COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON PRIMARY INDUSTRIES AND REGIONAL SERVICES

Reference: Primary producer access to gene technology

MONDAY, 30 AUGUST 1999

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON PRIMARY INDUSTRIES AND REGIONAL SERVICES

Monday, 30 August 1999

Members: Fran Bailey *(Chair)*, Mr Adams, Mr Andren, Mr Horne, Mr Katter, Mrs De-Anne Kelly, Mr Ian Macfarlane, Mr Leo McLeay, Mr Nairn, Mr Secker, Mr Sidebottom and Mr Cameron Thompson

Supplementary members: Mr Griffin and Dr Washer

Members in attendance: Mr Adams, Fran Bailey, Mr Nairn, Mr Secker, Mr Cameron Thompson and Dr Washer

Terms of reference for the inquiry:

To inquire into and report on the following areas, with particular emphasis on the capacity of small and medium sized enterprises to access the benefits of gene technology:

. the future value and importance of genetically modified varieties;

. the ability for producers to compete using traditionally available varieties;

. the commercialisation and marketing of agricultural and livestock production varieties;

. the cost to producers of new varieties;

. other impediments to the utilisation of new varieties by small producers;

. assistance to small producers to develop new varieties and the protection of the rights of independent breeders, in relation to genetically modified organisms;

. the appropriateness of current variety protection rights, administrative arrangements and legislation, in relation to genetically modified organisms; and

. opportunities to educate the community of the benefits of gene technology.

WITNESSES

Committee met at 9.05 a.m.

MALLETT, Dr Chris, Deputy Chief Executive, Commonwealth Scientific and Industrial Research Organisation

HIRSCH, Dr Mikael, Principal Adviser, Natural Resources, Office of the Deputy Chief Executive, Commonwealth Scientific and Industrial Research Organisation

CHAIR—I declare open this public hearing of the inquiry by the House of Representatives Standing Committee on Primary Industries and Regional Services into primary producer access to gene technology. Today's hearing is the third for this inquiry. I advise the witnesses that the committee's public hearings are recognised as proceedings of the parliament and warrant the same respect as proceedings in the House of Representatives. Witnesses are protected by parliamentary privilege in respect of the evidence they give before the committee. Witnesses will not be asked to take an oath or to make an affirmation. However, they are reminded that false evidence given to a parliamentary committee may be regarded as a contempt of the parliament. The committee prefers that all evidence be given in public but should you at any stage wish to give evidence in private, you may ask to do so and the committee will give consideration to your request.

Dr Mallett and Dr Hirsch, we have received a very detailed submission from you. Have you anything to add regarding the capacities in which you appear?

Dr Mallett—In my position I am responsible for all of CSIRO's agribusiness operations.

Dr Hirsch—I assist the executives on policy matters, including gene technology.

CHAIR—Would you like to make a short opening statement before we begin our questioning?

Dr Mallett—Thank you, Madam Chair. I do not want to take a lot of time but I would like to highlight a couple of points. You will be aware that under CSIRO's act we are required to carry out scientific research for the benefit of Australian industry and the Australian community and any other requirement that the minister so directs of us. We recognised this technology some time ago as having major potential in the scientific sense and also a particular impact on Australian agribusiness. In fact, if in a simplistic way you wanted to regard the 19th century as the era of chemistry and the 20th century as the era of physics, then in our view the 21st century is going to be the era of biology, and in particular molecular biology. As you possibly know, we have the largest resources in the country devoted to doing work on genetic technology in general, including some genetic modification of foodstuffs. That work covers all areas of foodstuffs, from grain to animal to aquaculture industries.

We do a lot of genetic technology and although it is not exclusively linked to the agribusiness sector most of it is. Our focus is not so much to act as a proponent one way or the other for a particular technology—that is not our role and nor is it appropriate for us—but we are concerned to elucidate the science underpinning the application of genetic modification to foodstuffs and to provide Australian industry, principally agribusiness, with

access to the skills and resources needed to take Australia into the new technology. For example, we have worked very closely with the cotton industry where the case example of Cotton Seed Distributors was quite significant, and cotton was the first genetically modified crop sown in Australia. However, I should like to make it unambiguously clear that we also are concerned with a disinterested view of the impact of the technology—not simply to do the exciting new research but also to look very carefully at what impact it may have in the environment.

Our view is that certainly as far as foodstuffs are concerned the issue of food safety is not a major issue. We believe that toxicologically the technology has been cleared and, as a technology over which we have control, it is significantly in advance of other technologies. We are concerned and do have some views about its environmental implications. We are conducting research, and have been doing so for some time, in terms of the ecological impact of this technology. We are also very concerned to make sure the Australian consumer understands what the impact is.

From a holistic point of view for the country as a whole, our view is that this technology offers such great benefits in terms of improved consumer functionality, new foods for consumers, reduced prices for commodities and reduced environmental impacts of growing those commodities on Australia's rather fragile ecosystem, that it is likely to be a technology that is not going to suffer the same fate as irradiation and quietly fade on the back of some initial consumer resistance. However, we should say that in our view there are a number of hurdles to clear if we are going to actually play in this race. In our view the first hurdle is the issue of a credible regulation regime with an associated labelling regime. The second hurdle, on the back of that, is consumer acceptance of the new technology and of the products from this technology. The third hurdle, and this is probably more germane to your deliberations today, is how it is going to benefit Australian agribusiness.

I have been quite a key player in trying to alert Australian agribusiness generally to the impact this technology may have and I have been an invited speaker at various commodity councils, be they sugar or grains or wool or beef, or the chairs of the RDCs. Our concern from a strategic perspective is that there are some countries, like North America in particular, where they have cleared the first two hurdles and are in the process of trying to make sure that American agribusiness sees this new technology as a leverage opportunity to advance the interests of American agribusiness against those of others. You will be aware that the Europeans have decided not to play in the race, and you may also be aware that the Americans have also split the Cairns group into two. The first group is those who are working, usually with subsidiaries, principally in North and South America. The Cairns group, as you know, in terms of impact and importance, is an alphabetical list; if you look at the first few countries, they determine the future of the Cairns group. The Americans are working very closely with Argentina, Brazil and Canada to use this technology. At the moment Australia is sitting, as it were, on the fence and the rest of the countries in the Cairns group are either not significant or not actually dealing with this issue. It is clear the Americans are trying to use this particular technology as a lever. If you look, for instance, at wheat or other grains, of the major exporters Australia and the Europeans are the only people not already embracing this technology and doing work in quite a systematic way.

So, from the point of view of risks to Australian agribusiness—and I use grain as only one example—there are some dangers. One aspect may be to say, 'Let's not get into this game and let's provide and supply to countries who have concerns about these technologies and don't yet accept them,' be they Europe or be they North Asia, like Japan. Our view is that, yes, this may be a possibility in the short term, but, as I mentioned before, the advantages of this technology are so significant that we run the risk of being sidelined when consumer resistance to this new technology starts to erode—as it has already in the United States and is starting to in some other countries—and we will be disadvantageously positioned.

I will give you one example. As you possibly have heard from your other deliberations, there was a very strong debate within Levi whether they should stipulate that all their growers should use Bt cotton—this is the cotton which has a special gene inserted into it to give it insecticidal properties inherently rather than it needing extensive insecticide application. Of course, from their perspective there would be a great advantage of actually marketing their products as clean and green because they have the gene introduced and therefore the pesticide application in some countries, particularly in North America, can be reduced almost by a factor of two. They have seriously considered whether they should so stipulate that and since Levi determine the top end of the market in cotton production that would essentially set the benchmark for the top end. For a variety of reasons, including some consumer resistance in some of their markets, they have decided not to do that, but it remains a potential threat. Our view is that if Australian cotton growers do not have access to this sort of technology then essentially they would be positioned as the price takers rather than the quality takers in the markets.

It is difficult for us to underestimate the impact of this particular technology on Australia. The ability to differentiate commodities, which has been a persistent concern of politicians of all persuasions for a long time within Australia, is now becoming a reality through the introduction of these new genetically modified crops and animals. From a research perspective, we are here partly to alert people to the potential, and to some extent the threat, of this technology—either in a business sense or in terms of its impact on the environment, and it would need to be very carefully monitored and very carefully introduced—but also, when approached, to provide the government with some sort of scientific advice on the various options that it may seek to consider in introducing the technology. I think that is probably enough for me to say, Madam Chair.

CHAIR—Thank you very much indeed. You have given us a very extensive overview of CSIRO's position and you have raised a number of the key issues which we are tackling. Could we firstly go to this question of the impact on the environment? On page 6 of your submission you mention that there are still many unanswered questions about the ecological impacts of the current GMO technologies. Could you expand on this for us?

Dr Mallett—I might ask my colleague, Dr Hirsch, to expand in more detail on some of these issues because he has been dealing with them day to day.

Dr Hirsch—Thank you, Madam Chair. It is true that there are unanswered questions, as with any other technology that is being introduced. We are currently putting a fair amount of effort into crops but, as with any other technologies, some of the impacts are still to be

studied. However, we do conduct a lot of studies for this. The release of Bt cotton and the refugia which goes with it was part of CSIRO technology which went with it and studied in terms of the impact on it. We are also now providing more focus inside CSIRO on putting together research programs to look at the broader scale impact on a landscape basis and the like. So we are certainly trying to be as far ahead as possible. You would be well aware that there are a number of studies being cited in the press. Some of those are extrapolated a bit, and we make reference in our submissions to the monarch butterfly issue which in fact was a prejudiced experiment. This was later extrapolated by some to imply that the Bt corn was endangering the entire butterfly population of North America. We think that, whilst there might be some truth in that—one can never discount any of these things with a scientific mindset—one has to be careful when doing these things because they are quite often taken out of context.

The role of CSIRO is to ensure that when there are issues being raised—and quite often they are raised in the process of approving things in the regulatory process—they are being addressed from a scientific point of view so we have the answers to these things.

Dr Mallett—Madam Chair, can I just briefly add something to that. I do not want to go into too much detail but there is a fundamental issue which I think is at the heart of this debate about the environmental impact. As Dr Hirsch has indicated, people can do various experiments saying, 'Look, if we do this the pollen might go here,' or 'If we introduce Bt cotton we're changing the microflora in the soil and that may have impact on the soil and on the organisms that live in the soil,' or 'If we change the population of the heliothis moth then clearly that is going to change the whole ecosystem.' This is true, but it is important not to consider this in isolation. We are not discussing introducing a technology in abstract. At the moment people do grow cotton and the only way they can grow cotton is to douse the crop with substantial quantities of pesticide. So it is not a matter of an absolute; it is a matter of comparative, and the standard technique scientifically used to monitor this is risk assessment. As some of your members may well know, it was originally developed for the nuclear industry but it is used in every area where there are competing technologies or competing particular procedures and you need to try and assess what the relative risks are, from crossing a road to having a surgical operation to introducing new technology. One of the things that seems to have been lost in our perspective in the debate so far is this concept of context. Yes, some of the technologies do change the ecosystem but at the moment the evidence to date seems to suggest that they change it less than the conventional technology. As Dr Hirsch has indicated, at the moment not all information is in and more work certainly needs to be done. Before making these comments it is worth while bearing that in mind.

CHAIR—Do we have the capability to actually assess any of this potential damage here in Australia?

Dr Mallett—Yes, I believe we do; we have a great deal of expertise. However, it is relatively complex and we are talking about new technologies and obviously it takes time to evaluate the new technologies. Of course, it is important that we do because Australia's structure and microflora are unique to us and no-one else in the world is going to do it. We have a different climate, a different soil system, an entirely different geology, a whole different ecosystem to the rest of the world and it is important that we assess the impact of the particular technology on Australia before we introduce it.

CHAIR—I think the figure you mentioned in your submission is that CSIRO is spending approximately $50 million in developing products using gene technology. How much is being allocated in the budget for developing the environmental assessments?

