The
First
Australian
Consensus Conference

Gene
Technology
In The Food Chain

Evaluation
Phase 2
Report

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February 2000
The First Australian Consensus Conference

Gene Technology In The Food Chain

Australia's first Consensus Conference was held in Old Parliament House, Canberra, from 10 to 12 March 1999. The topic was Gene Technology In The Food Chain.

A Lay Panel of fourteen citizens, assisted by a professional facilitator, was given briefing materials and access to experts over two preparatory weekends, on the basis of which they framed a set of key questions on the complex issue of gene technology in the food chain.

At the Consensus Conference the key questions were put to expert speakers selected by the Lay Panel, after which the Panel produced a report of their recommendations. They presented it to the President of the Senate of the Australian Parliament.

This is the report of Phase 2 of the evaluation of the Consensus Conference; it seeks to assess the impact of the Conference.

The success factors in the design, management and conduct of the Conference were evaluated in Phase 1 (McKay 1999). A copy of the Phase 1 report is available on the website for this project:

www.consensusconference.chirp.com.au

This Phase 2 evaluation was conducted by Dr Alastair Crombie and Dr Colin Ducker under the auspices of a Reference Group drawn from the Conference Steering Committee:

- Professor Arthur Brownlee, Griffith University
- Mr Claude Gauchat, Avcare Ltd
- Professor John Lovett, Grains Research And Development Corporation
- Ms Carole Renouf, Australian Consumers Association
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Acknowledgments

It has been the very nature of our task that we could not have achieved much at all without the help and cooperation of those who instigated, organised, and participated in the First Australian Consensus Conference.

We wish to thank all those who gave us their time - in interviews, or by completing our questionnaire. We put additional demands on a number of key organisations, and wish to thank in particular those staff at Biotechnology Australia, the Interim Office Of The Gene Technology Regulator, the Australian And New Zealand Food Authority, the Grains Research And Development Corporation, and CSIRO who have helped us greatly by contributing information.

We thank Chirp Web Design for creating a cost-efficient but effective website for the project.

We acknowledge the critical contribution of Carole Renouf in getting Australia's Consensus Conference going, and the commitment and persistence of the Steering Committee in seeing the project through. The Evaluation Reference Group - John Lovett, Carole Renouf, Claude Gauchat, and Arthur Brownlea - defined our task for us, and have been our point of reference. We thank them.

It has been an unusually stimulating and interesting task. We are grateful for the opportunity given to us to become a small part of Australia's First Consensus Conference.

Alastair Crombie and Colin Ducker
28 February 2000
Executive Summary

Our report is in ten sections. It contains a set of Conclusions (C), in which we try to summarise what we have discovered about the various impacts of the consensus conference, and a set of Recommendations (R) which suggest ways in which its outcomes might be consolidated and enhanced.

The first two sections set out the task that we were given, and describe what we have done in carrying out this task - creating a website and a database, administering a questionnaire, conducting interviews, reviewing attitude surveys and media analyses, circulating a work-in-progress report, and issue tracking.

Section Three reviews the policy context for the consensus conference initiative. We give a brief recent history of the regulation of gene technology in Australia, and of the regulation of GM food in particular. This underlines the fact that 1999 has been a watershed year in relation to governmental action on biotechnology.

The next four sections present the information that we gathered concerning the main impacts and ramifications of the consensus conference process.

Section Four summarises the major Commonwealth government decisions on biotechnology in the May 1999 Budget, and the subsequent activities of Biotechnology Australia and the Interim Office of the Gene Technology Regulator as these relate to the outcomes of the consensus conference. This section includes a table summarising the recommendations of the Lay Panel, and subsequent action in relation to them.

C.1 It is clear to us that insofar as the government's 1999 Budget decisions on biotechnology were at that stage still open in terms of detail, the Consensus Conference gave very significant support to the advocates of the key decisions that were finally made.

C.2 Our conclusion is that the Consensus Conference bolstered support for and helped to lock in a number of the decisions in the May 1999 Budget announcements. The credibility of the Consensus Conference is enhanced by the fact that Ministers have chosen to publicly attribute influence to the Lay Panel's Report in arriving at these decisions.

C.3 In the twelve months since the consensus conference positive action has already been taken in relation to a significant proportion of the recommendations in the report of the Lay Panel.

Section Five reviews the impact of the consensus conference on other stakeholders, including industry, CSIRO, and lay panellists. We give an overview of the actions taken by the organisations that our questionnaire respondents belong to, and conclude that the consensus conference can be considered as a 'marker event'.
C.4 We have tried to survey and then to summarise the impact of the CC on the range of non-governmental participants in the process, including the Lay Panel. With the benefit of hindsight one can see that a more purposeful follow through from the Conference might have substantially increased its overall impact. This would also have required more resources.

C.5 Given that this was the very first attempt to design and manage a Consensus Conference in Australia, and in light of the resources that were available for the task, we believe that the CC has made a substantial positive contribution to raising awareness of the issue of genetic modification in the food chain. It has bolstered government action, triggered some critical reflection and self assessment by companies, researchers, and other groups involved, and reinforced our democratic culture and beliefs by showing ordinary Australians can play a positive and productive role in deliberation on complex scientific and technological issues.

R.1 We recommend that the Lay Panel members be invited to meet again to record their experiences of this CC and their ideas for the enhancement of the outcomes of both this CC and future Conferences.

In Section Six we explore the impact of the consensus conference on stakeholder relationships. Whilst there are examples of some new relationships, and of various of the players getting a better appreciation of other’s positions, the consensus conference process has not been particularly successful in transcending the distinct polarisation of positions on GM food.

C.6 Overall our conclusion is that the CC process has not significantly softened or ameliorated the polarisation of beliefs and positions in relation to genetic engineering in the food chain; if anything it may have entrenched this polarisation, at least between the ‘fundamentalists’ on either side.

C.7 However, there is some evidence of new or improved relationships, mainly at the individual level, as a result of the CC process, and there was quite broad support for the general thrust of the Lay Panel’s recommendations.

C.8 There is particularly wide agreement on the need for additional public information and public education. One of the achievements of the consensus conference process has been to help make the need for additional citizen education a major issue.

C.9 It is our opinion that, although it took place amid an upsurge of interest in gene technology and GM foods, the CC was most timely. In the quality of the outcomes and its inherent focus on citizen participation, the CC heightened general awareness of the nature and importance of public opinion. We believe that the CC has prompted many key agencies to pay greater attention to the views of ‘ordinary people’ and to actively seek out those views.

We address the impact on public awareness and understanding in Section Seven. Because of the importance of these matters to government, industry and others, there is a great deal of data on public attitudes to genetic engineering, and a substantial amount of media
analysis. We have extracted data most pertinent to our time frame, which shows that media coverage has increased, and become more negative, while the public are more aware, but more suspicious of genetic engineering and GM food. Our respondents felt that the consensus conference increased media coverage, but did little to improve the quality of coverage.

C.10 Our conclusion is that the CC certainly made a direct contribution to public awareness of the issue of gene technology in the food chain, by generating substantial additional media coverage.

C.11 We have not found evidence that this has translated into increasing scientific knowledge or understanding of genetic engineering. There is some evidence that greater awareness of the issue has increased public suspicion towards GMO's, and GM food in particular, and towards the multinational biotechnology companies active in their development.

R.2 We recommend that in any further consideration of educating the public about genetic engineering, special consideration should be given to creating appropriate and productive learning opportunities for media professionals.

Section Eight addresses the question of support for the consensus conference as a method, and the wider issues of citizen participation in science and technology policy development and assessment. Our respondents broadly agree that the consensus conference was a success, and the process should be used again. From their opinions we have synthesised the major strengths and weakness of the process, suggesting some changes that might be made, and the kind of issues that might be addressed, if the method is to be used again. We also document a growing international interest in enhancing citizen participation in science and technology, and identify a range of participatory methods that are being developed and applied around the world.

C.12 Our conclusion is that there is quite strong interest and support for further use of the consensus conference method, including from major institutions such as CSIRO, Biotechnology Australia, and the Interim Office of the Gene Technology Regulator. It would be very unfortunate if there was no opportunity to profit from the experience gained in planning and conducting the first one.

R.3 Attention should be given to finding an institutional home in the science and technology policy domain for the Consensus Conference, and other citizen participation methods, so that Australians can be more regularly involved in the deliberation of complex issues on the public policy agenda.

R.4 Further development of this recommendation would be greatly assisted by inviting a leading representative of the Danish Board Of Technology to visit Australia.

The final substantive Section we draw together some proposals for ways in which the achievements of the first Australian consensus conference might be consolidated and enhanced. Our recommendations concern action in relation to this Report, an initiative in relation to citizen education, maintaining the project website, on-going monitoring of the Lay Panel's recommendations, and institutionalisation of citizen participation in science and technology policy development.
R.5  This Report be presented to the Consensus Conference Steering Committee, and that this Committee meets to deliberate on the report, its conclusions and its recommendations.

R.6  The Executive Summary of the Report be sent to everyone on our database.

R.7  The full Report be placed on the project website.

R.8  The Report be sent to members of the Commonwealth Biotechnology Ministerial Council, the Biotechnology Consultative Group, Biotechnology Australia, the Interim Office of the Gene Technology Regulator, ANZFSC, ANZFA, and other key bodies that are identified by the Steering Committee.

R.9  We recommend that the Steering Committee carefully considers the whole question of public awareness and education, in the light of this report and the recommendations of the Lay Panel.

R.10  In particular, we recommend that the Steering Committee uses its good standing to convene a special national Round Table meeting of those with a stake in, or a role to play, in educating the public about genetic engineering and GMO's.

R.11  If such a meeting takes place, we recommend that particular attention be given to strategies for assisting media professionals to deepen their understanding of genetic engineering and related issues.

R.12  We recommend that the Steering Committee encourage an appropriate body to adopt the project website, and maintain it as a focus for those interested in consensus conferences, or in the topic of Australia's first one - genetically modified food.

R.13  We recommend that the monitoring of decisions and actions in relation to the recommendations of the lay panel be maintained for at least a further twelve months and that the results be placed on a suitable website.

Finally, we indulge in a brief epilogue. It captures two important views from beyond Australia that seem to us to resonate well with the values and ideals embedded in the concept of a consensus conference. Appropriately, they bring our report to an end with a challenge.
The Task

1.1 The Phase 2 Evaluation focused on the outcomes and impact of the Consensus Conference, extending for twelve months from the date of the Conference (March 1999). Its purpose was to 'critically examine the impact of the CC\(^1\) on sectors vital to the interests of the Conference stakeholders and organisers'.

1.2 We were contracted to undertake this task on 17 September 1999, with a final reporting date of 28 February 2000.

1.3 The Terms of Reference for the Phase 2 Evaluation were as follows:

**Key issues to be evaluated**

*Impact of the First Australian Consensus Conference in:*
- Stimulating debate;
- Empowering members of the Australian public (including the Lay Panel) to gain an informed understanding of, and provide input to this issue within the wider context of their own values and priorities;
- Gaining an understanding of how far and through which processes and interactions the impact of the consensus conference has ramifying effects;
- Gaining insight for all stakeholders into the Australian public's plurality of views on these issues;
- Contributing to government considerations and influencing development of a regulatory framework; and
- Identifying anticipated and unanticipated outcomes from the consensus conference process and recommendations, and their effect on stakeholders, regulators, government, the Australian agrifood industry and the general public.

*The evaluator will investigate and report on:*
- what behaviours have actually changed as a result of the Consensus Conference and in whom and with what consequences;
- the success of the Consensus Conference in the eyes of the stakeholders and organisers;
- the stakeholders actual and foreshadowed responses to consensus conferencing as a social technology;
- the responses of government, regulatory authorities, the Australian agrifood industry and consumers to the recommendations, with particular reference to substantive actions taken and changes in attitude and understanding;
- the extent to which the outcomes are assisting the Australian agrifood Industry towards achieving public acceptance of the science; and
- the scope for gaining acceptance of the recommendations and improving the delivery of outcomes from the consensus conference process.

\(^1\) In this report, Consensus Conference often is referred to as 'CC'.
What We Did

Project database
2.1 As a basic working tool we created a database of all participants in the CC - Steering Committee members, Lay Panel members, expert speakers, organisers, journalists, the Conference audience, sponsors, and others - a total to date of 278 entries.

2.2 These are people for whom the First Australian Consensus Conference is a lived experience. Collectively they represent most of the leading organisations - private, community and governmental - which are directly involved in the GM (genetically modified) food issue. This database is a significant legacy of the project. A profile of the entries in the database is given in Table 1.1.

<table>
<thead>
<tr>
<th>State/Territory</th>
<th>CC Role</th>
<th>Organisational Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT</td>
<td>Organiser</td>
<td>Media</td>
</tr>
<tr>
<td>NSW</td>
<td>Lay Panel</td>
<td>State Government</td>
</tr>
<tr>
<td>Victoria</td>
<td>Steering Committee</td>
<td>Federal Government</td>
</tr>
<tr>
<td>Queensland</td>
<td>Speakers</td>
<td>Regulatory Agency</td>
</tr>
<tr>
<td>South Australia</td>
<td>Audience</td>
<td>Agrifood Industry</td>
</tr>
<tr>
<td>West Australia</td>
<td>Sponsor Body</td>
<td>Research</td>
</tr>
<tr>
<td>Northern Territory</td>
<td>None/ Unknown</td>
<td>Lay Panel</td>
</tr>
<tr>
<td>Tasmania</td>
<td>Total</td>
<td>Community Assoc'</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Total</td>
<td>Other/ Unknown</td>
</tr>
<tr>
<td>Unknown</td>
<td>278</td>
<td>278</td>
</tr>
</tbody>
</table>

Questionnaire
2.3 We designed and distributed a postal questionnaire to 230 people who were associated with the Conference in one way or another, and for whom we had the necessary contact information (addresses are missing for those who registered at the door to attend the CC). It was designed to cover all the main issues in the terms of reference, and provided ample opportunity for open-ended comments. A copy of the questionnaire is at Appendix 2.

2.4 The questionnaire was placed on the project website and could be completed and returned on-line. After one round of reminders, 47 completed questionnaires were returned, a return rate of approximately 20%. Although we have generated simple frequency tables for some of the responses, the questionnaire has yielded mainly qualitative data. In preparing this report, we have drawn on this data to inform our commentary; we have used some it also for illustrative purposes.

Interviews
2.5 We interviewed 47 key respondents - members of the Lay Panel and the Steering Committee, speakers, organisers, sponsors and audience. Face to face interviews (29) took place in Canberra, Brisbane, Sydney, Melbourne, and Tasmania; on average they were
2.6 The interviews were semi-structured, framed by the categories and trigger questions displayed in Table 1.2.

<table>
<thead>
<tr>
<th>Category</th>
<th>Trigger Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Action Outcomes</td>
<td>Can you point to any actions or decisions that have been taken as a result of, or influenced by the CC process – by government, industry, community groups, others?</td>
</tr>
<tr>
<td>Public Awareness/Understanding</td>
<td>Do you believe the CC made a contribution to improving public awareness and understanding of GT in the food chain? If so, how?</td>
</tr>
<tr>
<td>Better/New Relationships</td>
<td>In your experience, did CC help improve relationships amongst stakeholders (less adversarial), and/or stimulate new relationships?</td>
</tr>
<tr>
<td>Enhancing Outcomes</td>
<td>Have you any suggestions for ways in which the outcomes of the CC can be consolidated and enhanced? Based on your knowledge and experience, is the Consensus Conference an effective and appropriate method for citizen participation and increasing awareness in relation to key public policy issues?</td>
</tr>
<tr>
<td>Consensus Conferences</td>
<td></td>
</tr>
</tbody>
</table>

**Documentary Analysis**

2.7 We undertook a good deal of documentary analysis of various types. We had access to the files of the Australian Museum (the Conference organiser), GRDC (Grains Research and Development Corporation²), and the Conference Publicist, Jude Bourguignon of SOCOM Public Relations. In addition to CSIRO, Biotechnology Australia, ANZFA (Australian And New Zealand Food Authority) and IOGTR (Interim Office of the Gene Technology Regulator) were very helpful.

2.8 We collected all the press reports and articles on the Conference that we could find, and have been helped in this by many of the interviewees.

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² John Lovett, Managing Director of GRDC, was a Steering Committee member and member of the Reference Group.
Issue Tracking

2.9 We monitored governmental and industry activities and decision making concerning genetically modified food. One of the by-products of this is the tracking of key events through the 'Modern History Of GM Food' on the project website. This, too, will be a legacy of the project.

Work-in-Progress Report & Round Table Meeting

2.10 As an integral part of the project we prepared a Work-in-Progress Report at the end of October 1999. This was distributed to all those we had interviewed, and all those who had replied to our questionnaire, with an invitation to comment. We convened a Round Table meeting in Canberra on 24 November, to which all ACT entries on the database were invited. Twenty one people attended, and feedback was given on the report. As a project milestone, the Work-in-Progress Report was also the subject of a meeting with the Evaluation Reference Group on 2 November 1999.

Project Website

2.11 We created, as an integral part of the project, a website on which we endeavoured to consolidate all the key public papers concerning the Conference. The main elements of the website are:

- Access to all key documents (including the Lay Panel Briefing Paper, the Lay Panel's Report, speakers' presentations and the Phase 1 evaluation report).
- A set of links to other useful sites, on GMO's (genetically modified organisms) and on consensus conferencing.
- Facility for discussion forums.
- A copy of the questionnaire that could be completed on-line.
- A list of reference materials.
- 'A Modern History Of GM Food' to which users can contribute.

2.12 It is a prime feature of this website that it has been designed for user input. Although its usage to date has been modest, it has the potential to grow into a valuable public domain resource on issues associated both with GM foods, and with consensus conferences.

2.13 The website has two addresses, promoting access by those searching from an interest in either consensus conferencing or gene technology. The addresses are:

www.consensusconference.chirp.com.au

www.genetechnology.chirp.com.au
A Policy Context For The CC

The most successful consensus conferences held overseas have fed directly into the development of legislation/regulation. There is a significant opportunity in 1988-1999 for the proposed Australian consensus conference to do that.
(Initial CC Project Briefing Document)

What Happened Before The CC

3.1 The issues addressed by the CC were national in scope, requiring attention to matters of policy making, organisational arrangements, and resource allocation, particularly by the federal government. In order to make any realistic assessment of the impact that an event such as the CC might have had on policy and decision-making processes, it is important to know what had happened before, as well as what happened after that event. Normally - as indeed in this case - the progenitors of such an activity will make their own appreciation of this context, and plan the timing and focus of the activity to maximise its potential impact.

3.2 We are unable to put forward here anything like a full account of the federal government's efforts to develop policy and regulatory arrangements for genetically modified food, but we have tried to sketch the background to the important decisions taken in 1999.

Regulation Of Gene Technology In Australia

1970 rDNA Hazards

3.3 In the early 1970's, when recombinant DNA (rDNA) technology was being developed, it was the scientists themselves who first voiced concerns about the possibility of creating hazardous micro-organisms using rDNA techniques. Molecular biologists from around the world, including two from Australia, met to discuss this at Asilomar in California in 1975, where they decided that precautions to contain any possible hazards would be put in place for further rDNA research.

1975 First Australian Guidelines

3.4 Following this, the Australian Academy Of Science set up a committee on recombinant DNA (ASCORD) which, in 1975, drew up the first Australian guidelines for biotechnology research.

1981 Continued Monitoring

3.5 In October 1981, the Australian government established RDMC (Recombinant DNA Monitoring Committee) in the Department Of Science. In 1986, the RDMC presented a report, Monitoring Recombinant DNA Technology: A Five Year Review, to the Minister for Industry, Technology and Commerce. This report addressed the need for continued monitoring. It concluded that the technology should continue to be monitored under the existing non-statutory system.

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1 Available on the project website www.consensusconference.chirp.com.au
3.6 In 1987, the Minister for Industry, Technology and Commerce established GMAC (Genetic Manipulation Advisory Committee) as a replacement for the RDMC. GMAC had broader terms of reference, in response to the new biotechnology techniques that had been introduced throughout the preceding decade. Responsibility for GMAC was transferred to the Minister for Administrative Services in July 1988. In August 1988, members were appointed to GMAC by the then Minister for Administrative Services and the first GMAC meeting took place in Canberra in December 1988.

1992 Threat Or Glory

3.7 In 1992, The House Of Representatives Standing Committee On Industry, Science And Technology prepared a report on genetically modified organisms, *Genetic Manipulation: the Threat or the Glory?*. The Government accepted the broad thrust of the Committee’s report, which was to give legal force to guidelines and procedures for contained research work, and to establish an effective legal framework for the assessment of all proposals for the release of GMO's into the environment. It was agreed that GMAC would continue to administer the guidelines until new arrangements (i.e. legislation) were implemented.

