years in the case of an aggravated offence. In addition, a new provision was inserted into s.34 to provide that where a person has breached a condition of a licence, the person is guilty of a separate offence for each day that the breach occurred.

**3.114** The State Development Committee acknowledges that penalties for breaches under the Act carry penalties consistent with NSW environment protection legislation such as the *Protection of the Environment Operations Act 1997*.

## Record of GMO dealings

**3.115** Section 136 of the Act requires the GTR to maintain a public “Record of GMO and GM Product Dealings”. The Record will include information (excluding confidential commercial information) about:

<sup>97</sup> One penalty unit equates to \$110 under the Commonwealth *Crimes Act 1914* which is the same in NSW under s.17 *Crimes (Sentencing Procedure) Act 1999*.

- all licences granted by the GTR, including the name of the licence holder, the persons covered by the licence, the dealings authorised by the licence and the GMO to which those dealings relate and any licence conditions;
- notifiable low risk dealings notified to the GTR; and
- GM products approved by other regulators such as the National Registration Authority (for GM agricultural and veterinary chemicals), the Therapeutic Goods Administration (for GM therapeutics), the National Industrial Chemicals Notification and Assessment Scheme (for GM industrial chemicals) and the Australia New Zealand Food Authority (for GM foods).

**3.116** The Record will be available on the GTR's website and the public may also request extracts of the Record from the GTR. The public will have ready access to information about all GMOs and GM products being used in Australia.<sup>98</sup>

### Publicity of trial site locations

**3.117** The Senate Community Affairs Committee received many submissions that criticised the secrecy associated with field trials of GMO crops and suggested that public confidence in GMOs would improve if information regarding trial site locations were publicly available. Other submissions raised concern that this information may be utilised by some to vandalise trial sites.<sup>99</sup> Noting these concerns, the Senate Community Affairs Committee recommended:

The Committee would consider it undesirable if commercial in confidence information compromised the objectives of the Bill or the transparency of the regulatory regime, and RECOMMENDS that where an application for an intentional release of a GMO into the environment includes the size and location of this proposed release, the information should be made available publicly providing that the penalties for any intentional damage to that release are an effective deterrent against eco-terrorism.<sup>100</sup>

**3.118** Division 3 of Part 12 to the Act regulates circumstances where an application can be made to the GTR for a declaration that specified information is confidential commercial information.

**3.119** A significant change made to the *Gene Technology Act* that was not proposed in the *Gene Technology Bill*, was that the GTR must refuse to declare certain information as confidential commercial information. The GTR will not deem information as commercial in confidence where it relates to one or more locations at which field trials involving GMOs are proposed or are occurring, unless the GTR is satisfied that significant damage to the health and safety

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<sup>98</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, pp 59-60.

<sup>99</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, pp 58-61.

<sup>100</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, pp 60-61.

of people, the environment or property would be likely to occur if the locations were disclosed (s.185(2A)). If the Regulator does declare that information relating to locations at which field trials is confidential commercial information, the Regulator must provide a public statement of reasons for the declaration, such as:

- public interest in disclosure of the information outweighed the prejudice that the disclosure would cause; and
- that significant damage to the health and safety of people, the environment or property would be likely to occur if the locations were disclosed. (s.185(3A))

**3.120** Protection of crops from vandalism that could result from publicly available trial site locations is conferred by s.192A of the Act. The provision states that a person is guilty of an offence if the person deliberately damages, destroys, removes or interferes with anything at or on premises where dealings in GMOs are being undertaken. An offence will occur also where a person intends to prevent or hinder authorised GMO dealings that are being undertaken at the premises or facility.

**3.121** The proposed Bill did not originally create an offence for interference with dealings concerning GMOs. It is inferred that this provision substitutes protection of trial crops by anonymity with protection punishable by law.

### **Issue 7**

Should the *Gene Technology Act* create offences for intentional damage to crops and what penalties should apply?

### **Issue 8**

Should the NSW Government provide prominent links from NSW Agriculture and Environment Protection Authority websites directly to the GTR website publicising trial site locations and the Record of GMO and GM Product Dealings?

What other information should be provided to the public?

## **The Gene Technology (Consequential Amendments) Act**

**3.122** The *Gene Technology (Consequential Amendments) Act 2000* is intended to ensure that all existing regulators of GM products have access to the GTR's advice on biosafety

**3.123** The legislation to be amended by the Act are:

- *Agricultural and Veterinary Chemicals (Administration) Act 1992;*
- *Agricultural and Veterinary Chemicals (Code) Act 1994;*
- *Australia and New Zealand Food Authority Act 1991;*

- *Industrial Chemicals (Notification and Assessment) Act 1989*; and
- *Therapeutic Goods Act 1989*.

**3.124** The Act provides a legislative basis for the interface between the existing regulators and the GTR with respect to requesting and providing information, making decisions and establishing publicly available information systems. The existing regulators must obtain advice from the GTR in relation to any application for approval of a GM product (although there is no requirement to follow the GTR's advice), and notify the GTR of all decisions made in relation to GM products to enable those decisions to be entered on the public Record of GMOs and GM Product Dealings.<sup>101</sup>

## Food labelling

**3.125** The issue of food labelling is not addressed in the *Gene Technology Act 2000*. It may be argued that even though GM foods may be deemed safe and beneficial, the consumer should be given the opportunity to make an informed choice about the products they buy. The issue of labelling will be considered in the final report.

## Conclusion

**3.126** The Senate Community affairs Committee made the following assessment in relation to the *Gene Technology Bill*:

The Committee considers that the Gene Technology Bill provides an adequate regulatory regime to ensure the protection of the health and safety of people and the environment, and includes public reporting provisions that should help to enhance consumer confidence in the regulation of the development and adoption of new and existing gene technologies. However, the Committee considers that some of the proposed regulatory arrangements and reporting provisions require strengthening, and has made recommendations to improve the Bill...<sup>102</sup>

**3.127** The State Development Committee notes that major amendments to the Bill which were required to strengthen the legislation have been made to the Act. The Act contains more safeguards to protect the health and safety of people. The committee acknowledges the extensive consultation process conducted to create the gene technology legislation. For any piece of legislation to receive common endorsement among each of the states and territories points to a comprehensive and intellectually rigorous scheme.

**3.128** As the legislation is relatively new at this time and untested, it is difficult for the committee to make an assessment on its ultimate effectiveness.

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<sup>101</sup> The Interim Office of the Gene Technology Regulator, *Explanatory Guide to the Commonwealth Gene Technology Bill 2000, Gene Technology (Consequential Amendments) Bill 2000 and Gene Technology (Licence Charges) Bill 2000*, July 2000, pp 73-74.

<sup>102</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 77.



- 3.129** The Bill as introduced to Parliament made no provision for a review of the operation of the Act. The State Development Committee notes that the Bill was amended to require the Ministerial Council to initiate an independent review of the legislation and the structure of the office of the GTR after four years of operation of the Act (s.194). A written report of the review must be presented to the Ministerial Council before the fifth anniversary of the Act's operation.
- 3.130** Although the committee supports the inclusion of a provision facilitating a review of the gene technology legislation, a review of a regulatory system of such importance to public and environmental health may be required in less than five years. The Senate Community Affairs Committee has recommended a time frame of three years as suitable to ensure objectives are being met.<sup>103</sup>

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**Issue 9**

Should the gene technology legislation be reviewed?

If so, what is an appropriate review period?

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<sup>103</sup> Senate Community Affairs Committee, *A Cautionary Tale: Fish Don't Lay Tomatoes - A Report on the Gene Technology Bill 2000*, November 2000, p 78.



## Chapter 4 Positions of other states and territories

### Tasmania: A case study on its GMO moratorium

#### Development of a government policy

- 4.1** The Tasmanian Government's present approach to GMOs can be identified in a series of initiatives which included:
- a moratorium to prevent the growing of GM plant and plant materials,
  - consultation with the Food Industry Council of Tasmania,
  - establishment of an Experts Group and a gene technology unit to advise the Government on gene technology issues, and
  - a parliamentary inquiry into GMOs.

#### Moratorium

- 4.2** On 28 June 2000 the Minister for Primary Industries, Water and Environment foreshadowed the intention to regulate GMOs in Tasmania.<sup>104</sup> The Tasmanian Government invoked an order under the *Plant Quarantine Act 1997* to impose a moratorium to prevent the growing of GM plant and plant materials other than in contained research authorised by the Secretary of the Department of Primary Industries, Water and Environment (DPIWE).<sup>105</sup>
- 4.3** The moratorium was implemented through declaring genetically modified organisms a "pest" under the *Plant Quarantine Act 1997*. The Act does not specifically mention GMOs, however restrictions are permitted over the presence of genetic material of plants and plant products. Due to the limitations of the *Plant Quarantine Act 1997*, the moratorium cannot apply to processed foods or animals. No specific limitation period has been applied to the moratorium, however a final Tasmanian Government policy on GMOs is intended to be in place by July 2001.<sup>106</sup>

#### Policy statement

- 4.4** On 20 July 2000 the Tasmanian Government issued a policy statement on genetically modified crops and food production. In that statement, the Government announced its

<sup>104</sup> House of Assembly, *Hansard*, 28 June 2000, pp 84-86.

<sup>105</sup> For example the testing of improved alkaloid poppies in controlled situations in laboratories as indicated by the Hon David Llewellyn MHA, the Tasmanian Minister for Primary Industries, Water and Environment, and Minister for Police and Public Safety, House of Assembly, *Hansard*, 29 August 2000, p 11.

<sup>106</sup> [www.dpiwe.tas.gov.au/gmo/statement.html](http://www.dpiwe.tas.gov.au/gmo/statement.html).

package of initiatives to enable it to develop a policy position on genetically modified organisms in relation to the growing of crops and food production.

- 4.5** The statement expressed concern regarding the uncertainty surrounding the GM food debate:

There is not enough information at this stage to be certain that GMOs will not pose a risk to our health, environment and agriculture. Nor do we have adequate information about potential benefits from the rapidly developing field of biotechnology. Due to the complexity of the issues, it is not clear what an appropriate policy for Tasmania should be.

The Government wishes to receive the best possible advice on these issues before making any decisions on future directions.<sup>107</sup>

- 4.6** The Hon David Llewellyn MHA, Minister for Primary Industries Water and Environment emphasised the unique position that Tasmania faces over the GM food debate:

Tasmania as an island with a unique environment and associated agricultural advantages as a producer of clean quality produce must consider the issue of genetic modification in primary industries very carefully. The Government's current position and process for investigating the issues reflects this.<sup>108</sup>

### **Food Industry Council of Tasmania**

- 4.7** The Government requested the Food Industry Council of Tasmania (FICT) to investigate the GMO issues concerning the food production industry and provide a recommended policy position to Government.<sup>109</sup> The FICT is a peak industry body, chaired by the Premier, and comprises leading figures in the food industry in Tasmania. The FICT conducted a specialist investigation into whether there are competitive advantages and disadvantages to the food sector from adoption or rejection of gene technology. The report of the FICT, entitled *The Production of Genetically Modified Foods in Tasmania* was published in June 2000. The recommendations of that report were:

- An appropriate definition of what is a GMO needs to be clarified and articulated. This definition is to exclude traditional biotechnologies such as selective breeding, traditional fermentation and natural recombination, and any technique that does not involve the removal of genes and insertion of new or novel genes into an organism.
- It is recommended that GMOs involving the transfer of DNA from animals to plant be prohibited in food production in Tasmania for a period of three (3) years.

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<sup>107</sup> Tasmanian Government, *Policy Statement*, "Genetically Modified Crops and Food Production in Tasmania", 20 July 2000, p 2.

<sup>108</sup> Correspondence from the Hon David Llewellyn MHA, Tasmanian Minister for Primary Industries, Water and Environment, to Director, 6 April 2001.