Dr Mallett—Well, Madam Chair, that figure includes not just the work done to actually say, 'We have now introduced the Bt gene into a particular cotton variety;' it also includes an amount of research as saying, 'If we are going to introduce it, how shall we do it?'. As Dr Hirsch has mentioned, we need to work out what crops we can grow it with, whether there are refugia or not, what the size of the crop is, where you should grow it and where you should not grow it. To some extent it already includes some of that research. CSIRO, as you may be aware, Madam Chair, has a triennial appropriation which has just been voted on at the last budget. In preparation for every triennium, the five-man executive, of which I am a member, carries out a priorities exercise of where we should apply this appropriation—to which particular sectors, be they the information sector, mining or agribusiness. We decided to substantially increase the amount of resources devoted to this issue, not so much for the individual but for some of the more generally applicable techniques across the whole of science, and particularly initially with a focus on crops. At the moment livestock is neither scientifically nor technologically as advanced as the plant sector.

Dr Hirsch—If I may add, Madam Chair, you may also be aware that when it comes to developing specific applications of the technology, be it Bt cotton or herbicide resistance crops—or bananas or whatever—it is in most cases up to the industry, in compliance with the regulatory standards, to provide a lot of that applied research. If you are thinking about research as a one stream event, CSIRO is going upwards to look at the more strategic and basic research which needs to underpin some of that. We are assembling teams to look at risk assessment research and are communicating with other agencies. We also have the capacity to pull together teams across the organisation dealing with a variety of different things—none of them might be dealing with GMOs, but they might have the capacity to add value to specific research programs. So it is hard to look at GMO risk assessment research in isolation because quite often you will bring into that equation the research you would do for conventional agriculture—for example, what does it mean for introducing a Bt gene into a crop when you are also having the Bt applied as a pesticide? Some of these things are fairly interwoven and we have found it somewhat difficult to put an exact ring around them because there are a lot of flow-on effects to our research efforts.

CHAIR—Just sticking with your work in looking at the different crops, it has been put to us by organic food growers, for example, that they are concerned about pollen moving from a genetically modified crop to an area where they are growing their crops.

Mr ADAMS—Next door.

CHAIR—If you are looking at this level of research, are you also taking into account organic crops?

Dr Mallett—We are not so much taking organic crops into account specifically. As I mentioned a moment ago, what we are trying to say is that we are looking very carefully at the areas which we grow in. Certainly we would suggest that it is unwise for anyone who has a major organic input to have a GMO crop next door of the same sort of crop because

there is a potential and, yes, we have made recommendations on the geographical implications saying, 'Look, if you want to restrict the impacts of this particular technology then we suggest this is how you do it.'

Mr ADAMS—How have you done that? What have you done?

Dr Mallett—It is principally the growing of Bt cotton, and it is grown principally in the areas of Narrabri and Queensland, and we have suggested areas, how the crops should be grown, what crops should be grown with them, what sort of rotation periods—this sort of information.

Dr Hirsch—But ultimately it comes back to what is the actual risk. For instance, if you are talking about corn or maize, it does not transfer pollens very far away. Is there a specific risk because it is a Bt corn crop? That comes back to whether the gene is actually expressed in the pollen, which might be the case in the monarch butterfly but might not be the case in cotton where the gene is not expressed in the seed and therefore does not actually carry toxins in it. It is pretty hard all of a sudden to put tall walls around nature, as well as how crops are being adapted to society.

Mr ADAMS—Yes, but we are actually introducing something new. That introduces the concept of risk against what we have been doing. You are coming from the premise that everything that is going to be done is okay—

Dr Hirsch—No.

Mr ADAMS—Well, if I look at this submission, basically that is what it is. The submission that Dr Mallett has given us is basically, 'This is going to happen, it's good for Australia,' blah, blah, blah. That is a fair push that we are getting from the scientific community, plus the multinationals, plus everybody else who is going to get an advantage out of agribusiness going down this track. What I am saying is that if this is new, don't the present and the old applications have a right to be given advice on what the risk is to them regarding the pollen floating from those paddocks to those paddocks and what impact that has on them? I guess that is what we are trying to get at.

Dr Mallett—I think that is an entirely fair thing. We do not dispute anything that you said. However, I would just like to put it in context. It depends on what you mean by risk. From a purely scientific point of view, from a food safety point of view organic food is no less safe or no more safe than conventional food. The issue is not so much an issue of food safety; the issue is, 'Well, I have a market based on that particular perception and I have a right to continue to have a market,' and we do not dispute that. We would actually say, as my colleague has said, look at it case by case. If you are concerned about pollen spread by wind you have to establish that the pollen spread by winds can actually fertilise an organic crop and therefore have an impact on it. If it cannot, as Dr Hirsch has indicated is the case with cotton, then that is not an issue. On the other hand, there may be some crops where it is an issue. We certainly have given advice not only in terms of the pure techniques of introducing the gene into a particular variety and the agronomy of that particular variety but also in the context of the agronomy of that particular variety to make sure it does not compromise other crops.

There are some people in the United States, and I am sure you are aware of this better than I, Mr Adams, who are running both crops and who deliberately wish to keep both crops separate. They are not making a judgment one way or the other; they are letting the market decide. What they have done is to assess how best they can run both crops, and it is really a scientific assessment. We certainly are happy to play a role in this, and do, but again our role is principally as scientific advisers. You have mentioned the multinationals, and we are actually trying to build some Australian multinationals in this area because we think we have the potential to do so. It is really down to the companies who wish to introduce the technology to make sure they have sufficient scientific evidence to convince the regulators that it is appropriate to introduce a crop. You are in a position to suggest to the regulators what should or should not be included in their checklist, but obviously there are issues such as safety, environmental impact and a right to trade for the existing businesses.

CHAIR—Just on that issue of regulation, you state in your submission that you think that this should be a statutory authority. Why do you say that?

Dr Mallett—I should be slightly careful on this one. As you would probably appreciate, we do not really have a view one way or the other—

CHAIR—It seemed to be a pretty strong view in your submission.

Dr Mallett—We did say that, but it was unfortunately a slip that got through which should not have been there. Our concern is not so much the process but more the outcome. Our concern is that consumers have complete confidence in the regulatory regimes put in place.

CHAIR—That comes through loud and clear. You obviously believe that the best way to achieve that is through a statutory authority.

Dr Mallett—That is one way to achieve that. As you are aware, I believe the government has actually accepted that it be a statutory officeholder. What it has not yet established is that it be a statutory authority. This is really an issue for parliament to decide. We have suggested that that is one route; there may be other routes. Our greatest concern, however—

CHAIR—You have very strongly suggested that route.

Dr Mallett—We have strongly suggested a statutory authority. Perhaps if we had an idea of what our options might have been we would have suggested a statutory officeholder and possibly a statutory authority, should the parliament so decide.

Mr NAIRN—Just following on your comments about GM crops as opposed to non-GM crops and getting a balance out in the field, there has also been the concern from people growing genetically modified crops about the impact of non-GM crops on their crops as well, so it works both ways. What about the storage aspect? Just in general terms, is the CSIRO doing anything in that regard as to where crops are being stored and not mixing them?

Dr Mallett—We do have quite an active program, particularly on grains. We have a Stored Grain Research Laboratory which, if you like, is a joint venture between CSIRO and all the major bulk handling authorities and the Australian Wheat Board to try and give Australia a competitive advantage internationally in terms of delivering quality grain, free of insect infestation. However, our view is that the requirement for segregation is really a logistical issue that is best handled by the grain growers themselves. A different bit of CSIRO, probably the mathematicians and statisticians, can actually do some modelling and suggest how best to handle it. But we are not actually saying one thing or the other in terms of segregation. That is really down to individual marketers about how they want to handle their particular crop.

Mr NAIRN—The big issue is the cost associated with doing that but I just wondered whether there was a scientific issue there at all.

Dr Mallett—Not a great scientific issue. As to the cost, I suppose the question is: who bears the cost? Is it the traditional crop or the GM crop? I am afraid you are not going to draw us on that today.

Mr NAIRN—Fair enough. You made comments about the lack of facts in some of the debate and to me this is the crux of this whole issue—in fact, some of the things out there are from a lack of understanding and then the debate becomes based on emotions rather than on facts. Where do you see the CSIRO's role in this public debate? Personally I think there is potentially a very significant role for organisations like CSIRO to ensure that the public debate is very much focused on facts rather than emotion.

Dr Mallett—Thank you, Mr Nairn, for those compliments and comment on our role. Our role is very similar to how you suggest it. We will always try to provide disinterested scientific advice; however, we have to be slightly careful. As you are aware, it is the case that there are people who do not accept the technology for a variety of reasons. It is the case that we do receive research funds from companies, both Australian based and multinational, to do research work and therefore could be regarded as not disinterested. We want to be very careful how we do this. In terms of how you might educate the public in this, we have already done some work. We had an exhibition in 1993 called 'Can Pigs Fly?' which tried to explain genetic technology and what its impact might be. That exhibition was taken around shopping centres in Australia that year and the year afterwards but there has been a bit of a gap since then.

As I said in my opening comments, if we are in the process, as we believe we are, of clearing the first hurdle of the regulatory regime, the second hurdle of public acceptance is a much greater one. We can do no more than to try and facilitate and assist it but we cannot actually lead it, simply because it is probably not our role. I did try to persuade people in industry, successfully, to support a consensus conference. We provided half the funding for the consensus conference ourselves to try and get the debate into a more rational, less emotional context—one step further. We think that was a very constructive first step but we do feel there are many things yet needed to be done. We can certainly provide the scientific evidence but, as for CSIRO in its own name actually going out and carrying out a major education campaign, we are not convinced that the Australian public wants that, whether the Australian government wants it, or even whether it is appropriate for CSIRO to do it.

Mr NAIRN—Even though you say that you receive funds from multinationals for research and things, you do have an environmental side—

Dr Mallett—We do.

Mr NAIRN—I would think that even though you are taking funds the CSIRO is seen publicly as reasonably straight down the middle. From a credibility point of view, I would have thought that the CSIRO has a fairly high standing in that respect and maybe it is something that can be utilised to get the debate back on an even keel.

Dr Mallett—Thank you again for those comments. We are just being rather cautious about it. There are two other comments I would like to bring in. The first is that it is often very difficult introducing new technology when there is no perceived consumer benefit. What we are doing is talking about the impact of Bt cotton; we are talking about growing different grains with various genes which may, for instance, make them drought resistant or make them more resistant to rust. These are the so-called input traits. At the moment there has not been much focus internationally or in Australia, principally for scientific reasons, on the output traits, the things that would actually make the consumer say, 'I want to buy this because it's got a benefit to me.' One example of which you are possibly aware, the first introduced crop—which unfortunately was not successful in the world in terms of consumer benefit—was actually from CSIRO-derived technology which was sold to a Monsanto subsidiary, Calgene, before it was taken over 16 years ago. They spent many hundreds of millions of dollars getting onto the market the FlavrSavr tomato and it was not successful, principally because the consumers did not perceive a significant enough benefit, in terms of the taste and the softness of the tomato compared to conventional tomatoes, and were not prepared to pay for it.

Our view is that once consumers can actually see something tangible on the shelves rather than a theoretical argument about what impact this may or may not have on the environment or whether this does or does not support particular farmers—for instance, if they see a tomato that is firm and red and ripe and tastes nice, and possibly even has enhanced levels of antioxidants such as lycopene—we feel that the technology is going to, as it were, get a bit of a jump-start.

CHAIR—Just on Mr Nairn's question about the information to the consumer, has CSIRO actually ever briefed the media?

Dr Mallett—Yes.

Dr Hirsch—We do it quite often.

Dr Mallett—We issue media briefings all the time, lots and lots—

CHAIR—On basic things like, for example, exactly what gene technology is?