1993 Major Reports

3.8 In the following year PMSEC (Prime Minister’s Science And Engineering Council) and ASTEC (Australian Science And Technology Council) prepared major reports on gene technology, which highlighted the need for a clear and efficient regulatory system:

*Gene Technology Issues for Australia, ASTEC, August 1993*

*Gene Technology, a paper for the ninth meeting of PMSEC, 29 November 1993*

1993 Gene Therapy

3.9 In 1993, a Gene Therapy Committee was established by NHMRC (National Health And Medical Research Council) to assess proposals for human gene therapy.

1997 Regulatory Framework

3.10 Following the change of Government in 1996, responsibility for GMAC was transferred from Administrative Services in the Finance portfolio back to the Industry, Science And Technology portfolio. This was followed in 1997 by the Commonwealth government's announcement that it would co-operate with the States and Territories to introduce a national regulatory framework for gene technology, providing statutory backing to the current system. The government’s proposed regulatory package included introduction of new legislation to provide some statutory control of gene technology research and to provide statutory coverage of general releases of genetically modified organisms that were not covered by existing bodies. The existing legislation of other product regulatory bodies was to be retained.

1999 Gene Technology Regulator

3.11 The Budget of 11 May 1999 announced the transfer of responsibility for GMAC from the Minister for Industry, Science And Resources to the Minister for Health and Aged Care. GMAC is now administered from the new Interim Office Of The Gene Technology Regulator (IOGTR), which is also be responsible for continuing negotiations on the development of a statutory framework for regulation of gene technology.
Genetically Modified Food

1993 Issues Of Concern

3.12 In June 1993, NFA (National Food Authority which became ANZFA in July 1996), under pressure to make provision for the regulation of GM food, prepared its initial proposal for 'foods derived from gene technology' (P97). NFA also produced a major discussion paper, Assessing The Safety And Consumer Information Requirements Of Genetically Manipulated Organisms In Food. Sixty five submission were received in response to the draft proposal, and 21 responses to the discussion paper.

1996 Standard A18

3.13 The NFA meeting of October 1994 suspended further work on the proposal, pending the proposed establishment of a national Gene Technology Authority (GTA). By May 1996, with no tangible progress towards establishment of the GTA, the NFA resolved to take a leading role by reviving P97 and establishing a new Standard. At the request of Senator Woods, the Parliamentary Secretary responsible, the Authority (now ANZFA) convened the forum, Genetic Technology In Food - The Challenge Ahead, with representatives from industry, consumer, community, religious, ethical and governmental groups.

3.14 A Working Party from this forum produced a set of 'Guiding Principles', the fifth of which stated that ANZFA should develop a standard for GM foods 'without further delay'.(see Appendix 3). With this support, ANZFA proceeded with the preparation of a draft variation to the Food Standards Code - the inclusion of Standard A18 - Food Derived From Gene Technology. A draft of the proposed new standard, together with an information paper - Assessment Guidelines For Foods And Food Ingredients To Be Included In Standard A18 - Food Derived From Gene Technology - was distributed in February 1997, allowing three months for comments. Some 350 submissions were received from Australia, and 2,700 from New Zealand, where a major campaign on the issue had been organised.

1998 Labelling

3.15 ANZFA put advice to ANZFSC (Australian And New Zealand Food Standards Council of Health Ministers) at their meeting of 30 July 1998, and Standard A18 was adopted, to come into effect nine months after gazettal of the decision on 13 August 1998. The basic effect of the standard was to prohibit distribution of genetically modified food unless it had been subject to formal health and safety assessment by the Authority. GM foods were required to be labelled as such unless they were 'substantially equivalent' to other non-GM foods. At the subsequent ANZFSC meeting on 17 December 1998 however, the Ministers decided, by a majority vote, to direct ANZFA to require labelling of all GM food, including that which was judged to meet the criterion of 'substantial equivalence'.

1998 BIOCOG

3.16 The establishment of BIOCOG (Biotechnology Consultative Group) and creation of a Biotechnology Action Agenda were promised by the Coalition during the 1996 election campaign. However, the Department Of Industry Science And Technology actually briefly abolished its gene technology group in its budgetary squeeze of 1996. It then ran a modest Gene Technology Information Program for a couple of years.

3.17 Establishment of BIOCOG was announced by the Minister for Industry Science and Resources on 22 December 1998. It was comprised of experts from industry, higher education, research, ethics, environmental and nutrition matters, together with representatives from the relevant Commonwealth departments. BIOCOG was initially
supported by the Biotechnology Task Force within the Department, which was to become Biotechnology Australia. BIOCOG had its first meeting on 9 March 1999, the day before the CC.

**The Consensus Conference Initiative**

3.18 Early in the life of the new Coalition government the lack of clear policy and process on regulation, and the lack of any significant public information and education effort had become a source of major frustration for researchers, for agro-chemical and biotechnology enterprises, and for the food industry. In the public domain the debate on GMO's and food had become highly polarised and sterile - an exchange of negative stereotypes through the media. A circuit breaker was needed.

3.19 Moreover, by the end of 1998 GM food was becoming a major public policy controversy in the UK, and in parts of Europe, following hard on the heels of 'mad cow disease'. Greenpeace and other activist groups were attacking companies such as Monsanto, and beginning a campaign to destroy GM trial crops wherever they could be found. By early 1999, media coverage of this controversy, often in sensationalist tabloid terms, had spread to Australia. By the time of the CC there was already, therefore, a rising tide of media attention to 'Frankenfood' and the like.

3.20 At the 1997 ABARE Annual Outlook Conference Carole Renouf, a Senior Policy Officer at the Australian Consumers Association, spoke about consensus conferences. Carole had been working with Consumers International in Europe, and had become familiar with the use of consensus conferences there. Bob Seamark (CSIRO/CRC for Pest Animal Control), Snow Barlow (AFFA) and Julian Cribb (CSIRO) were among those in the audience; all were to become members of the CC Steering Committee. Carole's hope and expectation was that a national consensus conference would be a big enough undertaking, and a sound enough process, to help break the national log jam on the regulation of genetically modified food.

3.21 The Myer Foundation's major support for the proposal ($49 000, agreed to in February 1998), subsequently matched by CSIRO, made it possible. The Steering Committee, Chaired by Sir Laurence Street, met for the first time on 21 August 1998. The Consensus Conference was held in the Senate Chamber of Old Parliament House, Canberra, 10 -12 March 1999.

3.22 A Lay Panel of fourteen citizens, assisted by a professional facilitator, was given briefing materials and access to experts over two preparatory weekends, on the basis of which they framed a set of key questions on the complex issue of gene technology in the food chain.

3.23 At the Consensus Conference the key questions were put to expert speakers selected by the Lay Panel, after which the Panel produced a report of their recommendations and presented it to the President of the Senate of the Australian Parliament. The full report of the Lay Panel is available via the project website for this project.

3.24 The report of the Phase 1 evaluation (McKay 1999) details the process of the Conference and reflects on the success factors in the design, management and conduct of the Conference. The report is available on the project website.
4.1 The policy context against which the CC was held is detailed in Section 3; this section of the report develops the context within which to consider the outcomes and impact of the CC.

1999 Budget Decisions

4.2 It is now well known that the Federal Budget of 11 May 1999, two months after the CC, committed substantial new resources to biotechnology:

Funding of $17.5 million has been provided in the Budget for the development of a comprehensive new biotechnology strategy to ensure that Australia captures the benefits of this emerging technology.

An amount of $10 million has been allocated over two years to a range of measures including establishment of a senior Ministerial Council to manage the biotechnology agenda, development of a national biotechnology strategy and public awareness programs....

A further $7.5 million has been allocated for the establishment of a statutory office of regulation to endure an effective, enforceable system of regulation for the industry.

(Senator Minchin, Minister for Industry Science And Resources, 1999 Budget Media Release, 11 May)

4.3 According to the Minister the government's approach to biotechnology 'has been shaped by the recently formed Biotechnology Consultative Group and other experts who have provided a wide range of views on Australia's strengths in biotechnology'. He summarised the 'measures that the Government has developed' as including:

- Establishment of the Council Of Ministers On Biotechnology.
- Establishment of Biotechnology Australia reporting to the Council Of Ministers through a committee of Commonwealth Departmental Secretaries.
- Development of a national strategy for biotechnology.
- A public awareness program on biotechnology and gene technology.
- Assistance to biotechnology developers in the effective management of intellectual property.
- Improved access to holdings of genetic and biological resources.

1999 Biotechnology Australia

4.4 The government announced a commitment to the establishment of BA (Biotechnology Australia) as a multi-portfolio agency and one-stop shop within the Department Of Industry Science And Resources, and the establishment of a statutory regulatory body within the Department Of Health And Aged Care - the Office Of The Gene Technology Regulator (OGTR). BA was allocated a substantial budget for public awareness and information and was charged with the development of a national biotechnology strategy.

4.5 The press release also observed that apart from this new funding, the government had already committed more than $250 million annually to biotechnology research and development across a number of agencies - CSIRO, the Cooperative Research Centres, universities, the NHMRC and others.
4.6 In separate but interrelated developments, Ministers for Health comprising ANZFSC moved to extend mandatory labelling to all food produced using genetically modified ingredients. After adopting Food Standard A18 in July 1998, the Ministers directed ANZFA to draft amendments for the mandatory labelling of all GM foods. At their meeting of 3 August 1999 this was agreed to, and an inter-governmental task force was established to advise on detailed labelling options and procedures for the 22 October 1999 meeting.

**Links To The CC**

4.7 Those with little understanding of the policy development process, or with a powerful desire to believe in the efficacy of citizen action - or both - might be tempted by this concatenation of events to conclude that these government actions were caused by the Consensus Conference. One of our respondents had an email query from Canada asking if this was in fact the case. Philosophers trying to explain causality call this the fallacy of *post hoc ergo propter hoc* - 'after this, therefore because of this'.

4.8 It does seem however that the final shape of the government's policies and resource allocations were still being decided in the first months of the year, and that the key parameters were not set until a special Ministerial Task Force meeting of 12 February 1999 in Melbourne. In response to a Cabinet submission the Minister for Health Initiated the Task Force meeting in order to gather a wider set of expert opinion before decisions were made. We have been reliably advised also that the State and Territory Health Ministers had independently determined that gene technology regulation would be placed in the Health portfolio in their jurisdictions, whatever the Commonwealth decided.

4.9 On the basis of the information we have been able to gather - and set out in this report - our judgement is that the Consensus Conference and its recommendations had the significant effect of affirming, and thereby strengthening commitment to a number of policy and resourcing recommendations that had already been developed. This is the case in particular in relation to:

- The decision that the regulator should be a statutory body and should be located within the Health portfolio.
- The decisions of ANZFSC in relation to labelling of GM foods.
- The allocation of substantial funding to a biotechnology public awareness strategy.

4.10 The influence that the CC exerted derived particularly from the voice of the Lay Panellists and the judgement that they represented the way in which other 'ordinary Australians' would think and feel about the issues, in the same circumstances. The government heard the people talking, in a rather direct way. The voice they heard was reasonable, if cautious, and created a strong impression of the capability of citizens to grasp and articulate their views on complex scientific and technological matters.

4.11 Some respondents to our project have suggested that some of the Conference speakers' extremely critical treatment of the existing regulatory structures and processes might have been influential in underscoring the need for major changes to the regulatory system, and for the new system to be strongly characterised by qualities of openness and transparency. This is certainly a theme of both Biotechnology Australia and the Interim OGTR, and one that resonates closely with strong concerns raised by participants in the CC.
C.1 It is clear to us that insofar as the government's 1999 Budget decisions were at that stage still open in terms of detail, the Consensus Conference gave very significant support to the advocates of the key decisions that were finally made.

C.2 Our conclusion is that the Consensus Conference bolstered support for and helped to lock in a number of the decisions in the May 1999 Budget announcements. The credibility of the Consensus Conference is enhanced by the fact that Ministers have chosen to publicly attribute influence to the Lay Panel's Report in arriving at these decisions.

Recent Policy Decisions

4.12 Just as policy is not instantly made by conference recommendations, nor does the policy process stop with Budget announcements.

A National Strategy

4.13 Biotechnology Australia has issued a major Discussion Paper, *Developing Australia's Biotechnology Future* (September 1999), pursuant to the development of a national strategy. Responses to the Paper are to be considered by the Commonwealth Biotechnology Ministerial Council, after which the Government proposes to 'consider a comprehensive biotechnology strategy in the formulation of the 2000-01 Budget'.

4.14 The Discussion Paper refers to the Consensus Conference:

*The Government is keen to put in place a rigorous, efficient and transparent system of regulation for gene technology research and for GMO's and products. This is in line with some of the recommendations arising from the First Australian Consensus Conference: Gene Technology in the Food Chain, which was held in March 1999.*

*At this conference, a Lay Panel from various backgrounds discussed gene technology and the food chain, including the issues of science, risk, morality, ethics, health, environment, labelling, choice and public awareness. The Consensus Conference considered both the regulatory schemes referenced above, as well as the work of GMAC and the proposals for new arrangements for genetically modified organisms* (Developing Australia's Biotechnology Future 1999: 7)

A Communications Strategy

4.15 Biotechnology Australia has also carried out benchmark media analysis for the months of February and July 1999, commissioned a major public opinion survey as the basis for a public awareness and information strategy, and funded CSIRO to create a website devoted to public education on gene technology.

4.16 In February 2000 it adopted a 'communications strategy' developed by consultants: *Communications Strategy: A Public Awareness Program For Biotechnology Australia.* The essential thrust of the strategy is promotion of biotechnology, and not public education. The overall outcome of the strategy is that *public, stakeholders and target audiences will be informed, aware and supportive* (our emphasis). One element is a 'spokespeople' program that will *utilise spokespeople to proactively communicate the benefits of biotechnology*.

4.17 The overall goal of the strategy is "to create an environment where members of the public are able, through access to quality, balanced Information, to make informed decisions"
on the applications, uses and future of biotechnology in Australia*. This goal is to be pursued through five objectives:

- Increased public awareness, knowledge, and understanding of biotechnology.
- Promote informed public debate on biotechnology.
- Provide more balanced coverage in the media on biotechnology.
- To recruit spokespeople to promote the benefits of biotechnology.
- To increase the public's awareness, knowledge and understanding of the role and significance of regulatory bodies.

4.18 For the media strategy component the 'ultimate goal' is "to generate more balanced coverage in the media on biotechnology. Only then will the Australian public be in a position to participate in an informed debate about the future of biotechnology in Australia." A centrepiece of the communications strategy is a proposed 'National biotechnology Summit' in May 2001, which 'could leverage off the success of the 1999 consensus conference.'

4.19 The communications strategy covers a lot, but not all of BA's communications and public awareness work. The broader policy and many other activities are being determined by a public awareness working group comprising PR professionals from all BA agencies, and include:

- The establishment of the Gene Technology Information Service (hotline);
- Sponsorship of public forums in all states to debate the pros and cons of gene technology;
- The development of a specific schools education strategy (still underway);
- Undertaking consumer research; and
- Developing information and education material to best suit consumer needs ('GM Food' brochure and 'Juggling Genes' brochure).

4.20 In our view, until there is more evidence of resources flowing to authentic public education, encompassing the full range of perspectives and arguments, many of the CC participants will be disappointed with the apparent emphasis on a promotional campaign for biotechnology.

Developing The Regulatory System


4.22 Three mechanisms for community involvement in the formulation of gene technology policy are proposed:

- Establishment of a Gene Technology Community Consultative Group (GTCCG) comprising 12 community representatives to be appointed by the Minister.
- A formal, documented process for consultation on the development and publication of standards, codes of practice and technical guidelines to support the regulatory framework.
- Regular public forums to discuss key issues, supplemented by targeted consultation with peak industry groups, universities and researchers, consumer groups and peak health and environment groups.
4.23 It is further proposed that the ethical issues involved could be referred to the existing Australian Health Ethics Committee, appropriately supplemented.


The Regulatory System

4.25 The proposed legislation will regulate all 'dealings' (eg. research, manufacture, production, commercial release, import) with live viable organisms that have been modified by techniques of gene technology. The stated object of the legislation is 'to protect the health and safety of people and to protect the environment by identifying and managing the risks posed as a result of gene technology through the regulation of certain dealings with GMO's. The complexity of the task and the need to reconcile a range of competing perspectives and interests are indicated in the goals that have been identified for the new regulatory system. It is intended to create a regulatory system that:

- Protects public health and safety and the environment by regulating those GMO's that fall between the gaps of existing regulatory systems.
- Builds on the strengths of existing administrative arrangements for contained work with GMO's (the GMAC arrangements) by providing a statutory underpinning for these arrangements.
- Is based on the precautionary approach.
- Provides a clear path to market for those GMO's assessed as safe.
- Is transparent.
- Is based on a scientific assessment of the risk combined with a consideration of broader issues of national interest and ethics.
- Provides ample opportunity for community involvement in decision-making.
- Is accountable to key stakeholders (including Parliament) and the public.
- Actively minimises the regulatory burden on the individuals and organisations that will seek to use the system.
- Harmonises risk assessments across regulatory agencies in relation to the genetic safety of GMO's and GM products.
- Establishes a regulatory process that is as objective as possible.
- Is highly nationally uniform, efficient and effective.

4.26 It is proposed that the legislative scheme will be administered by an independent statutory office holder, appointed by the Governor General and having the power to report directly to Parliament.

4.27 After extensive consultations - now under way - on the Draft Bill, it is planned to have a revised Bill ready for introduction into Parliament in April 2000.

4.28 The Health Ministers (ANZFSC), after their 22 October 1999 meeting, are still seeking advice on the most cost-effective food labelling procedure. It is anticipated that final decisions on the labelling of all GM foods will be made at the May 2000 ANZFSC meeting.

A Continuing Interest

4.29 Not surprisingly, most of the key stakeholder groups involved in the CC are also involved in on-going consultative and lobbying processes to influence the way in which the details are played out.
Actions And Recommendations

4.30 The major output of the CC was the set of Lay Panel recommendations, and strong interest has been shown in monitoring actions that relate to these recommendations.

4.31 Without implying any unwarranted causal connections, we have juxtaposed some of the actions taken by the Commonwealth government and its agencies since the CC with the recommendations of the Lay Panel. This is displayed across Tables 4.1 to 4.10.

C.3 In the twelve months since the consensus conference positive action has already been taken in relation to a significant proportion of the recommendations in the report of the Lay Panel.