<sup>109</sup> [www.dpiwe.tas.gov.au/gmo/statement.html](http://www.dpiwe.tas.gov.au/gmo/statement.html)

- A moratorium on the use of all other GMOs excluding processing aids, enzymes and fermentation products in food production in Tasmania is appropriate at this stage. This moratorium should not be set for any period of time, but be subject to constant review.
- Appropriately contained research for GMOs should continue but with no releases into the open environment. Scientific levels of containment should be provided that do not compromise the State's clean and green marketing image.
- Research must continue into Tasmania's main export markets and the reactions of these markets to GM and GM-free produce, and international trends. This research is to be used in reviewing the State's need to protect the quality and purity of its food produce by the imposition of the moratorium.
- The Tasmanian Government should ensure that a labelling regime be imposed similar to that in the European Union for GM food; that does not include labelling of products where GM processing aids, enzymes, and fermentation products have been used.

### **An Experts Group on Gene Technology**

- 4.8** In addition, to the request to the Food Industry Council for policy recommendations, a group of experts was established to advise the Government on gene technology issues in the development of a Government GMO policy. The membership of the Experts Group on Gene Technology was announced on 17 October 2000.<sup>110</sup> It is intended to ensure the Government continues to receive informed advice on GMO issues once a policy is in place. Associate Professor Robert Napier, from the Orange Agricultural College at the University of Sydney was appointed to chair the group, which has membership from experts in scientific, consumer, ethical, and marketing fields.<sup>111</sup>
- 4.9** In June 2001, the Experts Group produced a report to the Tasmanian Government<sup>112</sup> which raised overall issues associated with the application of gene technology in Tasmania's primary industries.
- 4.10** The Experts Group will, over a longer period, work in association with a gene technology unit which was established within the DPIWE to build up a knowledge base and keep abreast of market and scientific issues. The gene technology unit is a specialist unit that advises the Government on emerging gene technology issues at a local, national and international level.<sup>113</sup>

<sup>110</sup> House of Assembly, *Hansard*, 17 October 2001, p 7.

<sup>111</sup> The other members of the Experts Group announced were: Dr Katrine Baghurst, a senior principal research scientist with CSIRO, Health Services and Nutrition; Dr Denis Saunders, Chief Research Scientist at CSIRO, Sustainable Ecosystems and leader of the Sustainable Landscape Program; Professor Rob Clark, Head of Tasmanian Institute of Agricultural Research and the School of Agricultural Science at the University of Tasmania; and Professor Jeff Malpas, the Head of the School of Philosophy at the University of Tasmania.

<sup>112</sup> Experts Group on Gene Technology, *Gene Technology and Tasmania's primary industry and food products*, June 2001 (available at [www.dpiwe.tas.gov.au/gmo/index.html](http://www.dpiwe.tas.gov.au/gmo/index.html).)

<sup>113</sup> [www.dpiwe.tas.gov.au/gmo/statement.html](http://www.dpiwe.tas.gov.au/gmo/statement.html)

### Parliamentary committee inquiry

**4.11** In September 2000, the Tasmanian Parliament initiated a public consultation process by establishing a parliamentary Joint Select Committee on Gene Technology to inquire into and report on gene technology<sup>114</sup>. The terms of reference for the inquiry were as follows:

- (a) economic costs and benefits for Tasmania and individual industry sectors in relation to genetic modification in primary industries;
- (b) market opportunities and associated strategies for Tasmania as a producer of genetically modified and non-genetically modified products;
- (c) environmental risks and effects of the use of genetically modified organisms in Tasmanian primary industries;
- (d) social and ethical issues surrounding the use of gene technologies in particular with regard to Tasmania's primary industries;
- (e) assessment processes for genetically modified food;
- (f) the application of genetic modification techniques to non-food crops and the risks and benefits of the use or avoidance of genetic modification techniques in non-food primary industries products in Tasmania; and
- (g) assessment of appropriate strategies for primary industries research and development in Tasmania in the context of Terms of Reference (a) to (f).

For the purposes of the inquiry:

- 1) 'genetically modified organism' include any organism that has been modified by any technique for the modification of genes or other genetic material involving the recombination of DNA through the artificial excision, transfer and insertion of genetic material across species;
- 2) the definition of genetically modified organisms extends to organisms that have inherited particular characteristics from an initial organism that has been modified by the artificial excision, transfer and insertion of genetic material; and
- 2) the terms 'genetically modified' and 'genetic modification' have corresponding meanings and are used as synonyms for 'genetically engineered' or 'genetic engineering'.<sup>115</sup>

**4.12** The Minister for Primary Industries, Water and Environment, and Minister for Police and Public Safety, Chaired the committee. It is unusual for a Minister to serve as a member on a parliamentary committee and even more unusual for a Minister to chair the same committee. In response to parliamentary debate drawing attention to the potential conflict of interest of a Minister serving on a committee which will report to the Parliament<sup>116</sup>, the Minister's stated his rationale for his involvement on the committee:

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<sup>114</sup> Establishment of the committee agreed to in the House of Assembly on 31 August 2000 (*Votes and Proceedings* No 26, 31/8/00) and in the Legislative Council on 6 September 2000 (*Votes and Proceedings* No 22, 31/8/00).

<sup>115</sup> [www.parliament.tas.gov.au/CTEE/gene.htm](http://www.parliament.tas.gov.au/CTEE/gene.htm)

<sup>116</sup> Comment by the Hon Bill Bonde MHA in debate on the Gene Technology Joint Select Committee: House of Assembly, *Hansard*, 31 August 2001, p 57.

My predisposition was to be a member of the committee because I believe it is an important issue and it needs to have all the resources that we can get together from a government point of view to try to assist that committee in the process that it has in educating the people, being advised by and consulting with the people in Tasmania before we are in a position to make a policy decision about it. I am not the person who will make the policy decision about this issue, the Government will.<sup>117</sup>

**4.13** The joint select committee was originally due to report by 30 March 2001. On 29 March 2001, the Tasmanian Parliament resolved to extend the reporting date for the inquiry until Thursday 31 May 2001.<sup>118</sup> The report of the Joint Select Committee was presented to the Speaker of the House of Assembly on Wednesday 11 July 2001.

**4.14** The summary of recommendations of that report are as follows:

- A. The Tasmanian Government should continue to carefully monitor and evaluate economic costs and benefits from the use or non-use of gene technology in agriculture.
- B. The Tasmanian Government should develop guidelines for adequate identity preservation processes in the event of future co-existence of GM and non-GM crops.
- C. The Tasmanian Government should monitor and evaluate developments under the common law in relation to possible costs for non-GM producers from any gene flow from GM producers and, if necessary, propose a legislative remedy.
- D. The Tasmanian Government should undertake public education initiatives to inform the community about genetic engineering matters.
- E. Tasmania should maintain a moratorium on commercial GM food crops, to be reviewed in two years.
- F. Environmental risks associated with the use of gene technology in agriculture should be assessed on a case-by-case basis by the national Gene Technology Regulator (GTR), with separate, detailed environmental assessment to be provided by the Tasmanian Government to the GTR for each proposed release into the Tasmanian environment.
- G. That the Gene Technology Act 2000 (C'th) be amended to allow States to opt-out on scientifically assessed environmental grounds.
- H. The Tasmanian Government should note the ethical concerns of some members of the community and consider those concerns in any future proposal for commercial GM crop production in the State.
- I. The Tasmanian Government should continue to monitor the assessment of human health and safety issues in relation to GM foods in the ANZFA food approval process.
- J. The Tasmanian Government should maintain a moratorium on commercial GM non-food crops, to be reviewed in two years.

<sup>117</sup> House of Assembly, *Hansard*, 31 August 2001, p 81.

<sup>118</sup> House of Assembly, *Hansard*, 29 March 2001, pp 39-94.

- K. To better understand market demand for Tasmanian food products, the importance of the emerging Tasmanian "brand" and the effect of the GMO issue, the Tasmanian Government should undertake, with industry, a comprehensive market research program over a two year period to ascertain:
- i. the attributes of Tasmanian food products that influence the purchase of such products in key domestic and international markets;
  - ii. the value to the Tasmanian food industry of promoting such attributes as an umbrella "Brand Tasmania" in key domestic and international markets; and
  - iii. to what extent GM or non-GM attributes affect the purchase of Tasmanian food products and contribute to "Brand Tasmania" in key domestic and international markets.
- L. To be able to adequately assess environmental risk to the Tasmanian environment from proposed GM releases, the Tasmanian Government should undertake, with the University, a comprehensive research program on gene flow and volunteer management.
- M. The Tasmanian Government should maintain expertise in gene technology including the capacity to perform or commission comprehensive environmental risk studies on any application before the GTR for a GMO release in the Tasmanian environment.
- N. The Tasmanian Government should maintain, during any continued moratorium on commercial GM food crops, strict conditions for isolated and enclosed GM food crop trials, to be assessed on a case by case basis to ensure prevention of gene flow into the environment.
- O. The Tasmanian Government should maintain, during any continued moratorium on commercial GM non-food crops, strict conditions for any GM non-food crop trials, to be assessed on a case-by-case basis and to ensure adequate isolation, management and minimisation of any risk of gene flow into the environment.<sup>119</sup>

### **Contribution to the Commonwealth Government legislative negotiations**

- 4.15** Tasmania was invited to be a member of the Commonwealth State Consultative Group on Gene Technology (CSCG) in late 1997 and has been involved in those discussions since that time. Tasmania has participated at officer level in negotiations for a nationally consistent regulatory regime for gene technology.<sup>120</sup>
- 4.16** In August 2000, the Tasmanian Government made a submission and attended a public hearing in Hobart of the Senate Community Affairs References Committee Inquiry into the *Gene Technology Bill 2000* (Cth).
- 4.17** Among other issues raised in the Tasmanian Government's submission was an assertion that a state or territory should have a right to refuse or 'opt out' of releasing a GMO or

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<sup>119</sup> Parliament of Tasmania, Joint Select Committee Report on Gene Technology, 2001, pp 15-17.

<sup>120</sup> *Tasmanian Government Submission: Senate Community Affairs References Committee Inquiry Into Gene Technology*, August 2000; see at: [www.dpiwe.tas.gov.au/gmo/senatesub.html](http://www.dpiwe.tas.gov.au/gmo/senatesub.html).



GMO product within its jurisdictions if the release would pose an unacceptable risk within its own territory.<sup>121</sup> As addressed in Chapter 3, although the draft of the *Gene Technology Bill 2000* did not include a provision to this effect, amendments were subsequently passed to facilitate an opt-out clause despite earlier warnings by the Commonwealth Government ruling out the possibility for Tasmania to opt-out of authorised GMO releases<sup>122</sup>.

### **Breaches of GMAC guidelines at Tasmanian trial sites**

- 4.18** The Tasmanian Minister for Primary Industries, Water and Environment indicated that when the moratorium was put in place, there was no genetically engineered canola or other crops being grown in Tasmania. Any GM crops had been harvested before the moratorium took effect and only four controlled trials were approved by the department following the moratorium.<sup>123</sup>
- 4.19** On 28 February 2001, the Minister for Primary Industries, Water and Environment announced that he had received information from the Commonwealth Government that there had been 11 breaches<sup>124</sup> of GMAC guidelines out of 58 Tasmanian GM trial sites that were operated prior to the moratorium. Four of these sites recorded substantial breaches with thousands of regrowth canola plants found at the trial sites. The Minister reported that the IOGTR had previously assured him that the regrowth plants had been removed from the sites and destroyed.<sup>125</sup>
- 4.20** The Minister indicated on 2 March 2001 that despite a request to the IOGTR regarding where the open field trials were located, the IOGTR had refused to provide that information to the Tasmanian Government.<sup>126</sup> Subsequently, on 14 March 2001 the Minister announced that the Tasmanian Government may utilise the *Plant Quarantine Act 1997* to seize information on the pre-moratorium GMO crop trial sites in Tasmania, in order to make that information public.<sup>127</sup>
- 4.21** Later that month, the Minister announced that an advisory service was being established to:

<sup>121</sup> *Tasmanian Government Submission: Senate Community Affairs References Committee Inquiry Into Gene Technology*, August 2000; see at: [www.dpiwe.tas.gov.au/gmo/senatesub.html](http://www.dpiwe.tas.gov.au/gmo/senatesub.html).

<sup>122</sup> Comments attributed to the Prime Minister as reported by Harriet Binet, *PM warns over GE 'go it alone' stand*, *The Hobart Mercury* 22 June 2000.