Dr Mallett—Yes. We actually run a course in one of our divisions, the Division of Plant Industry in Canberra, and we brief not only media but also industry leaders, financiers and superannuation fund managers about what the technology is just to get a reasonable sort of

vocabulary on it. We have briefed all the media and most of the people writing have a reasonable understanding of what it is. We are always very accessible and, as you can probably see from the press, radio and television, we are also reasonably active. We are always asked for a view and normally we willingly give it. Again, I suppose the real question is what parliament expects of CSIRO in this area. Is it us? Are we really credible authors of the benefits or disbenefits of this particular technology? This is an issue which is currently under discussion by Biotech Australia. You are aware the government has set up an operation called Biotech Australia within the Industry, Science and Resources portfolio. They are currently conducting some initial market research to establish what the concerns of the consumers are and work out how best to deal with those concerns, or not, as the case may be.

Dr Hirsch—In fact, we are actually contributing to some of this work and assisting Biotechnology Australia in delivering a communication package when they are ready for it. Already now we have on our web site a specific sub-website dealing with gene technology. As you would appreciate, we have a vast amount of experience in this technology going back many years, and in fact what you are seeing now is an indication of what is in the pipeline regarding the nature of our research. All of that is assessible.

CHAIR—Have you actually had a look at what New Zealand has done and the pamphlet that they are putting into all of their supermarkets?

Dr Hirsch—I have not seen the pamphlet but I am aware it is going out. There is a lot of information but there is also a lot more that could be done.

CHAIR—It takes science and makes it very user-friendly for the layperson.

Mr SECKER—Both of my questions have been taken, Madam Chair—I was going to ask the same ones as Gary Nairn.

Dr WASHER—Could you give me your impression of the handling of this by the Australian press compared to, say, America or Europe?

Dr Mallett—I am grateful, Madam Chair, that I am working under privilege here. I would have to say that to some extent the role of the press in Australia is to sell papers and it is very easy to market a bad news story. I am not very familiar with the press in the United States, other than when I visit and see a relatively balanced treatment of it there. The press in Europe are somewhat different, and the press in the UK in particular. Before I returned to Australia I was the research and development and quality assurance director for a very large food company in the UK, part of the Unilever conglomerate, and I was responsible for dealing with the press on anything like this. I can assure you that the Australian press are a bunch of pussycats compared to the British press, which sells papers on the basis of food scares and alarmist headlines. That is not to say we have not had some here.

From a purely observational point of view, one interesting observation we would make is that often the articles themselves are relatively balanced but the headline writers, the

subeditors, put a headline in which does not actually bear much resemblance to the story that it is actually leading into.

Mr ADAMS—One of the major companies came out over the weekend suggesting that we step back five years from this technology. Could you comment on that?

Dr Mallett—Is this the suggestion from Doug Shears from ICM for a moratorium?

Mr ADAMS—That is him, yes.

Dr Mallett—I do not want to say too much, because I have in my briefcase a draft letter which we are proposing to send to the papers which carried the articles, not so much in reply but more to engage the debate. I suppose our view is that, frankly, we share with him the concern that this technology must be introduced with great care. A helter-skelter approach is not going to do Australia much good. There are not simply issues of whether it is safe or whether it is ecologically sound; there is also the question of whether it is economically sound and how we position our particular companies. One of the things we are doing, for instance, is being very careful in how we introduce genetically modified grapevines and we are doing it to a particular time scale, which is largely dictated by the lapse of certain key patents. It is quite a complex area and it has to be treated with great care.

We certainly endorse his concern that we should be very careful and circumspect about how we actually introduce it. However, for two reasons we are not convinced a moratorium is the right way of proceeding. The first reason is that if we have a moratorium, who is going to determine when we should lift it and on what grounds? Secondly, if you do have a moratorium, what is that going to do to Australia—

Mr SECKER—In research?

Dr Mallett—It is going to devalue research, but it is also going to read a message internationally that Australia is not a place to come. I opened up in my submission about the way the Cairns group was splitting, along with the North Americans versus the Europeans and other countries, and we run the risk of being grouped with the Europeans. And while it is appropriate to say that there are clean and green marketing opportunities in the way we have just discussed with organic food, with proper segregation we can still maintain those opportunities. To actually have a moratorium is, in our view, not a very productive way forward. A point that was brought home to us by Trevor Flugge, the chairman of the AWB who is one of our advisers in where to go strategically, is that the competitiveness of Australian agribusiness for most of this century has been determined by its early adoption of technology, often in partnership either with CSIRO or state departments of agriculture. It is what has marked Australian agribusiness out compared to other agribusinesses. This is another technology and to, as it were, fail at what could be one of the highest hurdles seems risky to us.

Mr ADAMS—As a committee we have not received any evidence that says that there are any pluses in this for consumers, and we have received evidence that there may not be increases in production—that there may be decreased levels of production—and therefore that there may not be pluses for the primary producer. But we have this urgency driven by

the need to be in front of the world. It is just like we are being pushed and pushed and pushed.

Dr Mallett—It is not so much to be in front of the world. I am afraid I have to tell you, as I have already tried to indicate, that we are not in the front of the race; that is the first point. The second point is that I would hate to leave you with the impression that there are not significant benefits to consumers; there are direct consumer benefits. For instance, we are doing work in a number of areas, and let me give you a specific example. You are probably aware that our immediate neighbour, Indonesia, has some problems at the moment because of the downturn of its economy, particularly in terms of nutrition. We are doing some work with a major Australian company which will shortly come to fruition to develop an iron-enriched rice which could be grown in Indonesia. The iron-enriched rice will significantly enhance the amount of iron that particularly women, for obvious reasons with their role in child-rearing, have and therefore reduce the incidence of anaemia which is a major problem in Indonesia. That is one specific benefit in terms of health.

We are also developing, for instance—and this is more an economic benefit—types of grain which are of particular relevance to bread making, and equally we are looking at other ones, like noodle making. We are doing this for targeting specific markets. I mentioned the FlavrSavr tomato. We are actually working on a number of other opportunities, for instance to enhance the vitamin level, which is known to be beneficial, in fruits and vegetables. There are substantial benefits to consumers directly in terms of their health and their nutrition. Equally, there are substantial positive benefits to the nation as a whole if we are able to reduce the impact of chemicals on the environment.

Mr ADAMS—That is an environmental question, not a consumer question. I keep getting evidence in this committee that there are pluses but nobody can tell me what the pluses are for the consumer. There are environmental issues, I accept that, but what is in it for the primary producer? That is what this committee is looking at but we are not really receiving evidence to say there is an enhancement. I can see a lot of dangers for primary producers being locked in much more tightly to what they are producing but I cannot see a great deal of pluses, and I am asking you, as a scientist, what you see. What are the pluses, not for Australian agribusiness but for Australian primary producers?

Dr Mallett—Let me go back to the individual issue of primary producers. In addition to the impact of genetic technology you would be aware that the primary producer sector is undergoing significant rationalisation, largely under the pressure of globalisation development of supply chains. If you look at the success stories for Australian agribusiness, and we have some spectacular success stories, they have been based largely on a substantial rationalisation and a very close focus on the end consumer requirement. The wine and the dairy cases leap to mind and the cotton industry as well. We have a number of these industries that have been extensively rationalised that have focused very carefully on what the consumer requires. Those are things which are happening now and they are principally primary producers. What is happening, leaving aside the whole issue of genetic technology, is that you are seeing the breaking up of primary producers into people who are just farmers and people who run it as a business, and this was the thrust behind the McLachlan report on the wool industry, as you well know, and—

Mr ADAMS—I understand all that, I know all that. I want to know: by changing the genetics of plants and these grains that we are basically dealing with, what are the pluses for the consumer and what are the pluses for the primary producer?

Dr Mallett—Let me take a case of a wheat grower who is a primary producer. We set up an operation called Graingene—and as far as we are concerned this is one of the most obvious examples of how primary producers, small and medium, can get access to this technology. Graingene is a collaborative cooperation between CSIRO, which is doing the research, the AWB, which is an end user, and GRDC, which is facilitating with money and which also potentially has access to grain growers generally—obviously AWB would market the grain. Let us take a grain grower who is doing that. Suppose we develop a variety which is particularly suited to making bread.

Mr ADAMS—In Australian conditions?

Dr Mallett—Under Australian conditions, and suppose we are able to get that variety onto the market more rapidly than others. You would be aware that a large number of our particularly valuable export markets are often in the Middle East where it is principally used for making bread. Suppose we are able to do that. The first thing we would be able to do is secure that particular grower's continued operation in that market. Also, because it is a specific application, we would be able to charge a premium and he would therefore get more money for the wheat he sells. In addition, in terms of the growth of that particular market for Australia as a whole, we would continue to cement Australia's reputation as a producer of quality goods focused on end user applications. That is a specific example to the grower: he not only stays in business but he probably increases his profitability and possibly wins new markets.

CHAIR—Just following on what Mr Adams is saying, there is the hesitancy that has been expressed to us—look at the Western Australian Farmers Association and at the recent decision at the New South Wales farmers conference where they developed this 'wait and see' attitude. The farmer wants to know how much it is going to cost. We might have a market for it but is he going to be able to produce a crop, get it into that market and make a dollar out of it? Perhaps the scientists are not the people to answer that question, and we have others coming along later who might be able to. But the point that Mr Adams is making is certainly one that is coming through. While there has been some evidence given to us about consumers looking at the safety angle, the taste and also the cost, there is this hesitancy there—people are stepping back and saying, 'We think that we've got to wait and see.'

Dr Hirsch—The research community is doing everything it can to look at some of these things, and certainly a lot of effort is being done which is specifically looking at consumer and economic traits. What we are seeing now potentially is the very first tranche of the technology getting out in the field. If you take a longer term view there are likely to be many more benefits flowing through. Admittedly, at the moment the benefits are on the input side in agriculture where the emphasis would have been placed on putting Bt cotton out, but there are many other things which can be made and which are being followed up. We mentioned the issue about rice which is specifically consumer oriented. Also, we would submit that the price of food is an important consumer benefit. The price of food has been

steadily falling over a long period of time but that is dependent upon the production system being able to cope. We do not have much more land to take in and we do not have much more incremental yield that we can do without using the best technology that is available to us. In fact, prices have fallen because of the continuous improvement in plant growth through breeding, and we submit that to an extent this is an extension of some link to knowledge which bears a number of different risks, and aspects of it have to be looked at.

Dr Mallett—I know we are running out of time but could I add a historical perspective to that from the way we see science and technologies introduced. You are probably aware that it took the potato 250 years to get accepted in Europe; it took the tomato 100 years; margarine was effectively blocked out of New Zealand until slightly over two decades ago, and its acceptance was not much better in Australia. If you look at the introduction of pasteurisation, some of the churches campaigned against pasteurisation on the grounds that it was interfering with a natural food. Every new technology runs into problems and has an issue of acceptability. We look at it from the perspective of time. We understand entirely some hesitancy from the farming community. The farming community in Australia, simply because of its competitiveness that I mentioned, is very focused on whether it is going to have a market for anything it grows. If anything happens in the process of growing the market which suddenly shuts it out of that market, it essentially has a crop that it has great difficulty selling at the right price and, as a consequence, it is obviously going to be very circumspect about how it uses it.

Our concern is to try and look at that not only from a historical perspective in terms of introducing new technology but also to try and explain what the facts of the matter are. From a food safety point of view, firstly we have confidence in the regulatory regime within Australia, let alone anywhere else, to check whether it is safe or not and, secondly, we are finding a lot of these concerns are actually being used, if you like, as trade barriers in some countries we may wish to export to. We share your concern that we need to work with circumspection, which is why, when Mr Adams asked me, I said that we share Doug Shears's view that this technology needs to be introduced very carefully in order not to jeopardise our existing conventional markets. We must neither oversell its impact, nor should we be quiet about any disadvantages it may or may not have.