(Tables 4.1 to 4.10 follow)
### Table 4.1
**Lay Panel Recommendation 1**

1. **The Regulation Of Gene Technology in The Food Chain**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 The formation of a new statutory authority with responsibility for GMO's</td>
<td>1999 Budget announced establishment of a permanent Statutory Office of the Gene</td>
</tr>
<tr>
<td>with well-balanced representation be established whose outcomes and deliberations are public.</td>
<td>Technology Regulator by 1 July 2000 (May 11).</td>
</tr>
<tr>
<td>1.2 Companies wishing to commercially release GE products should pay a substantial licence fee to government to support insurance against risk and the funding of the new statutory authority mentioned above. Such companies would have their licences withdrawn if found to be violating GMO safety regulation.</td>
<td>1999 Interim OGTR within the Department of Health announced by Minister for Health (22 August).</td>
</tr>
<tr>
<td>1.3 Safety regulations should include strict codes of practice and encompass the following:</td>
<td>There are five regulatory agencies. It is proposed that the OGTR, like other elements of the system, will operate on a user pays basis.</td>
</tr>
<tr>
<td>- That all GE products be subjected to random tests by independent inspectors to establish on-going compliance with licence requirements.</td>
<td>The Draft Bill makes provision for suspension, cancellation or variation of licence agreements.</td>
</tr>
<tr>
<td>- That any legislation be uniform across all States so as to prevent loopholes in the law by allowing individual States to draft local legislation that may allow manufacturers to circumvent the Act.</td>
<td>BA is currently examining the insurance issue.</td>
</tr>
<tr>
<td>- That any legislation be of benefit to and protective of the environment and community at large and not just be formulated to serve any one interest.</td>
<td>TGA and NRA have inspection provisions, as does the Gene technology Bill.</td>
</tr>
<tr>
<td>- That all legislation be subject to regular review.</td>
<td>One of the key goals of the proposed new regulatory system is that it be 'highly nationally uniform, efficient and effective'. All jurisdictions are involved in the development process.</td>
</tr>
</tbody>
</table>

### Table 4.2
**Lay Panel Recommendation 2**

2. **Processes Of Decision-Making**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government should establish a mechanism similar to the model of the Consensus</td>
<td>It is proposed to establish a Gene Technology Community Consultative Group with 12 members appointed by the Minister representing various sectors of the community. GTCCG would give advice to OGTR and to the Ministerial Council.</td>
</tr>
<tr>
<td>Conference, consisting of industry, consumer groups, critics, other experts and the Australian lay people. This would ensure that dialogue between all of these groups would lead to better government decisions.</td>
<td></td>
</tr>
</tbody>
</table>

15
### Table 4.3
**Lay Panel Recommendation 3**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Science And Risk</th>
<th>Subsequent Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 No new commercial releases or unlabelled importation of GMO foods, both whole or processed, be allowed in Australia unless and until:</td>
<td></td>
<td>IGTR established in May 1999. Expected to be fully operational after passage of the Gene Technology Bill during 2000.</td>
</tr>
<tr>
<td>- An independent, unbiased Gene Technology Office within a statutory authority is established to assess and report on all aspects of GMO safety.</td>
<td></td>
<td>Australian governments are considering the Australian position, in consultation with non-government organisations.</td>
</tr>
<tr>
<td>- A clear Australian position on the Biosafety Protocol be established.</td>
<td></td>
<td>Mandatory labelling agreed to; details likely to be confirmed by ANZFSC at May 2000 meeting.</td>
</tr>
<tr>
<td>- An all-encompassing GMO labelling system be established.</td>
<td></td>
<td>To some degree, such consultation has been designed into the regulatory system - GTAC, GTCCG, and a proposed Ethics Committee</td>
</tr>
<tr>
<td>- A process of co-operative consultation between industry, government and consumer groups on the GMO issue be established.</td>
<td></td>
<td>Already exists in relation to publications. The proposed Gene Technology Advisory Committee (GTAC) will use experts to provide scientific risk advice.</td>
</tr>
<tr>
<td>- The establishment of an independent academic peer review system for GMO research.</td>
<td></td>
<td>This will be a role of GTAC.</td>
</tr>
<tr>
<td>- A full evaluation of the risks of GMO field trials be conducted and/or overseen by the recommended Gene Technology Office.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.2 This should in no way affect current usage of GMO crop cultivation in Australia or any existing use of GMO products.</td>
<td></td>
<td>This is the case.</td>
</tr>
<tr>
<td>Research and field trials into GMO development should be allowed to continue provided adequate containment procedures are enforced.</td>
<td></td>
<td>Comprehensive labelling agreed to.</td>
</tr>
<tr>
<td>The importation of GMO foods should only be allowed when full identification be provided to the end consumer by comprehensive labelling.</td>
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</table>
### Table 4.4
**Lay Panel Recommendation 4**

<table>
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<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
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</thead>
<tbody>
<tr>
<td>4.1 Environment and Health departments should be integrally and pro-actively involved in developing strategies to prevent and prepare for any possible health and environmental problems or disasters that might occur through GMO applications.</td>
<td>A 'whole-of-government' approach is being taken by States/Territories and the Commonwealth, including health and environmental portfolios. GMO licence conditions will include 'clean up' provisions.</td>
</tr>
<tr>
<td>4.2 A specific adverse reactions register should be established to ensure that any possible health links to GMO's be closely monitored.</td>
<td>All current adverse reaction registers will remain. Gene Technology Bill proposes adverse effect monitoring also.</td>
</tr>
<tr>
<td>4.3 In order to ensure the highest standard of public health, the regulation of GMO issues should not be moved to Agriculture, Fisheries and Forestry Australia.</td>
<td>IOGTR is located in the Health Department.</td>
</tr>
</tbody>
</table>

### Table 4.5
**Lay Panel Recommendation 5**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Independent assessment of the viability and impacts of choosing non-GMO options should be carried out assessing the potential impacts on industry, local producers and Australia's international trade.</td>
<td>Not carried out. Note that the Gene Technology Bill contains 'national interest' provisions that allow the Ministerial Council to consider broader policy issues.</td>
</tr>
<tr>
<td>5.2 This process should explore political, cultural, financial and environmental ramifications of this issue.</td>
<td></td>
</tr>
<tr>
<td>5.3 We recommend a process where information gained from this assessment should be communicated widely to the public. Community, scientific, industry and government consultation and involvement should then take place to ensure an inclusive decision-making process.</td>
<td></td>
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</tbody>
</table>
### Table 4.6
**Lay Panel Recommendation 6**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>That an ethicist be involved in the formulation of major decisions regarding GMO policies.</td>
<td>IOGTR proposes to establish an Ethics Committee as an integral part of the regulatory system.</td>
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### Table 4.7
**Lay Panel Recommendation 7**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
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</thead>
<tbody>
<tr>
<td>7.1  That the Australian Consumer and Competitive Commission (ACCC) take a proactive role in investigating and preventing multi-national monopolies in the food industry.</td>
<td>ACCC has a range of ways in which matters can come to its attention.</td>
</tr>
<tr>
<td>7.2  That protocols be established to ensure that public input into research proposals and funding be established to ensure that broad public, as well as commercial interests are served.</td>
<td>The processes envisaged in the Gene Technology Bill for the Gene Technology Regulator will be one of the avenues through which such input is possible.</td>
</tr>
</tbody>
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### Table 4.8
**Lay Panel Recommendation 8**

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
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</thead>
<tbody>
<tr>
<td>8.1  In the negotiations of the Biosafety Protocol, Australia should support a regulated trade approach in relation to GMO's. This would ensure a precautionary approach to GMO trade, the provision of a specific liability regime and segregation and labelling of all products.</td>
<td>The Biosafety Protocol has now been negotiated.</td>
</tr>
<tr>
<td>8.2  Australia should seek to initiate and support international treaties that protect those vulnerable from exploitation by bio-prospecting companies.</td>
<td></td>
</tr>
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18
## Lay Panel Recommendation 9

### Public Awareness And Participation

<table>
<thead>
<tr>
<th><strong>Recommendation</strong></th>
<th><strong>Subsequent Action</strong></th>
</tr>
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<tbody>
<tr>
<td>9.1 Better processes to allow public access to information which includes varying perspectives should be established at many levels, including:</td>
<td>CSIRO has established a Gene Technology Information Program. The GTR will also have an information provision role.</td>
</tr>
<tr>
<td>- The establishment of a Gene Technology Information Office;</td>
<td></td>
</tr>
<tr>
<td>- Government sponsored advertising campaigns.</td>
<td>BA has adopted a comprehensive national communications strategy.</td>
</tr>
<tr>
<td>- Toll-free phone lines and Web site for consumer information.</td>
<td>Both already established.</td>
</tr>
<tr>
<td>- Public notices on GM issues.</td>
<td>Public notification is a formal element of proposed OGTR operations.</td>
</tr>
<tr>
<td>- Information fact sheets.</td>
<td>BA has released a 'GM Foods' leaflet via supermarkets.</td>
</tr>
<tr>
<td>- Focused education information and CD ROM's.</td>
<td>BA's communications strategy includes a proposal for a CD-ROM and an 'e-newsletter' on biotechnology.</td>
</tr>
<tr>
<td>- Increased consumer representation on existing and future decision making bodies is absolutely necessary. A stringent selection process conducted by an independent body, similar to that used to select Consensus Conference lay panel members, should be applied in choosing representatives. Equal representation from public, industry and other key stakeholders should be established.</td>
<td>Key elements of the GTR - GTAC, GTCCG and the Ethics Committee will have community representatives and direct consumer input into individual applications and development of overarching policy.</td>
</tr>
</tbody>
</table>

<p>| 9.2 Resources should be identified and allocated to produce a follow-up report about the Consensus Conference process one-year on that will evaluate and monitor its impact in relation to the issue of GM foods. This should include: | Done - with funding supplied by the Rural Research and Development Corporations. |
| - A clear list of any results linked to the conference. | Outcomes and impacts of the CC assessed in this report. |
| - Input by external experts knowledgeable about public participation processes. | Done. Phase two evaluation undertaken by external consultants experienced in adult education and public participation. |
| - Input from a wide circle of those involved in the Conference, including lay panel members, expert speakers or the organisation they represented, paying audience members, sponsors, etc. | Questionnaires sent to everyone involved in the CC. Forty four key people interviewed. |
| - Recommendations on how to improve and make better use of this process. | Included in Phase One evaluation report - but some further observations in this report. |
| - Assurance that the report be widely circulated and distributed to key decision makers and interested parties. | Yes |</p>
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Subsequent Action</th>
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<tbody>
<tr>
<td><strong>10.1</strong> The lay panel strongly recommends that all genetically modified foods, regardless of where modification occurs, should be labelled to allow free and informed consumer choice. Such labelling must show the reason for genetic change and any other information necessary for human or animal health advice.</td>
<td>Labelling of all GM foods agreed by ANZFSC in December 1998. After substantial drafting and consultation, recommendations on labelling details expected to go to ANZFSC in May 2000. (Relevant information on ANZFA website.)</td>
</tr>
<tr>
<td><strong>10.2</strong> There are many debates about the difficulties of providing effective and clear product labelling. The panel agrees that this is a difficult issue and suggests that more discussion involving all sectors will have to take place before specific labelling regulations be decided for GMO foods</td>
<td>Has occurred (See above).</td>
</tr>
</tbody>
</table>
5.1 We asked respondents to our questionnaire about the impact of the CC on the priorities, decisions and actions in their organisations, on stakeholders more generally and on public attitudes. The results are summarised in Tables 5.1 and 5.2.

5.2 In general terms, more than 60% of respondents could identify ways in which the CC had influenced their own organisation, and 90% perceived the CC as having influenced stakeholder groups.

Table 5.1

<table>
<thead>
<tr>
<th>Impact On Organisations</th>
<th>Impact On Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 4.1</strong></td>
<td><strong>Question 4.3</strong></td>
</tr>
<tr>
<td>In your view, to what extent has the Consultative Conference process impacted on priorities, decisions and actions in your organisation?</td>
<td>In your view, to what extent has the Consultative Conference process impacted on priorities, decisions and actions of stakeholder group?</td>
</tr>
<tr>
<td>Not At All</td>
<td>Other</td>
</tr>
<tr>
<td>Not At All</td>
<td>Very Significantly</td>
</tr>
<tr>
<td>Not At All</td>
<td>Quite A Lot</td>
</tr>
<tr>
<td>Not At All</td>
<td>Moderately</td>
</tr>
<tr>
<td>Not At All</td>
<td>A Little</td>
</tr>
<tr>
<td>Not At All</td>
<td>Not At All</td>
</tr>
</tbody>
</table>

Corporate Responses

5.3 Governments are not the sole actors of course. It has been harder however to get insight into corporate reactions to the CC.

5.4 We understand from Avcare that many of its members have re-strategised as a result of the Conference - though the full meaning of this is not clear to us. Bill Biowes (Monsanto) indicated in a letter to Lay Panellists that he had learned a lot about the public's perceptions of Monsanto, and that the company would need to work harder to overcome its poor public image. (Meanwhile, Monsanto internationally has opted to shed its identity in the course of a merger with Pharmacia & Upjohn; the new company will be known as Pharmacia)

5.5 Avcare itself, the peak industry body representing the manufacturers and distributors of both crop protection and veterinary health products (ie agricultural and veterinary chemicals), prepared and circulated a prompt, detailed and positive set of responses to recommendations in the report of the Lay Panel. A summary of these responses is presented in Appendix 8.

5.6 Our impression is that industry is still trying to understand why it is that they have been losing the public relations battle in relation to GM food, given such a command of the science and technology and other resources. On one view it is simply that there is little direct consumer benefit from the current applications of gene technology; once benefits to
consumers are manifest, attitudes will change. Such a view may underestimate the depth of community concern on ethical and ecological grounds, and fear at the prospect of multinational food monopolists.

5.7 Responses by AFGC (Australian Food And Grocery Council) and ASI (Australian Supermarket Institute) have portrayed a rather negative view of the CC. The Executive Director of ASI is quoted in the Academy of Science's National Science And Industry Forum Report:

_The recent consensus conference on gene technology was anti-science, anti-knowledge. Galileo would have found the circumstances familiar. The final communiqué shows that the conference was a waste of time. The participants were at best naïve._ (Ibid: 9)

5.8 A respondent from AFGC informed us that the Council had not established any new relationships or improved existing ones, that the CC was 'flawed' - the debate being 'woeful' and 'too adversarial'. The AFGC had earlier declined to contribute funding, adding the opinion that 'those consensus conferences conducted in the UK and New Zealand have added little to the development of gene technology or greater understanding of it within the community'.

5.9 The 'opposition' - a loose aggregate of nutritionists, consumers, organic growers, and the Australian Conservation Foundation's GenEthics network - seem rather to have amplified their influence since the CC, though not necessarily because of it. The Organic Federation Of Australia and the Australian GenEthics Network (GEN), together with a range of like-minded groups, have consolidated their relationship through commitment to a Citizens Alliance For A Five Year Freeze On Genetic Engineering In Australia And New Zealand. The aims of the Alliance are set out in a Draft Charter of August 1999. Calls for such a moratorium received unexpected support in that same month from Doug Shears, the Chairman of the ICM Agribusiness group - a prominent member of the AFGC.

5.10 According to respondents, the impact of the CC on CSIRO has been quite significant - 'a watershed for CSIRO'. Chief Executive, the late Dr Malcolm McIntosh, described the conference report as 'sensible, well-considered, and valuable for Australian science'. Referring to the Lay Panellists as 'a group of well-briefed but typical Australian citizens' he said:

_CSIRO will be treating their opinions and conclusions with respect and seriousness. I expect they will be most useful in helping us to shape our national research strategy and capture the benefits of this technology for Australia...based on an initial appraisal of the Consensus Conference process it has proved impressive in coming to grips with an extraordinarily complex issue and reaching a conclusion that achieved a fair balance between the various points of view._ (CSIRO Press Release, 12 March 1999, Ref 99/45)

5.11 CSIRO was of course a major sponsor. Participation in the CC was used as a catalyst for the production of a _CSIRO Position Statement On Gene Technology_ (Appendix 4). This Statement, which was finally signed off on the morning of the first day of the CC, was therefore a significant by-product of the CC. CSIRO's significant involvement was also useful in finally securing the case for establishment of a Gene Technology Information
Program, of which the website1 funded by Biotechnology Australia is a key element. There is in addition to be an internal Round Table meeting on gene technology, and a significant stimulus has been given to the development of ethics statements to guide all CSIRO research, and to the training of scientists in media presentation and interview techniques.

**Questionnaire Responses**

5.12 In the questionnaire, respondents were asked to indicate the extent to which the recommendations of the CC had an influence on policy debate and development, generally. The results are summarised in Table 5.3, and show that an overwhelming 95% of respondents felt that the CC had had an impact, and this reinforces much of what has been observed elsewhere in this report.

5.13 In a related question, participants were asked to indicate the extent to which their organisation had made use of the Lay Panel recommendations. The results are summarised in Table 5.4. They show that 70% of respondents felt that some use had been made of the recommendations by their organisation.

<table>
<thead>
<tr>
<th>Table 5.3</th>
<th>Impact On Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 2.1</strong></td>
<td>In your view, to what extent have the recommendations in the Report of the Lay Panel had an influence on policy debate and policy development?</td>
</tr>
<tr>
<td>Very Significantly</td>
<td>[ ]</td>
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<tr>
<td>Quite A Lot</td>
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<tr>
<td>Moderately</td>
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<td>A Little</td>
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<tr>
<td>Not At All</td>
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<table>
<thead>
<tr>
<th>Table 5.4</th>
<th>Organisational Use Of Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Question 2.3</strong></td>
<td>Has your organisation responded to or used the recommendations of the Lay Panel in any way?</td>
</tr>
<tr>
<td>N/A</td>
<td>[ ]</td>
</tr>
<tr>
<td>Yes</td>
<td>[ ]</td>
</tr>
<tr>
<td>No</td>
<td>[ ]</td>
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</tbody>
</table>

5.14 Respondents provided an interesting array examples of the ways in which their organisations have used the outcomes of the CC. Some of the more prominent examples were:

- *Our 1989 policy is being updated and the CC Report is part of our consideration. Though it doesn't differ greatly from what we were thinking.*
- *Used the CC outcomes to help frame NSW Agriculture's response to enquiries etc. re GMO's.*
- *Tabled at Board, circulated, used in submissions for Centre renewal and used in policy (communication) development.*
- *Avocare has responded to each of the Report's recommendations stating its position and where possible what is being done about them. This response was sent to the Lay Panel, Steering Committee and the evaluators with permission to publish as a public document.*

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1. [www.genetech.csiro.au](http://www.genetech.csiro.au)
They have been used to feed into policy development and information activities.

Wide dissemination of the report across CSIRO. The report has influenced policy and served to clarify CSIRO's stand on some issues.

Indirectly, the CC process and outcomes have been raised in relation to the need for the dairy industry to be more proactive in developing a position on biotechnology.

A member of the Lay Panel has now been appointed to our IBC Committee.

Publicised recommendations with many organisations with which we do business.

We copied and widely distributed their report to our constituents.

Widely disseminated within the organisation - about 15% of our investment is in biotechnology (including gene technologies).

I circulated them to clients and discussed their reactions to the CC and the recommendations.

Wide discussion among staff.

Circulation of a copy of the Report to all RDC Chairs and RO's at the March 1999 meeting of RDC's - subject to limited discussion at the meeting.

Circulated to staff.

A precis of CC and key issues arising from GWRDC perspective was prepared and circulated to GWRDC Board and Executive.

Briefing was given to Board.

Circulating to other staff in the agency who have an interest or involvement in this area either from a science or a policy setting.

We wrote an article in Australasian Biotechnology.

Used the outcomes for teaching material (4th and 5th year postgraduate university students).

Discussed the findings of the Lay Panel in our Gene Technology In Action workshop offered to high school students.

UCAN has disseminated information over the Internet of the Lay Panel Report. Also, it has organised talks and discussion groups, especially among young mothers in the Gold Coast/ hinterland area

Use of the recommendations in our many public interactions (seminars, conferences, press interviews etc).

The Lay Panel Report was discussed at the AMA's Ethics and Public Health Committee meeting in May 1999.

It helped us focus our activities to raise awareness with our members, whereas previously there was a relaxed attitude to GMO's - ie 'it will never happen to us'.

Stimulated us to a better understanding of all sides of the issues, and helped us to become better equipped to deal with positive and negative aspects.

Impact On Lay Panel Members

5.15 To find out what impact their involvement in the CC had had on members of the Lay Panel, we interviewed 12 members. These semi-structured interviews were framed by questions from three main areas:

- What impact did the Consensus Conference have on them as individuals?
- What activities, if any, have they engaged in as a result of their participation in the CC, including contacts made, or maintained.
- What are their ideas about enhancing the outcomes of the CC?

Impact

5.16 Most of them said that, overall, the CC was personally valuable; they were pleased to have been involved. Among the most positive effects were:

- They experienced a feeling of having achieved something significant. Although it was demanding of time and intellect, they grappled with a complex issue and arrived at sufficient understanding to be able to make informed, balanced recommendations.
• They found the experience of citizen participation and the process of the CC, learning experiences in their own right; none had been involved in such a process before.
• They appreciated the opportunity to meet and work closely with people from a variety of backgrounds.

5.17 Several said the experience of the CC raised their self esteem and their belief in their own intellectual and emotional abilities. For example, one respondent said:

They're all personal level achievements. I got a lot of personal self advancement. I've never been a part of any similar process. My self esteem has gone right up.

5.18 But, not all the effects were positive. For example:
• Two respondents said that, during the CC, they never really knew whether anyone would take the outcomes seriously. This was disconcerting at the
time, and remains an unresolved question.
• Many of them said they carry a sense that the CC has never been completed. They were highly involved up to and including the submission of the Report - the putative ending - but there was nothing to help them down from their heightened state. They have unanswered questions about how others perceived and experienced the CC, and what has happened to their recommendations.

5.19 These responses are summed up in the statement by one respondent ... we dropped off the cliff at the end of the Conference.

Post-conference Activities
5.20 At least four of the respondents have had significant involvement in activities attributable to their involvement in the CC. Two have been appointed public members of CSIRO Institutional Biosafety Committees and have significant on-going roles as community voices in that capacity. Both have been speakers at scientific forums, one of which was organised by the Australian Biotechnology Association. One of them had given at least two other public addresses, and had arranged meetings with members of the State/Territory government.

5.21 Two others had become quite actively involved in the GenEthics Network, and had between them contributed articles to the local press, been interviewed by the media, and been a speaker at public meetings. They both spoke as though they have become activists against GMO's as a result of their CC experience, and were taking on roles in the community that they could not otherwise have imagined taking. A third had had some initial involvement with GEN, including contributing to a letter writing campaign, and had contributed to the ABC website, but was unable to sustain this involvement.

5.22 For the others we spoke with, post-Conference involvement amounted to a flurry of transient interest from friends and relatives and, for some, the local media. Only one reported maintaining any contact with other members of the Lay Panel, and one said he did not have any remaining interest in the CC or its outcomes. To him, the CC is over and his interest has waned.