<sup>123</sup> House of Assembly, *Hansard*, 13 March 2001, p 7.

<sup>124</sup> On 8 April 2001, the Minister announced that an IOGTR report released on 6 April 2001 had indicated that there had actually been 21 breaches: *Latest GMO Report A Damning Indictment Of Federal Government*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 8 April 2001.

<sup>125</sup> *Outrage at GMO Breaches*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 28 February 2001.

<sup>126</sup> *GM Trial Locations Must Be Revealed*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 2 March 2001.

<sup>127</sup> *Legal Action Possible on GMOs*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 14 March 2001.

...allow property owners to gain information about whether their property could be affected by genetic contamination from recently discovered GMO breaches.<sup>128</sup>

**4.22** The Minister has since indicated that legal advice suggested the State Government could not legally make GMO trial site information available to the general public about what GM experimentation has been done and where. However it was stated that:

...using information obtained under the Plant Quarantine Act, Department officers have established the locations of the sites and will be able to advise landholders if they are within a 10km distance of a trial site.

If landholders then have concerns about contamination, officers from DPIWE will inspect their property and provide all reasonable advice and assistance in assessing risk of genetic contamination and any remedial action.<sup>129</sup>

**4.23** On 10 April 2001, the Minister announced that the State Government had passed two reports of the IOGTR on GMO breaches in Tasmania to the Director of Public Prosecutions. The Minister stated that the:

...draft in confidence reports on Aventis and Monsanto crop trials released by the IOGTR to the media...would – on the face of it – appear to contain written and public evidence of breaches of the Tasmanian Government’s moratorium.

I have accordingly passed the reports to the Director of Public Prosecutions to investigate two questions.

One question is the legal action that may be open to the Tasmanian Government against Monsanto and Aventis for breaching the moratorium.

The second is what next legal step we can take to obtain precise locations of the breach sites from the IOGTR, now that they have refused to comply with our legal direction to do so.<sup>130</sup>

### **The Gene Technology Policy**

**4.24** In July 2001, the Tasmanian Government announced its policy on gene technology and primary industries. The main points of the policy (which are in accordance with the Joint Select Committee Report on Gene Technology) are as follows:

- Tasmania will be a part of the national regulatory regime for gene technology,
- a moratorium will prevent the following dealings with transgenic organisms:
  - all new commercial environmental releases of transgenic crops,

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<sup>128</sup> *GMO Trial Site Information*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 29 March 2001.

<sup>129</sup> *GMO Trial Site Information*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 29 March 2001.

<sup>130</sup> *IOGTR Reports Referred to DPP*, Media Release, the Hon David Llewellyn MHA, Minister for Primary Industries, Water and Environment, 10 April 2001.

- environmental releases of transgenic animals and transgenic animal feed,
  - trials in the open environment of transgenic food crops; and
  - trials in the open environment of transgenic non-food crops where no test is available to detect the presence of the transgenic material.
- to give effect to the moratorium GM-free cropping zones, based on market grounds will be established through the use of the *Plant Quarantine Act 1997* by the declaration of 'protected areas' under section 35.
  - the national Gene Technology Regulator will regulate research dealings with transgenic organisms. The Tasmanian Government will apply separate strict conditions on such research.
  - the Tasmanian Government will continue to be an active participant in regulatory arrangements for gene technology in Australia and closely monitor developments locally and internationally.
  - the Tasmanian Government will instigate a complete review of this policy by 31 July 2003.<sup>131</sup>

## Queensland

**4.25** In contrast to the cautious policy approach to gene technology by the Tasmanian Government, the Queensland Government has more readily accepted trials of GMOs.

**4.26** The Hon Paul Lucas MP, Minister for Innovation and Information Economy, advised the committee that the Queensland Government does not consider a moratorium to be "a suitable response to concerns raised" about the application of gene technology in food. The Minister advised that:

Advances in gene technology and biotechnology are providing innovative approaches to traditional practices, yet a moratorium would preclude research and development in this area including field trials. These innovations should not be discounted, as would be the case under a moratorium, before their full impacts and benefits can be ascertained.<sup>132</sup>

**4.27** The Queensland Government has been involved in research into the application of biotechnology in relation to food across a wide range of crops. Activities include marker assisted production, functional genomics, diagnostics, and vaccines. Field trials involving transgenic lettuce, papaya, pineapples and sugar cane have also been undertaken. Transgenic crop research makes up a small part of the Queensland Government's overall biotechnology effort.

**4.28** The Government does accept that there may be health or environmental risks associated with the application of gene technology and as a result:

<sup>131</sup> Department of Primary Industries, Water and Environment, *Tasmanian Government Policy: Gene Technology and Primary Industries*, Crown in Right of the State of Tasmania, July 2001.

<sup>132</sup> Correspondence from the Hon Paul Lucas MP, Minister for Innovation and Information Economy, to Director, received 20 April 2001, p 1.

...accepts a case by case risk assessment process as outlined under the *Gene Technology Act 2000 (Commonwealth)*.<sup>133</sup>

- 4.29** On 12 June 2001, the Queensland Cabinet approved a “Code of Ethical Practice for Biotechnology” which will apply to all research and development work undertaken with the direct or indirect involvement of the State. It was announced as part of the Queensland Government’s commitment help make biotechnology research and development scientifically, socially, and ethically responsible<sup>134</sup>
- 4.30** On 11 September 2001, the Queensland Premier, the Hon Peter Beattie MP, triggered the national gene technology regulatory scheme as the third state Premier to sign the Gene Technology Intergovernmental Agreement.<sup>135</sup> On 18 October 2001, the Queensland Parliament passed its *Gene Technology Bill*, which complements and is consistent with the Commonwealth *Gene Technology Act*, to ensure the regulations of all dealings in gene technology.<sup>136</sup>

## Victoria

- 4.31** As part of the Naturally Victorian campaign to assist food producers to access Markets (including genetically modified, non-genetically modified and organic markets) the Victorian Government committed itself to investigate the potential to label products sourced in particular areas of Victoria as Genetic Engineering Free Zone products (‘GEFZ’). Consultations will take place seeking informed comment on issues such as the role of any GEFZs, the forms they could take or any costs/benefits that may result.<sup>137</sup>
- 4.32** The draft Victorian Biotechnology Strategic Plan developed jointly by industry, the research community and the Victorian Government is aimed at positioning Victoria to capitalise on the life sciences revolution now taking place. The draft strategic plan indicates that the Government will respond to opportunities and issues arising from GM products but will maintain all appropriate precautions. This strategy addresses the non-regulatory issues associated with the application of biotechnology. The outcomes are intended to be complementary to actions by the Victorian and Commonwealth Governments to establish a national regulatory framework for genetically modified organisms, which will ensure that safeguards are in place for the community and the environment.<sup>138</sup>

<sup>133</sup> Correspondence from the Hon Paul Lucas MP, Minister for Innovation and Information Economy, to Director, received 20 April 2001, p 2.

<sup>134</sup> The Hon. Peter Beattie MP, Premier & Minister for Trade, *Media Statement*, “Qld Govt leads World with Biotech Code of Ethics”, 12 June 2001.

<sup>135</sup> The Hon. Peter Beattie MP, Premier & Minister for Trade, *Media Statement*, “Premier Triggers National Gene Technology Regulation”, 11 September 2001.

<sup>136</sup> The Hon. Paul Lucas MP, Minister for Innovation & Information Economy, *Media Statement*, “Qld Parliament Passes Historic Gene Technology Bill”, 19 October 2001.

<sup>137</sup> Victorian Government Consultation Paper, *Genetic engineering-free zones*, March 2001, p 3.

<sup>138</sup> *Biotechnology Strategic Development Plan for Victoria*, Draft for Discussion, p 15, [www.biotechnology.vic.gov.au/publications](http://www.biotechnology.vic.gov.au/publications), accessed 15 June 2001.

## South Australia

- 4.33** The South Australian Government is “generally but cautiously supportive” of the opportunities presented by genetic engineering for food production. The Government perceives a strategic need to maintain technical advantage in the international market against competitors and the need to develop capability and commercialise opportunities in biotechnology.
- 4.34** The South Australian Government considers that the States and Territories must evaluate whether they will individually introduce legislation to designate areas (or even their whole jurisdiction) as GM free for market related purposes. If this approach is adopted the States and Territories would need to consider whether:
- that will be pursued in a consistent manner,
  - that should be done before the Regulator licences any GMOs for release on a widespread and reasonably unrestricted basis.<sup>139</sup>
- 4.35** The Hon Rob Kerin MP, South Australian Deputy Premier, Minister for Primary Industries and Resources and Minister for Regional Development advised that the Premier will sign the Intergovernmental Agreement on Gene Technology when forwarded to jurisdictions by the Prime Minister and supports the human and environmental management arrangements to be established under Food Standard A18.<sup>140</sup>
- 4.36** The South Australian Social Development Committee is currently conducting an inquiry into biotechnology and its likely social impact. The inquiry is being conducted in two parts: biotechnology and health; and biotechnology and food production. The Committee reported on the first section of the inquiry in August 2001. Its report covered developments in the health industry such as gene therapy and therapeutics, but did not include any potential impacts on health in relation to GM foods.<sup>141</sup> The second part of the inquiry will address similar issues to those to be addressed by the Standing Committee on State Development. The Social Development Committee is expected to report in the second half of 2001.

## Northern Territory

- 4.37** The Hon Mick Palmer MLA, Minister for Primary Industries and Fisheries of the Northern Territory Government informed the committee that the Northern Territory will focus on marketing of GM and non-GM products domestically and internationally to maximise the benefit of both sectors to the Northern Territory. In matters relating to food safety and the environment, the Northern Territory will look to the Gene Technology Regulator and other states to be the leaders on this issue. The Minister indicated that the likely public and

<sup>139</sup> Correspondence from the Hon Rob Kerin MP, South Australian Deputy Premier, Minister for Primary Industries and Resources and Minister for Regional Development, to Director, 6 April 2001, p 2.

<sup>140</sup> Correspondence from the Hon Rob Kerin MP, South Australian Deputy Premier, Minister for Primary Industries and Resources and Minister for Regional Development, to Director, 6 April 2001, p 1.

<sup>141</sup> Parliament of South Australia Social Development Committee, *Inquiry into Biotechnology Part I Health* (Fourteenth Report), August 2001.

private benefits and costs of genetically modified food would be driven in the market place by consumer preferences.<sup>142</sup>

## Western Australia

- 4.38** The Hon Kim Chance MLC, Minister for Agriculture, Minister for Forestry and Fisheries, and Minister for the Midwest, Wheatbelt and Great Southern, advised that the Western Australian Government was presently considering a policy position on gene technology in agriculture.<sup>143</sup>
- 4.39** As at 30 July 2001, the WA Government did not support the commercial release of GMOs in WA agriculture until market and environmental impacts are evaluated. The Department of Agriculture website indicates that there have been no GM crops released for commercial use in Western Australia and no commercial GM crop is likely to be released in the State for at least two years.<sup>144</sup>
- 4.40** In a media release dated 10 August 2001, the Minister announced a new level of State Government transparency in the trialing of genetically modified organisms which included disclosing full details of the Department of Agriculture's involvement in GM crop trials on the Department's website. The Minister also explained that he had commissioned a report to address the issue of identity preservation, market access for GM and non-GM canola products and a study to look at the economic impact of GM crops.<sup>145</sup>

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<sup>142</sup> Correspondence from the Hon Mick Palmer MLA, Northern Territory Minister for Primary Industry and Fisheries, to Director, 4 April 2001.

<sup>143</sup> Correspondence from the Hon Kim Chance MLC, Minister for Agriculture: Forestry and Fisheries, to Director, 23 April 2001.

<sup>144</sup> [www.agric.wa.gov.au/biotechnology/factsheet1.htm](http://www.agric.wa.gov.au/biotechnology/factsheet1.htm), accessed 19 October 2001.

<sup>145</sup> The Hon Kim Chance MLC, Minister for Agriculture, *Media Release*, "New GM Website and education package launched", 10 August 2001.