Equally, however, it does pose in the longer term some great advantages. As scientists we are possibly sometimes guilty of being a little more over-optimistic about how quickly those advantages are going to be realised. This is partly because if you actually look at the country's claim, as it were, to technology, then the early adopters with the hiccups have a bit of a torrid time early on but they are very well positioned later on as the technology becomes more established. Our concern is that we not so much embrace it and say, 'This is the greatest thing since sliced bread,' and push all the detractors to one side as either irrelevant or self-interested or ideological—or all three—as engage the Australian public in a debate about where it wants to take Australia, what food it wants to eat, what the country wants to do, whether it wants a vibrant rural community or not, and whether it is going to produce a viable rural community. So we are very keen to work in a cautious way and to try and provide the scientific underpinning for that.

Mr CAMERON THOMPSON—You stated a little while back that GM foods are no less safe than any other sorts of food in terms of sticking it in your mouth and eating it. If

that is the case, why is it that you want to remain aloof from the debate over it? Why does the CSIRO want to stay out of the debate? If it is safe and if it is a fact that it is safe, why do you want to stay out of it?

Dr Mallett—We are not staying out of the debate, Mr Thompson, we have been in the debate. The chair asked me what our role is. We are in the paper almost every day, we are on the radio—

Mr CAMERON THOMPSON—I am picking up on what Gary asked—

Dr Mallett—So we are very happy and we say scientifically that there is no difference, but can I respectfully point out that it is not a role for CSIRO to say it is safe because it has no statutory authority to actually say something is safe or not on behalf of the Commonwealth. That is given by ANZFA and by the subcommittee who clear food for release. It is their role to say a food is or is not safe, not ours. We can say this and we can make the submission that there is no scientific evidence for it one way or the other, but it is really for ANZFA to consider the views put forward through its expert panels and that is another branch of government, not us. It may not have the same profile, but that is the way the government operates.

Mr ADAMS—There have been some technologies that have been rejected—there was the radiation of food which I think was not going to go down. That is a fundamental truth, is it?

Dr Mallett—It is my view, Mr Adams, that you are absolutely right—that not only has radiation not been accepted but I do not think it is going to be accepted, principally because it does not actually offer the consumer very much and the real issue is about consumer benefit. One of the difficulties we are having at the moment is that the consumer sees little benefit. They see something new, they see lots of strident voices raised against it, and they naturally think twice about embracing it. Until they see something concrete that it is actually going to reduce the price of the foodstuff, as Dr Hirsch has indicated, or improve its accessibility, or give it quality benefits which they particularly treasure and particularly want, they are not going to embrace the technology.

Dr Hirsch—You read in the paper all the time that comparisons are being made of GM food to all things nasty that science has done to mankind. In the same breath people forget that they are driving the cars, watching the televisions, eating the sausages and doing all sorts of things that technology and science have delivered to them. I think we have to be putting things into balance rather than trying to polarise them and I fully agree with your sentiments anyway.

Mr ADAMS—I don't like sliced bread, either!

CHAIR—Dr Mallett, when you were identifying the major hurdles of credible regulation, consumer acceptance and the benefit of GT to agribusiness, in your opinion what is the major factor in comparing what has happened in the US and in Europe? In the US to a large degree they appear to have overcome most of those hurdles, whereas in Europe they have not.

Dr Mallett—I would like Dr Hirsch to add something to the two short comments I will make. The first comment is that there is a very good paper written by the Americans which is their perspective of how it is done. I am very happy to provide you with a copy of it should you be interested.

CHAIR—Yes, thank you.

Dr Mallett—The principal argument adduced in this paper to the success of the introduction of GT and GM foods in America is that at the outset they set up a very credible regulatory regime and they sought—successfully they claim—to engage consumers and consumer organisations and to deal with their concerns and to deal with their fears, and they did that fairly early on. So they believe they put in place a credible regulatory regime through the US Department of Agriculture—which has quite a high profile and quite a lot of consumer acceptance within the United States—and that was the key to their success. Also, in a way that America has and shares with Australia that the Europeans do not, the primary sector there is seen to be a major part of the economy. There is a strong link there to the land and to growing things as there is here, but which is not the case in Europe.

Finally, the Americans are quite keen to embrace new technologies anyway; the Europeans are not quite so advanced in technology adoption as the Americans. If you would like, I am very happy to provide you with a copy of this article.

Dr Hirsch—It is also available on the web site under the USDA. I had the privilege of travelling through the US regulatory agencies earlier this year and have some background on the European regulatory history as well. Dr Mallett is absolutely correct—it has to do with the way it was set up and the way it chose to operate, and we had that from a number of officials there. The US system was deliberately set up to be highly transparent, high public profile, visible in the community, seen to be doing what has to be done and getting on with the job, whereas you know what happened in the UK, particularly after the BSE scare and other things, and people are a bit more circumspect in the regulatory framework. That is why we are saying that it is, to our minds, important that this issue be progressed and we are delighted to see the good progress that is being made.

CHAIR—We are well and truly out of time but thank you very much for your time and thank you for such a detailed submission.

Dr Mallett—Thank you for inviting us along.

[10.02 a.m.]

CRAIK, Dr Wendy, Executive Director, National Farmers Federation

LOVETT, Ms Anwen, Deputy Director, Environment, National Farmers Federation

CHAIR—I welcome the representatives of the National Farmers Federation. We have received a detailed submission from you. Before we begin our questions, would you like to make a short opening statement?

Dr Craik—Yes, if I could. Firstly, the NFF appreciates the opportunity to appear before the committee. As you will all be aware, farmers are under increasing pressure to continually improve their competitiveness, particularly because Australia's farmers really rely on exports for the vast majority of farm income, with almost 80 per cent of our agricultural production exported, generating about $22 billion to $23 billion a year. The world market for transgenic crops has been estimated to be worth about $25 billion by the year 2010, so it is obviously an issue of significant global markets and of significant importance to Australia's farmers.

Between 1996 and 1998 there has been something like a 10-fold increase in the area planted to transgenic crops, so it is obviously a major factor for farmers. By early 1999, as we understand it, the US was growing something like 35 transgenic crops. I found it fascinating, given its attitude, that even the European Union had approved nine crops. In Australia we are growing one transgenic crop in a big commercial way and that is Bt cotton. Three of our major competitors, the US, Canada and Argentina, are into transgenic crops in a big way so it obviously is important that we learn from their experience.

We see biotechnology as a tool, and as a tool in itself it is neither good nor bad; it is how you actually use that tool that is the important issue. We see that it does have great potential for Australia's farmers but there is absolutely no doubt that there are issues for consumers and farmers that need to be looked at and addressed.

Looking at the issue of potential first, there is real potential for farmers with biotechnology: the possibility of reduced pesticide or herbicide use—and I think we are getting evidence now from the USA that shows that that could be a reality—reduced fertiliser use, reduced water use and the potential for increased productivity and therefore the use of less area for agriculture. I guess biotechnology really is part of a continuum of selective breeding, but it does also offer the advantage of perhaps being more precise and more selective than historical interbreeding where you took a bit of a chance on what characters were expressed.

In terms of potential for consumers, as I think Chris Mallett correctly identified, these things are not coming out as clearly yet; it is more the input potentials that are coming out. Improved flavour, improved storage characteristics and improved nutritional qualities for consumers obviously are potentials down the track. I think the things that we need to look at as a country are issues of choice and we see this as an issue of choice for both farmers and consumers. I think it is important to remember that farmers are consumers as well and, of course, farmers want their customers to come back: there is not much point in growing

something that the customer rejects. As we see it, both farmers and consumers should have a choice of traditionally grown product, organically grown product or GMO grown product.

But there are issues such as separation distances for crops and, for some religious groups, cross-transfer of genes. We need to look at the potential environmental impact of GMO products and potential food safety concerns—although I find the ambivalence of the consumer society interesting when you look at medical products and food products which have genetically treated components—and, of course, the potential contamination of non-GMO crops with GMO strains.

How do we deal with this? We have been saying for about two years that having a transparent and clear regulatory framework is absolutely and utterly essential. We have pushed for an independent statutory authority. We welcome the government's announcements about setting a time frame for the Office of Gene Technology and the interim arrangements proposed. We would like to see them sooner, but it is pleasing to see a time frame. We are investigating the issue of the contracts that are proposed by the government just to see what they involve for farmers and whether they will generate additional costs for the industry. Obviously, issues of time frames and transparency are absolutely critical, but it is important that it can be seen as acting independently and also that it is not an impediment to the introduction of gene technology.

The other issue that I think is critically important for this country is that of information. Some preliminary research we have done shows that consumers do not actually have a good handle on how their food is produced anyway. It is not unusual to hear children say that cotton is produced on some kind of animal that vaguely resembles a sheep but produces a different kind of output and that milk comes from a carton. They do not understand how food is produced and if consumers have a poor understanding of how their food is produced the whole GM debate becomes partly lost and crowded in that particular issue.

In terms of our role in this, we have become part of the Australian Agrifood Alliance, which consists of the National Farmers Federation, Avcare, the Grains Research and Development Corporation, the Australian Biotechnology Association, the Seed Industry Association and the CRCs. We have set ourselves up with a charter to provide information to consumers and farmers. What we want is to put out credible and balanced information identifying the pros and cons of gene technology. We are certainly trying to work as closely as we can with the government on that information program.

Just briefly, a couple of other issues we see as of importance in this issue are, firstly, the issue of commercialisation of gene technology in this country, particularly R&D innovations and discoveries in this country and how we can commercialise and maximise them to benefit the Australian community. A lot of agricultural R&D in this country—and Australia is an acknowledged world leader in that area—is publicly funded and funded by farmers and it is important that we maximise the returns to Australia, both in terms of, if we have to sell a technology offshore, selling it at the stage where we maximise the return, and so that farmers, who have put money into doing the research, do not always have to then end up buying it back in the finished product.

Another issue, of course, is capital gains tax and the asymmetric treatment in this country of losses and gains and the potential cost to the economy in having a more efficient capital gains tax system. Obviously we would like to see a rate that is competitive with other countries, but we are very sensitive that, if the rate of capital gains tax is lowered in this country and indexation is removed, farmers will end up paying more capital gains tax in selling their farms because the actual farms increase at about the rate of inflation and if we remove indexation they will end up paying more capital gains tax. So there are a few issues to be traded off here.

I think, though, Australia has the opportunity right now to capitalise on some niche markets for non-GM products—there was the example last year when we stepped into Europe and sold canola because it was GM-free—that the Canadians could have used. But I do not think that Australia can make a significant percentage of its export income in agriculture just by relying on niche markets, so we have to be sensitive to that.

In conclusion, I would say that gene technology offers a new tool that offers opportunities to Australian agriculture, but the issue of consumer confidence and farmer confidence is very important. It is important that we have the right regulatory environment and that people believe in the release of safe products onto the market. We need information, we need it balanced, we need to get the maximum return to Australia from our initial research investment in gene technology and we need to ensure choice, but we need to be part of the evolution of gene technology if Australia is going to capture the benefits from it. So it has to be carefully regulated, carefully monitored, and we have to have structures in place so that we can reap the rewards. Thank you.

CHAIR—Thanks very much. Wendy, you have given us a very clear view, both in your submission and in your opening statement, about the potentials that exist for farmers, given the need for regulation and to ensure confidence in the technology for both the farmers and the consumers. Could you explain to us why you believe there is this hesitancy? I think you were here when I spoke to the CSIRO representatives about how the representative of the Western Australian Farmers Association expressed very clear hesitancy to us and the New South Wales conference adopted the position of sitting on the fence. Why is this hesitancy there?

Dr Craik—I think it is for a number of reasons. Certainly some farmers benefited from last year's canola opportunity in Europe and suspect there are further benefits to be gained at the moment from being able to sell product which is GM-free, and that is a real opportunity for some farmers. I think that is part of it. I think part of it too is the often sensationalist media about genetically modified products—farmers are consumers as well and live in communities and hear these things and I think the public debate has largely been one-sided. I do not think we, the government or anyone else has really managed to put out a balanced picture and provide information on the other side of the debate. I think farmers are reacting, as many in the community are, where there is perhaps not the level of information and understanding available that really is needed for this whole issue.