5.23 The level of disappointment among these respondents is captured in the statements: I'm very disappointed there has been no follow up. It's a lost opportunity.

We've been forgotten about. I'm disappointed about this.
Enhancing The Outcomes

5.24 The question of enhancing the outcomes of the CC was a difficult question for all Lay Panel members because overall they had very little knowledge of what had happened to the Report or its recommendations. On the whole they have heard nothing since the CC, do not know who to contact to find out, and are disappointed by this:

I'm really disappointed. We worked hard; put a lot of ourselves into it. Now there's not even a mention - in the media or anywhere else.

5.25 Two respondents said they were pleased that continuing attention was being given to the topic, *Gene Technology In The Food Chain*, but they were not able to connect this attention with their efforts on the Lay Panel. All were interested to hear from the interviewer a few examples of the ways in which their efforts have been used, and were pleased that this project's website has captured such a good array of materials relating to the CC.

5.26 Respondents made two particular suggestions about enhancing the outcomes of the CC:

- The Lay Panel should be reconvened to:
  - Hear what has happened to their efforts since the CC - what impact they have had on government, industry and the public.
  - Discuss matters such as the perceptions they each hold of the CC and its process, and the ways in which they experienced the CC.
  - Generate a sense of closure.
  - Reveal and record what they have learnt as participants in the CC.

- The achievements of the CC, and the government and industry responses to the recommendations should be publicised.

A Marker Event?

5.27 Happiness, it has been said, is not one big thing, but thousands of little things. So it is perhaps with the outcomes of the CC. Others have chosen different metaphors - such as ripples spreading across the surface of a lake after a stone is thrown in. Attention to the Conference in the Murrumbateman community newsletter, and a six page spread on GM food in *Sydney's Child* newspaper are good examples. Most such ripples will never be known about.

5.28 Another referred to the CC as a 'marker event' - not necessarily of great intrinsic consequence, but an important policy reference point, or milestone, and perhaps a galvanising event. In his authoritative article on consensus conferences at the Danish Board Of Technology, Lars Kluver observes that:

> Consensus conferences often play a role as 'markers in time'. When the topic becomes part of wider public debate in the years after a particular conference, the conference is often referred to. This reflects the fact that consensus conferences are seen by many people as state of the art democratic debate. The conference as a point of reference means that the topic is kept on the political agenda. That in itself is an impact.

(Kluver 1995)

5.29 A marker event in this sense might perhaps help delineate in the public domain the general size, shape and significance of the issue concerned - the challenges and opportunities to be faced.
5.30 Ministers Vaile and Troeth have both taken the opportunity in speeches to refer back to the Conference as an important and valuable event, and have attributed it a useful contribution to the government’s policy development. Such attribution has its own reality.

5.31 Organising a national consensus conference is a major undertaking, and to some extent getting the attention and involvement for three days of a good proportion of the major stakeholders and the mass media creates its own sense of occasion and momentum.

C.4 We have tried to survey and then to summarise the impact of the CC on the range of non-governmental participants in the process, including the Lay Panel. With the benefit of hindsight one can see that a more purposeful follow through from the Conference might have substantially increased its overall impact. This would also have required more resources.

C.5 Given that this was the very first attempt to design and manage a Consensus Conference in Australia, and in light of the resources that were available for the task, we believe that the CC has made a substantial positive contribution to raising awareness of the issue of genetic modification in the food chain. It has bolstered government action, triggered some critical reflection and self assessment by companies, researchers, and other groups involved, and reinforced our democratic culture and beliefs by showing ordinary Australians can play a positive and productive role in deliberation on complex scientific and technological issues.

R.1 We recommend that the Lay Panel members be invited to meet again to record their experiences of this CC and their ideas for the enhancement of the outcomes of both this CC and future Conferences.
6 Stakeholder Relationships

6.1 For some, at least, of the initiators and organizers of the CC the polarisation of argument about genetically modified foods, and its negative and unproductive character, were very salient features of the context in which the conference was organized. There was a hope that the CC would be able to bring the main protagonists together in a structured, public setting that would be conducive to clear exchange and careful attention to opposing views.

6.2 By such means it is possible for even quite deep-seated conflicts to be rationalised - that is, not necessarily resolved, but at least made more rational. This occurs as the parties in a dispute achieve greater discrimination about the issues that are in contention, and at the same time, of course, become more aware of what is not in dispute - the area of agreement. To the extent that a conflict is rationalised, the parties understand and are in agreement about the basis of their conflict. In this situation, argument is more likely to be productive. We have explored the extent to which such a rationalisation occurred.

6.3 In addition, we were asked to evaluate 'how far and through what processes and interactions the impact of the CC has ramifying effects', and to identify 'anticipated and unanticipated outcomes from the CC process and recommendations, and their effects on stakeholders, regulators, government, the Australian agrifood industry and the general public'.

6.4 In our questionnaire, we operationalised this in the form of two questions about relationships, as displayed in Tables 6.1 and 6.2.

<table>
<thead>
<tr>
<th>Question 3.1</th>
<th>Question 3.3</th>
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</thead>
<tbody>
<tr>
<td>In your view, to what extent has the Conference Process helped stakeholders understand and appreciate each other's position on gene technology in the food chain?</td>
<td>In your view, to what extent has the Conference Process stimulated and supported the development of new relationships and networks?</td>
</tr>
<tr>
<td><strong>Very Significantly</strong></td>
<td><strong>Very Significantly</strong></td>
</tr>
<tr>
<td>Quite A Lot</td>
<td>Quite A Lot</td>
</tr>
<tr>
<td>Moderately</td>
<td>Moderately</td>
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<tr>
<td>A Little</td>
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<tr>
<td>Not At All</td>
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</table>

6.5 These graphs indicate that 90% of respondents believed that, to some extent at least, the CC helped stakeholders improve their understanding and appreciation of the positions held by others; and 78% believed that the CC gave at least some stimulus or support to the formation of new relationships and networks.
6.6 Individuals experienced the CC process in widely differing ways. For one or two it showed them nothing that they did not already know, and might have helped to make things worse. For others it has been an extraordinary and valuable experience. Our general conclusions will obscure this wide variety of experience.

6.7 In their comments, many respondents reflected regretfully that the CC did not bridge the gulf between the adversaries, or noticeably nurture more mutual respect. For example:

> I think the various groups 'understand' the positions of other groups perfectly well, they just fundamentally disagree with them! This was the most frustrating part of the entire conference i.e. the total polarisation and posturing of the 'stakeholders' on both sides.

> We now understand that certain groups are opposed to the technology and will never support its introduction, while other groups are prepared to support the technology providing the appropriate information is available and regulatory controls are in place.

> Process was too adversarial. Scientific community gained a greater appreciation of the campaign methods of opponents.

> The Conference produced outcomes that were agreed by the Lay Panel – they provided a point of departure for a process that is based on working together and finding common ground. But the idea of consensus didn’t last long. The main players have reverted to their adversarial approach, encouraged strongly by the media.

6.8 A significant number of respondents observed, with regret, that the CC process was in fact unusually adversarial - most particularly, the Conference itself. Many on the Lay Panel and in the audience observed that speakers often failed to elucidate, to be facilitative, or even, occasionally, to answer the questions put. Instead they defended entrenched positions, and sought to sell them, whilst attacking alternative views. The expert speakers from GEN (Bob Phelps) and Monsanto (Bill Blowes) epitomised such adversarialism for some.

6.9 At least two broad camps can be discerned: the food industry, agribusiness and life science companies, government, the regulators, and research scientists on the one side; and nutritionists, GEN, organic producers (such as OFA – Organic Federation Of Australia), some environmentalists, consumers (such as ACA – Australian Consumers Association), the Natural Law Party, and a number of other like-minded groups, on the other. Our respondents portrayed these broad camps in terms such as:

> The antagonists have closed minds and will never appreciate other positions.

> Most groups extremely polarised either pro or anti GMO’s - not disposed to change.

> It's quite clear that, following the CC, debate has been split down the centre. The anti: GenEthics, Organic Federation, Australian Consumers etc versus Monsanto, Australian Grocers etc. It seems that they have chosen their teams and are now completely unwilling to listen to each other or consider evidence that is contrary to their team’s view.

> Most parties entered the CC from established positions and I have seen little evidence that these positions have moved very far subsequent to the CC.

> It seems there has not been enough dialogue between proponents and opponents as neither faction is prepared to give ground to the other.
Interestingly, there is some evidence that relationship and networking within each of these clusters has improved.

... the Conference was an elevated platform for discussion between parties who already had relationships. It is likely this could have happened by some other means, but the conference was well timed, gave a formal basis for this development, and built more trust among the players.

GEN and OFA seem to have worked more closely together for example, and have built a coalition of 20 or so other environmental, organic and health groups to promulgate a charter for a Citizens Alliance For A Five Year Freeze On Genetic Engineering In Australia And New Zealand.

Agrifood Awareness Australia (AAA), is an alliance of the Australian Biotechnology Association (ABA), Avcare (The national association for crop production and animal health), the Cooperative Research Centres Association, GRDC, the National Farmers Federation (NFF) and the Seed Industry Association Of Australia (SIA). Although not formally launched until May 1999 as a new industry initiative, AAA in fact predates the Consensus Conference. The alliance has nevertheless drawn energy and direction from the CC, at which it was well represented, and its priority of enhancing consumer understanding of biotechnology in agriculture has been reinforced.

These alliances are not coterminous with 'the camps'. They are instances of strengthened relationships within the camps. There are possibly others. There are also some groups that do not fit comfortably into one camp or the other. ACA seems to have found some common ground, working with participants from both sides. Farmers and farmer groups are pulled in both directions - they can see the technology benefits, but want to be sure they can sell what they grow.

One group that seems to have found the CC experience worthwhile, and to have enhanced some of their interrelationships is the Conference Steering Committee. There is some regret that the Steering Committee rather stopped dead in the water once the Conference was over, when perhaps its members might have been able to push the outcomes a bit further. One respondent made the plea:

Reconvene the Steering Committee for a 'where are we now' meeting and establish the major pending issues in the areas of public awareness/education, regulatory framework, industry stewardship.

We believe that there may still be a valuable role for the members of the Steering Committee, in the light of this Report, to meet to consider strategies that might further promote their original aims.

When 'government' denotes 'public servants', they are of course in neither camp. Government officials from the departments of Health and Industry, and other governmental agencies, continue to meet extensively with representatives of both camps, as part of the ongoing processes of consultation and lobbying. In this respect, public servants are often better placed than most to be aware of all sides of the arguments. 'Government' is perceived by some to be in the proponents camp because the government of the day is in fact supportive of biotechnology, and has created Biotechnology Australia in order to progress Australian biotechnology development.
6.17 The broad conclusion, that the CC might have reinforced polarisation amongst the established stakeholder groups, rather than diminished it, should be tempered with the recognition of dozens of small acts of outreach by which participants in the CC process have made new connections with one another and stayed involved in the issues. For example:

- CSIRO invited an Australian Consumers Association representative to join their parliamentary briefing to the Queensland Parliament.
- Avcare invited an Australian Consumers Association representative to address their Board, and circulated its own responses to the CC recommendations to all the main participants.
- Two members of the Lay Panel have been appointed members of CSIRO Institutional Biosafety Committees.
- CC participants formed the panel for an Australian Biotechnology Association seminar in Canberra.
- CC participants contributed to a 'hypothetical' at the University of Western Australia.
- A group of four Steering Committee members in Sydney has met to develop some joint writing on consensus conferences.
- Scott Kinnear (OFA) and Bob Phelps (GEN) have met with representatives from Monsanto and AgrEvo.
- A CRC is hiring a Community Relations Officer (two way communications) instead of a Communications Officer.
- CC speaker, Father Des Coates, has had invitations to speak at the Avcare annual conference and other gatherings on ethical issues related to biotechnology.
- A Lay Panel member arranged a meeting with her Health Minister, has addressed a local community group, and written an article about the CC experience for a national agricultural newsletter.
- Two Lay Panel members have become members of the GenEthics Network and are active in their local communities on GM issues.
- We are advised that a significant number of the submissions made in response to the Biotechnology Australia and Interim Office of the Gene Technology Regulator Discussion Papers used the CC as a point of reference.

6.18 It is almost certain that only a small fraction of such initiatives have come to our attention. The significance of these myriad small acts should not be underestimated. However, if it was hoped to reduce polarisation, to rationalise conflict and break the mould of adversarialism then the CC was not particularly successful.

6.19 More positively, many of our respondents noted an increased recognition on the part of government agencies, scientists, and companies, of the need to pay more attention to and show more respect for the views of consumers, and the public at large (something we noticed as we conducted interviews with representatives of these agencies). The following comments illustrate the point:

*Scientists now appreciate the public have a distinct view/opinion and that it is prudent to listen to their concerns.*

*I think the strength of consumer concerns has been noted at policy level.*

*[The CC] reinforced strongly to GMO stakeholders the depth of concern amongst lay people, especially re labelling and the right to choose.*
6.20 Many commented that they valued getting to know some of the key players, such as the expert speakers, better, but there is not much evidence of increased mutual respect or capacity to collaborate. Some have been quite blunt - *we got to know the enemy better!*

6.21 It should be noted however that even the leading protagonists have seen the need and the value of talking to one another. We can only surmise that the shared CC experience made it easier for such meetings to be arranged. Our impression is that the exchanges have been limited, that there are definite limits to information sharing, and that the discourse has been more declaratory than exploratory.

6.22 A few respondents are fatalistic about this state of polarisation. Others have made positive suggestions for trying to overcome it. These suggestions are for meetings of various kinds, that might be able, some twelve months later, to explore more productive and collaborative relationships into the future.

C.6 Overall our conclusion is that the CC process has not significantly softened or ameliorated the polarisation of beliefs and positions in relation to genetic engineering in the food chain; if anything it may have entrenched this polarisation, at least between the 'fundamentalists' on either side.

C.7 However, there is some evidence of new or improved relationships, mainly at the individual level, as a result of the CC process, and there was quite broad support for the general thrust of the Lay Panel's recommendations.

C.8 There is particularly wide agreement on the need for additional public information and public education. One of the achievements of the consensus conference process has been to help make the need for additional citizen education a major issue.

C.9 It is our opinion that, although it took place amid an upsurge of interest in gene technology and GM foods, the CC was most timely. In the quality of the outcomes and its inherent focus on citizen participation, the CC heightened general awareness of the nature and importance of public opinion. We believe that the CC has prompted many key agencies to pay greater attention to the views of 'ordinary people' and to actively seek out those views.
Public Awareness And Understanding

Government officials and politicians often express frustration at the 'inaccurate and emotional' reactions of the public in the GM debate. Often campaign groups and the media are singled out as the villains of the piece, guilty of spreading hysteria through stories that are based on half truths or unproven speculation.

But to assume that the public is ignorant and gullible is not only patronising, but inaccurate, and therefore damaging to the debate.

(ESRC 1999: 8)

7.1 This observation from Britain resonated with us, with the important qualification that in our experience it has been scientists and representatives of industry, more than government officials and politicians, who have lamented the Australian public's irrationality and gullibility. There is of course some evidence to bolster such a view. On the other hand, in our interviews and in survey responses we also have ample evidence of scientific fundamentalism and social illiteracy of a kind that tends to justify public scepticism about leaving the scientists and those they advise in charge. Is science too important to be left to the scientists?

7.2 In seeking to make any judgements about public knowledge and understanding it will be important to be clear about what are appropriate tests or indicators of this. The rational scientific mind instinctively turns to 'the facts' about DNA and genes, and ways in which these can be altered - such as may be found in the elementary text books. Using similar types of measures, researchers on behalf of the government found that Australians - who have transplanted democracy and made it work here remarkably well for two centuries - are tragically ignorant of the formal structure of their polity and the contents of the Constitution.

7.3 There is little doubt that Australians on the whole would score poorly in tests of their basic biological knowledge of genes and genetic engineering. What the scientific fundamentalists find hard to understand is that improving this situation would not address the major issues that are of concern to the public in relation to the genetic modification of food.

Consensus Conferences And Public Education

7.4 Increasing public awareness and understanding of complex issues on the public policy agenda - including scientific and technological developments - is a key goal of consensus conferences. This goal has been pursued by various means, but media coverage has always been of central importance.

7.5 Members of the Lay Panel, along with all those directly involved in organising and managing such an activity, have the privilege of a very intensive educational process. Those who attend such a conference - usually numbering several hundred people - can also expect to be able to learn a good deal. Others could become informed as a result of the distribution of material produced for, and by the Conference, including the preparation of information materials as a specific outcome. For making any impression on the awareness and understanding of the public at large, however, one has to rely on the media - radio, television and print. Increasingly of course, the Internet is becoming another medium for distributing and accessing information.
7.6 Making a realistic assessment of the impact of the CC on public awareness and understanding of genetic engineering in the food chain is perhaps the most difficult part of the impact assessment brief. We used three main sources of information in forming judgements on this matter - attitude and opinion survey results, media monitoring and analysis, and the views of our respondents expressed in interviews and via our survey. The data available shows some clear changes over the relevant time period in the volume and character of media coverage, and in public attitudes towards genetically modified food.

Public Opinion And Attitude Surveys

7.7 Over the past six years there has been quite a number of public attitude and opinion surveys, and focus group studies, covering the broad domain of biotechnology and genetic engineering. Some of the recent studies have attended specifically to GM food issues. Most of these are proprietary and the results not available for general use. Those we have become aware of are listed in Table 7.1.

<table>
<thead>
<tr>
<th>Year</th>
<th>Survey/Study Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>Survey Of South Australian's Attitudes To Science And Technology, Including Genetic Engineering, CSIRO Human Nutrition</td>
</tr>
<tr>
<td>1998</td>
<td>Public Attitudes Towards Genetic Engineering And Cloning Confidential Report by Market Attitude Research Services for CSIRO, January</td>
</tr>
<tr>
<td>1998</td>
<td>Biotechnology Consumer Survey - To Assess Attitudes To Science And Technology Including Genetic Engineering CSIRO Human Nutrition, September</td>
</tr>
<tr>
<td>1999</td>
<td>Australian Consumers Attitudes To GM Food A C Neilson Survey, September</td>
</tr>
<tr>
<td>1999</td>
<td>Farmers Uncertain About GM Crops Rural Press Ltd Farmer Survey, September</td>
</tr>
<tr>
<td>1999</td>
<td>Biotechnology Consumer Survey Replication of the July 1998 survey CSIRO Human Nutrition, September</td>
</tr>
<tr>
<td>1999</td>
<td>Survey Of Farmers Perceptions Of Genetically Modified Foods Crima Research for Agrifood Awareness Australia, November</td>
</tr>
<tr>
<td>1999</td>
<td>Public Attitudes Towards Biotechnology Research study by Yann Campbell Hoare Wheeler for Biotechnology Australia, December</td>
</tr>
</tbody>
</table>
7.8 For those interested in an international comparative perspective, the Centre For The Study Of Environmental Change, Lancaster University (UK) undertook a major study of public attitudes to GM food in 1996. Their report - *Uncertain World: Genetically Modified Organisms, Food and Public Attitudes in Britain* (1977), has reportedly had a significant impact on UK policy on GMO’s. In North America, Thomas Hoban is an authority on this subject, and has summarised the results of several major studies of consumer attitudes to agricultural biotechnology (Hoban 1998)

7.9 It seems that attitudes are shifting in the direction of greater suspicion and hostility towards genetically engineered foods, as awareness of the issues increases. This increasingly negative attitude is not based on better scientific knowledge of genetic engineering as such, but a growing awareness of the risks involved, together with a lack of confidence in governmental regulatory capability, and suspicion of corporate motives. Other research has shown that we are increasingly concerned for our food to be natural and fresh, nutritious and healthy. Eating engages the human affect systems as well as the cognitive; we feel deeply about what we regularly ingest. Food is not medicine; it is disingenuous to argue that people are irrational for not opposing life enhancing medical applications of genetic engineering to the same degree they oppose GM food.

7.10 The 1994 study commissioned by the Department Of Industry Science And Tourism (DIST) now provides an interesting benchmark against which contemporary attitudes to biotechnology can be assessed. That study found generally positive to neutral attitudes to biotechnology, with just a small proportion opposed.