## Chapter 5 Issues for consideration

The terms of reference for the genetically modified food inquiry provide the committee with an opportunity to look at a wide range of issues concerning the public and private costs and benefits of genetically modified food for New South Wales. The committee intends to investigate issues with particular reference to:

- the environment
- public health and safety, and
- commercial considerations

Specific issues for consideration will include (but will not be limited to) the following:

### **Economic analysis of potential costs and benefits**

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#### **Issue 10**

The committee will further investigate the potential economic costs and benefits of genetically modified food. This will include examination of implications for individuals and community as a whole – economic, social, cultural and environmental.

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### **Precautionary principle**

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#### **Issue 11**

The committee will further investigate the implications of the precautionary principle for New South Wales, including perceived risks and benefits.

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### **Labelling**

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#### **Issue 12**

The committee will address the issue of labelling regulations in Australia and consumer information rights.

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## **GM free zones**

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### **Issue 13**

The committee will look at the rights and responsibilities of producers of genetically modified food products in relation to the community as well as producers of non-genetically modified food products. In particular, the committee will investigate the implications of the Commonwealth gene technology regulatory framework for state government, local government and community interests.

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## **Public reaction to genetically modified organisms**

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### **Issue 14**

The committee will examine public reactions to, and perceptions of, genetically modified organisms. The committee will attempt to ascertain the rationale behind consumer and public sentiment regarding acceptance or rejection of genetically modified food.

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## **Community information and community rights**

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### **Issue 15**

The committee will investigate the issues concerning informed choice.

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## **International markets and trade**

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### **Issue 16**

The committee will research the implications of genetically modified food on international trade. This will include examination of potential costs and benefits to New South Wales on export markets in relation to either restricting or facilitating the production of genetically modified food.

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## **Animal products fed on genetically modified crops**

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### **Issue 17**

The committee will examine the implications of feeding genetically modified crops to animals that are utilised for food products from a market perspective.

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## **Submissions to the Inquiry**

## Submissions to the Inquiry

<b>Number</b>	<b>Name and organisation</b>	<b>Date Received</b>
1	Ms Charlotte Heard & Mr Timothy Wild	23-Nov-99
2	Mr Garry Owers	4-Jan-00
3	Mr Wayne Olling	4-Jan-00
4	Ms Kizzy-Anne Hyde	24-Dec-99
5	Ms Elle Fikke-Rubin	24-Jan-00
6	Mr C Bertelsen	19-Jan-00
7	Mr R & Mrs P Bowness	25-Jan-00
8	Mr Martin Oliver (Gene-Ethics Network, Northern Rivers)	28-Jan-00
9	Mr Bruce Skinner	1-Feb-00
10	Mr John Hinton (Hastings Camden Haven Catchment Management Committee)	7-Feb-00
11	Withheld as confidential	7-Feb-01
11a	Withheld as confidential	15-Feb-00
11b	Withheld as confidential	24-Feb-00
12	Ms Beverley Haas	4-Feb-00
13	Ms Margaret Opie (Bermagui-Cobargo Branch, ALP)	9-Feb-00
14	Mr M H Grant	9-Feb-00
15	Mrs P Natoli	14-Feb-00
16	Mrs J Mullins	15-Feb-00
17	Messrs J Grevillea & C Rose	17-Feb-00
18	Ms Karen Woodward	17-Feb-00
19	Mr John Williams	18-Feb-00
20	Mrs Isabella Hughston	18-Feb-00
21	Mr Colin Sharpe (Avcare)	21-Feb-00
22	Mr Graeme Greenup	21-Feb-00
23	Ms Cathy Eggert	21-Feb-00
24	Withheld as confidential	21-Feb-00
25	Ms Bridget Farrer	21-Feb-00
26	Ms Naomi Stevens (Aventis Crop Science Pty Ltd)	21-Feb-00
27	Ms Joy Hafey (Wirrimbirra Sanctuary)	22-Feb-00

28	Ms Pat Feehelly	22-Feb-00
29	Mr Gary Bilton	23-Feb-00
30	Ms Sandra Vandenburg (Australian Olive Association Ltd)	23-Feb-00
31	Mr Rod Hall (Australian United Fresh Fruit and Vegetable Association Ltd)	23-Feb-00
32	Mr David & Mrs Lesley Bond	24-Feb-00
33	Mr Mark McDougall	24-Feb-00
34	Mrs Marion Smith & Mrs Peg McEntee (National Council of Women of NSW Inc)	25-Feb-00
35	Mr Scott Kinnear (Organic Federation of Australia Inc)	24-Feb-00
36	Mr Ian Deacon	25-Feb-00
37	Ms Vicki Brooke	29-Feb-00
38	Mrs Fran Smeeth	2-Mar-00
39	Ms Renate Wood	2-Mar-00
40	Mr Claude Gauchat (Avcare)	6-Mar-00
41	Ms Diane Davie	8-Mar-00
42	Ms Leesa Daniels	7-Mar-00
43	Ms Ieva Gay (GE Action Group)	7-Mar-00
43a	Ms Ieva Gay (GE Action Group) – supplementary submission	3-Oct-00
44	Ms Stephanie Chambers BSc (Acture Pty Ltd)	8-Mar-00
45	Mr Michael Keogh (NSW Farmers' Association)	9-Mar-00
46	The Hon Richard Amery MP (NSW Agriculture)	14-Mar-00
47	Mr Bryce Bell (Australian Oilseeds Federation)	23-Mar-00
48	Mr Bob Phelps (Australian Gene Ethics Network)	26-May-00
48a	Mr Bob Phelps (Australian Gene Ethics Network) - supplementary submission	29-May-00
49	Ms Andrea Matthews (Matthews Pegg Consulting Pty Ltd)	24-Jul-00
50	Ms Elizabeth Cain (Interim Office of the Gene Technology Regulator)	4-Aug-00
51	Mr Helmuth Aimann (Manning Toxin Action Group)	29-Sep-00



# **Witnesses at Hearings**

## Witnesses at Hearings

<b>Date of appearance</b>	<b>Witness name</b>	<b>Organisation</b>
21/03/2000	Mr Claude Gauchat	Avcare
21/03/2000	Mr Colin Sharpe	Avcare
21/03/2000	Ms Naomi Stevens	Aventis Crop Science Pty Ltd
21/03/2000	Mr Leo Hyde	DuPont Australia
21/03/2000	Dr William Maxwell Blowes	Monsanto Australia
21/03/2000	Dr Lindsay Cook	NSW Agriculture
21/03/2000	Dr Richard Alan Spurway	NSW Agriculture
21/03/2000	Ms Helen Scott-Orr	NSW Agriculture
22/03/2000	Prof Angela Delves	Southern Cross University
26/06/2000	Dr Geoffrey Annison	Australian Food and Grocery Council
26/06/2000	Dr T J Higgins	CSIRO Plant Industry
26/06/2000	Mr Terry Slater	Interim Office of the Gene Technology Regulator
26/06/2000	Ms Andrea Matthews	Interim Office of the Gene Technology Regulator
26/06/2000	Ms Elizabeth Cain	Interim Office of the Gene Technology Regulator
26/06/2000	Prof Adrian Gibbs	Molecular Genetics and Evolution Group

# **Minutes of Proceedings**

# Minutes of Proceedings

## Minutes No. 11

Thursday 25 November 1999  
At Parliament House at 3:55 pm

### 1. MEMBERS PRESENT

Mr Kelly (in the Chair)  
Mr Cohen  
Mr Johnson

### 2. APOLOGIES

Mr Macdonald

Resolved, on motion of Mr Johnson, the Committee note that the Legislative Council granted Dr Pezzutti leave of absence from 15 November to 18 December 1999.

### 3. CONFIRMATION OF MINUTES

Resolved, on motion of Mr Cohen, that the minutes of meeting number 8, 9 and 10 be confirmed.

### 4. CORRESPONDENCE RECEIVED

Letter from the Hon. Richard Amery, MP, Minister for Agriculture and Minister for Land and Water Conservation, to Chair, dated 11 November 1999, requesting that the Committee investigate and report on a new terms of reference relating to genetically modified food.

### 5. CORRESPONDENCE SENT

The Chair tabled one item of correspondence sent:

Letter from Director to Mr Dugald Walker, dated 12 November 1999, responding to concerns raised regarding the Committee's progress with its inquiry into the international competitiveness of agriculture in New South Wales.

### 6. INQUIRY INTO GENETICALLY MODIFIED FOOD

The Chair tabled a draft advertisement calling for submissions to the inquiry and a corresponding proposed schedule of media space purchases.

The Committee deliberated.

Resolved, on motion of Mr Cohen, that the draft advertisement calling for submissions be adopted.

The Committee deliberated.

Resolved, on motion of Mr Cohen, that the proposed media advertising schedule be amended to include the *Byron Shire Echo*.

The Committee deliberated.

Resolved, on motion of Mr Johnson, that the proposed media advertising schedule be amended to include The Land.



The Committee deliberated.

Resolved, on motion of Mr Johnson, that the proposed media advertising schedule as amended be adopted (see attachment 1).

The Committee deliberated.

Resolved, on motion of Mr Johnson, that the Director provide Members with details of the dates upon which the Committee's advertisement is published for each publication in the advertising schedule.

**7. GENERAL BUSINESS**

Nil

**8. ADJOURNMENT**

The meeting adjourned at 4.20 pm *sine die*.

**Steven Carr**  
**Director**

**ATTACHMENT 1****ADVERTISING SCHEDULE FOR INVITING SUBMISSIONS TO THE INQUIRY INTO  
GENETICALLY MODIFIED FOOD**

MEDIA	DAY	POSITION	SIZE	TOTAL CM
<b>Weekend metropolitan papers</b>				
Sunday Telegraph	Sunday	EGN	15*2	30
Sydney Morning Herald	Saturday	EGN	15*2	30
<b>Major rural papers</b>				
Wagga Daily Advertiser	Saturday	EGN	15*2	30
Albury Border Mail	Saturday	EGN	15*2	30
Byron Shire Echo	Wednesday	EGN	15*2	30
Byron Shire News	Wednesday	EGN	15*2	30
Bathurst Western Advocate	Saturday	EGN	15*2	30
Coffs Harbour Advocate	Saturday	EGN	15*2	30
Tamworth Leader	Saturday	EGN	15*2	30
Dubbo Daily Liberal	Saturday	EGN	15*2	30
Griffith Area News	Tues-Fri	EGN	15*2	30
Orange Central Western Daily	Saturday	EGN	15*2	30
Goulburn Post	Mon-Fri	EGN	15*2	30
Tweed Daily News	Saturday	EGN	15*2	30
Broken Hill Truth	Saturday	EGN	15*2	30
Illawarra Mercury	Saturday	EGN	15*2	30
Grafton Examiner	Saturday	EGN	15*2	30
Lismore Northern Star	Saturday	EGN	15*2	30
Maitland Mercury	Saturday	EGN	15*2	30
Newcastle Herald	Saturday	EGN	15*2	30
The Land	Thursday	EGN	14*3	42
<b>Rural magazines</b>				
Northern Farmer	Weekly	EGN	15*2	30
Rural News	Weekly	EGN	15*2	30
Country Leader	Weekly	EGN	15*2	30
Hunter Valley Town and Country	Weekly	EGN	15*2	30
North Coast Town and Country	Weekly	EGN	15*2	30
Southern Weekly	Weekly	EGN	15*2	30
Western Magazine	Weekly	EGN	15*2	30
North West Magazine	Weekly	EGN	15*2	30
South East Town and Country	Weekly	EGN	15*2	30

**Minutes No. 12**

Friday 3 March 2000  
At Parliament House at 1:40pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson  
Mr Macdonald

**2. APOLOGIES**

Nil

**3. GENETICALLY MODIFIED FOOD**

The Chair tabled 7 submissions sent to the Committee in relation to its inquiry into genetically modified food.

Submission 2 – Mr Garry Owers, dated 4 January 2000.  
Submission 3 – Mr Wayne Olling, dated 4 January 2000.  
Submission 4 – Ms Kizzy-Anne Hyde, dated 24 December 1999.  
Submission 5 – Ms Elle Fikke-Rubin, Organic Herb Growers of Australia Inc, dated 24 December 1999.  
Submission 6 – C. Bertelsen, dated 19 January 2000.  
Submission 7 – Mr R. and Mrs P. Bowness, dated 25 January 2000.  
Submission 8 – Mr Martin Oliver, Gene-Ethics Network Northern Rivers, 28 January 2000.