Mr SECKER—Do you see yourself as having a leading role in trying to get that information out there?

Dr Craik—Yes. We have been working on it for about two years, but I guess not in a big way—like other organisations, you go with whatever is top of the pops at the time. I think we have been a bit remiss in that area. It is also a matter of engaging people's attention and if it is not in front of them how do you bring it to them? We are now a member of the Australian Agrifood Alliance where the major focus really is getting information out to both farmers and consumers. As we see it at NFF, if you do not win the consumer debate you have lost the whole debate and you are not going to be able to sell the products.

CHAIR—Could you tell us a little more about the AAA and the work that it is doing or is proposing to do?

Dr Craik—It is more proposing at this stage. We have got together and we have some funding generally agreed and we are just trying to work out how we operate and so on. We have certainly agreed to focus on providing information to consumers and farmers; that is our charter. We have been conducting some preliminary pilot surveys of farmers and consumers before we go into a full-blown survey of attitudes.

Our view was that, if we were going to start running an information campaign, we really needed to know what the issues for people were before we started to put out the information. So we are at the preliminary stage of finding out the concerns of farmers and consumers before we develop a campaign. We are trying to work with the Food and Grocery Council as well who have done some research, and with the government who are developing their own campaign, to make sure that we are all complementing what each other is doing.

Mr ADAMS—Doug Shears from ICM is a member of that organisation, I think.

Dr Craik—Of the Food and Grocery Council?

Mr ADAMS—Is he a member of that?

Dr Craik—That is what I read in the paper today; I do not know.

Mr ADAMS—He has come out and said that we should have a moratorium for five years and then we can educate the consumer on the pluses and minuses.

Dr Craik—I guess my view of that is that this is a new technology and it is really important that we have the right regulatory framework and information in place so that people can feel that things are safe before they are released. I think if we can be part of the evolution of this technology we are likely to have a much greater chance to reap the benefits of it than if we say, 'No, keep this technology offshore while we talk about it,' and do not work with it in our own environment. There has certainly been evidence from Bt cotton that the experience here is slightly different from the United States experience because the local environment—and I am talking about the physical environment—in Australia is slightly different. I think it is important that we have structures in place that will allow people here to work safely with this new technology.

Mr ADAMS—Monsanto also decided that they would charge Australian farmers a bit more for it.

Dr Craik—That is right.

Mr ADAMS—What is your opinion of that? What are the dangers to the farming community?

Dr Craik—It is a real issue that Monsanto did charge more, and I think the charge worked out to be just below the cost of the seed plus previously the insecticide spray. Clearly, that is not entirely desirable but it was also clear that cotton farmers were prepared to pay it: the price was sufficient that the market would wear it. I think one of the issues that is of concern at the moment is that, as I understand, Monsanto has a double Bt gene cotton which it is refusing to release in Australia. I see it as more of a concern that they are actually refusing to release the technology in Australia, I understand—and, again, this is third-hand—for their own commercial reasons. That sort of thing causes me more concern.

Mr ADAMS—So we have a problem with that and we have a problem with the farmers having enough leverage. You must see it as a danger to farmers if they get locked into one seed flow?

Dr Craik—I think it is a potential danger to farmers. I guess my response to that would be that Australian farmers have shown their innovativeness and skill at obtaining the outcomes that they desire in many areas of endeavour and I am not discouraged that they would not be able to find a way around it. The other thing too is, again as I understand it, that Monsanto and these big companies are interested in crops and areas where they have a global market. I think Australia has a real market opportunity where we develop R&D for a crop or a product that does not have a global market but has a smaller market that would not be of interest to the big companies, so we can use our R&D and really get the commercial advantage in some of those areas, and maybe trade off some leverage there. I think too that we perhaps need to use our R&D leverage with the Monsantos of the world a bit more judiciously.

Mr SECKER—How do you view the ANZFA decision to require labelling on GMO foods and the practicalities of actually achieving that when Europe has been trying for two years and still has not been able to come up with practical regulations for GMO foods?

Dr Craik—We understand the consumer's desire to want to know and we always say the market is right and the market calls the shots, but if you end up with a product that says, 'This may contain GMOs,' then the simplest solution for a manufacturer would be to say that the product may contain GMOs across the board. So the first issue is whether it is giving the consumer real information. The second issue is what it is going to cost industry and add on to the cost of the food. One of our concerns is whether it will be a non-tariff trade barrier. We are actually taking legal advice on the issue of whether ANZFA's decision will potentially cause us problems in the WTO. Obviously this is going to be a big issue in the next round of trade negotiations.

The practicalities of separation right throughout the system clearly is an issue that we would have to deal with, but we may have to deal with it anyway, regardless of the labelling issue, if there is a sizeable market for both GMO and non-GMO products. That may be an issue that we have to deal with in any event: the labelling may force it on us, or force it to a greater degree. It is not going to be an easy matter. How do you go through right to the restaurant, say a plate of mixed food—what do you label? It is a tricky one and I think the reason that the Europeans have not come up with an answer is because it is not an easy one to solve.

Mr SECKER—If I could ask you, Ms Lovett, as you are deputy director of the environment, what do you see as the pluses and the cons of GMOs to the environment, and could you give some practical examples?

Ms Lovett—We are looking at examples, particularly in Australia with drought, where crops need less water. We have examples of the ability to grow eucalypts that are more salt tolerant which would have significant benefits in salinity affected areas in Australia, and particularly in terms of reduced insecticide and pesticide use. The example with cotton in Australia of the double Bt gene that they were hoping to get in could reduce pesticide use by up to 60 per cent, which is really a phenomenal reduction in Australia. That is a particular area of interest in terms of the environment and reducing the impact on the environment from the use of these chemicals. Again, there is the issue of increased productivity and reducing the area of land needed for agriculture, which is another area that we are particularly interested in. Also, in terms of reduced fertiliser use and dependence on inputs of nutrients, there are plants that are making better use of the inputs used. Also, with rye grasses that are creating allergens we are looking at having the ability to maybe grow those that have had the genes removed that are causing the allergic event.

So we see big environmental gains. We do believe that it needs to be monitored, though. The release and growth of these crops needs to be regulated, because there are some concerns about potential adverse impacts on biodiversity and escape of pollens and that sort of thing. So there is that side as well. But we really feel that, as long as they are monitored and we get the regulatory regimes in place, that will help control that. There probably are big gains on the side of the environment.

CHAIR—What future would you see for crops that can be designed to grow in salinity affected areas? I understand that this is a new area of gene technology.

Ms Lovett—Some of the figures that we are getting out in terms of the impact of, say, dryland salinity in areas of the Murray-Darling Basin are such that we are talking about revegetation of some catchments of up to 70 per cent. But we are also going to have to make decisions about levels of salt that we may have to live with in certain regions. If you can actually have crops or things like eucalypt plantations that have a greater salt tolerance, you may actually be able to use that land for a viable purpose, and that would definitely have benefit to those regional communities. There are big questions about learning to live with issues like dryland salinity in a lot of areas: how much of it we can tolerate; how much we can actually afford to reclaim. In some areas we are not going to be able to reclaim those salt affected areas, so if we can have crops there that have greater tolerance to salt then we can actually have a viable use for that land.

Mr NAIRN—Wendy, just back on the segregation aspect, I think it is inevitable that you are going to have members who will be very much wanting to produce a GMO crop and you will also have members who very much want to produce a GM-free crop. Are farmers accepting that there is going to be a cost in this as far as storage and all those sorts of things are concerned, and who is going to wear that cost? I would have thought that really the cost ought to be back into the industry. Is there much debate about that as yet?

Dr Craik—I think it is the sort of issue that is just starting to come to the fore and I suspect it also relates to the hesitancy of farmers that the chair expressed at the beginning. How are the issues going to be resolved? If you want to grow a GM-free crop but your neighbour wants to grow a GM crop, what does that mean for your crop? For example, with canola I understand the desirable separation distance is eight kilometres; how do you enforce that? So I think these are the issues that we do need to look at and deal with. That is where we do need a lot of research to actually establish, to a reasonable degree of satisfaction, that we can actually put separation distances in place and try to come up with mechanisms that will be successful. To be perfectly honest, I feel it is quite tricky and I do not know what the answer is.

CHAIR—It is really going down the path to accreditation of different crops, isn't it?

Dr Craik—It is.

CHAIR—And who should pay for that?

Dr Craik—That is a very good question: the consumer at the end of the day. Consumers have said, yes, they want accreditation, but consumers also want cheap food. The price of food in this country is actually remarkably cheap compared with other equivalent countries, but are consumers going to pay?

Mr ADAMS—The next door problem.

Dr Craik—Yes, but it is a real issue.

Mr NAIRN—Another question I have is in relation to terminator genes and the potential for companies to go along that course so that farmers are having to buy seed every single year. I think there are certain bans in that respect, but I think we also got some evidence, if I remember correctly in Perth, that there may not necessarily be opposition to that, because for other reasons it may be better to go to totally new seed every year and not reuse. Has that had lots of debate within the NFF?

Dr Craik—It has not actually had a great deal of airplay in the NFF; it has been discussed a bit but it has not actually come up a great deal. As I understand it, some crops require the purchase of new seed each year anyway and it would be regarded as a matter of course. It is issues like separation distances and the contamination weed and separate streams and costing that seem to be bigger issues at the moment. But I think that is why this whole issue of information is so important, so that we can get the information out and start talking to farmers about it and getting their views on what is concerning them.

Dr WASHER—Have you followed the debate in Europe to look at what percentage they will finally accept of GM contamination in so-called organic—

Dr Craik—Not terribly closely.

Dr WASHER—Because it varies from anything from one per cent to five per cent. Of course, the technology for testing it is not so easy, and if it is oils it is impossible.

Dr Craik—I think that is where some of the information put out in Australia by some players is misleading—statements such as oils produced from gene plants have toxins in them. They have been tested and shown not to. That is the sort of information that I think is unnecessarily scaremongering.

Dr WASHER—Even though it seems difficult to separate these crops, I would not have thought it was as big a problem as, say, DDT contamination where we cannot graze cattle over massive areas of our south-west area or our Kimberley area in Western Australia where there are exclusion zones of literally hundreds of squares of kilometres because of pesticide contamination from the spraying of potatoes and cotton crops in history that will perhaps last a few hundred years. Can I just have a comment? I would not have thought that would be as big a nightmare as that, for example, because we are balancing one thing against another.

Dr Craik—It may well not be. It is just something that we need to talk through with everybody and work out where it is likely to be an issue. You are right, there are separations put in place. I can just see in some areas, where there may be limited areas for growing a particular crop, that there could be some local difficulties and it is a matter of finding a way through those things and finding a process that can work. Again, I think it is something where there needs to be a lot of information so people can talk about it and other examples drawn upon just to show where it does work.

Mr CAMERON THOMPSON—There tends to be a lot of discussion about crops and things, and I would like to move off into the livestock question a little bit. Do you have a different perspective in that area than—

Dr Craik—No.

Mr CAMERON THOMPSON—It is exactly the same?

Dr Craik—Yes.

Mr CAMERON THOMPSON—The same sorts of issues—separation and so on?

Dr Craik—I do not think separation is such a problem with animals: their reproductive activities are probably a bit more containable so it is not such an issue. I think with them that the separation issue is an easier one to deal with. Again, you are going to have to have separate streams for the product down the line.

Mr CAMERON THOMPSON—That is what I meant.

Dr Craik—But again it is probably simpler. There are real issues, for instance with some religious groups, in transferring some animal genes to some plant products and we are going to have to look at those and deal with those. They are quite easily dealt with, I think, but it is a matter of focusing on them so that people can feel reassured. But, in principle, no, we do not take a different view.

Mr CAMERON THOMPSON—Where do you see the education task really lying in all this? How do we go about educating?