> *Most Australians approve of genetic engineering, and there are few social differences in approval. They approve...mainly because they see it as serving goals that they value, not because they understand much about it. Opposition...is concentrated among people who put a low priority on improvements in health and agriculture as goals for Australian scientists, concentrated amongst supporters of the Greens, and concentrated amongst people who dissent from the scientific world view...A clear majority of the Australian public think the benefits of genetic engineering will outweigh the risks.*

(DIST 1994: 5)

7.11 It is of particular interest that six years ago, and with generally favourable public attitudes towards the technology, labelling was very strongly supported:

> *The public is overwhelmingly in favour of clear labelling and the consumers right to choose. 46% say ‘Yes, definitely’ and a further 43% ‘Yes probably’ - an overwhelming majority for labelling. Only 6% are undecided and a miniscule 4% against labelling.*

(ibid: 39)

7.12 Five years later, attitudes to labelling have not changed, but opinion is more evenly divided on the balance of risks and benefits from genetic engineering. The government is seen as having too little control over the regulation of biogenetic applications. Research in Australia, and elsewhere, shows consistently that public confidence in gene technology is strongly conditioned by perceptions of the regulatory agencies; by and large the Australian public knows very little about the relevant Australian agencies. It is also consistently found that the public is most accepting of genetic engineering involving plant cells, less accepting in relation to animal cells, and least accepting in relation to human cells. Medical applications are reliably found to be the most acceptable.
7.13  The most useful of these surveys from our point of view are those which have been undertaken by the CSIRO Health Sciences And Nutrition. With the aim of assessing consumers' understanding and acceptance of modern food-related technologies, including genetic engineering, three postal surveys have been undertaken - 1994, 1998 (September) and 1999 (October).

7.14  Between 1994 and 1998 there was little change in attitudes. The 1998 and 1999 surveys span the first major announcement on food labelling, the escalation of negative media coverage in the UK, the Consensus Conference, and the May 1999 Budget decisions. The shifts of attitude exemplified in the selected items below, whilst not huge, are significant and consistently in the direction of reduced acceptance:

<table>
<thead>
<tr>
<th>Table 7.2</th>
<th>Selected Survey Items</th>
<th>October 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 1998</td>
<td>had heard 'a lot' or a 'fair amount' about GE</td>
<td>49%</td>
</tr>
<tr>
<td>41%</td>
<td>had heard little or nothing about GE</td>
<td>50</td>
</tr>
<tr>
<td>58</td>
<td>benefits of biotechnology will outweigh risks</td>
<td>42</td>
</tr>
<tr>
<td>45</td>
<td>danger to the environment from GE plants 'likely' or 'somewhat likely'</td>
<td>48</td>
</tr>
<tr>
<td>36</td>
<td>willing to try GE foods for same price if better quality</td>
<td>38</td>
</tr>
<tr>
<td>47</td>
<td>plant-plant gene transfers acceptable</td>
<td>39</td>
</tr>
<tr>
<td>51</td>
<td>GE will make life better for most people</td>
<td>31</td>
</tr>
<tr>
<td>35</td>
<td>have heard of potential benefits</td>
<td>55</td>
</tr>
<tr>
<td>54</td>
<td>have heard of potential dangers</td>
<td>46</td>
</tr>
<tr>
<td>37</td>
<td>GE of plant cells 'highly acceptable'</td>
<td>23</td>
</tr>
<tr>
<td>38</td>
<td>Animal-plant gene transfer acceptable</td>
<td>9</td>
</tr>
</tbody>
</table>

(Extracted from data supplied by Dr Katrine Baghurst, CSIRO Health Sciences And Nutrition, Adelaide)

7.15  Dr Baghurst's own conclusion is that

*Many consumers are still accepting of the potential benefits of the technology but consumer sentiment towards genetic engineering has become more negative over the past year...The greatest decrease in consumer acceptance ...... appears to relate to plant-based genetic engineering, the area discussed most widely in the past year in the media.*

7.16  She notes that acceptance remains closely linked to the end use of the technology, and that transparency, choice and the right to know, are key consumer issues. In announcing the survey results she observed that:

*The overwhelming message from this sample of opinion is that people don't have enough information on gene technology or its use in food, and they would definitely like more.*

**Media Coverage Of The CC**

7.17  The CC itself certainly attracted media attention. As part of a detailed media strategy, information kits, media releases and media updates were sent to national media on 4 January, 1 February, 1 March, and 10,11,12 March 1999. According to the report of the Conference Publicist, a total of 83 journalists attended the Conference, including crews and reporters from ABC TV 7,30 Report and Channel 9. One hundred and seventy three items of metropolitan and national media coverage were identified in the two week period from the start of the Conference (10 - 25 March 1999), as displayed in Table 7.3.
7.18 Media Monitors reported an additional 114 items of regional radio coverage during the period 8 – 15 March 1999. In aggregate this represents a significant 'surge' in volume of coverage. Some of the media coverage of the event also fed into later electronic media programming - such as the Channel 9 Sunday program, and the radio documentary series which has now been broadcast twice on ABC Radio National's 'Life Matters'.

7.19 A number of respondents have observed that, whatever judgement is made about the overall quality of coverage, one of the outcomes of the CC was some better informed reporters, with access to material and contacts that might otherwise have not been available.

**Media Analysis**

7.20 A number of organisations have commissioned media monitoring and analysis of biotechnology related issues, including genetic modification of food. Again, most of this is proprietary.

7.21 Biotechnology Australia has kindly made available for this project a study that it commissioned from MediaScape Analytical And Research Services, which analyses media coverage of biotechnology for the months of February 1999 and July 1999. This of course conveniently brackets the CC.

7.22 The survey covered TV, radio and newspaper items, and made an assessment of each item as 'positive' or 'negative' to the biotechnology agenda. Each item is assigned an 'advertising dollar equivalent' value - an industry measure which weights the value of items. National TV items, for example, are worth far more than provincial press items.

7.23 Table 7.4 shows that, from February to July 1999, coverage increased from 120 to 211 items, an increase of 75%. Total estimated value of coverage increased from $353,604 to $674,829 - an increase of 90%. In February 40% of all items were judged 'negative'. By July this had increased to 54.4%.

<table>
<thead>
<tr>
<th>Table 7.3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Media Coverage Of The CC</strong></td>
</tr>
<tr>
<td>Radio programs/news</td>
</tr>
<tr>
<td>Television programs/news</td>
</tr>
<tr>
<td>Newspaper articles/features</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

(From Media Impact Report for Biotechnology Australia by MediaScape Analytical & Research Services, July 1999)
7.24 The overall picture is more coverage, especially in relation to agricultural biotechnology and food, higher value coverage, and more negative coverage. It is particularly striking that while there is a much greater increase in the number of items on agriculture and biotech than on the food sector, the imputed value of those items on the food sector has increased far more - around 400%. Food has hit the front pages, and most of it negative.

7.25 For the survey's sub-issues, GM Crops and Food Labelling show the biggest increases in volume of coverage, and a big increase in the proportion of this which is negative. While the number of items on GM Food is static, the value of them has increased by 250% in July. Table 7.5 provides a summary of this data.

| Table 7.5
Breakdown Of Major Sub Issue Data |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% Negative</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>56.8</td>
</tr>
<tr>
<td>7.6</td>
</tr>
<tr>
<td>43.55</td>
</tr>
<tr>
<td>0.00</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td>-</td>
</tr>
<tr>
<td>26.3</td>
</tr>
<tr>
<td>100</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

(From Media Impact Report for Biotechnology Australia by MediaScape Analytical Research Services, July 1999)

7.26 The survey also analysed items by 'Constituency' - summarised in Table 7.6. The category 'Media Comment' - by far the biggest - is made up of news media comment and editorials. There is a significant increase in what one might call community items (Community Comment, Environmental Groups, GenEthics Network, Australian Consumers Association) - from 10 (imputed value $12 496 - 3.5% of total value) to 37 items (imputed value $60 139 - 9% of total value). It is tempting to conclude that the CC may have been at least partly responsible for this.
Table 7.6
Media Items And Value By Constituent

<table>
<thead>
<tr>
<th>February 1999</th>
<th>Constituent</th>
<th>July 1999</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>$ Advert Equivalence</td>
<td>Items</td>
<td>$ Advert Equivalence</td>
<td>% Negative</td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.6</td>
<td>$96 041</td>
<td>24</td>
<td>29</td>
<td>$426 971</td>
</tr>
<tr>
<td>17.1</td>
<td>$95 040</td>
<td>45</td>
<td>33</td>
<td>$80 160</td>
</tr>
<tr>
<td>99.0</td>
<td>$69 318</td>
<td>3</td>
<td>34</td>
<td>$20 150</td>
</tr>
<tr>
<td>6.4</td>
<td>$49 094</td>
<td>6</td>
<td>4</td>
<td>$4 678</td>
</tr>
<tr>
<td>$10 289</td>
<td></td>
<td>9</td>
<td>12</td>
<td>$16 513</td>
</tr>
<tr>
<td>$7 890</td>
<td></td>
<td>6</td>
<td>4</td>
<td>$6 692</td>
</tr>
<tr>
<td>$59 846</td>
<td></td>
<td>6</td>
<td>6</td>
<td>$4 967</td>
</tr>
<tr>
<td>$4 796</td>
<td>Community Comment</td>
<td>5</td>
<td>19</td>
<td>$25 636</td>
</tr>
<tr>
<td>$4 185</td>
<td>Environmental Groups</td>
<td>2</td>
<td>10</td>
<td>$19 712</td>
</tr>
<tr>
<td>$2 201</td>
<td>GenEthics Network</td>
<td>1</td>
<td>4</td>
<td>$4 798</td>
</tr>
<tr>
<td>$1 987</td>
<td>State Governments</td>
<td>1</td>
<td>3</td>
<td>$2 352</td>
</tr>
<tr>
<td>$1 457</td>
<td>Australian Food &amp; Grocery Council</td>
<td>3</td>
<td>5</td>
<td>$26 332</td>
</tr>
<tr>
<td>$1 378</td>
<td>Primary Producers</td>
<td>4</td>
<td>24</td>
<td>$18 301</td>
</tr>
<tr>
<td>$1 314</td>
<td>Australian Consumers Assoc</td>
<td>2</td>
<td>4</td>
<td>$9 993</td>
</tr>
<tr>
<td>$834</td>
<td>State Farmers Assoc</td>
<td>3</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Food Manufacturers</td>
<td></td>
<td>11</td>
<td>$21 994</td>
</tr>
<tr>
<td>$353 604</td>
<td>Totals</td>
<td>120</td>
<td>211</td>
<td>$674 829</td>
</tr>
</tbody>
</table>

(From Media Impact Report for Biotechnology Australia by MediaScope Analytical & Research Services, July 1999)

7.27 Biotechnology Australia also commissioned research on public attitudes towards biotechnology, which included the conduct of focus groups. Summarising the findings from the focus groups the researchers commented:

The recent media attention on biotechnology was described on the whole as lacking substance and depth. Issues covered in the media had included the labelling of genetically modified food, cloning and dispersion of genetically modified seeds to neighbouring crops.
(Yann Campbell Hoare Wheeler 1999)

7.28 We had access to a second source of trend data. Computer Aided Research And Media Analysis (CARMA), in its regular commissioned reports to the GRDC covering the periods July to December 1998 and January to June 1999, identified and researched news items that mentioned GMO's, genetic engineering, biotechnology or gene technology. Table 7.7 shows that while there was a 45% increase in news items, the proportion of favourable items fell significantly; there was only a slight increase in the proportion of negative items and a big increase in 'neutral' items. CARMA commented:
This represents a dramatic shift in media sentiment from the previous reporting period [July-December 1998] where [of a total of 115 items] 65 articles were classified as being 'for' genetic modification, 26 were 'neutral' and 24 were 'against'.

<table>
<thead>
<tr>
<th>July - December 1998</th>
<th>January - June 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 (56%)</td>
<td>21 (12.5%)</td>
</tr>
<tr>
<td>26 (23%)</td>
<td>98 (58%)</td>
</tr>
<tr>
<td>24 (21%)</td>
<td>39 (23%)</td>
</tr>
<tr>
<td>115</td>
<td>168</td>
</tr>
</tbody>
</table>

For the more recent reporting period the principal concern of the articles analysed, and the prominent organisations mentioned are presented in Table 7.8.

<table>
<thead>
<tr>
<th>Concern</th>
<th>Mentions</th>
<th>Organisation</th>
<th>Mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labelling</td>
<td>50</td>
<td>Australia And New Zealand Food Authority</td>
<td>42</td>
</tr>
<tr>
<td>Food safety</td>
<td>44</td>
<td>Monsanto</td>
<td>28</td>
</tr>
<tr>
<td>International competitiveness</td>
<td>23</td>
<td>GenEthics Network</td>
<td>25</td>
</tr>
<tr>
<td>Regulation</td>
<td>18</td>
<td>CSIRO</td>
<td>24</td>
</tr>
<tr>
<td>Consumer concerns</td>
<td>16</td>
<td>Government</td>
<td>11</td>
</tr>
<tr>
<td>Profit or productivity or resistance</td>
<td>7</td>
<td>Australian Food And Grocery Council</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>National Farmers Federation</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AgrEvo</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GRDC</td>
<td>5</td>
</tr>
</tbody>
</table>

The predominance of Labelling and of ANZFA in these tables clearly indicates that decisions and the debate on food labelling were a major source of media coverage.

Whilst these facts are pertinent, and the shifts rather striking, attribution remains an intractable challenge. Towards the end of 1998, and in the weeks preceding the CC in particular, there was extensive coverage in Australia of growing public reaction to GM foods in the UK and Europe. The decision of the ANZFSC Ministers at their 17 December 1998 meeting to introduce mandatory labelling of all GM foods was another major source of media attention to the issue. By the time of the CC there was therefore already a rising tide of media attention to the issues, which arguably would have continued unassisted by the CC.

Respondents' Views

Our survey asked respondents for their judgement of the extent to which the CC process enhanced media coverage of gene technology in the food chain - in terms of volume, and in terms of quality ('balance' and 'depth'). The overall response has been that it had a modest impact, and that it did more for quantity than for quality. Tables 7.9 and 7.10 summarise the responses. All respondents believed the CC enhanced the volume of media coverage of gene technology in the food chain, and 87% believed it improved the quality of coverage.
Table 7.9
Volume Of Media Coverage

<table>
<thead>
<tr>
<th>Question 1.1(a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your view, to what extent has the Consensus Conference process enhanced the quality of media coverage of gene technology in the food chain?</td>
</tr>
<tr>
<td>Very Significantly</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

Table 10
Quality Of Media Coverage

<table>
<thead>
<tr>
<th>Question 1.1(b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In your view, to what extent has the Consensus Conference process enhanced the balance and depth of media coverage of gene technology in the food chain?</td>
</tr>
<tr>
<td>Very Significantly</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

7.33 Members of the media will not be surprised to know that their efforts were seen to be biased in both directions at once, as illustrated in the following sample responses:

The coverage was not based on fact and presented only one view from one party with a clearly vested interest - namely the ACA

The balance of coverage seemed to favour GE technology, mainly because multinationals can afford to buy publicity...

Reporting was heavily biased towards opponent's views and conflicts [corporate respondent]

Most of the media has focussed on sensationalising the perceived negatives...

7.34 Many observed that the issue was thoroughly up and running before the CC, and they found it difficult to judge - as we have - what contribution the Conference might have made. Most agree that there was a short term burst of media attention just before, during and immediately after the CC. Others have judged that the CC was successful in gaining more detailed and sustained attention to some of the sub-issues - including labelling and the structure of regulation - than would have otherwise occurred. One respondent noted:

Flurry of media coverage after the conference: some in depth articles (eg SMH) but still much blanket superficial discussion especially on radio; now overtaken by international debate.

7.35 Those who addressed the issue of quality of media coverage - in interviews or in survey responses - have been rather consistently negative in their assessment - some strongly so.

Although more media coverage was given to biotechnology, little was achieved in the way of educating the public. At any rate, media appears to be quite happy reporting on misinformation without regard for the truth.

The issue of gene technology in the food chain is not a media friendly topic -- it is very complex and emotive. While the number of articles appearing in the press has risen and articles seem to be less superficial, the balance has not improved.
7.38 The Conference Publicist was critical of the willingness and capacity of the mass media to deal cogently with complex issues of this type; Steering Committee member Julian Cribb (CSIRO) made a stimulating conference presentation in Adelaide from a selection of 'Shock! Horror!' newspaper headlines on GM food issues.

7.37 One respondent summed up neatly a general perception:

*Quality of coverage generally poor, unbalanced and misinformed.*

7.38 Asked what could be done to further enhance public awareness and understanding of the CC outcomes through the media, several respondents referred to the need for better informed journalists, and some, to the desirability of initiating some specialised form of professional development for media workers in the area of genetic engineering. This is not a new idea, and the problems and challenges are familiar enough to the media industry. However, given the rather general disappointment that we have found with the quality of media coverage of GM food, and the overwhelming support for enhanced public education, there seems to us to be a compelling case for researching and responding to the professional development needs of journalists in this area.

7.39 This is a public policy issue that will unfold over the next decade and perhaps beyond. The media will continue to be crucial intermediaries in public awareness and understanding of the issues. Helping professional journalists towards a deeper comprehension of the issues involved would be a very sound investment.

R.2 We recommend that in any further consideration of educating the public about genetic engineering, special consideration should be given to creating appropriate and productive learning opportunities for media professionals.

**Public Awareness**

7.40 Public understanding of the biology of genetic engineering is minimal, although awareness of GM food and other applications of genetic engineering is increasing. Public concern and scepticism about the benefits of genetically modified food has also increased over the past few years. Some have attributed this to successful scare-mongering on the part of irresponsible and ill-informed interest groups, aided and abetted by an incompetent and unprincipled media, more interested in sensationalism that in scientific analysis. On this analysis an ill-informed, and therefore vulnerable public is swayed by the emotional - if not hysterical - arguments of the Flat Earth Society, or their equivalent in the GMO debate. In Australia today this role is often attributed to the GenEthics Network.

7.41 In our view this ascribes too much influence to the media and to the committed opponents of GM food, and attributes too little common sense to the public at large. The science-industry view of genetic engineering in the food chain seems to be that it is a natural and inevitable extension of technological capability, that it is very carefully controlled, and therefore of very low risk; the systems are in place to protect public safety and the environment. The public must simply be given more of the facts, then it will become evident to them too that we should press ahead, to realise the full potential of biotechnology.

---

1 We acknowledge that CSIRO has conducted media briefings on biotechnology, using both CSIRO scientists and some outliers with critical views.
7.42 For the public on the other hand, the relevant 'scientific frame of reference' includes BSE (mad cow disease), Chernobyl, thalidomide, nuclear waste, CFC's, Legionnaires Disease, and cryptosporidium, as well as Nobel prizes in molecular biology. They also see that our leading scientific research organisations - the universities and CSIRO - have contracts with multinational life science companies, and are no longer altogether independent. They intuit at some level of consciousness that genetic engineering is only possible because of the shared genetic evolutionary history of all the organisms on the planet, and that these evolutionary processes, left to themselves, have hitherto allowed time for the trial and error adaptations of co-evolution. They know that the relevant time-scales for error detection are well beyond the three year cycle of government.

7.43 No doubt both of these views can be dismissed as caricatures. It is our view that the public reaction of growing scepticism should be viewed as a quite rational response to ignorance - to knowing that we do not know. People may not know the technical and scientific detail but they can understand well enough that some of the big questions have not been answered yet - or are not even being addressed. Some of these questions have been identified in the report of the UK Global Environmental Change Program2 (1999), The Politics Of GM Food:

- What is the need for GM foods and who are the beneficiaries?
- What is the potential for long term, cumulative and synergistic ecological and/or health effects arising from GM crops and GM foods?
- Where do GMO's fit in a national strategy for agriculture?
- How are we to compare the significance of the different types of risks and uncertainties - for human health, for biodiversity, pesticide use, etc - that are attached to different agricultural strategies?
- What degree of public control and international pluralism might be desirable and feasible in a global food system dominated by a small number of large companies?
- Is GM food needed to feed the world, and if so is there a strategy for achieving this?
- Are there systematic and transparent ways for regulatory appraisal to take account of different values and interests in society?
- How can we build public trust and democratic accountability in the public institutions that regulate gene technology? (ESRC 1999: 10)

7.44 While we certainly met or got comments from quite a number of scientific fundamentalists we also met proponents of gene technologies - in both research and industry - for whom the above are appropriate and important questions demanding attention.

7.45 Perhaps the most important achievement of the CC in relation to public awareness and understanding is to have helped make this itself a major issue. The Lay Panel Report addressed the need for a multi-dimensional public education strategy and set out a number of positive suggestions for action (Recommendation 9). The subsequent Budget decision of 11 May 1999 on the allocation of significant funds for public education through Biotechnology Australia was, we have been told, assisted by this Recommendation.

C.10 Our conclusion is that the CC certainly made a direct contribution to public awareness of the issue of gene technology in the food chain, by generating substantial additional media coverage.