**4. GENETICALLY MODIFIED FOOD INQUIRY**

The Chair tabled the draft schedule for Committee public hearings to be conducted on 21 - 22 March 2000. The Chair discussed proposed Committee site visit activities on 23 March 2000.

The Committee deliberated.

Resolved, on motion of Mr Macdonald, that the Committee adopt the draft schedule for Committee public hearings on 21-22 March 2000 and the allocation of site visit activities on 23 March 2000.

**5. GENERAL BUSINESS**

Nil

**6. ADJOURNMENT**

The meeting adjourned at 2:35pm, until Tuesday 21 March 2000 at 9:30am.

**Steven Carr**  
**Director**

**Minutes No. 13**

Tuesday 21 March 2000  
At Parliament House at 9:30am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Mr Macdonald

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**4. HEARING**

The Committee deliberated.

Resolved, on motion of Mr Johnson, that in accordance with the Resolution of the Legislative Council of 11 October 1994 the Committee authorises the sound broadcasting and television broadcasting of its public proceedings held today.

The public and media were admitted.

The Chairman welcomed the gallery and reminded the media of their obligation under Standing Order 252 of the Legislative Council in relation to evidence given before, and documents presented to, the Committee. The Chairman also distributed copies of the guidelines governing broadcast of proceedings.

**4.1 GENETICALLY MODIFIED FOOD INQUIRY**

Ms Helen Scott-Orr, Executive Director, Research, Advisory and Education, Dr Lindsay Cook, Chief, Division of Plant Industries, Dr Richard Spurway, Deputy Chief, Division of Plant Industries, all of NSW Agriculture, were sworn and examined.

Evidence concluded and the witnesses withdrew.

Resolved, on motion of Dr Pezzutti, that pursuant to the provisions of section 4 of the *Parliamentary Papers (Supplementary Provisions) Act 1975* and under the authority of Standing Order 252, the Committee authorises the Clerk to the Committee to publish submission no 46 (NSW Agriculture).

Mr Claude Gauchat, Executive Director of Crop Production and Animal Health, Mr Colin Sharpe, Director, Scientific and Regulatory Affairs (Crop Protection) both of Avcare, and Mr Bill Blowes, Technical Director, Monsanto Australia, Mr Leo Hyde, Research and Development Manager, DuPont Australia and Ms Naomi Stevens, Public and Government Affairs Manager, Aventis Crop Science, were sworn and examined. Mr Gauchat tabled two documents supporting his evidence.

Resolved, on motion of Dr Pezzutti, that the Committee accept the documents (Tabled documents No.1 and No.2).

Evidence concluded and the witnesses withdrew.

Public hearing concluded, the media and public withdrew.

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**5. GENERAL BUSINESS**

Nil

**6. ADJOURNMENT**

The meeting adjourned at 2:35pm, until Wednesday 22 March 2000 at 9:30am.

**Steven Carr**  
**Director**

**Minutes No. 14**

Wednesday 22 March 2000

At Star of the Sea Convent, Yamba at 9:40am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Mr Macdonald

**3. BUSINESS ARISING**

Nil

**4. HEARING**

The Committee deliberated.

Resolved, on motion of Mr Cohen, that in accordance with the Resolution of the Legislative Council of 11 October 1994 the Committee authorises the sound broadcasting and television broadcasting of its public proceedings held today.

The public and media were admitted.

The Chairman welcomed the gallery and reminded the media of their obligation under Standing Order 252 of the Legislative Council in relation to evidence given before, and documents presented to, the Committee. The Chairman also distributed copies of the guidelines governing broadcast of proceedings.

**4.1 GENETICALLY MODIFIED FOOD INQUIRY**

Prof. Angela Delves, Pro-Vice Chancellor, Chair, Institutional Biosafety Committee and Plant Breeder for Southern Cross University, Member of the Genetic Manipulation Advisory Committee, was sworn and examined.

Evidence concluded and the witness withdrew.

Public hearing concluded, the media and public withdrew.

Resolved, on motion of Mr Cohen, that pursuant to the provisions of section 4 of the Parliamentary Papers (Supplementary Provisions) Act 1975 and under the authority of Standing Order 252, the Committee authorises the Clerk to the Committee to publish the corrected transcripts of evidence, excluding in camera evidence, given at the Committee hearings of 21 March 2000 and 22 March 2000. The Committee authorises the Clerk to publish the documents accepted by the Committee during the hearings of:

21 March 2000 - Genetically modified foods inquiry – Tabled documents No.1 and No.2; and

22 March 2000 – Opportunities for strengthening rural towns in New South Wales inquiry - Tabled documents No.'s 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11.

**5. GENERAL BUSINESS**

Nil

**6. ADJOURNMENT**

The meeting adjourned at 3:58pm, *sine die*.

**Steven Carr**  
**Director**

**Minutes No. 15**

Wednesday 12 April 2000

At Parliament House (Room 1136) at 7:00pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Mr Macdonald

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Dr Pezzutti, that the minutes of meeting numbers 12, 13 and 14 be confirmed.

**4. BUSINESS ARISING**

Nil

**5. TABLED DOCUMENTS**

**5.1 SUBMISSIONS**

**5.1.1 GENETICALLY MODIFIED FOOD**

The Chair tabled 1 submission in relation to its inquiry into genetically modified food.

Submission 1 – Ms Charlotte Heard and Mr Timothy Wild, dated 23 November 1999.

**6. ADJOURNMENT**

The meeting adjourned at 7:55pm, *sine die*.

**Steven Carr**  
**Director**



**Minutes No. 16**

Wednesday 3 May 2000  
At Parliament House (Room 1136) at 6:30pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair) from 6:50pm  
Dr Pezzutti (in the Chair) from 6:30pm to 6:50pm  
Mr Johnson  
Mr Macdonald

**2. APOLOGIES**

Mr Cohen

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson, that the minutes of meeting number 15 be confirmed.

**4. BUSINESS ARISING**

Nil

**5. TABLED DOCUMENTS****5.1 SUBMISSIONS****5.1.1 GENETICALLY MODIFIED FOOD**

The Chair tabled 4 submissions in relation to its inquiry into genetically modified food.

Submission 9 – Mr Bruce Skinner, Private citizen, dated 1 February 2000.

Submission 10 – Mr John Hinton, Chairperson, Hastings Camden Haven Catchment Management Committee, dated 7 February 2000.

Submission 12 – Ms Beverley Haas, Private citizen, dated 4 February 2000.

Submission 13 – Ms Margaret Opie, Secretary Bermagui-Cobargo Branch ALP, dated 9 February 2000.

**5.1.2 SUBMISSION IDENTIFIED AS PRIVATE AND CONFIDENTIAL**

The Chair tabled 1 submission identified as private and confidential in relation to its inquiry into genetically modified food.

**6. ADJOURNMENT**

The meeting adjourned at 7:30pm, *sine die*.

**Steven Carr**  
**Director**

**Minutes No. 17**

Monday 26 June 2000

At Central Motel, Queanbeyan, at 11:05am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Mr Johnson  
Mr Macdonald

**2. APOLOGIES**

Dr Pezzutti

**3. BUSINESS ARISING**

Nil.

**4. HEARING**

The Committee deliberated.

Resolved, on motion of Mr Johnson, that in accordance with the Resolution of the Legislative Council of 11 October 1994 the Committee authorises the sound broadcasting and television broadcasting of its public proceedings held today.

The public and media were admitted.

The Chairman welcomed the gallery and reminded the media of their obligation under Standing Order 252 of the Legislative Council in relation to evidence given before, and documents presented to, the Committee. The Chairman also distributed copies of the guidelines governing broadcast of proceedings.

**4.1 GENETICALLY MODIFIED FOODS INQUIRY**

Dr T J Higgins, Program Leader, CSIRO Plant Industry was sworn and examined.

Evidence concluded and the witness withdrew.

Professor Adrian Gibbs, Visiting Fellow, Research School of Biological Sciences, Australian National University, was sworn and examined.

Evidence concluded and the witness withdrew.

Dr Geoffrey Annison, Scientific and Technical Director, Australian Food and Grocery Council, was sworn and examined. Dr Annison tendered five documents in support of his evidence.

Resolved, on motion of Mr Johnson, that the documents be accepted by the committee.

Evidence concluded and the witness withdrew.

Public hearing concluded, the media and public withdrew.

**5. GENERAL BUSINESS**

Nil

**6. ADJOURNMENT**

The meeting adjourned at 4:45pm, *sine die*.

**Steven Carr**  
**Director**

**Minutes No. 18**

Tuesday 8 August 2000

At Parliament House, (Room 1136) at 1:15pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Johnson

**2. APOLOGIES**

Mr Cohen  
Mr Macdonald

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson: that the Minutes of meetings numbered 16 and 17 be confirmed.

**4. TABLED DOCUMENTS**

**4.1 SUBMISSIONS**

**4.1.1 GENETICALLY MODIFIED FOOD INQUIRY**

The Chair tabled the following 33 submissions received by the committee in relation to its inquiry into genetically modified food:

- Submission 14 – Mr M Grant, private citizen, dated 9 February 2000.
- Submission 15 – Mrs P Natoli, private citizen, dated 14 February 2000.
- Submission 16 – Mrs J Mullins M Grant, private citizen, dated 9 February 2000.
- Submission 17 – J Grevillea, C Rose, private citizens, dated 17 February 2000.
- Submission 18 – Ms Karen Woodward, private citizen, dated 17 February 2000.
- Submission 19 – Mr John Williams, private citizen, dated 18 February 2000.
- Submission 20 – Mrs Isabella Hughston, private citizen, dated 18 February 2000.
- Submission 21 – Mr Colin Sharpe, Director – Scientific and Regulatory Affairs (Crop Protection), Avcare, dated 21 February 2000.
- Submission 22 – Mr Graeme Greenup, private citizen, dated 21 February 2000.
- Submission 23 – Ms Cathy Eggert, private citizen, dated 21 February 2000.
- Submission 25 – Ms Bridget Farrer, private citizen, dated 21 February 2000.
- Submission 26 – Ms Naomi Stevens, Public and Government Affairs Manager, Aventis Crop Science Pty Ltd, dated 21 February 2000.
- Submission 27 – Ms Joy Hafey, Wirrimbirra Sanctuary, private citizen, dated 22 February 2000.
- Submission 28 – Ms Pat Feehelly, representative, Wattlevale, dated 22 February 2000.
- Submission 29 – Mr Gary Bilton, private citizen, dated 23 February 2000.
- Submission 30 – Ms Sandra Vandenbergh, Secretary/Treasurer, dated 23 February 2000.
- Submission 31 – Mr Rod Hall, National Secretary, Australian United Fresh Fruit and Vegetable Association Ltd, dated 23 February 2000.
- Submission 32 – Mr David and Mrs Lesley Bond, private citizens, dated 24 February 2000.
- Submission 33 – Mr Mark McDougall, private citizen, dated 24 February 2000.
- Submission 34 – Mrs Marion Smith, State Vice President and Mrs Peg McEntee, NSW State President, National Council of Women of NSW Inc, dated 25 February 2000.
- Submission 35 – Mr Scott Kinnear, Chairperson, Organic Federation of Australia Inc, dated 24 February 2000.
- Submission 36 – Mr Ian Deacon, private citizen, dated 25 February 2000.
- Submission 37 – Ms Vicki Brooke, private citizen, dated 29 February 2000.
- Submission 38 – Mrs Fran Smeeth, private citizen, dated 2000.

- Submission 39 – Ms Renate Wood, private citizen, dated 2 March 2000.  
Submission 40 – Mr Claude Gauchat, Executive Director, Avcare, 6 March 2000.  
Submission 41 – Ms Diana Davie, private citizen, dated 8 March 2000.  
Submission 42 – Ms Leesa Daniels, private citizen, dated 7 March 2000.  
Submission 43 – Ms Ieva Gay, member, GE Action Group, dated 7 March 2000.  
Submission 44 – Ms Stephanie Chambers, Director, Acture Pty Ltd, dated 8 March 2000.  
Submission 45 – Mr Michael Keogh, Policy Director, NSW Farmers' Association, dated 9 March 2000.  
Submission 46 – The Hon Richard Amery, MP, Minister for Agriculture, and Minister for Land and Water Conservation, (NSW Agriculture), dated 14 March 2000.  
Submission 47 – Mr Bryce Bell, Secretary, Australian Oilseeds Federation, dated 23 March 2000.