Dr Craik—If we are starting from a point where people do not really understand how their food is produced in the first place, we are really starting not from ground zero but we are behind the eight ball, I think. We have to start way back there and deal with that issue. For us it is for farmers, in terms of giving them the information about what is available, what the issues are and where there are other examples that might deal with the issues; for the consumer it is really important to get information about how food is produced. It is really important that the government keep emphasising the regulatory regime, that it is transparent, that the public has an opportunity to comment on these things, and for the government to get information out. We are seen as having a vested interest; science is seen as having a vested interest. Interestingly enough, consumer groups are the only ones who are not seen as having a vested interest but some of them tend to take a particular view. So I think it is really important that the government has a say.

Dr WASHER—I would like to make a comment on this, and I brought it up before. I want to re-emphasise, from a medical point of view, how for close on 15 years insulins have all been human genes in gut bacteria—human genes in vats growing to make human insulin—and there are no alternatives: every diabetic who is insulin dependent uses this insulin. In my 15 years of writing scripts for this I have heard no diabetic ever worry about that. The second comment is about our new safe vaccines to prevent Creutzfeldt-Jakob, bovine spongiform encephalopathy—mad cow type disease in humans; the only thing that saved them is our genetically modified vaccines. We inject this vaccine into people, give it intravenously, subcutaneously, and have not heard any problems about that. So I find some of the arguments a little bit fascinating and emotive when you are going to eat the stuff and it has proven to be just as safe, but everyone runs down to get their kids vaccinated with these safer vaccines. It is just a comment, but what is your thought on it?

Dr Craik—I agree entirely. I think there is this real ambivalence about medical products and food. A couple of weeks ago when the labelling decision was made there was an announcement about using something from bat genes and something to do with arterial quality in a medical sense. It was interesting that there was no drama about that at all, but the labelling decision was all up here. I think it is a good example of the human mind having two totally contradictory views at the same time.

Ms Lovett—It seems to come down to the relationship we have with food.

Mr ADAMS—With the fear when things happen like mad cow disease where we have fed one animal to another animal which normally does not eat animals—it becomes a real problem if we get these things wrong and they go wrong. That is a really difficult one to get over in people's minds.

Dr Craik—Yes, and people associate mad cow with gene technology quite closely.

Mr ADAMS—That is right.

Dr Craik—I think we are living with that legacy.

CHAIR—Wendy, in your actual submission you state that the regulatory system for GM products is holding up product assessment and release and deterring investment. Would you like to expand on that and give us an example?

Dr Craik—A particular example that is probably best known is the pork one, Bresagen, where gene technology was being used to produce, I think, a faster growing pig. My understanding of the story is that the problem was that they could not see a clear path through the regulatory system and in the end it was just all too difficult and they just withdrew totally.

CHAIR—CSIRO gave that example to us in their submission. They also made the comment in their submission that there was a possibility that that technology in fact could go overseas.

Dr Craik—I thought it had gone overseas, but they would know better than I would on that. So I think if people see those sorts of examples and there is not a clear pathway through with time frames it is highly likely that people will not be encouraged to invest. I do not think this country has a culture of risk taking in the commercialisation of R&D and if we do not encourage it by having a clear system to get approval then people are going to be even less inclined to invest in it.

CHAIR—But even with the approvals, unless you have the consumer acceptance there is still not going to be the market for them.

Dr Craik—Yes.

CHAIR—Could I just ask you to further comment on that Monsanto issue of the double gene cotton that either you or Anwen mentioned in passing before. Could you give us a bit more information about that?

Dr Craik—My understanding is—and if you want more details we can follow it up precisely with our cotton members—that Monsanto has developed a double Bt gene in cotton which reduces the need for pesticide even further than the one Bt gene in cotton—I have heard figures of up to a 75 per cent reduction in spray. My understanding is that for their own commercial reasons until now Monsanto has declined to introduce it into Australia.

Ms Lovett—Yes, it is a commercial decision.

CHAIR—If you have any more information on that, could you send it to us?

Dr Craik—Yes.

Mr NAIRN—On the statutory authority, I think you mentioned in your opening statement that NFF believes we should have a statutory authority. Would you like to expand on that a bit further?

Dr Craik—It seems to us that this is an issue: that the greater the independence of the organisation running the regulatory ruler over these products, the more likely the public is to have confidence in it if it is seen to be independent, under its own legislation and not subject to interference one way or another, or even perceived interference. So we would like to have seen an independent statutory authority—

Mr NAIRN—Funded by government?

Dr Craik—Funded by government, yes. I understand that it is going to be a statutory officer and that is better than a departmental division head. We are aware of the lack of enthusiasm by this government for statutory authorities.

CHAIR—I might just remind you, or perhaps you remember, the trade inquiry that we did. I was actually just chatting with my deputy that one of our recommendations in that trade inquiry was the establishment of a biosecurity council. I think the NFF responded very favourably to that at the time.

Mr ADAMS—And I think the New Zealanders have a minister for biosecurity or something.

CHAIR—Thank you very much indeed for coming along and for your information.

[10.45 a.m.]

ANNISON, Dr Geoffrey, Scientific and Technical Director, Australian Food and Grocery Council

HOOKE, Mr Mitchell Harry, Executive Director, Australian Food and Grocery Council

CHAIR—I now call the representatives of the Australian Food and Grocery Council. We have received a submission from you. Before we begin our questioning, would you like to make a short opening statement?

Mr Hooke—Thank you, Madam Chair. I am smiling at the word 'short'. I do not know how you cover such a complex subject—

CHAIR—I always say short, but no-one ever complies.

Mr Hooke—I am sure you will tell me if I go too long—

Mr ADAMS—I can assure you she will.

Mr Hooke—Thank you, Deputy Chair. You will note that I have even taken off my watch to make sure I keep it short. First of all, thank you and we welcome the opportunity to address this very important issue and this very important committee. The Australian Food and Grocery Council is a product of the merger between the Australian Food Council, which was formed in June 1995, and the Grocery Manufacturers of Australia, which was formed many years earlier. That merger took effect from 1 January this year. The membership now represents food, drink and grocery product companies—the membership at the moment stands at about 175 companies, subsidiaries and associates which represent in the order of 85 per cent of about a $50 billion to $55 billion gross dollar value sector.

You have our submission and I will just add to it. Food and drink manufacturers generally consider themselves to be the honest brokers in the adoption of this technology. They are making, and they will continue to make, decisions about the investment in its development and its commercialisation in their products from the perspective of meeting the needs and expectations of their consumers. Whether you are a protagonist or an antagonist of this technology, there is an increasing acceptance that it will be the technology of the new millennium, just as computers and electronics—the infotronics age as it is called—have been the technology of this century. Few argue the potential benefits or the potential of this technology to impact on the quality of life of all Australians.

We do not consider ourselves in a position to promote or defend this technology per se. Our responsibility lies in pursuing a market conducive to innovation and a market conducive to independent commercial decisions about investment in the development and about the application of this technology in food and grocery products. It is a market devoid of draconian, costly, ineffective regulation and unsubstantiated antipathy and fear. We consider that market is a function of an efficient and effective regulatory system that ensures protection of public health and safety and that of the environment and that requires, by law, the provision of meaningful information on the labels of and about products in the

application of this technology in food and grocery products, such that consumers can exercise their rights to choice.

To date we consider that the regulatory framework has gone a long way. The Office of Gene Technology and its linkages into the existing regulatory authorities for the clearance of the products are things that we advocated and strongly support. Like the NFF, we would have preferred that it be a statutory authority. However, recognising the political machinations of that debate, we support the establishment of a gene technology office for the experimentation, the development and the release of genetically modified organisms, and then subsequently the preclearance safety assessment procedures through the Australia New Zealand Food Authority, as it applies to food products, the National Registration Authority, as it applies to agriculture and veterinary products and chemicals, through the Therapeutic Goods Administration for therapeutic goods. Forestry products will be covered under the gene technology office until there is an appropriate regulatory agency. The fundamental principle is that Professor Nancy Millis's Genetic Manipulation Advisory Committee is converted into a regulatory agency and then has consequential and integrated links to the subsequent regulatory authorities. The Standard A18 of the amendment to the Food Standards Code, undertaken by the Australia New Zealand Food Authority and the Standards Council of Health Ministers, provides for the preclearance safety assessment of these products and the subsequent mandating of labelling where those products are substantially—

Mr ADAMS—That terminology you just used, 'preclearance'—

Mr Hooke—Preclearance—in other words, that none of the products can be allowed into the market until they have gone through a safety assessment.

Mr SECKER—And you support that?

Mr Hooke—Absolutely. It is important to appreciate that that is a fundamental shift in the way in which food regulation is conducted in this country, and we are going to see more of it. We are going to see more of it in terms of irradiation of food products; we are going to see more of it in terms of health claims. It will be more approximating the current regulatory procedures through the National Registration Authority for the registration of agricultural and veterinary chemicals whereby there is a preclearance procedure. Basically what happens now in terms of food standards is that somebody applies to change the standard and then the onus of responsibility of complying with that standard is vested in the provider or progenitor of food products into the market.

We also consider that that market that I was talking about, conducive to independent commercial decisions, is also a function of meeting the needs and expectations of consumers in providing additional information about the technology and its use and providing consumers with choice through both product diversification—and I underline 'product diversification'—and meaningful product identification. I underlined 'product diversification' because those who seek to draw lines in the sand, black and white, in what is essentially a very complex and grey subject, would like to portray the Australian Food and Grocery Council as having a bent heavily in favour of the technology. As I said, we are pursuing a business environment conducive to our companies making independent commercial decisions. That is entirely consistent with our mandate and entirely consistent with the base of our

membership—175 food companies who all have a range of different products in the market and are all putting different commercial accents on the application of this technology. It is not our place to pick whether this technology is a winner just as, if I may say so, Madam Chair, it is not the place of politicians to pick whether this technology is a winner, nor farming organisations nor any other vested interest lobby group. We consider that it behoves all of us to ensure that there is a regulatory regime in place that will safeguard public health and safety, will ensure protection of the environment and does provide for meaningful information to the extent that there is a risk of market failure in that regard.

I am not going to go through and run an empathy pitch with this committee; I am sure you all understand what biotechnology is and what modern biotechnology is and the concepts of gene technology, recombinant DNA techniques and the like, and I am sure you all appreciate and have been told how it makes the process of trait transfer faster, sharper, more exact, cheaper, less likely to fail, and in fact adds to, rather than detracts from, our risk management capabilities.

What is important to recognise is that, in meeting society's challenges, prima facie this technology is impressive: managing the environment, sustainable food production, increased food demand—two more Chinas by the year 2025—off the same level of about 63 or 64 million square miles of arable land since the Second World War. In itself that is quite an impressive statistic in terms of meeting the world's increased demands for food. And increased consumer demands for tailored food products and services with greater nutritional and health benefits. It is important to appreciate, as I am sure you do, that not only within Australia but globally there is an increasing shifting demand of consumers from products to services to lifetime experiences, and you are going to see more and more food products coming into the market—some call them designer foods—that afford cardiovascular protection, assist digestion, protect against cancers and combat allergenicities.

There is also the innovation imperative. Innovation is integral to the economic welfare of any economy; it is what sets nations and businesses apart. It is also important to recognise that, in appreciating where the benefits of this technology are, the first wave of benefits are on-farm. They are largely in the agronomic and physiological characteristics of plants and animals, and less so in terms of direct consumer benefits. But the products that are in the pipeline over the next six years are impressive: oils, such as soya bean and canola, developed to contain more stearate, making margarine and shortenings healthier; peas grown to remain sweeter and produce higher crop yields; bananas and pineapples and tomatoes with delayed ripening qualities; peanuts with improved protein balance; fungus-resistant bananas; tomatoes with higher antioxidant content; potatoes with higher solid content so they do not absorb as much oil; fruits and vegetables fortified or containing higher levels of vitamin C and E; strawberries that contain increasing levels of ellagic acid, a natural cancer fighting agent; and a whole range of other products that assist digestion. And all of that without regard to where this technology might apply in forestry products, medicines and pharmaceuticals.