(C.11 on next page)

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2 The policy recommendations from this report are included at Appendix 5
C.11 We have not found evidence that this has translated into increasing scientific knowledge or understanding of genetic engineering. There is some evidence that greater awareness of the issue has increased public suspicion towards GMO's, and GM food in particular, and towards the multinational biotechnology companies active in their development.
8 The CC As A Deliberative Process

8.1 The Consensus Conference is a social invention by staff of the Danish Board Of Technology, derived from a participatory process used in the health care sector. They designed and managed the first CC in 1987, on the subject of Gene Technology In Industry And Agriculture. Since then the Board has been responsible (as of mid-1999) for a further seventeen consensus conferences, the most recent of which was on the same subject (Genetically Modified Foods) and held at the same time as Australia's first (March 1999).

8.2 Since 1987 the method has diffused to at least eleven other countries - Australia, Canada, France, Japan, Netherlands, New Zealand, Norway, South Korea, Switzerland, UK and USA. Between them they have held twenty consensus conferences; conferences on the broad issue of genetic engineering and the food chain have been held in nine different countries. Canada too had one at the same time as Australia's.

8.3 In making an assessment of the future utility of the consensus conference in Australia, we note that this is a very distinctive and rather elaborate participatory method. It has been in use for nearly 13 years, in which time at least 38 consensus conferences have been held in 12 countries (a list of these Consensus Conferences can be found at Appendix 6. There is a small but growing body of scholarly work on consensus conference processes and their evaluation (for some examples, see References)

Support For The Process

8.4 In general terms, respondents to the survey and the interviews supported the process of consensus conferencing for Australia. A summary of the survey responses is given in Table 8.1, and indicates that 95% of respondents believed the CC was an effective process for informing and influencing policy development.

Table 8.1
CC Effectiveness

<table>
<thead>
<tr>
<th>Question 5.5</th>
<th>Overall, how effective do you think the Consensus Conference process is as a means of informing debate and influencing policy?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Effective</td>
<td></td>
</tr>
<tr>
<td>Quite Effective</td>
<td></td>
</tr>
<tr>
<td>Moderately Effective</td>
<td></td>
</tr>
<tr>
<td>Slightly Effective</td>
<td></td>
</tr>
<tr>
<td>Not Effective</td>
<td></td>
</tr>
</tbody>
</table>

0 2 4 6 8 10 12 14 16
8.5 Supportive, positive comments significantly outweighed unsupportive comments; identified benefits outweighed disadvantages. Jan McDonald, an expert speaker at one of the preparatory weekends comes to the following conclusion in her commentary on 'lessons from Australia's First Consensus Conference':

At a time when many members of society are withdrawing from public debate because they feel their views are worthless or go unheeded, the consensus conference model offers an exciting new opportunity for democratic participation. The panelists at the first Australian consensus conference were an inspiring reminder to those of us who regard ourselves as experts that we are by no means the only ones capable of making worthwhile contributions to policy formulation.
(McDonald 1999: 268)

8.6 Typical of the responses from other respondents were the following:

Consensus conferences could become an important tool for policy development and public awareness in Australia. In order for this to happen there needs to be a positive and sustained commitment to organising and conducting such conferences.

Despite my many comments about what I felt could be improved in the CC process, I felt the CC was very successful and very informative.

I think the CC provides a needed element to enhance public input with the decision-making process in Australia.

CC should be an integral part of any democracy as it allows people to contribute to the shaping of their own destiny.

When any more new major decisions are going to be introduced I feel the CC procedure is the most fair and balanced way to give the people of Australia a chance to air their concerns and views.

I think the consensus conference provides a needed element to enhance public input with the decision making process in Australia. I suspect government agencies will be less fearful of the process next time and begin to appreciate the benefits.

Strengths And Weaknesses

8.7 The survey asked respondents to identify the main strengths and weaknesses of the CC, and the implications for consensus conferencing as a process.

8.8 The major strengths that were identified can be grouped into four main clusters:

- Firstly, the mere fact of bringing disparate groups together - both on the Steering Committee, and in the CC process itself - and then providing a managed public forum for exchange of views - was seen as a positive achievement in itself.
- Secondly, the Conference was seen by many to have fully justified the proposition at the heart of the method - that ordinary citizens, given access to good information and to sources of expertise can formulate reasonable and cogent conclusions concerning complex scientific and technological issues. It is not a trivial matter that the Chief Executive of CSIRO should describe the Lay Panel Report as 'sensible, well considered and valuable for Australian science'.
Thirdly, many have observed that the CC process succeeded in widening the debate about genetic engineering in the food chain. In particular it created space for the consideration of issues of interest and concern to consumers and the public at large - some of them in the challenging realms of ethics, morality, ecology, and corporate power - that went beyond the confines of standard scientific debate.

Finally, many observed that the CC, Australia's first, was a successful demonstration of 'a novel form of public involvement'; the event was 'another successful example internationally of the robustness and transferability of the process'. In other words it was a strength of the CC that a deliberative process previously untested in the Australian context was successfully implemented.

8.9 The main weaknesses that respondents identified can similarly be grouped into a few clusters:

- The most commonly mentioned complaint about the process was the lack of opportunity for cross-examination, or other ways of countering or correcting false or misleading information. This was particularly galling to the scientists present it seems. In this respect the CC simply followed established protocol, which explicitly gives the Lay Panel, and not the expert speakers, the right to decide when clarification is needed.
- This observed weakness is closely related to a second, the perceived adversarialism of the process. Many respondents have commented that the process itself seemed to elicit and encourage grandstanding and advocacy from the expert presenters, when explication and edification were required, and might have enriched the outcomes.
- A third significant weakness was seen to be the inadequacy of follow-through, both to promote and sustain well informed discussion in the public sphere, and to effect political decision and action on the conference's recommendations.
- Fourthly, many respondents commented on a perceived deficiency of government representation and participation in the CC, particularly the lack of involvement of the principal regulatory bodies such as ANZFA and GMAC. Many felt that it was a serious mistake that the Lay Panel did not, for whatever reason, avail itself of the opportunity for expert briefing from these sources.

8.10 In relation to the third of these perceived weaknesses, some of the critical observations came from people who one might say are either unduly idealistic, or rather naïve about the policy-making process. They imply it would be possible to secure government agreement to act on its recommendations before such a conference took place. The only circumstance in which this might occur would be if the Government convened such an event itself. Governments do convene large consultative meetings from time to time - such as the Rural Summit and the National Youth Round Table - but even then, are usually careful to ensure that no recommendations are binding on them.

8.11 On the other hand there are ways within the Australian politico-administrative culture of building agency and political support and influence. It seems to us that it might have been possible to implicate the federal government and its key agencies more deeply in the consensus conference process, but that every step in this direction might have put at risk the critical matter of the standing of the CC - the independence and neutrality of its organisers, and their capacity to guarantee that no particular interest groups could control the agenda, let alone the outcomes.
Cost Benefit Assessment

8.12 The natural companion of any discussion of effectiveness is consideration of cost. The direct dollar cost of the Conference was around $175,000. To this must be added the many in-kind contributions - such as the hours of voluntary and unpaid work contributed by individuals and organisations, and the incidental costs absorbed by organisers, Steering Committee members and others - from travel through to stationery. Lars Kluver estimates the average cost of a consensus conference at around A$75,000 plus half a person year (Kluver 1995: 47) - but few other countries face the same travel costs that Australia does for a national activity of this sort.

8.13 Many representatives of community groups and smaller organisations found this a huge, and questionable commitment; to those in government and the corporate world, however, it was generally seen as a modest cost, compared to the alternatives available. In making judgments about the cost:benefit ratio of the CC, respondents' views were shaped considerably by such perspectives.

8.14 A few respondents argued that the value of the consensus conference as a social technology is likely to be a function of the political and social culture in which it is embedded. In some countries, such as Denmark and the Netherlands, such citizen involvement in the technology assessment process is institutionalised, so that the outcomes are likely to feed rather directly into the policy making process.

8.15 In Australia, however, we have little history of such levels of citizen participation in public policy and decision making. Our political culture, while increasingly consultative, is one in which, having won power, governments may entertain the views of a range of pressure groups, but generally avoid becoming beholden to extra-parliamentary participatory processes - however democratic.

8.16 The CC exposed Australians to a social technology that has attributes significantly different from many of our traditional methods - particularly those that fall loosely under the banner of 'public consultation'. Some respondents suggested it would be particularly applicable at local government level. While it is of a type that seeks the genuine citizen participation most desirable at this level, the Consensus Conference, we believe, is of particular value for major public policy issues that have national significance. It requires considerable commitment of time and resources, and rigorous preparation, delivery and follow-up.

8.17 The responses to one of the survey questions gives a good indication of the value placed on the CC by respondents. Table 8.2 shows that more than 90% of respondents thought the CC of significant value.

8.18 To the question of its further use in Australia the overall tenor of responses has been 'Yes - but...'. The qualifiers have related to the types of issue that should be chosen, the need to change some of the protocols or conference management processes, and the need to consider the consensus conference as one option from a range of participatory processes.
Table 8.2
Value Of CC

Question 8.1
In your view, which of the following statements is closest to the truth?
The Consensus Conference made:
- Artificial contribution
- A useful but not decisive impact
- No decisive impact

One Of Many Participatory Methods

8.19 Many respondents observed that the Consensus Conference should be one of a set of deliberative processes that can be used to increase citizen involvement in science and technology assessment and policy development. No-one suggested that it is a panacea.

8.20 There seems to be a growing worldwide interest in the development and application of participatory methods for such purposes. The Danish Board Of Technology nominates ten methods that it deploys; of which the Consensus Conference is one, as displayed in Table 8.3.

Table 8.3
Participatory Methods
- Perspective Workshop
- Futures Search Workshop
- Questions And Choices - Expanded Survey
- Policy Exercise - Role Play
- Interdisciplinary Work Groups
- Consensus Conference
- Voting Conference
- Hearings For Parliament
- Scenario Workshop
- Public Enlightenment

8.21 Denmark, through the Board Of Technology, is a participant in the EUROpTA Program (European Participatory Technology Assessment) - a program of six European national technology assessment institutes and research institutes in the public policy and technology field, which aims to advance understanding of the role of participation in technology assessment. Participating countries are Denmark, Austria, Britain, Germany, Netherlands, and Switzerland.
8.22 In the UK, three universities are collaborating in an extended exploration of 'deliberative and inclusionary processes in environmental policy making' (University College London, University of East Anglia, University of Lancaster). Focus groups, Citizens Juries, In-depth Groups, Stakeholder Decision Analysis, and Deliberative Polling - as well as the Consensus Conference - are some of the methods under examination.

8.23 In North America the Loka Institute (Amherst, Maryland) - a non-profit organisation dedicated to making research, science and technology responsive to democratically decided social and environmental concerns - has initiated a project on 'Identifying Democratic Technologies' as alternatives to conventional economically-grounded methods such as Cost-Benefit Analysis. America is also the birthplace of the Deliberative Poll and home to its progenitor, Professor James Fishkin from the University of Texas. Australians recently had their first exposure to this process when it was applied to the question of Australia becoming a republic.

8.24 There is of course a good deal of relevant experience and expertise in Australia as well. There have been lively national networks of practitioners in participatory design and action research for many years, and most of the development of the Search Conference was undertaken under the guidance of its creator, Australian social scientist, Fred Emery.

8.25 Lyn Carson (1999), a Steering Committee member with a special interest in citizen participation, has recently co-authored a useful synopsis of participatory methods that use random selection and which draw heavily from Australian experiences and practice.

What Kinds Of Issues?

8.26 According to the Danish Board of Technology topics suitable for a consensus conference are characterised by:

- Having current social relevance
- Presupposing expert contributions
- Being possible to delimit
- Containing unclear attitudinal issues

8.27 There is a good deal of agreement with the broad conclusion that the consensus conference process would be most applicable to issues of national importance concerning which there is a range of conflicting views - 'any publicly contentious issues that affect the whole community'; 'all contentious technologies'; 'any issue of national importance where a range of views exists'.

8.28 When the survey respondents were asked what other issues they thought might appropriately be addressed by means of a consensus conference, there was no shortage of suggestions - as illustrated by the samples in Table 8.4.
### Table 8.4
**Topics For Future Conferences**

<table>
<thead>
<tr>
<th>Aged care</th>
<th>Nuclear energy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abortion rights</td>
<td>Privatisation</td>
</tr>
<tr>
<td>Behaviour standards for elected representatives</td>
<td>Punishment for offenders</td>
</tr>
<tr>
<td>Cloning</td>
<td>Republic debate.</td>
</tr>
<tr>
<td>Drug problem</td>
<td>Social and economic policy</td>
</tr>
<tr>
<td>Environmental issues</td>
<td>Sustainable population growth</td>
</tr>
<tr>
<td>Euthanasia</td>
<td>Taxation</td>
</tr>
<tr>
<td>Gun control and national gun laws</td>
<td>Teenage crime</td>
</tr>
<tr>
<td>Health treatment costs versus health outcomes</td>
<td>Unemployment</td>
</tr>
<tr>
<td>Industrial democracy</td>
<td>Uranium mining in national parks</td>
</tr>
<tr>
<td>Immigration</td>
<td>Use of Australia's natural resources - especially</td>
</tr>
<tr>
<td>Irradiation of foods</td>
<td>water and forests</td>
</tr>
<tr>
<td>Native title</td>
<td></td>
</tr>
</tbody>
</table>

### Some Design Changes

8.29 Many would wish to see one or another aspect of the design and management of the process changed if it is to be used again. Those aspects which received multiple mentions in this respect were:

- More open selection process/ different criteria for selection of the Lay Panel.
- A different way of selecting speakers to contribute to the preparatory weekend meetings of the Lay Panel.
- Formal opportunity for 'cross examination' or countering false and misleading assertions by expert speakers.
- Better promotion of the Conference itself.
- More systematic follow-through to promote the results of the conference.

C.12 Our conclusion is that there is quite strong interest and support for further use of the CC method, including from major institutions such as CSIRO, Biotechnology Australia, and the Interim Office of the Gene Technology Regulator. It would be very unfortunate if there was no opportunity to profit from the experience gained in planning and conducting the first one.

R.3 Attention should be given to finding an institutional home in the science and technology policy domain for the Consensus Conference, and other citizen participation methods, so that Australians can be more regularly involved in the deliberation of complex issues on the public policy agenda.

R.4 Further development of this recommendation would be greatly assisted by inviting a leading representative of the Danish Board Of Technology to visit Australia.
9 Enhancing Outcomes

9.1 This Report marks the formal completion of the First Australian Consensus Conference process. It has been a courageous and productive experiment. Many will be happy to leave it at that. Most respondents, however, seem to share our view that it may be possible to capitalise on the work done so far.

9.2 We were asked to make recommendations as to 'how the Impact of the First Australian Consensus Conference might be further enhanced'.

9.3 There is general agreement amongst those involved that after the Conference itself, which is widely agreed to have been a success, there was not much follow-through. It had been a very demanding project, on a modest budget, reliant on the active involvement of some very busy people. The Australian Museum was unable to go on providing staff support, the Steering Committee lacked the time and resources to meet again, and there was no other agency that could take ownership of a follow-through process.

9.4 There was of course a final press release and final press conference; the Report of the Lay Panel was widely distributed; and the ABC created excellent web pages on the Conference at their 'Science Lab' site. The Australia Museum also created web pages on which the Conference was promoted and the Lay Panel's report was posted.  

9.5 We understand that some of the key people involved - the publicist, Jude Bourguignon, Carole Renouf at the Australian Consumers Association, Dana Jones at the Australia Museum, and others - responded to a significant volume of enquiries and requests in the weeks that followed, but could only do so on a grace-and-favour basis as they had returned to full time jobs.

9.6 It is our opinion that the impact of the CC was lessened to a considerable degree by the failure of follow-through. One respondent underscored this in saying:

A major concern is that no-one holds continuing responsibility for the Conference and its outcomes. It is important to use the outcomes of the Conference in an educational process. But this will need someone to take the lead - someone who has the energy, resources and responsibility for ensuring that the public is informed.

9.7 Nonetheless, even at this stage, there are opportunities to enhance the outcomes of the CC. For example:

- There are actionable outcomes relating to this report.

- The Steering Committee is of good standing; it would have a unique voice among the discussion and action relating to both gen technology and citizen participation in policy.

- There is considerable activity in relation to public awareness and understanding for which the CC outcomes could be used to advantage.
Many of the Lay Panel members are keen to reconvene to explore ways in which the outcomes of the CC may be enhanced - for this Conference and future conferences.

There are ongoing policy developments that are cognate with the outcomes of the CC but which lack comprehensive exposure and recognisable connection to the CC outcomes.

Evaluation Of The CC And Its Impact

9.8 The major follow-through action has been evaluation - including this impact assessment. With sponsor funds contributed by Aveca and the Rural Research And Development Corporations, the Steering Committee planned two stages of evaluation. Securing the funding and support for these two evaluations was, in our view, a considerable achievement in itself. There is an opportunity now for the report of this impact assessment project to be a vehicle for further consolidating and enhancing the outcomes of the CC.

9.9 Accordingly we have given thought to what might be done with this Report when it is finalised, and propose that:

R.5 The Report be presented to the Consensus Conference Steering Committee, and that this Committee meets to deliberate on the report, its conclusions and its recommendations.

R.6 The Executive Summary of the Report be sent to everyone on our database.

R.7 The full Report be placed on the project website.

R.8 The Report be sent to members of the Commonwealth Biotechnology Ministerial Council, the Biotechnology Consultative Group, Biotechnology Australia, the Interim Office of the Gene Technology Regulator, ANZFSC, ANZFA, and other key bodies that are identified by the Steering Committee.

Citizen Education

9.10 Of all the matters that have arisen during the course of this project, the one on which agreement has been strongest and broadest is the need for further citizen education on genetic engineering and GMO’s. The strongest adversaries in the GMO debate nevertheless agree on the need for further work to inform and educate the public on these matters. One of the achievements of the CC was to underscore this need.

9.11 Amongst those we have spoken to, as well as agreement on the importance of the issue, there is considerable apprehension that the task will not be done effectively. There is a concern that there is already a range of education and awareness initiatives, with too little evidence of coordination, let alone collaboration. There is also concern that government initiated education may fail to engage with the full spectrum of perspectives and beliefs.
R.9 We recommend that the Steering Committee carefully considers the whole question of public awareness and education, in the light of this report and the recommendations of the Lay Panel.

R.10 In particular, we recommend that the Steering Committee uses its good standing to convene a special national Round Table meeting of those with a stake in, or a role to play, in educating the public about genetic engineering and GMO's.

R.11 If such a meeting takes place, we recommend that particular attention be given to strategies for assisting media professionals to deepen their understanding of genetic engineering and related issues.

9.12 Such a gathering would preferably be convened with the support and cooperation of Biotechnology Australia, and offer a serious prospect of adding to or enhancing in some way the educational work they are already planning. At a minimum, such a gathering could act as a clearinghouse for exchange of information about the public awareness and public education activities of such bodies as the Australian Biotechnology Association, CSIRO, the Australian GenEthics Network, Agrifood Awareness Australia, ACA, ANZFA, BA and IOGTR. It may be possible however to go well beyond this, and set up some long term collaborative processes, making optimal use of the collective resources of these and other stakeholders.

**Documentation And Debate - The Project Website**

9.13 In setting up a project website, we had no wish or intention to duplicate the work done by the ABC, the Australian Museum, or others. Our initial idea was to create a website primarily as a project management tool. Subsequently we identified a potential value in consolidating on one site the key documents extant in relation to the CC - including the Briefing Paper for the Lay Panel, the Lay Panel Report, the speakers presentations and the Phase 1 Evaluation Report. To our knowledge, this has been done in no other place.

9.14 Subsequently, we became aware that a number of other consensus conferences, including several on biotechnology issues, are documented on web sites, and thought that it would be good if Australia had one too. With professional assistance from Chirp Web Design, we have included the capacity for users to submit additional documents, to add links and resource references, initiate and join discussion forums, and contribute to a 'Modern History Of GM Food'.

9.15 We have not, however, had the resources to promote the site, except to those on our project database, to whom we have sent a postal questionnaire. We have sought reciprocal linking with those sites we have created links to. We believe this website is already of value as a repository for key documents associated with the CC, and could yet become a useful resource for a wider group of people - including, perhaps, students at all levels.

R.12 We recommend that the Steering Committee encourage an appropriate body to adopt this low cost but well designed website, and maintain it as a focus for those interested in consensus conferences, or in the topic of Australia's first one - genetically modified food.
Monitoring The CC's Recommendations

9.16 When we asked people what might be done to consolidate and enhance the impact of the CC, the most common response was that there should be a systematic monitoring of the responses that have a connection with the recommendations contained in the Lay Panel Report, and some way found of publicising the findings. Typical of the comments were:

*By tracking progress of each of the recommendations some very significant regulatory decisions have been made since the CC, and these should be explained objectively with due recognition of consumer benefits of these decisions.*

*Ongoing benchmarking of State, Commonwealth and other countries' positions on GMO's against the recommendations.*

*Regarding the outcomes, every time one of the recommendations of the CC are reached/acted upon, a media statement should be released to that effect.*

9.17 We have included in this report the best information we have been able to gather in relation to each of the recommendations. If it were thought to be useful and desirable to continue this monitoring beyond February 2000, this could be done on the project website. This could be achieved by placing the monitoring report on the project website, and enabling the site manager or users to add to it as new developments occurred. Some of the Lay Panel members are particularly interested in such monitoring, and may be willing to contribute to it. This of course raises issues of website management which would have to be determined by any adoptive parent of the project website.