#### **4.1.1.1 SUBMISSIONS IDENTIFIED AS PRIVATE AND CONFIDENTIAL**

The Chair tabled the following submission received by the committee in relation to its inquiry into genetically modified food identified as private and confidential:

Submission 24 – private citizen, dated 21 February 2000.

#### **5. GENETICALLY MODIFIED FOOD INQUIRY**

Resolved, on motion of Dr Pezzutti, that: pursuant to the provisions of section 4 of the *Parliamentary Papers (Supplementary Provisions) Act 1975* and under the authority of Standing Order 252, the Committee authorises the Clerk of the Committee to publish the evidence and documents received at the committee public hearing of 26 June 2000.

#### **6. ADJOURNMENT**

The meeting adjourned at 3:10pm, *sine die*.

**Steven Carr**  
**Director**

**Minutes No. 19**

Tuesday 10 October 2000

At Parliament House, (Room 1136) at 1:15pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Mr Macdonald

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson, that: the Minutes of meeting number 18 be confirmed.

**4. TABLED DOCUMENTS**

**4.1 SUBMISSIONS**

**4.1.1 GENETICALLY MODIFIED FOOD INQUIRY**

The Chair tabled the following submission:

Submission 48 – Mr Peter McMahon, representative, GeneEthics Network, Australian Conservation Foundation, dated 26 May 2000.

**4.2 CORRESPONDENCE RECEIVED**

**4.2.1 GENETICALLY MODIFIED FOOD INQUIRY**

The Chair tabled the following eight items of correspondence received:

Ms Helen Scott-Orr, Executive Director (Research Advisory and Education), NSW Agriculture, response to questions taken on notice from committee hearing of 21 March 2000, dated 20 April 2000.

Professor Angela Delves, Pro-Vice Chancellor, Southern Cross University, response to questions taken on notice from committee hearing of 22 March 2000, dated 26 April 2000.

Mr Claude Gauchat, Executive Director, Avcare, response to questions taken on notice from committee hearing of 21 March 2000, dated 11 April 2000.

Dr Bill Blowes, Technical Director, Monsanto Australia and New Zealand, response to questions taken on notice from committee hearing of 21 March 2000, dated 11 April 2000.  
Mr Geoffrey Annison, Scientific and Technical Director, Australian Food and Grocery Council, response to questions taken on notice from committee hearing of 26 June 2000, dated 24 July 2000.

Ms Elizabeth Cain, Head, Interim Office of the Gene Technology Regulator, response to questions taken on notice from committee hearing of 26 June 2000, dated 4 August 2000.

Dr T.J Higgins, Chief Research Scientist and Program Leader, CSIRO, Plant Industry, response to questions taken on notice from committee hearing of 26 June 2000, dated 24 August 2000.

Ms Vicki Brooke, private citizen, requesting further involvement in the inquiry process, dated 22 August 2000 (attached).

#### **4.3 CORRESPONDENCE SENT**

The Chair tabled correspondence to Ms Vicki Brooke, private citizen, responding to her correspondence of 22 August 2000, concerning a request for further involvement in the genetically modified food inquiry, dated 1 September 2000.

#### **5. ADJOURNMENT**

The meeting adjourned at 2:00pm, until 1:15pm on Friday, 13th October 2000, in room 1136.

**Steven Carr**  
Director

**Minutes No. 20**

Friday 13 October 2000

At Parliament House, (Members lounge) at 1:15pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen

**2. APOLOGIES**

Mr Johnson  
Mr Macdonald

**3. TABLED DOCUMENTS**

**3.1 SUBMISSIONS**

**3.1.1 GENETICALLY MODIFIED FOOD INQUIRY**

The Chair tabled the following two submissions and four supplementary submissions:

Submission 49 – Ms Andrea Matthews, Legal Policy Consultant, Interim Office of the Gene Technology Regulator, dated 24 July 2000.

Submission 50 – Ms Elizabeth Cain, Assistant Secretary, Interim Office of the Gene Technology Regulator, dated 4 August 2000.

Supplementary submission 11 – Author, dated 15 February 2000.

Supplementary submission 11 - Author, dated 24 February 2000.

Supplementary submission 48 – Mr Bob Phelps, Director, GeneEthics, Network, Australian Conservation Foundation, dated 29 May 2000.

Supplementary submission 43 – Ms Ieva Gay, member, GE Action Group, dated 3 October 2000.

**4. ADJOURNMENT**

The meeting adjourned at 1:25pm, *sine die*.

**Steven Carr**  
Director



**Minutes No. 22**

Friday 1 December 2000

At Parliament House, (Member's Lounge) at 10:35pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair from 10:42am – 10:59am)  
Dr Pezzutti (in the Chair from 10:35am – 10:42am)  
Mr Cohen  
Mr Johnson  
Mr Macdonald

**2. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson: that the Minutes of meeting number 21 be confirmed.

**3. GENETICALLY MODIFIED FOOD INQUIRY**

The Chair presented a proposal to undertake a research and information gathering exercise in Tasmania to assist the committee with its inquiry into opportunities for strengthening rural towns in New South Wales, inquiry into genetically modified food and inquiry into the international competitiveness of agriculture in New South Wales.

Resolved, on motion of Ian Cohen, that: the secretariat, in consultation with the Chair and Members, submit a research travel proposal to the President for consideration and approval.

**4. ADJOURNMENT**

The committee adjourned at 10:59am, *sine die*.

**Steven Carr**  
Director

**Minutes No. 23**

Thursday 7 December 2000

At Parliament House, (Member's Lounge) at 2:07pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Dr Pezzutti  
Mr Macdonald

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson: that the Minutes of meeting number 22 be confirmed.

**4. OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS INQUIRY, GENETICALLY MODIFIED FOOD INQUIRY AND INTERNATIONAL COMPETITIVENESS OF AGRICULTURE INQUIRY**

The committee considered the proposal to undertake research and information gathering in Tasmania.

Resolved, on motion of Mr Johnson: that, subject to approval by the President, the proposed research and information gathering exercise to Tasmania commence on Sunday 4 February 2001 and conclude on Thursday 8 February 2001.

The committee deliberated.

The Chair discussed a proposal for the committee to travel to Bourke as an example of a small rural town creating employment through irrigated agriculture and to investigate Bourke's development and management of genetically modified crops.

The committee deliberated.

Resolved, on motion of Mr Cohen, that: the committee travel to Bourke on Sunday 1 April 2001 and return on Monday 2 April 2001 with details of the itinerary to be developed by the secretariat in liaison with the Chair.

**5. ADJOURNMENT**

The committee adjourned at 2:15pm, *sine die*.

**Steven Carr**

Director

**Minutes No. 24**

Wednesday 31 January 2001  
At Parliament House (Room 1136) at 2:00pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Dr Pezzutti  
Mr Macdonald

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Cohen: that the Minutes of meeting number 23 be confirmed.

**4. TABLED DOCUMENTS****4.1 CORRESPONDENCE RECEIVED**

The Chair tabled the following items of correspondence received:

E-mail from Mr David Morris, Senior Private Secretary, Minister for Primary Industries, Water and Environment, Minister for Police and Public Safety (Tasmania), to Director, dated 8 January 2001, outlining a proposed meeting schedule for 5 February 2001.

**4.2 CORRESPONDENCE SENT**

The Chair tabled the following items of correspondence sent:

Memorandum from Chair to President, dated 19 January 2001, seeking approval for the committee to conduct a study tour of Tasmania.

Memorandum from Director to Clerk Assistant Committees, dated 19 January 2001, providing supporting information to the Chair's request to conduct a study tour of Tasmania.

The committee deliberated.

Resolved, on motion of Mr Johnson, that: the committee take note of the correspondence with a view to ensuring that all appropriate submissions and material are authorised to be made public prior to the tabling of a committee report.

**5. OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES INQUIRY, GENETICALLY MODIFIED FOOD INQUIRY, INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES INQUIRY**

The Chair tabled his draft itinerary for the research and information gathering visit to Tasmania.

The committee deliberated.

The Chair noted that Cr Kim Polley, Mayor, Northern Midlands Council, Mr Gerald Monson, General Manager, Northern Midlands Council, and the Hon Michael Polley MHA, Speaker of the House of Assembly, are proposed to be guests of the committee at dinner on Tuesday 6 February 2001.

Resolved, on the motion of Mr Johnson, that the committee authorise the payment of expenses for Cr Kim Polley, Mayor, Northern Midland Council, Mr Gerald Monson, General Manager, Northern Midlands Council and the Hon Michael Polley MHA, Speaker of the House of Assembly, for dinner on Tuesday 6 February 2001 as part of its inquiry's into opportunities for strengthening rural towns and international competitiveness of agriculture.

The committee deliberated.

The committee noted that the Hon Ian Macdonald MLC indicated he will depart from the study tour on Tuesday 6 February 2001.

Resolved, on the motion of Mr Cohen that the draft itinerary for the research and information gathering visit to Tasmania be adopted.

The Chair noted that the committee should consider timeframes for the completion of existing committee inquiries.

The committee deliberated.

Resolved, on the motion of Mr Cohen, that the following reporting timeframes be adopted by the committee:

- International competitiveness of agriculture in New South Wales - interim report by 30 June 2001 and final report by 31 December 2002
- Opportunities for strengthening rural towns in New South Wales – final report by 31 December 2001
- Genetically modified foods – a position paper by 30 June 2001 and final report by 30 June 2002

## **6. ADJOURNMENT**

The committee adjourned at 2.40 pm, *sine die*.

**Rob Stefanic**  
Senior Project Officer

**Minutes No. 25**

Thursday 8 February 2001  
At Kingsford Smith Airport, (Departure/Arrival Lounge) at 6:25pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson

**2. APOLOGIES**

Mr Macdonald

**3. OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS INQUIRY, GENETICALLY MODIFIED FOOD INQUIRY AND INTERNATIONAL COMPETITIVENESS OF AGRICULTURE INQUIRY**

Resolved, on motion of Dr Pezzutti: that a letter of appreciation be forwarded to all those who facilitated the committee's research and information gathering visit to Tasmania.

The committee deliberated.

Resolved, on motion of Mr Cohen: that the committee meet in the first sitting week of 2001.

The committee deliberated.

Resolved, on motion of Mr Johnson: that the Committee Director canvas opportunities for conducting and inspection and assessment of Maleny township, Buderim Ginger Cooperative and associated district ventures.

**4. ADJOURNMENT**

The committee adjourned at 6:49 pm, *sine die*.

**Steven Carr**  
Director

**Minutes No. 26**

Wednesday 28 February 2001  
At Parliament House (Room 1136) at 1:00pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Johnson

**2. APOLOGIES**

Mr Cohen  
Mr Macdonald

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson: that the Minutes of meeting number 24 be confirmed.

**4. OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS INQUIRY, GENETICALLY MODIFIED FOOD INQUIRY AND INTERNATIONAL COMPETITIVENESS OF AGRICULTURE INQUIRY**

The Chair invited discussion on matters arising from the research and information gathering visit to Tasmania and comment on the draft notes from the visit.

The committee considered the proposal to undertake research and information gathering exercise to Queensland at the Maleny township, Buderim Ginger Cooperative and associated district ventures.

Resolved, on motion of Mr Johnson: that, subject to approval by the President, the proposed research and information gathering exercise to Queensland occur between either Thursday 26 April 2001 and Friday 27 April 2001, or Wednesday 2 May and Thursday 3 May 2001.

**5. ADJOURNMENT**

The committee adjourned at 2:15 pm, *sine die*.

**Rob Stefanic**  
Senior Project Officer

**Minutes No. 28**

Tuesday 27 March 2001  
At Parliament House (Members' Lounge) at 2.20pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Dr Pezzutti

**2. APOLOGIES**

Mr Johnson

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Cohen: that the Minutes of meeting number 27 be confirmed.