Few argue the inevitability of this technology. You only have to look at the exponential rate of plantings around the world, and do not forget China. So the issue is not whether the technology will come but when. There is a real risk that Australia will not be well placed to capitalise upon its potential and realise its benefits if that technology is put at risk in the

short term. I have no doubt about its inevitability in the medium to longer term. There is a real risk of Australia becoming a client state, purchasing improvements from others who have harnessed the technology's power and captured its intellectual property to sustain our competitiveness in the market. I liken it to the medieval serf/landlord: this time around the capital will be not the land but the intellectual property.

All of the indications are that Australia is following its traditional path in the development and adoption of new technologies. As a country, our record and our reputation for generating knowledge and new sciences is high; it has certainly exceeded our ability to convert that new scientific knowledge into commercial products and profitable operations. I contend this is a legacy of a relatively strong imbalance between public sector research and market driven business research. It is also a function of the financial sector's tendency to emphasise industries. They tend to concentrate on traditional industries or those with a proven track record. They are not comfortable with risk in the application of knowledge and innovative ways of growing. They are certainly not comfortable with a market as emotionally sensitive as it is now. One has only to read the Deutschebank report released the other day to realise that there is increasing antipathy amongst the financial sector. And again have a look at our record in venture capital industries to see just how clearly many of our investors are looking in different directions for growth.

So one of my take-home messages is that there is a real risk of the technology push exceeding the market pull, and I am sure I do not need to tell a committee such as this that it is much easier to pull a chain than it is to push it, and we are talking of the agrifood sector chain. The agricultural sector has a history of being more producer responsive, production driven than market oriented. Many of our scientists are getting lost in the logic of their own arguments and are failing to appreciate the sheer vulnerability of the discipline of its products. Contrast that with the fast moving consumer goods sector which concentrates into discovery activities on the information about the pull factors on the demand side more so than the push factors to underscore my point. Contrast the investment in R&D, $250 million in this country in this new technology, with the amount of money invested in information, if you are what we are about, or education, if you are arrogantly wanting to educate the community. Have a look at how much money is invested in that area in bringing the knowledge and understanding of this technology to the very people who want to make a decision about it.

Consumer confidence in the safety and integrity of products produced using these modern biotechnologies is fundamental to investment in its development and the commercialisation of its products. It is a function of transparency, accountability, effectiveness of the regulatory regime that I talked about earlier, and it is also a function of knowledge in understanding this technology.

My next take-home message is that food and drink producers simply will not put their products and their brands on the line if consumers do not have confidence in the product's safety and integrity. Indeed, they cannot afford to fly in the face of consumers' wants, irrespective of what might be their perceived needs. To do otherwise is to run the risk of being perceived as not acting in the interests of consumers, which is so fundamental to any food and grocery product business's commercial livelihood. They will not purchase—indeed, they will actively seek to avoid purchasing—ingredients from genetically modified plants and

animals. You could have heard a pin drop when I made that point to 450 farmers in Western Australia—'You will be ploughing your modified canolas and your modified wheats back into the ground, the same way as you would your modified weeds, say, and modified sow thistles.' There simply will not be a market.

At the same time, we as an industry are committed to providing meaningful and cost-effective information to consumers to enable them to make an informed choice, and our consumer market research—we spent a substantial amount of money with Dangar Research to look at what the consumer thought—tells us that is their overwhelming desire; they are thirsting for information. They do not identify and are not swayed by the scaremongering and the fear campaigns. They do not identify with those people. They are not attracted to those notions. Equally, they are not totally convinced—in fact, quite substantially not convinced—about the pro case from the scientists. In fact, they are saying they are not even aware of the pro case of this technology.

We contend that the consumers' information requirements will not be satisfied by mandatory labelling alone. We are committed to shouldering more of the responsibility of providing meaningful information to consumers. We have put on the table a commitment to a code of practice so that there is common terminology and common labels which the consumer can be confident in. We have also established a Food Science Bureau—and it is registered as the Australian Food and Grocery Council's Food Science Bureau—which will provide readily accessible information to consumers about the science of food and related technologies. That will be supported by a web site, by physical material, through a whole range of mediums, and a 1300 number—which is, I am sure you will agree, quite a substantial commitment on our part.

Equally, we have worked and are working through with our retailers on both sides of the Tasman for point of sale information that is independently verified and is factual, unemotive, almost a clinical dispassionate assessment of the technology, the regulatory regimes and the products in the market.

Let me make a point. We could have taken the cheap option and rolled over on this extension of mandatory labelling to products that are substantially equivalent. It would have been a heck of a lot easier, with all the time and effort and the amount of money and resources that we have put in to try to get the more realistic option. And the more realistic option is that consumers' interests will not be served by a label that essentially comes down to a 'may contain'. If the farmers will not segregate offshore, if you cannot detect it because the polymerase chain reaction and the ELISA tests are inadequate—the degree of correlation between tests and false positives is very, very high; it just simply is not capable of detecting the differences—if we cannot audit our supplies in a cost-effective way, then why should food companies be pilloried for not being able to declare the absence or the presence? If we are to take the decision literally and screen the entire food chain, segregate it into a 'does' or 'does not', we are talking real dollars. We are not just talking a few grand to change the label; we are talking dollars up and down the stream. We are basically talking identity preserved systems on one side and all the other on the other side.

I am sure you are aware of the health ministers' decision. Basically that is now a policy decision that has been made. They reaffirmed the decision to have a 'does', a 'may' and

provision for a 'does not'. What is important to recognise out of that decision are the surrounds to it, and I will just touch on them, if I may, in three minutes. Firstly, they unanimously declared that their decision was not a matter of safety but of information and the right to choice—just quietly, it beggars the question as to why health ministers were sitting around making that determination. Secondly, our commitment to a comprehensive labelling regime and information system finally broke through the cacophony of political mischief. Thirdly, there was a recognition of industry's commitment to shouldering responsibility for the delivery of information over and above that required by regulatory requirements. The technology is not the issue; rather the issue is how to deliver in their words—and ours I might add—'a practical, cost-effective, meaningful labelling regime', a recognition, a reality check if you like, on the technical restraints of delivering against the mutual objectives of comprehensive labelling. I have to say, and I want to underscore it, that we have never been at odds with the health ministers about the objective of providing consumers with meaningful information on labels and nor have we been at odds with them about the mandating of it. We advocated the mandating of labelling on food products where that could be done, from day one.

What we have not been able to do is to come to an agreement with them—a question that has bedevilled every jurisdiction around the world. The Europeans have put it off until 2002-03, Codex has put it off to 2005, and we have a bunch of very well intentioned, well meaning ministers that are not at odds with us in terms of objectives who took eight hours to basically come up with the same grab-bag of issues that we identified 3½ years ago would need to be sorted out if we were to extend mandatory labelling to substantially equivalent products. That is a very, very important point.

There is a recognition that costs are an issue. They want cost-effective, meaningful labelling. There is also now a recognition of extending mandatory labelling to unpackaged foods, fresh foods, food from fast food outlets, restaurants, catering, even hospitals—witness the AMA's buying into the debate. There is recognition of the implications of applying a restrictive labelling regime to imported products which stands to breach Australia-New Zealand commitments as signatories to the World Trade Organisation agreements in five counts. Madam Chair, it is with some experience—as chair of the World Food and Drink Association's International Trade Committee, as a member of the International Policy Council on Agriculture, Food and Trade, and having spent the better part of a decade in working through international trade negotiations—that I can vouch for the integrity of that claim.

Our preference through this debate has been to concentrate our efforts in those information areas where we could really add value without being dragged down by the regulatory costs or the costs of inefficient and ineffective regulation. My take-out of the ministers' decision is that they have either consciously or inadvertently sought to redress the imbalance between the technology push and the market pull. In doing so they may have overplayed the market pull to the point where the practical constraints of delivering mandatory labelling have become the discipline for many of the dictates of the market as they perceive them. My fundamental take-home message is that those who consider that they have a vested interest in the advancement of this technology would do well to appreciate the dictates of the market and recognise their role and responsibility in serving it.

CHAIR—Thank you very much. I think you have both raised a number of issues and probably answered a number of questions that many of my colleagues would have had. Could I begin by saying that you obviously are the organisation which is placed closest to the consumer and probably best able to read those market signals. We have had identified to us by many people coming before this committee that one of the biggest hurdles in having gene technology products accepted into the community is that the consumer has to accept the product. That raises two main issues for the consumer: that information that you spoke about, whether it is a safe product, and the cost of the product. The only way that the consumer is going to accept the product is if the consumer has faith in the regulatory system.

Firstly, do you believe that you as a major stakeholder have been included or consulted in that regulatory process that is currently evolving, and do you believe that the process that you hopefully have been involved in is going to provide that degree of confidence for, from your aspect, the consumer? Others can tell us about the agribusiness stakeholders.

Mr Hooke—Firstly, I absolutely concur with your take-out that consumer confidence is fundamental to investment in the development, or research and development and then subsequently the commercialisation of its products in the marketplace. A tick on that. Secondly, that is a function of the regulatory regime, particularly in terms of public health and safety, and the environment and, secondly, the consumers feel that they have a capacity to exercise their fundamental right to choice. But the fundamental right to choice is meaningless if it is not based on meaningful information.

Have we been consulted? Yes, we are actually into consult overload. I do not think there has been an issue on our agenda in the four years of this organisation's establishment that has commanded the amount of time, effort and resources that this has. So, yes, we have been consulted. Do we believe that we have been effective in our consultations? Yes, even to the point where some detractors would say that ANZFA and parts of government are sycophantic to industry's views. There are a few points about that: firstly, I think it is an overblown compliment to us; secondly, I think it is an insult to government and the regulators; and, thirdly, I've never seen a footballer get a smack behind the ear if they were not kicking goals. So we just put that one down to the play of politics.

My view is that credibility is both a function of your mandate—and we have a pretty strong mandate with the membership we cover—and, secondly, the veracity of your case. McIntosh, Hooke and Craik were asked to put together a paper on the regulatory regime to the Prime Minister's Supermarket to Asia Council, and that is essentially the model that you have. We would rather an authority, but I think Wendy Craik covered that off pretty well with what I heard when I came in—but we have a gene technology office. In terms of foods, we have an amendment to the Food Standards Code which provides for the pre-clearance safety assessment of food products and the labelling of those that are substantially different. It is still in limbo, but there is a reaffirmation in the minister's decision to extend those mandatory labelling provisions to products that are substantially equivalent.

One other point on consumer confidence: if you accept the fundamental model of any extension program of communication, you have essentially a curve that goes awareness, interest, then a reference source for people looking for information, then they test it, and they usually retest it because there is always a failure, then they move to adoption and

reward. We are down here in the awareness and interest phase of the whole adoption curve, and what is promoting awareness and interest at the moment is fear and trepidation, because consumers cannot go into the market and grab a product and feel it and test it and try it out. So the 'need to know' factor for information is actually being driven by fear—'What is this new technology about?' People say this happened with a rush; this has come on with a rush. Australia has been developing and experimenting in this technology for some 25 years. It is not 'new', but it has become a hot topic, some would say, because of those who are looking for a cause, as distinct from having a just cause—and I will leave you to make those calls; it is not our place to make that call.

The bottom line is that at the moment those who want information about this technology out there, Bill and Betty in Struggle Street out in Bankstown, actually have been driven to the need to know by fear and trepidation. We are going to see a substantial shift, just like we did with the guy waving his red flag out the front of the cars and all about square eyes and TVs and all about pasteurised milk and the inherent uncertainty that there is with the adoption and development of any new technology, and the guy from IBM in 1977 who said, 'I've been up and down the length and breadth of this country and I can tell you data processing is a passing fad. There's no need for personal computers in the home.' In 1977 that guy said that. So we see this sort of stuff all the time. It does not mean that you sit back and say, 'Well, she'll be apples and it'll sort itself out,' but it does mean that we have to recognise, if you will excuse me pontificating, what it is that is driving the information requirements at the moment and what it is that is going to be essential to consumer confidence. One of the major consumer confidence factors in America is the high profile efficiency and effectiveness of the Food and Drug Administration—a single national regulatory authority, not a whole stack of them like Europe.