R.13 We recommend that the monitoring of decisions and actions in relation to the recommendations of the lay panel be maintained for at least a further twelve months and that the results be placed on a suitable website.

Institutionalising Public Participation

9.18 Some respondents, especially those with a particular interest in the development of participatory democracy, have advocated formalisation of the deployment of deliberative processes to address complex scientific and technological issues on the public policy agenda. Given the generally positive response to the consensus conference, and the fact that there is no foreseeable shortage of such issues, we believe it would be worth exploring a possible home for such deliberative processes within the Australian governance structure.

9.19 As far as we know the quality of citizen participation entailed by a consensus conference has become a normal part of governance only in Denmark and the Netherlands, though Switzerland is not far behind.

9.20 Since 1987 the Danish Board Of Technology has made use of consensus conferences as a means of assessing technology for the Danish Parliament. Inspired initially by the US Office Of Technology Assessment, the Board was established by the Danish Parliament in 1985, with two main aims:

- To follow and initiate comprehensive assessments of the possibilities and consequences of technological development for society and the citizen.
- To support and encourage a public debate on technology
9.21 Today, the Board has a staff of around a dozen, an annual budget of 10 million kroner (around A$2.13 million), and carries out eight to ten large scale assessment projects per year. To date these have included 13 consensus conferences, on a broad range of issues - including gene therapy, air pollution, food irradiation, electronic identity cards, infertility, the future of private transport, integrated production in agriculture and educational technology.

9.22 Issues that the Board is working on in 2000 include:
- Green Industry - and related environmental communication and strategies.
- The Digital Doctor - IT-implementation in the primary health sector.
- The Car And The Petrol - emerging car technologies, and how we can encourage the consumers to buy more environmentally friendly cars.
- Allergy - allergy can now be understood as a national scourge. A new project at the Board tries to analyse this increase in allergy incidence, and discuss the possibilities and perspectives in an allergy policy.
- Digital Self-service - What is the strategy behind the digitalisation of the public sector and does it correspond to the needs and demands of the citizens?

9.23 The Danes did not copy the US Office Of Technology Assessment. They have developed a Danish way. Australians could develop an Australian way.

9.24 This is obviously a much broader issue than assessing the impact of the first Australian consensus conference. It seems to us however that the CC has pointed to a need for a much more reliable and systematic way of involving citizens in policy development on science and technology issues - especially those which have ethical, moral, social, or ecological implications. Could Australia support such a centre? What should be its relation to Government? How should it be funded? What value could it add to policy?
10.1 A recent editorial in *Science* asks the question 'Who should sit at the table when science policy is being decided?'. It goes on to identify six arguments for a place for citizens at the science and technology table:

1. All citizens support science through their tax dollars and experience the profound consequences of science - both good and bad;

2. In a democracy, those who experience the consequences of an activity and those who pay for it ordinarily expect a voice in decisions;

3. Scientific leaders have no monopoly on expertise, nor do they have a privileged ethical standpoint for evaluating the social consequences of science and of science policies;

4. Non-scientists already do contribute to science and science policy (eg women's organisations have redirected medical research agendas to reduce gender biases);

5. Elite-only approaches are antithetical to the open, vigorous and creative public debate on which democracy, policy-making and science all thrive;

6. There is a danger that public support for science will erode if other perspectives are excluded.

(Science 1998: Volume 279, 27 February)

10.2 This, we believe, cogently addresses the issue of Why? citizens should be deeply engaged in science and technology policy development. Our report has affirmed that the consensus conference is one good answer to the next question of How?.

10.3 We will give the final word to the authors of *The Politics Of GM Food*:

Perhaps the greatest challenge of all is to open up the policy processes surrounding new technologies to far greater interaction with members of the public and their diverse values. This would involve opening decision-making to genuine participatory methods, while maintaining a central place for scientific information and analysis as it emerges. So far, there has been an unwillingness to adopt more participatory approaches to technological innovation. Where experiments have been conducted, such as the consensus conference on biotechnology in 1977, the lessons have been inadequately incorporated by the other parts of government.

Inclusive deliberation requires a set of conditions that are hard to live up to. Underlying commitments include:

- That elected politicians agree to share power. In so doing, politicians should actually enhance their power finally to act. But that assumption is speculative in an uncertain new patterning of democracy, so most politicians remain deeply sceptical about real community democracy.
- That regulatory and executive agencies become more transparent, both in their decision-making and in their provision of information.
- That participants accept responsibilities to reach agreements.
So a crucial issue is whether the social insights to emerge from inclusive procedures, such as citizens juries and consensus conferences, will be treated seriously by those in power. How will they be related to other arrangements for scientific debate such as advisory committees, specialist panels and technology assessments?

The GM debate has been so controversial not least because of the deep cultural significance of food and the changes that genetic engineering promises to bring culturally and socially. Our evidence shows that many people and increasingly unwilling simply to accept such revolutionary changes without a genuine debate about the options society faces.

(ESRC, 1999, p.20)
# References

| (1998) | Science  
|        | Volume 279, February. |
|        |  |
|        | Vol 5 No 23 (Part 2) pp 199-216 |
| Carson L & Martin J (1999) | *Random Selection in Politics*  
|        | Praeger Publishers, Westport CT |
|        | Final Report to the Department of Industry Science and Tourism (later Resources) by Dr. Jonathan Kelly, International Social Science Survey, ANU, May |
| ESRC (1999) | *(Economic and Social Research Council)*  
|        | *The Politics of GM Food. Risk, Science and Public Trust*  
|        | UK Global Environmental Change Program  
|        | Special Briefing No 5, University of Sussex |
|        | CSEC, Lancaster University |
| Hoban T J (1998) | 'Trends in Consumer Attitudes About Agricultural Biotechnology' in *AgBioForum, Vol 1, No 1, Summer* |
| Joss, Simon and Durant, John (Eds) (1995) | *Public Participation in Science - The Role of Consensus*  
|        | Conference in Europe  
|        | Science Museum/ European Commission, London |
| Kluver, Lars (1995) | 'Consensus Conferences at the Danish Board of Technology' in S Joss and J Durant (op cit) pp 41-49 |
|        | Vol 16 No 3 pp 259-266 |
|        | Tokyo Denki University |
### Appendices

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List Of People Interviewed

Dr Geoffrey Annison
Dr Katrine Baghurst
Miss Grace Bailey
Dr Bill Blowes
Ms Sheena Boughen
Jude Bourguignon
Professor Arthur Brownlea
Ms Mara Bun
Mr Frank Byrne
Liz Cain
Dr Anne Campbell
Dr Lyn Carson
Father Des Coales
Mr Donn Corcoran
Mr Craig Cormick
Mr Julian Cribb
Ms Allyson Croydon
Ms Denise Dolan
Mr Michael Field
Mr Greg Fraser
Ms Rae Fry
Mr Claude Gauchat
Dr Ken Goulter
Ms Virginia Greville
Associate Professor Ronnie Harding
Dr Marion Healy
Mr Richard Heiden
Ms Dana Jones
Dr Lisa Kelly
Mr Scott Kinnie
Ms Anwen Lovett
Professor Emeritus John Lovett
Mr Steve McDonald
Ms Alison McMurtrie
Dr Paul McNeill
Dr Gary Morgan
Mr Alan Newton
Ms Jennifer North
Mr Bob Phelps
Mr Rod Poulton
Dr Stephen Prowse
Ms Carole Renouf
Dr Bob Seaward
Ms Rosemary Stanton
Ms Naomi Stevens
Ms Lise Vassilou
Ms Rhian Williams
First Australian Consensus Conference

Gene Technology in The Food Chain

Evaluation - Phase 2

Dear Respondent

We ask you to participate in the evaluation of the First Australian Consensus Conference by completing this survey.

Australia’s first Consensus Conference took place in March this year. It addressed the issue of gene technology in the food chain. In planning this important national activity, the organisers and sponsors made provision for comprehensive evaluation - firstly of the conduct and success of the activity itself, and secondly, of its impact on public debate and on policy making.

This survey is one of several methods for gathering information about the impact of the Conference and the usefulness of the Consensus Conference process. We will also be studying files and press cuttings, interviewing a range of participants, and convening a series of ‘round table’ meetings.

Your participation in this survey is voluntary and you will not be identified in the evaluation report. We ask for your name and contact points so we have the option to follow up issues you raise and ideas you offer. We'll put the details on a database for future use.

If you’d like some background information on the Consensus Conference and its outcomes, you can consult our Project website:

www.consensusconference.chirp.com.au

The website has links to a range of other relevant websites. You can add others, and submit documents. For those who would find it more convenient, the website has a copy

If completing the hard copy version attached, please return the completed survey as soon as possible, or at least within 10 days, to:

Dr Colin Ducker, 17 Buggy Crescent, McKellar ACT 2617

of this survey form which allows you to complete and return it to us on-line.

Thank you most sincerely for taking the time to complete and return this survey.

Alistair Lombe

Colin Ducker
We ask you to participate in the evaluation of the First Australian Consensus Conference by completing this survey.

Gene Technology in The Food Chain

Evaluation - Phase 2

Your details

Name
Organisation (If relevant)
Position in organisation
Telephone (W)
Email Address

Do you have a particular role or responsibility in relation to the Consensus Conference?
☐ Yes
☐ No

Please indicate the role(s):
☐ Steering Committee member
☐ Organiser
☐ Expert Speaker (at the Conference or preparatory sessions)
☐ Audience member at the Consensus Conference
☐ Media Representative
☐ Lay Panel member
☐ Sponsor
☐ Other (please specify)

Which of the following categories best describe(s) the position from which you view the Consensus Conference, its process and outcomes?
☐ Scientific Researcher
☐ Wholesaler/Retailer
☐ Seed/Input Supplier
☐ End-product Consumer
☐ Farmer/Producer
☐ Government Agency
☐ Trader
☐ Community Association/NGO
☐ Marketer
☐ Other (please specify)
☐ Processor
Question 1: It was a prime objective of the Consensus Conference to facilitate broad and well-informed public debate on the issues associated with gene technology in the food chain. The media play a significant role in shaping and enhancing such debate.

1.1 In your view, to what extent has the Consensus Conference process enhanced media coverage of gene technology in the food chain?

- In terms of **volume** of coverage

  - NOT AT ALL
  - A LITTLE
  - MODERATELY
  - QUITE A LOT
  - VERY SIGNIFICANTLY

- In terms of **balance** and depth of coverage

  - NOT AT ALL
  - A LITTLE
  - MODERATELY
  - QUITE A LOT
  - VERY SIGNIFICANTLY

1.2 Give one or two examples, or a short explanation to help us understand your ratings.

1.3 What could be done to further enhance public awareness and understanding of the outcomes of the Consensus Conference through media coverage?

Question 2: The major final output of the Consensus Conference process was the Report by members of the Lay Panel. The impact of the report is, therefore, of some importance.

2.1 In your view, to what extent have the recommendations in the Report of the Lay Panel had an influence on policy debate and policy development?

- NOT AT ALL
- A LITTLE
- MODERATELY
- QUITE A LOT
- VERY SIGNIFICANTLY

2.2 Give one or two examples, or a short explanation to help us understand your rating.


Has your organisation responded to or used the recommendations of the Lay Panel in any way (such as: circulating them among staff; tabling them for Board discussion; reviewing policy in the light of the recommendations)?

[ ] YES  [ ] NO

If YES, give one or two examples, or a short explanation to help us understand your rating.

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What could be done to enhance the value of the Report as a contribution to policy development on gene technology in the food chain?

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QUESTION 3: It was intended that, by bringing together a broad range of stakeholders, the Consensus Conference would enable them to better understand each other's positions. It was envisaged that it might also stimulate new relationships and networks, as well as enhance existing ones.

In your view, to what extent has the Consensus Conference process helped stakeholder groups better understand and appreciate each other's position on gene technology in the food chain.

[ ] NOT AT ALL  [ ] A LITTLE  [ ] MODERATELY  [ ] QUITE A LOT  [ ] VERY SIGNIFICANTLY

Give one or two examples, or a short explanation to help us understand your rating.

________________________________________________________________________
________________________________________________________________________
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In your view, to what extent has the Consensus Conference process stimulated and supported the development of new relationships and networks.

[ ] NOT AT ALL  [ ] A LITTLE  [ ] MODERATELY  [ ] QUITE A LOT  [ ] VERY SIGNIFICANTLY

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3.4 Give one or two examples, or a short explanation to help us understand your rating.
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3.5 What could be done to consolidate and further develop such relationships?
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Question 4: The convenors hoped the Consensus Conference would affect decisions and actions of stakeholder groups (such as industry groups, government, community organisations), as well as public attitudes and understanding.

4.1 In your view, to what extent has the Consensus Conference process impacted on priorities, decisions and actions in your organisation.

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4.2 Give one or two examples, or a short explanation to help us understand your ratings.
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4.3 In your view, to what extent has the Consensus Conference impacted on priorities, decisions and actions of stakeholder groups (eg government, agrifood industry, NGO)?

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4.4 Give one or two examples, or a short explanation to help us understand your ratings.
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Question 5: Other countries, notably Denmark, have made the Consensus Conference process a 
guaranteed and important element of national policy development. It involves a commitment to participatory 
morality and requires significant resources, particularly time and money. The participants of the first 
Australian Consensus Conference are keen to hear your views on whether the process can and should be 
seen more widely in this country.

1. In your view, what were the two most positive achievements of the Consensus Conference?

2. In your view, what were the two most significant weaknesses of the Consensus Conference?

3. Overall, how effective do you think the Consensus Conference is as a means of informing 
debate and influencing policy?

   NOT EFFECTIVE  SLIGHTLY EFFECTIVE  MODERATELY EFFECTIVE  QUITE EFFECTIVE  VERY EFFECTIVE

4. For what other areas or issues could the Consensus Conference be an appropriate and 
effective process for influencing national policy development?

Question 6

1. In your view, which of the following statements is closest to the truth?

   - The Consensus Conference made a critical contribution to putting the issues firmly on the 
national agenda and structuring policy debate.

   - The Consensus Conference process was a useful vehicle for giving some structure to the 
debate and gaining more media attention; it made a useful, but not decisive contribution.

   - Gene technology in the food chain is an international issue that would have come to the 
fore in Australia anyway. The Consensus Conference made no discernible impact.
2. Give one or two examples, or a short explanation to help us understand your selection.

Question 7

In the space below, offer other ideas and/or explanations that will help to clarify your responses or provide insights into consensus conferencing as a process.

For further information go to consensusconference.chirp.com.au

The project website will act as a hub for information about gene technology in the food chain and the consensus conference as a method for enhancing participative democracy.

The website is designed to grow through contributions from people like you. Please use the site and, if you can, add to it other documents, links and references.

Some of the features of the site are:

- Information about The First Australian Consensus Conference, including the Report of the Lay Panel, the Briefing Paper, and speeches delivered by selected speakers.
- Links to websites about other consensus conferences and to literature on the consensus conference method.
- Links to websites about gene technology in the food chain.
- This survey form and the facility to respond to it on-line.

Return the completed survey within 10 days to:

Dr Colin Ducker, 17 Buggy Crescent, Mckellar ACT 2617
FORUM ON GENE TECHNOLOGY IN FOOD

THE CHALLENGE AHEAD

GUIDING PRINCIPLES

1Gene technology is a global technology and Australia and New Zealand will not be quarantined from it.

2There are significant potential opportunities for benefits from the use of gene technology in food, but there are also concerns within some sections of the community about the use of gene technology, particularly relating to safety and possible long-term effects.

3The advent of gene technology raises substantial long-term issues for Australia and New Zealand and developments in gene technology have applications across a range of sectors (including chemicals, pharmaceuticals, primary production, food processing, bioremediation, mining and natural resources management). There is, therefore, a perceived need for an overarching system managed by a broadly based body that will need to involve the whole community (governments, industry and consumers) in considering the issues and long-term implications of particular gene technology developments. This system should be managed by a national statutory body, such as the proposed Gene Technology Authority, that has an appropriately broad mandate. This body should take responsibility for evaluating and managing social, ethical and environmental issues, for setting broad policy directions and guidelines, for determining safety and biosafety assessment principles and for coordinating the roles of the different sector based regulatory agencies. The management of these functions should occur in an open and transparent system in consultation with major stakeholders. (Currently, the Genetic Manipulation Advisory Committee (GMAC), fulfils a number of these functions in an advisory capacity).

4ANZFA's role in relation to gene technology should remain with those matters relating to food, including the safety assessment of genetically modified organisms and their products used as food. ANZFA's role should not include examination and assessment of the risks related to recombinant DNA technology or the release into the environment of genetically modified organisms that may be used as food (this assessment should remain with GMAC). The timetable for ANZFA's approval processes should be concurrent with those of GMAC's (or the proposed GFA).

5A standard to regulate food derived from gene technology should be developed by ANZFA without further delay. This standard should assess food and food products on a case by case basis, so that:

- the community can be assured about the safety of genetically manipulated organisms and be confident in the food supply;

- food industries can have confidence that there is a clear, certain regulatory framework in place which enables them to be innovative and internationally competitive; and

- consumers can have access to accurate information on the use of foods developed using gene technology and this would include provisions to ensure labelling as appropriate.

6There is a need for ongoing public discussion and debate about the uses of gene technology and food derived from gene technology. In relation to the development of the proposed standard to regulate food from gene technology, ANZFA should ensure, through its statutory processes, that there is extensive community consultation within an open and transparent system.
CSIRO Position on Gene Technology

CSIRO believes there is a window of great opportunity for Australia, its community and industries, based on research in gene technologies. It gives us the potential to improve our health, create a safer and more secure food supply, generate greater prosperity and attain a more sustainable environment. Our position on this issue is:

1. CSIRO is committed to playing a valuable, careful and ethical role in Australian and international efforts to develop beneficial new products and processes from gene technology.

2. CSIRO will help to provide a clean, safe food supply, novel materials and products and a sustainable environment for all Australians through the use of appropriate biotechnology including gene technologies.

3. CSIRO recognises and respects public interest and concern on issues surrounding genetically modified organisms. We will consult with the community, listen to and recognise its concerns, and help to inform Australians about gene technology.

4. CSIRO will help Australia and its industries to be world competitive in biotechnology and gene technology. We will commercialise our activities in the most effective way and promote the growth of local biotechnology companies as appropriate. We will continue to conduct world class research and train our scientists to the highest standards.

5. CSIRO complies with all guidelines laid down by Government for the conduct of gene technology research. CSIRO recognises the issue of gene technology regulation is under active policy consideration by Federal and State Governments, and will comply with all new laws, regulations and requirements they determine.

6. CSIRO will address risks as well as benefits in its own gene technology research. To minimise risks nationally, CSIRO supports a national capability for environmental risk assessment and will participate as appropriate in establishing this capability.

7. CSIRO supports the stimulation of innovation through the protection of intellectual property rights in original gene technologies.
The Politics of GM Food: Risk, science and public trust

Policy recommendations

Overall government policy

Recognise that the GM food issue is not just a matter of 'sound science' to be decided upon by experts alone. There can be no final 'sound scientific' answer on GM foods. To pretend otherwise is actually 'unscientific'. Although good science is essential, the answer you get depends on the questions you ask and the assumptions you start with. Much of the debate concerning the introduction of such new technologies is about politics, interests and public values as much as it is about expert opinion.

Assess GM foods as part of a national agro-food strategy aimed at sustainable development, which integrates the different interests in the food supply chain. The application of all technologies (including GM) should be continuously tested against the social, economic and environmental criteria now explicit in other aspects of government policy.

Call a pause in current and proposed environmental releases of GMs (even the current 'trials'), to allow public confidence in the integrity of the regulatory framework to be restored, and ways forward for biotechnology negotiated. At present, the government is identified in the public mind as promoting GM developments, rather than as calmly evaluating them in the public interest. A commitment not to sanction more releases for the present would signal the properly balanced approach expected of governments.

Regulation

Go beyond the question of whether a GM food 'is acceptable', and deal with other questions that the public want to see asked, such as:

- Is this necessary?
- Are there better ways to achieve the same ends?
- Have we taken everything relevant into account?
- Are we being sufficiently cautious about the uncertainties?
- Can we withdraw from it if it doesn't work as we hope?