**4. TABLED DOCUMENTS****4.1 CORRESPONDENCE SENT**

The Chair tabled the following items of correspondence sent:

Letter from Director to the Hon Richard Amery MP, Minister for Agriculture, and Minister for Land and Water Conservation, dated 16 March 2001, seeking response to questions arising from the committee's research and information gathering exercise to Tasmania (attached).

Memorandum from Director to the Hon Dr Meredith Burgmann MLC, President of the Legislative Council, dated 16 March 2001, advising of the absence of the Hon Ian Macdonald MLC from four consecutive committee meetings without leave of the committee (attached).

**5. INTERNATIONAL COMPETITIVENESS OF AGRICULTURE, GENETICALLY MODIFIED FOOD AND OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS**

The committee reviewed the committee resolution from meeting no 23 concerning a site inspection to Bourke.

"Resolved, on motion of Mr Cohen, that: the committee travel to Bourke on Sunday 1 April 2001 and return on Monday 2 April 2001 with details of the itinerary to be developed by the secretariat in liaison with the Chair."

The committee deliberated.

Resolved, on motion of Mr Cohen: that committee travel date determined in meeting number 23 be amended from "Sunday 1 April 2001 and return on Monday 2 April 2001" to "Thursday 26 April 2001 and return Friday 27 April 2001".

**6. ADJOURNMENT**

The Committee adjourned at 2:30 pm.

**Rob Stefanic**  
Senior Project Officer

**Minutes No. 30**

Thursday 26 April 2001  
At Bourke Shire Council Chambers at 2:00pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Mr Johnson

The committee noted that Dr Pezzutti has been granted leave of absence by the Legislative Council to conduct military service for the period 17 April to 3 May 2001.<sup>146</sup>

**2. APOLOGIES**

Mr West

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson, that: the Minutes of meeting number 29 be confirmed.

**4. CORRESPONDENCE RECEIVED**

The Chair tabled one item of correspondence received:

Correspondence from the Hon Richard Amery MP, Minister for Agriculture and Minister for Land and Water Conservation, received 23 April 2001, responding to the committee's information request from its research and information gathering exercise in Tasmania.

**5. CORRESPONDENCE SENT**

The Chair tabled six items of correspondence sent:

Correspondence from Chair to the Hon Henry Palaszczuk, MP, Minister for Primary Industries and Rural Communities, dated 12 April 2001, seeking assistance with preparation of an itinerary for proposed committee travel to south-east Queensland on 21-22 May 2001 (attached).

Correspondence from Director to Mr Craig Todd, Retail Marketing Manager, The Ginger Factory, dated 18 April 2001, seeking assistance with preparation of an itinerary for proposed committee travel to south-east Queensland on 21-22 May 2001.

Correspondence from Director to Mr Geoff van Doore, Secretary, Yandina Chamber of Commerce, dated 18 April 2001, seeking assistance with preparation of an itinerary for proposed committee travel to south-east Queensland on 21-22 May 2001.

Correspondence from Director to Mr Cameron Russell, Economic Development Officer, Maroochy Shire Council, dated 23 April 2001, seeking assistance with preparation of an itinerary for proposed committee travel to south-east Queensland on 21-22 May 2001.

**6. INQUIRY INTO GENETICALLY MODIFIED FOOD, INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES**

**6.1 CONSULTATION WITH BOURKE SHIRE COUNCIL**

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<sup>146</sup> *Minutes of the Proceedings of the Legislative Council*, second session, 52<sup>nd</sup> Parliament, 28 March 2001



The committee met with the following people at the Bourke Shire Council Chambers: Cr Wayne O'Malley, Mayor, Cr Bob Culhane, Deputy Mayor, Cr Pip Brown, Cr Phillip Hams, Cr Wally Mitchell, Mr Alan Varley, General Manager and Ms Phoebe Chick, Economic Development Officer, all of the Bourke Shire Council, and Ms Jacqueline Mills, District Landcare Support Officer, Department of Land and Water Conservation.

**6.2 SITE VISIT – DARLING FARMS**

The committee met with the following people at Darling Farms, Wanaaring Road Bourke: Mr Ian Cole, Managing Director, and Mr Stephen Buster, Agronomist, both of Darling Farms.

**6.3 SITE VISIT – BACK O' BOURKE FRUITS**

The committee met with the following person at Back o' Bourke Fruits, Hungerford Road, Bourke: Mr Phillip Mansell, co-owner, Back o' Bourke Fruits.

**7. ADJOURNMENT**

The committee adjourned at 11:10pm, until 8:00am, Friday 27 April 2001, at the construction site of the Back o' Bourke Exhibition Centre.

**Steven Carr**  
Director

**Minutes No. 31**

Thursday 27 April 2001  
At Back o' Bourke Exhibition Centre (construction site)  
Kidman Way, Bourke at 8:00am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Mr Johnson

The committee noted that Dr Pezzutti has been granted leave of absence by the Legislative Council to conduct military service for the period 17 April to 3 May 2001.<sup>147</sup>

**2. APOLOGIES**

Mr West

**3. INQUIRY INTO GENETICALLY MODIFIED FOOD, INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES****3.1 CONSULTATION WITH BACK O' BOURKE MANAGEMENT BOARD**

The committee met with the following people at the Back o' Bourke Exhibition Centre (construction site): Cr Wally Mitchell, Cr Peter Simmonds, and Mr Alan Varley, General Manager all of the Bourke Shire Council, Mr Doug McKay, Back o' Bourke Management Board, Mr Peter Cottle, General Manager – Cotton Operations, Clyde Agriculture and Mr Phillip Johnson, Project Manager, Back o' Bourke Exhibition Centre.

**3.2 SITE VISIT – JANDRA PADDLE BOATS CRUISES, DARLING RIVER**

The committee met with the following person at the Kidman Way Caravan Park: Mr Russell Mansell, co-owner, Back o' Bourke Fruits, owner Jandra paddle boat cruises.

The committee deliberated.

Resolved, on motion of Mr Johnson, that: the committee undertake a future research and information gathering exercise in the Cabonne Shire and surrounding areas.

The committee deliberated.

The committee reviewed the committee resolution from meeting no 26 concerning a site inspection to south-east Queensland.

Resolved, on motion of Mr Johnson: that, subject to approval by the President, the proposed research and information gathering exercise to Queensland occur between either Thursday 26 April 2001 and Friday 27 April 2001, or Wednesday 2 May and Thursday 3 May 2001.

The committee deliberated.

Resolved, on motion of Mr Johnson, that: the committee travel date determined in meeting number 26 be amended from "either Thursday 26 April 2001 and Friday 27 April 2001, or Wednesday 2 May and Thursday 3 May 2001" to "Sunday 20 May and Tuesday 22 May 2001".

**4. ADJOURNMENT**

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<sup>147</sup> *Minutes of the Proceedings of the Legislative Council*, second session, 52<sup>nd</sup> Parliament, 28 March 2001.

The committee adjourned at 1:30pm, sine die.

**Steven Carr**  
Director

**Minutes No. 32**

Thursday 3 May 2001

At Parliament House, (Room 1136) at 2:30pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Johnson  
Mr West

**2. APOLOGIES**

Mr Cohen

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Johnson, that: the Minutes of meetings numbered 30 and 31 be confirmed.

**4. CORRESPONDENCE RECEIVED**

The Chair tabled six items of correspondence received:

- Correspondence from the Hon Mick Palmer MLA, Minister for Primary Industry and Fisheries, (Northern Territory) to Director, received 10 April 2001, responding to the committee's request for its position on genetically modified food.
- Correspondence from the Hon Rob Kerin MP, Deputy Premier, Minister for Primary Industries and Resources, Minister for Regional Development (South Australia) to Director, received 10 April 2001, responding to the committee's request for its position on genetically modified food.
- Correspondence from the Hon Kim Chance MLC, Minister for Agriculture; Forestry and Fisheries, Leader of the Government in the Legislative Council, (Western Australia) to Director, received 23 April 2001, responding to the committee's request for its position on genetically modified food.
- Correspondence from the Hon Paul Lucas MP, Minister for Innovation and Information Economy, (Queensland) to Director, received 27 April 2001, responding to the committee's request for its position on genetically modified food.
- Correspondence from the Hon Keith Hamilton MP, Minister for Agriculture, (Victoria) to Director, received 1 May 2001, responding to the committee's request for its position on genetically modified food.

**5. INQUIRY INTO GENETICALLY MODIFIED FOOD, INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES**

The Chair tendered a draft itinerary for committee's research and information gathering exercise to south-east Queensland.

The committee deliberated.

Resolved, on motion of Mr Johnson, that: the draft itinerary be adopted.

The Chair tendered a draft itinerary for the committee's proposed research and information gathering exercise to Italy, Spain, Belgium, United Kingdom and Ireland.

The committee deliberated.

Resolved, on motion of Mr Johnson, that: a sub committee be formed consisting of Mr Kelly and Dr Pezzutti to undertake a research and information gathering exercise to European countries including Italy, Spain, Belgium, United Kingdom and Ireland as part of its inquiry's into opportunities for strengthening rural towns in New South Wales, genetically modified food, and international competitiveness of agriculture in New South Wales.

Resolved, on motion of Mr West, that: the Chair submit a research travel proposal to the President for consideration and approval.

**7. ADJOURNMENT**

The committee adjourned at 3:10pm, *sine die*.

**Steven Carr**  
Director

Minutes No. 33

Tuesday 22 May 2001

At Kingsford Smith Airport (arrival lounge) at 1:57pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Johnson

**2. APOLOGIES**

Mr Cohen  
Mr West

**3. INQUIRY INTO GENETICALLY MODIFIED FOOD, INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES**

The committee considered the draft itinerary for the committee's research and information gathering exercise to Europe.

**4. ADJOURNMENT**

The committee adjourned at 2:13pm, until Monday 28 May 2001.

**Steven Carr**  
Director

**Minutes No. 35**

Wednesday 30 May 2001  
At Parliament House (Greenway Room) at 8:47am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen  
Mr Johnson  
Mr West

**2. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr West: that the Minutes of meeting number 34 be confirmed.

**3. CORRESPONDENCE SENT****3.3.1 INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES, INQUIRY INTO GENETICALLY MODIFIED FOOD AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES**

The Chair tabled the following two items of correspondence sent:

Correspondence to the Hon Meredith Burgmann MLC, President of the Legislative Council, dated 4 May 2001, seeking approval to conduct a research and information gathering exercise in south-east Queensland for the period 20 May – 22 May 2001.

Correspondence to the Hon Meredith Burgmann MLC, President of the Legislative Council, dated 4 May 2001, seeking approval to conduct a research and information gathering exercise in Europe commencing July 2001.

**4. ADJOURNMENT**

The meeting adjourned at 9:13am, *sine die*.

**Steven Carr**  
Director

**Minutes No. 36**

Friday 29 June 2001

At Parliament House (Member's Lounge) at 1:04pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Dr Pezzutti  
Mr Cohen

**2. APOLOGIES**

Mr Johnson  
Mr West

**3. INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES, INQUIRY INTO GENETICALLY MODIFIED FOOD AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES**

The committee reviewed the committee resolution from meeting no 24 concerning completion of reports:

“Resolved, on the motion of Mr Cohen, that the following reporting timeframes be adopted by the committee:

- International competitiveness of agriculture in New South Wales - interim report by 30 June 2001 and final report by 31 December 2002
- Opportunities for strengthening rural towns in New South Wales – final report by 31 December 2001
- Genetically modified foods – a position paper by 30 June 2001 and final report by 30 June 2002.”

Resolved, on motion of Dr Pezzutti, that: the resolution of the committee concerning reporting dates be amended by deleting all words after “committee” and inserting instead:

- Genetically modified foods – an interim report by 14 September 2001 and final report by 30 June 2002.”
- International competitiveness of agriculture in New South Wales - interim report by 16 November 2001 and final report by 31 December 2002
- Opportunities for strengthening rural towns in New South Wales – final report by 31 December 2001
- These reporting dates to be reviewed by the committee during August 2001.

**4. ADJOURNMENT**

The meeting adjourned at 1:10pm, *sine die*.

**Steven Carr**  
Director



**Minutes No. 37**

Wednesday 12 September 2001  
At Parliament House (Room 1136) at 11:30am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Mr West

The committee noted that Mr Johnson was discharged from the committee by the House on 4 September 2001, as a result of his resignation as a Member of the Legislative Council.

**2. APOLOGIES**

Dr Pezzutti

The committee noted that Dr Pezzutti was unable to attend the meeting due to military service in East Timor.

**3. CONFIRMATION OF MINUTES**

Resolved, on motion of Mr Cohen, that: the Minutes of meeting number 36 be confirmed.

**4. TABLED DOCUMENTS****4.1 SUBMISSIONS****4.1.1 GENETICALLY MODIFIED FOOD**

The Chair tabled the following submission:

Submission 52 – Ms Juliet McFarlane, dated 4 July 2001.

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**5. INQUIRY INTO OPPORTUNITIES FOR STRENGTHENING RURAL TOWNS IN NEW SOUTH WALES, INQUIRY INTO GENETICALLY MODIFIED FOOD AND INQUIRY INTO THE INTERNATIONAL COMPETITIVENESS OF AGRICULTURE IN NEW SOUTH WALES**

The committee noted the assistance provided by the following people and organisations during the committee's research and information gathering exercise in Tasmania on 4-8 February 2001:

**Hobart**

From the Tasmanian Institute of Agricultural Research: Prof Robert Clark, Director, Prof Tom McMeekin, Director, Centre for Food Safety and Quality and Ms Wendy Dwyer Kimber, Business Manager – Administration

Hon David Llewellyn MHA, Tasmanian Minister for Primary Industries, Water and Environment and Minister for Police and Public Safety, Mr David Morris, Senior Private Secretary, Office of the Minister for Primary Industries, Water and Environment, Minister for Police and Public Safety, Mr Hugh Griffith, Industry Development Officer, Regional and Business Branch, Department of Primary Industries, Water and Environment

Hon Michael Aird MLC, Leader of the Government in the Legislative Council

Mr Clive Attwater, Strategic Planning Officer and Mr Steve Rank, representative, both of Department of State Development

**Cambridge**

Mr Justin Nichols, primary producer

**Richmond**

Mr Tony Scherer, primary producer (organic)

**Oatlands**

Mrs Clare McShane, Proprietor, Casaveen Knitwear  
Mr Tim Kirkwood, General Manager, Southern Midlands Council

**Longford**

Cr Kim Polley, Mayor and Mr Gerald Monson, General Manager, Northern Midlands Council

**Sheffield**

Mr John Dyer, President, Kentish Tourism Association

**Devonport**

Mr Peter Rockliff, Executive Director, Petuna Group and Mrs Una Rockliff, Director, Petuna Management Pty Ltd

**Forth**

Dr Jason Dennis, representative, Field Fresh Tasmania

**Launceston**

The Hon Michael Polley MHA, Speaker of the House of Assembly

**Westbury**

Mr Brian Hartnett, Managing Director, Tasmanian Alkaloids Pty Ltd

**Deloraine**

Mr John Tabor, Manager, Meander Valley Enterprise Centre Inc.

The committee noted the assistance provided by the following people and organisations during the committee's research and information gathering exercise in south-east Queensland on 20-22 May 2001:

**Brisbane**

From the Queensland Department of Primary Industries: Dr Warren Hoey, Director General, Mr Terry Johnston, Deputy Director General, Mr Barry McDonald, Acting Executive Director – Agency for Food and Fibre Sciences, Ms Karyn Olson, General Manager, Rural Development, Mr Ron Beck, Executive Director Forestry, Mr John Pollock, Executive Director, Policy Analysis and Industry Development, Mr Simon Dejoux, representative, Office for Rural Communities and Mr John Skinner, Executive Director, Corporate Performance

**Sippy Creek**

Ms Heather Gordon, Director Information Services and Mr Mark Bradley, Manager Facilities, both of the University of the Sunshine Coast

**Nambour**

Cr Alison Grosse OAM, Mayor, Cr Trevor Thompson, Deputy Mayor, Cr Joe Natoli, Chair, Economic Development Advisory Committee, Mr Cameron Russell, Economic Development Officer from Maroochy Shire Council

**Yandina**

Mr John Chapman, Manager and Mr Sepp Schembera, Secretary of the Yandina Commonwealth Bank and Mr Mike Maloney, Area Manager Retail, Commonwealth Bank

Mr Peter Robinson, Manufacturing Manager and Ms Joy Varney, Tourism Manager from Buderim Ginger.

**6. GENETICALLY MODIFIED FOOD**

The committee reviewed its resolution from meeting number 36 concerning completion of the Genetically Modified Food interim report:

Resolved, on motion of Dr Pezzutti, that: the resolution of the committee concerning reporting dates be amended by deleting all words after “committee” and inserting instead:

- Genetically modified foods – an interim report by 14 September 2001 and final report by 30 June 2002...

Resolved, on motion of Mr Cohen: that the reporting date for the Genetically Modified Food interim report be extended to 19 October 2001.

## **7. ADJOURNMENT**

The meeting adjourned at 12:15pm

**Rob Stefanic**  
A/Director

**Minutes No. 38**

Monday 15 October 2001

At Parliament House (Room 1136) at 10.00am

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Dr Pezzutti  
Mr West

The committee noted that Mr Costa was appointed to the committee by the Legislative Council on 19 September 2001.

**2. APOLOGIES**

Mr Costa

**3. INQUIRY INTO GENETICALLY MODIFIED FOOD**

The Chair submitted his draft report version 1 entitled "Genetically Modified Food – Interim Report" which having been circulated to each member of the committee, was accepted as being read.

The committee proceeded to consider the draft report.

The committee deliberated.

Resolved, on motion of Dr Pezzutti: that the title of the report be changed to "Genetically Modified Food – Interim Report (Issues Paper)".

Resolved, on motion of Dr Pezzutti: that an additional chapter (Chapter 5), which outlines issues for consideration in the final report, be drafted and circulated.

Resolved, on motion of Mr West: that Chapter 1, as amended be adopted.

The committee deliberated.

Resolved, on motion of Dr Pezzutti: that Chapter 2, as amended be adopted.

Resolved, on motion of Mr Cohen: that the reporting date for the Genetically Modified Food interim report be extended to 25 October 2001.

**4. ADJOURNMENT**

The meeting adjourned at 1:45pm until 3.00pm Wednesday 15 October 2001.

**Rob Stefanic**  
A/Director

**Minutes No. 39**

Monday 15 October 2001  
At Parliament House (Room 1136) at 3.00pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Dr Pezzutti  
Mr West

**2. APOLOGIES**

Mr Costa

**3. INQUIRY INTO GENETICALLY MODIFIED FOOD**

Resumption of the previously adjourned deliberations on the draft report.

The committee deliberated.

**4. ADJOURNMENT**

The meeting adjourned at 4:15pm until 1.00pm Wednesday 17 October 2001.

**Rob Stefanic**  
A/Director

**Minutes No. 40**

Wednesday 17 October 2001  
At Parliament House (Room 1136) at 1.00pm

**1. MEMBERS PRESENT**

Mr Kelly (in the Chair)  
Mr Cohen  
Dr Pezzutti  
Mr West  
Mr Costa

**2. CONFIRMATION OF MINUTES**

Resolved, on motion of Dr Pezzutti, that: the Minutes of meeting number 37, 38 and 39 be confirmed.

**3. INQUIRY INTO GENETICALLY MODIFIED FOOD**

Resumption of the previously adjourned deliberations on the draft report.

The committee deliberated.

Resolved, on motion of Dr Pezzutti: that Chapter 3, as amended be adopted.

The committee deliberated.

Resolved, on motion of Mr West: that Chapter 4, as amended be adopted.

The committee deliberated.

Resolved, on motion of Mr Costa: that Chapter 5, as amended be adopted.

Resolved, on motion of Mr West: that the report, as amended, be adopted.

The committee deliberated.

Resolved, on motion of Dr Pezzutti: that the report be signed by the Chair and presented to the House in accordance with the resolution establishing the committee of 25 May 1999.

The committee deliberated.

Resolved, on motion of Dr Pezzutti: that pursuant to the provisions of section 4 of the *Parliamentary Papers (Supplementary Provisions) Act 1975* and under the authority of Standing Order 252, the Committee authorises the Clerk of the Committee to publish the report, submissions, corrected transcript, and related documents and material with the exception of documents identified as "private and confidential" or "not publicly available".

The committee deliberated.

Resolved, on motion of Mr Cohen: that the report be printed on recycled paper.

**4. ADJOURNMENT**

The meeting adjourned at 2:15pm.

**Rob Stefanic**

A/Director

## **Previous Publications**

## Previous Publications

Item	Title	Date
Discussion Paper 1	Public Sector Tendering & Contracting in New South Wales: A Survey	May 1989
Report 1	Public Sector Tendering & Contracting in New South Wales: Supply of Goods and Services	August 1989
Report 2	Public Sector Tendering & Contracting in New South Wales: Local Government Tendering & Contracting	October 1989
Discussion Paper 2	Coastal Development in New South Wales: Public Concerns & Government Processes	November 1989
Discussion Paper 3	Public Sector Tendering & Contracting in New South Wales: Capital Works Tendering & Contracting: Management Options	June 1990
Report 3	Public Sector Tendering & Contracting in New South Wales: Capital Works Tendering & Contracting. Volume A	April 1991
Report 4	Coastal Planning & Management in New South Wales: A Framework for the Future. Volume 1	September 1991
Supplement to 4	An Alternative Dispute Resolution Primer	September 1991
Report 5	Public Sector Tendering & Contracting in New South Wales: Capital Works Tendering & Contracting. Volume B	December 1991
Report 6	Payroll Tax Concessions for Country Industries. Volume I	December 1991
Report 7	Public Sector Tendering & Contracting in New South Wales: Supply of Goods and Services: Follow Up Report	June 1992
Report 8	Coastal Planning & Management in New South Wales: The Process for the Future. Volume II	October 1992
Report 9	Public Sector Tendering & Contracting in New South Wales: Local Government Tendering & Contracting: Follow Up Report	April 1993
Discussion Paper 4	Regional Business Development in New South Wales: Trends, Policies and Issues.	August 1993
Report 10	Regional Business Development in New South Wales: Achieving Sustainable Growth: Principles for Setting Policy. Volume I	May 1994
Report 11	Regional Business Development in New South Wales: Achieving Sustainable Growth: Initiatives for Setting Policy. Volume II	November 1994



Report 12	Rationales for Closing the Veterinary Laboratories At Armidale and Wagga Wagga and the Rydalmere Biological and Chemical Research Institute	August 1996
Report 13	Factors Influencing the Relocation of Regional Headquarters of Australian and Overseas Corporations to New South Wales	October 1996
Report 14	Interim Report on the Fisheries Management Amendment (Advisory Bodies) Act 1996	April 1997
Report 15	Waste Minimisation and Management	April 1997
Report 16	The Fisheries Management Amendment (Advisory Bodies) Act 1996	July 1997
Discussion Paper 5	Future Employment and Business Opportunities in the Hunter Region	October 1997
Report 17	Fisheries Management and Resource Allocation in New South Wales	November 1997
Report 18	Operations of the Sydney Market Authority (Dissolution) Bill from Commencement until 31 December 1997	March 1998
Discussion Paper 6	International Competitiveness of Agriculture in New South Wales	May 1998
Report 19	Future Employment and Business Opportunities in the Hunter Region; and The Downsizing of the Rack Rite Investment Proposal	July 1998
Report 20	Interim Report on the Provision and Operation of Rural and Regional Air Services in New South Wales	September 1998
Report 21A	The Use and Management of Pesticides in New South Wales Vol 1	September 1999
Report 21B	The Use and Management of Pesticides in New South Wales Vol 2: Transcripts of Evidence	September 1999
Report 22	Inquiry into Road Maintenance and Competitive Road Maintenance Tendering	November 2000
Report 23	Merger of country energy distributors	May 2001