Redesign the current risk regulation framework to ensure more explicit attention to 'absence of knowledge' and 'scientific ignorance' in the appraisal of new technologies like GM foods. The emphasis in the Ministerial Advisory Committees is on 'absence of proof' of harm, rather than on serious acknowledgement of open-ended uncertainties. A wider disciplinary mix - including social scientists - would help correct this, in line with realistic public concerns (as urged by the Royal Commission on Environmental Pollution).

Develop regulation of GM foods to be much more broad-based, accessible and transparent. More complete and systematic ways of including different viewpoints in the regulatory process are needed. This goes beyond adding a token 'lay-person' to existing committees. There should be wider use of techniques like consensus conferences and citizen's panels about the issues, and should be used to help frame the questions that we ask of the science. The role and function of the Food Standards Agency should be expanded to more clearly incorporate retailers and the public interest.
Create an independently-administered Trust, financed by industry and government, to catalyse 'citizen' energies in the promotion of imaginative new, accessible arenas for public debate about future technological choices in the face of scientific uncertainties (as in the Netherlands and Denmark). At present, there are no accessible contexts in which the wider social implications of potentially pervasive new technologies like GM can be explored and debated publicly.

Legal

Change the burden of proof in environmental law. Those who have put human well-being at risk, through new technologies or chemicals, should be required to prove that any apparent adverse impacts were not caused by their actions. Currently those who suffer must prove cause and effect, and perpetrators evade responsibility. This partial change in the "innocent until proven guilty" maxim is already accepted in other countries, and in other UK legislation, when the type of offence makes it unreasonable to expect victims to prove causation.

Extend personal injury law to treat environmental impacts as criminal assault and poisoning. Last year the Home Office proposed a new Offences Against the Person' Bill that potentially could achieve this. But it was principally concerned with micro-terrorism, for example releasing anthrax, so its broader environmental relevance was unclear. This would not represent a new legal concept, just an overdue update of the traditional laws on protecting people from the harmful acts of others.

Modify the definition of "safe levels" to protect everybody. So-called "safe levels" of exposure to environmental hazards should be modified to protect the 'most vulnerable human', not just the 'average human' as now. If someone dies as a result of a minor assault, it is no defence to say that you did not know they had a weak heart. Yet if someone dies because they were vulnerable in relation to an environmental impact, that type of excuse is accepted. The exposure was, in legal terms, "safe". Medical drugs are already regulated in relation to vulnerability. Cause and effect can more easily be proven, and damages won, so the drugs companies willingly accept stricter standards.

Science

Scientific institutions should encourage better understandings of 'the public' by scientists, rather than simply decrying supposed public 'irrationality' towards science. Current funding pressures mean most scientists have minimal opportunity to reflect on the wider social implications of their research, and are therefore surprised by public reactions to developments like GMs. Much more imagination is needed by scientific institutions (Royal Society, Royal Institution, British Association for the Advancement of Science, etc) in educating scientists about how they are seen in the contemporary world and why.

These policy recommendations have been produced as an accompaniment to the Global Environmental Change Programme Briefing document The Politics of GM Food: Risk, science and public trust, published on 18th October 1999.

The main document and supporting materials are all available on the website: www.gecko.ac.uk

Contact Alister Scott
Global Environmental Change Programme Office
Mantell Building, University of Sussex, Brighton, BN1 9RF
Tel: (44) (0) 1273-678935 Fax: (44) (0) 1273-604483 Email: gec@sussex.ac.uk
The following compilation, prepared by the Loka Institute, lists deliberative citizens' panels on science and technology policy that have been conducted around the world.

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1999</td>
<td>Gene technology in the food chain</td>
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<tr>
<td>Austria</td>
<td>1997</td>
<td>Ozone in the upper atmosphere</td>
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<tr>
<td>Canada</td>
<td>1998</td>
<td>Mandatory laptop computers in universities - pilot organized by students at McMaster University; topic not yet selected (pending 1999, McMaster Univ)</td>
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<td></td>
<td>1999</td>
<td>Food biotechnology - Western Canada</td>
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<td>Denmark</td>
<td>1987</td>
<td>Gene technology in industry and agriculture</td>
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<td></td>
<td>1989</td>
<td>Food irradiation</td>
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<tr>
<td></td>
<td>1989</td>
<td>Human genome mapping</td>
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<tr>
<td></td>
<td>1990</td>
<td>Air pollution</td>
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<td></td>
<td>1991</td>
<td>Educational technology</td>
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<td></td>
<td>1992</td>
<td>Transgenic animals</td>
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<tr>
<td></td>
<td>1993</td>
<td>Future of private automobiles</td>
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<td></td>
<td>1993</td>
<td>Infertility</td>
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<td></td>
<td>1994</td>
<td>Electronic identity cards</td>
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<td></td>
<td>1994</td>
<td>Information technology in transport</td>
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<td></td>
<td>1994</td>
<td>Integrated production in agriculture</td>
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<td></td>
<td>1995</td>
<td>Setting limits on chemicals in food and the environment</td>
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<td></td>
<td>1995</td>
<td>Gene therapy</td>
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<td></td>
<td>1997</td>
<td>Consumption and the environment</td>
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<td></td>
<td>1997</td>
<td>Teleworking</td>
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<td></td>
<td>1998</td>
<td>Citizens' food policy</td>
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<td></td>
<td>1998</td>
<td>Future of fishing</td>
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<td></td>
<td>1999</td>
<td>Genetically modified foods</td>
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<td>France</td>
<td>1998</td>
<td>Genetically modified foods</td>
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<tr>
<td>Japan</td>
<td>1998</td>
<td>Gene therapy</td>
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<td></td>
<td>1999</td>
<td>High information society</td>
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<td>Netherlands</td>
<td>1993</td>
<td>Genetically modified animals</td>
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<tr>
<td></td>
<td>1995</td>
<td>Human genetics research</td>
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<tr>
<td>Country</td>
<td>Year</td>
<td>Event</td>
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<td>New Zealand</td>
<td>1996</td>
<td>Plant biotechnology</td>
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<td></td>
<td>1999</td>
<td>Plant biotechnology (May)</td>
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<td></td>
<td>1999</td>
<td>Biotechnological pest control (September)</td>
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<td>Norway</td>
<td>1996</td>
<td>Genetically modified foods</td>
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<tr>
<td>South Korea</td>
<td>1998</td>
<td>Safety and ethics of genetically modified foods</td>
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<td></td>
<td>1999</td>
<td>Cloning</td>
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<tr>
<td>Switzerland</td>
<td>1998</td>
<td>National electricity policy (Conducted in 3 languages with</td>
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<td></td>
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<td>simultaneous translation)</td>
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<tr>
<td></td>
<td>1999</td>
<td>Genetic engineering and food</td>
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<tr>
<td>UK</td>
<td>1994</td>
<td>Genetically modified foods</td>
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<tr>
<td></td>
<td>1999</td>
<td>Radioactive waste management</td>
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<tr>
<td>USA</td>
<td>1997</td>
<td>Telecommunications and future of democracy (Boston area pilot</td>
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<td></td>
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<td>initiated by the Loka Institute)</td>
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Acronyms And Abbreviations

Appendix 7

ABA Australian Biotechnology Association
ABARE Australian Bureau Of Agricultural Resource Economics
ACA Australian Consumers Association
ACCC Australian Competition And Consumer Commission
AFFA Agriculture Fisheries And Forestry Australia
AFGC Australian Food And Grocery Council
ANZFA Australian And New Zealand Food Authority
ANZFSC Australian And New Zealand Food Standards Council
ASI Australian Supermarket Institute
ASTEC Australian Science And Technology Council
BA Biotechnology Australia
BIOCGC Biotechnology Consultative Group
CARMA Computer Aided Research And Media Analysis
CC Consensus Conference
CRC Cooperative Research Centre
CSCG Commonwealth State Consultative Group
CSIRO Commonwealth Scientific And Industrial Research Organisation
GTAC Gene Technology Advisory Committee
GTCGG Gene Technology Community Consultative Group
DIST Department Of Industry Science And Tourism (later Resources)
GE Genetic Engineering
GEN GenEthics Network
GM Genetically modified
GT Gene Technology
GMAC Genetic Manipulation Advisory Committee
GMO Genetically modified organism
GRDC Grains Research And Development Corporation
GTA Gene Technology Authority
IBC Institutional Biosafety Committee
IOGTR Interim Office Of The Gene Technology Regulator
NHMRC National Health And Medical Research Council
NFA National Food Authority
NFF National Farmers Federation
OFA Organic Federation Of Australia
OGTR Office Of The Gene Technology Regulator
PMSEC Prime Ministers Science And Engineering Council
RDMC Recombinant DNA Monitoring Committee
SIA Seed Industry Association

Appendices
AVCARE RESPONSE TO LAY PANEL REPORT FROM

FIRST AUSTRALIAN CONSENSUS CONFERENCE

"GENE TECHNOLOGY IN THE FOOD CHAIN"

This response was prepared in May 1999 and, subsequently, the Government has made several announcements, including:

- Establishment of the Interim Office of the Gene Technology Regulator; and
- Establishment of the Biotechnology Australia Strategy.
<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Avcare Position</th>
</tr>
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<tbody>
<tr>
<td><strong>1.1</strong>&lt;br&gt;The formation of a new statutory authority with responsibility for GMOs with well-balanced representation be established whose outcomes and deliberations are public.</td>
<td>Current government initiatives to establish a regulatory framework should be given highest priority to enable establishment of the proposed GTO as a matter of urgency.</td>
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<tr>
<td><strong>1.2</strong>&lt;br&gt;Companies wishing to commercially release GE products should pay a substantial licence fee to government to support insurance against risk and the funding of the new statutory authority mentioned above. Such companies would have their licences withdrawn if found to be violating GMO safety regulation.</td>
<td>The proposed regulatory framework deals with this issue and the need to determine a suitable funding mechanism. Insurance against risk should be taken up separately by stakeholders according to liability exposure. The applicable laws and the responsible party, if any, depend on the facts of the particular event. In many cases, the ultimate responsibility would lie with the person or organisation who developed the GE product.</td>
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<tr>
<td><strong>1.3</strong>&lt;br&gt;Safety regulations should include strict codes of practice and encompass the following:&lt;br&gt;- That all GE products be subjected to random tests by independent inspectors to establish on-going compliance with licence requirements.</td>
<td>Industry would expect the government to introduce Control-of-Use legislation at either the State or Federal level. Control-of-Use has implications for the broad community and traditionally is funded by government (Community Service Obligation Funds). Any requirement for monitoring of crop performance and resistance development should be the responsibility of industry. Agree, being mindful of the fact that the existing framework allows the States to veto on GMO decisions. Agree. This recommendation is already included in the proposed regulatory framework. Agree. This is current practice with the legislation governing agricultural and veterinary chemicals.</td>
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## Processes of Decision-Making

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<th>Recommendation</th>
<th>Avcare Position</th>
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<tr>
<td>Government should establish a mechanism similar to the model of the Consensus Conference, consisting of industry, consumer groups, critics, other experts and the Australian lay people. This would ensure that dialogue between all of these groups would lead to better government decisions.</td>
<td>Agree in principle. The government has already formed a Biotechnology Consultative Group that should be expanded to encompass this recommendation. Government should also be encouraged to consult widely outside the formal mechanisms, and make transparent any regulatory decisions.</td>
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</table>

## Science and Risk

### 3.1
No new commercial releases or unlabelled importation of GMO foods, both whole or processed, be allowed in Australia unless and until:

- An independent, unbiased Gene Technology Office within a statutory authority is established to assess and report on all aspects of GMO safety
- A clear Australian position on the Biosafety Protocol be established.
- An all-encompassing GMO labelling system be established.
- A process of co-operative consultation between industry, government and consumer groups on the GMO issue be established.
- The establishment of an independent academic peer review system for GMO research.
- A full evaluation of the risks of GMO field trials be conducted and/or overseen by the recommended Gene Technology Office.

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<tr>
<th>Recommendation</th>
<th>Avcare Position</th>
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<tbody>
<tr>
<td>Disagree. Australian cannot afford to lose world competitiveness in trade. This challenges government to set up the GTO by say 1 July 2000.</td>
<td>Agree.</td>
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<tr>
<td>Agree.</td>
<td>Agree that the existing Government position must be clearly communicated to the public. Agree. More discussion needs to take place between all sectors before regulatory decisions are made (see also Item 10 response) Agree.</td>
</tr>
<tr>
<td>This already occurs through GMAC and would continue through the GTO.</td>
<td>Agree. GMAC already does this and such evaluation would continue under the GTO.</td>
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</table>
### 3.2
*This should in no way affect current usage of GMO crop cultivation in Australia or any existing use of GMO products.*

Research and field trials into GMO development should be allowed to continue provided adequate containment procedures are enforced.

The importation of GMO foods should only be allowed when full identification be provided to the end consumer by comprehensive labelling.

**Avicare Position**
- Agree. This is vitally important to allow Australia to maintain a sustainable agricultural industry, and remain competitive in world trade.
- Agree. The proposed regulatory framework will address this issue. In the meantime, there is no apparent evidence that the voluntary GMAC system is failing.
- *(See response to Item 10)*

### 4 Environment and Health

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Avicare Position</th>
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<tr>
<td><strong>4.1</strong> Environment and Health departments should be integrally and pro-actively involved in developing strategies to prevent and prepare for any possible health and environmental problems or disasters that might occur through GMO applications.</td>
<td>Agree, but the Agriculture Department must also be intrinsically involved. Liability responsibility for any event rests with the applicant.</td>
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<tr>
<td><strong>4.2</strong> A specific adverse reactions register should be established to ensure that any possible health links to GMOs be closely monitored.</td>
<td>Agree, but the NRA's existing adverse reactions register should be used as a reference point.</td>
</tr>
<tr>
<td><strong>4.3</strong> In order to ensure the highest standard of public health, the regulation of GMO issues should not be moved to Agriculture, Fisheries and Forestry Australia.</td>
<td>The proposed regulatory framework shares the responsibility of GMOs across several agencies. Hence, the regulation is best conducted by a statutory authority reporting to a ministerial council, rather than any one ministry. However, the most critical point is to have a regulatory system established as soon as possible.</td>
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## Alternatives to Gene Technology

<table>
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<th>Recommendation</th>
<th>Avcare Position</th>
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</table>
| **5.1**  
*Independent assessment of the viability and impacts of choosing non-GMO options should be carried out assessing the potential impacts on industry, local producers and Australia’s international trade.* | The government already has much of this information on hand and care must be taken not to duplicate with further assessments. The most effective solution may well be a combination of solutions. |
| **5.2**  
*This process should explore political, cultural, financial and environmental ramifications of this issue.* | Agree in principle, but final decision will be determined by market attractiveness. Also, such considerations are covered by the existing regulatory process (refer to Good Agricultural Practices). |
| **5.3**  
*We recommend a process where information gained from this assessment should be communicated widely to the public. Community, scientific, industry and government consultation and involvement should then take place to ensure an inclusive decision-making process.* | Agree. |

## Ethics and Morality

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Avcare Position</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>That an ethicist be involved in the formulation of major decisions regarding GMO policies.</em></td>
<td>Ethical considerations are included in Institution of Biosafety Committee and GMAC Sub-Committee level. A single ethicist may not be representative – it would therefore be better for a committee or through IBC’s.</td>
</tr>
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</table>
7. **Multinational Corporation**

<table>
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<tbody>
<tr>
<td>7.1 That the Australian Consumer and Competitive Commission (ACCC) take a pro-active role in investigating and preventing multi-national monopolies in the food industry. That protocols be established to ensure that public input into research proposals and funding be established to ensure that broad public, as well as commercial interests are served.</td>
<td>The ACCC is already actively involved in ensuring that no unfair market monopolies exist. Agree in principle. The CRC model for public input into research programs could be considered as an option.</td>
</tr>
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8. **International Conventions**

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<tr>
<td>8.1 In the negotiations of the Biosafety Protocol, Australia should support a regulated trade approach in relation to GMOs. This would ensure a precautionary approach to GMO trade, the provision of a specific liability regime and segregation and labelling of all products. Australia should seek to initiate and support international treaties that protect those vulnerable from exploitation by bio-prospecting companies.</td>
<td>Disagree. Australia's position in Biosafety Protocol has been devised as the best position for Australia. It does not lose sight of the fundamental principles of sharing benefits of gene technology, whilst limiting the real risks to biodiversity from GMOs. <em>(Refer also Canada's position and BioteCanada.)</em> Disagree, as this should be dealt with through national mechanisms.</td>
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</table>
### Public Awareness and Participation

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<tr>
<td><strong>9.1</strong> Better processes to allow public access to information which includes varying perspectives should be established at many levels, including:</td>
<td>Agree. The newly established Food Science Bureau of the Australian Food &amp; Grocery Council is an example of one industry program. The Agrifood Alliance Australia has been formed to help achieve public acceptance of Gene Technology as a fundamental tool for sustainable agriculture and world trade competitiveness. Alliance partners are Avcare Limited, Grains Research &amp; Development Corporation, Seed Industry Association Australia, National Farmers’ Federation, Australian Biotechnology Association, Corporate Research Centres and Pivot Australia, representing Fertilizer Association. This is an action for Government.</td>
</tr>
<tr>
<td>the establishment of a Gene Technology Information Office;</td>
<td>Agree. The CSIRO education program would form a good platform to build on.</td>
</tr>
<tr>
<td>Government sponsored advertising campaigns.</td>
<td>Agree.</td>
</tr>
<tr>
<td>Toll-free phone lines and Web site for consumer information.</td>
<td>Agree.</td>
</tr>
<tr>
<td>Public notices on GM issues.</td>
<td>Agree.</td>
</tr>
<tr>
<td>Information fact sheets.</td>
<td>Agree.</td>
</tr>
<tr>
<td>Focused education information and CD Roms.</td>
<td>Agree in principle. (See response to Items 2 and 6)</td>
</tr>
<tr>
<td>Increased consumer representation on existing and future decision making bodies is absolutely necessary. A stringent selection process conducted by an independent body, similar to that used to select Consensus Conference lay panel members, should be applied in choosing representatives. Equal representation from public, industry and other key stakeholders should be established.</td>
<td>Agree in principle. Consumer and community representation on government decision-making bodies is already government policy. Also, consumers are represented in IBC’s by the community member.</td>
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<td>Recommendation</td>
<td>Avcare Position</td>
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<td>-------------------------------------------------------------------------------</td>
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<tr>
<td>9.2 Resources should be identified and allocated to produce a follow-up report</td>
<td>Agree in principle.</td>
</tr>
<tr>
<td>about the Consensus Conference process one-year on that will evaluate and</td>
<td>A review of the issues surrounding the regulation and acceptance of GM foods</td>
</tr>
<tr>
<td>monitor its impact in relation to the issue of GM foods. This should include:</td>
<td>should be conducted by the government in one year’s time.</td>
</tr>
<tr>
<td>- a clear list of any results linked to the conference.</td>
<td>It may be relevant to use the Consensus Conference process again to gauge public</td>
</tr>
<tr>
<td>- input by external experts knowledgeable about public participation</td>
<td>opinion on any outstanding important issues. However, the CC Report alone is not</td>
</tr>
<tr>
<td>processes.</td>
<td>an absolute measure of the public’s opinion.</td>
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<tr>
<td>- input from a wide circle of those involved in the Conference, including</td>
<td></td>
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<tr>
<td>lay panel members, expert speakers or the organisation they represented,</td>
<td></td>
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<td>paying audience members, sponsors, etc.</td>
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<td>- recommendations on how to improve and make better use of this process.</td>
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<td>- assurance that the report be widely circulated and distributed to key</td>
<td></td>
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<td>decision makers and interested parties.</td>
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<tr>
<th>10 Labelling and Choice</th>
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<tbody>
<tr>
<td><strong>Recommendation</strong></td>
<td><strong>Avcare Position</strong></td>
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<tr>
<td>The lay panel strongly recommends that all genetically modified foods,</td>
<td>Agree that more urgent discussion involving all stakeholders needs to take</td>
</tr>
<tr>
<td>regardless of where modification occurs, should be labelled to allow free and</td>
<td>place before specific regulations are decided for GMO foods.</td>
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<tr>
<td>informed consumer choice. Such labelling must show the reason for genetic</td>
<td></td>
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<tr>
<td>change and any other information necessary for human or animal health advice.</td>
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<tr>
<td>There are many debates about the difficulties of providing effective and</td>
<td></td>
</tr>
<tr>
<td>clear product labelling. The panel agrees that this is a difficult issue and</td>
<td></td>
</tr>
<tr>
<td>suggests that more discussion involving all sectors will have to take place</td>
<td></td>
</tr>
<tr>
<td>before specific labelling regulations be decided for GMO foods.</td>
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