CHAIR—Just fleshing that out a little bit more, you actually referred to Dangar Research and saying how the consumers wanted information, that they are not satisfied by labels alone, and you also talked about the sort of support that your organisation is putting in, the web site, the 1300 phone number, et cetera. Out of all of the groups that we have listened to so far, obviously you are the closest to the consumer. With regard to the sort of information that you are getting from your research as to the information that consumers themselves want, are you actually feeding that into the regulatory process?

Mr Hooke—Yes, we did. I am chuckling because I cannot remember putting as much time and effort into a campaign as we did on this one, but we were just not able to get past the political decision that was made back on 17 December. We put to ministers a combination: (1) regulation; (2) self-regulation or co-regulation, which has a bit more teeth to it than self-regulation; and (3) the information imperatives. The regulation was the gene technology office, the standard A-1-8—or A18 as it is currently gazetted—and a deferral to Codex Alimentarius, and anybody who knows that international system knows it takes a fair while for the cogs to crank over. The second part was a code of practice, a code of practice that was put together in concert with retailers, food and beverage importers and our own manufacturers on both sides of the Tasman. I am sure you will agree that was quite a feat. Retailers from both sides of the Tasman, food and beverage importers and our own manufacturers, a code of practice for labelling, a comprehensive document—and I am more than happy to table the draft of that for this committee. But it was really quite an outstanding achievement, in my view, to get all of those parties to sign off.

The third part of the strategy, information, was the Food Science Bureau, retailers concurring with the provision of point of sale information with all the conditions attached to it—that is, scientifically verified, badged properly, Biotechnology Australia, CSIRO, ANZFA, our Food Science Bureau—so that it was not just propaganda but it was clinical, it was dispassionate, it was factual and scientifically substantiated. That was the proposition we put. I would not say it was roundly rejected but it did not tip the scales, that is for sure, as you can see by the ministers' decision.

In terms of us being sensitive to the consumer needs, it would be no surprise to this committee that that is one of the reasons why we continue to be bearing a lot of the brunt of the debate about this technology, because we are vulnerable. Our soft underbelly, our left flank, is that we are very sensitive to the needs and expectations of consumers and therefore we are an obvious shot, just as those who seek to detract from this technology have similarly targeted the regulatory agencies.

Have you ever seen so much vitriol aimed at the Australia New Zealand Food Authority as we are now seeing in the public arena? Why? Are they doing a shocking job? No. They have problems; of course they have. They are a regulatory agency with six states, two territories and two national governments. Why would you not have an identity crisis? But they are getting belted. And why are they getting belted? Because if you want to undermine the integrity of this technology, the quickest play is to undermine the integrity of the regulator—to your point, Madam Chair—because that is where the confidence is. So what are the two sweetheart hits? One is the regulator and, two, is those people who are charged with the responsibility of meeting the needs and expectations of consumers because their commercial livelihood depends on it.

Mr ADAMS—Do you have any evidence to that effect? You have just made a statement that the regulatory bodies are being attacked by some forces out there. What evidence do you have to that effect?

Mr Hooke—Would you like me to table some press releases, Deputy Chair?

Mr SECKER—That would be useful.

Mr Hooke—I am more than happy to do that, more than happy to pick up some clippings and some cuttings for you.

Mr ADAMS—We all see the cuttings. You feel there is some campaign going on to undermine the regulator?

Mr Hooke—Yes, and not only that, for the record, a senior representative from the Australian Consumers Association came and made that very clear to our Public Affairs Committee. They said, 'We are out to get ANZFA.' Again I would draw your attention, Deputy Chair, to the *Hansard* of the Senate legislation committee inquiring into the ANZFA Amendment Bill that was chaired by Senator Knowles. In that you will find that there was quite a deal of criticism of the Australia New Zealand Food Authority. Your point about my simple extrapolation to a hypothesis is fair, but it is a conclusion that I am drawing.

Mr ADAMS—That is all right. Are your 170 members all happy with accepting the ethics of gene technology and selling it through and working it through their organisations?

Mr Hooke—With great respect, Deputy Chair, you have missed the point I was making. The point I was making is that we are not in a position to defend or promote this technology. We are in a position and have a responsibility to ensure that the regulatory regime provides our companies with the scope to make independent commercial decisions. We have companies that produce organic food products, we have companies that are establishing identity preservation schemes, we have companies who are seeking to step back from the application of this technology—in fact, some who have quite consciously set about ensuring that their ingredients are sourced from non-GMO crops—and others who are investing quite heavily in the technology.

Mr ADAMS—You hold up the argument of choice, but you have some criticism of the labelling regime because you do not think the labelling regime actually reflects the true position?

Mr Hooke—That is a good question and it goes to the heart of the issue. On your question, Madam Chair, about our consumer research, when we asked them, 'Do you want labelling?' they said yes. When we asked, 'What do you want the label to tell you?' it is a bit like asking, 'Do you want to pay taxes?' and the answer was no. Once you go past the inane question, once you go past this paternalistic, maternalistic view about regulators and labelling and ask the consumer what it is they want, they want to know what it is that the production related process gives them, what is the benefit, what is the change in the product, what does it actually mean.

Mr ADAMS—But that is fair from a consumer's point of view.

Mr Hooke—Absolutely. To the second part of your question, just to pick one country at the moment, if the Americans will not segregate the soya beans—and we know that half the crop next year across America will be planted as genetically modified crops—and if you cannot pick the differences because the diagnostic techniques are not there to do it and you cannot pick them by visual means—and I have to tell you, having come out of the grains industry and off the farming sector, I know all about what happens at harvest when the trucks are lining up and they are just dropping the stuff down the hoppers—in other words, it is not an identity preserved system, the diagnostic techniques are not there, your suppliers cannot tell you. I have a soup manufacturer who sources 90 ingredients from around the world and they vary depending on seasonal availability, where they are coming from, price, the equation—all this stuff is factored into computers, the whole thing. If you cannot get suppliers to tell you, what are you going to do on your labels? You are going to put a 'may contain'. You tell me how much product differentiation is in that? It is a bit like having a label today that says, 'Product of modern agriculture'—great. And over here we have 'organic products'. The reason why I say it is an excellent question—

Mr ADAMS—Hang on, not just organic products; products that have not been genetically modified.

Mr Hooke—With respect, I have confused you. What we did was we said, 'Okay, what are the coat-hangers out there at the moment? What are the precedents that exist in the current market?' You have products of modern agriculture and you have organic agriculture. You find me a label that says 'This product does not contain fertilisers and chemicals' and I will give you a bottle of rum. You will find products that say 'This is produced from an organically certified production system'. So we said, 'Right, let's mimic that—"This is produced from certified non-GMO systems," known as identity preserved.' So these people who want to, if you will excuse the colloquialism, dodge this technology could go looking for products that were labelled that way, and that was the essence of where we were coming from. Instead of going to a 'does' or 'does not' contain, let us go to a source—'This product has been produced from non-GMO sourced crops.' That is meaningful information to consumers. That is what we put our effort into and that is where we expected it would go. As I said, you will find organic produce in the market—not that I am aware of, but you will probably find one and I will owe you a bottle of rum—most of them will say, 'Produced from certified systems.' They cannot make a claim that it 'does not contain' some chemical because you have what the scientists, of which I am one, call 'ubiquitous adventitious contamination'.

Even in the identity preserved schemes which have segregated production, transport, processing of the product, you will get contamination—it can be point something of a per cent; it can even be into the several per cent, depending on how clean and clinical the system is. This is what I mean about product diversification, differentiation in the market and the consumers being given the capacity to exercise their undeniable right to choice. We could have taken the cheap option, rolled over on the 'may contain' and said, 'Go for it, guys, as if we care—"Product of modern agriculture; may contain genetically modified ingredients," you tell us,' but we know that when these health ministers have come and gone and are in new portfolios or have been thrown out of government, we will be bearing the backlash of the dissatisfied consumers saying, 'Don't you know what's in your products? Can't you tell us what is different?'

Mr ADAMS—That is right, the pickets will be on your doors.

Mr Hooke—Bingo.

Dr WASHER—I gather you were not too happy with the decision.

Mr Hooke—We sidestepped it, though. We basically—

Dr WASHER—It was the most insane decision I had ever heard in my life, if I could make a comment. Just to follow on from that—I know you sidestepped it but can I ask you—in the policing of this and in the legalities of it, what are the implications? In other words, how are we going to police it? For example, on oils, are we going to police and to what level are you going to test to, what percentage, when you say it is GM free? Also, the legal implications, both from a trade point of view—which is probably not your worry so much—and from a Trade Practices Act point of view where you label something as 'non-GM', scientifically not to be proven any safer but by implication may indicate so? Are there litigation potentials?

Mr Hooke—Can you just give me that last bit again?

Dr WASHER—If you label something as GM free and I have put on mine that it contains GM, and by that I imply possibly that my GM free is safer, are there legal implications in that? In other words, what legal nightmares have been created by these decisions?

Mr Hooke—If I miss one of them, you tell me. Firstly, 'sidestepped the decision' was the terminology I used, but we basically accepted that that is where it is at, that is the reality, the deal is done, let us get on ahead of it, to mitigate much of the backlash in the market. Our press statement on the day said that we remained committed to getting out and providing additional information. We had hoped to do that without bearing the legacy of an inefficient and ineffective regulatory regime, the legacy being cost mainly, but we said that we were committed to continuing down the path of product diversification and product differentiation in the market. That cost, as I said, is not just $20,000 to change the labelling on it; we are talking a billion dollars plus. I worked that out on the most conservative assessment of a 10 per cent premium on identity preserved schemes across a $45 billion industry and I put it down as a figure of $1 billion plus and put that on the public record. It will be more than that, but I do not want people getting stuck into us for being sensationalist.

In terms of oil, 51 starches, hydrolysates or the hydrolysed starches and the refined sugars, in their decision the ministers said, 'We will be looking at whole foods and refined substances.' It comes back to the question that the Deputy Chair asked. If the product does not contain any modified protein as a product expression of modified DNA and no modified DNA, then you will not have to make a claim that it does contain, and you will not find modified DNA or protein in recombined oils or sugars, nor the hydrolysed starches. There will be a whole stack of refined products out there that will not have any labelling and yet will be sourced, or could be sourced, from modified crops. In terms of thresholds, this is the case of, 'Done if you do and done if you don't.' If we promote the case of thresholds, we will be promoted in the public arena as looking to try and dodge the issue again, camouflage it, and all of the spectre of cynicism will be raised yet again. My take-out on the threshold issue is: if the ministers are determined to go down the European path, so be it; go down the threshold path that the Europeans are establishing as well. As you are well aware, that debate is anything up to five per cent being the determination of threshold levels—even though they have still put it off to the year 2002 to sort it out. That is essentially where they are at. It is a very difficult situation for us in terms of arguing the case for threshold levels, but if you are going to go down the European path then you go the European path.

In terms of policing, already we are hearing mutterings under the carpet that state regulatory officials are not really interested in enforcing this. The hell they aren't! We will be riding shotgun over this. And those who are running around with their health systems falling down around their ears and are going to put scarce resources into policing the extent to which there are or are not ingredients in these products I think have a fairly strong reconciliation and degree of accountability to the community they hope to serve. If you put laws in place that you are not prepared to enforce, then you just serve to bring the law into disrepute and that is not something we are a party to. If the law is the law then it has to be policed and enforced.

In terms of false, misleading and deceptive claims, that is probably a question you ought to direct to Professor Fels. I am not sure that I am in a competent position to address that. But your argument is well made, and that is that if those labels are seen as being tantamount to a warning label—I know it is only a hypothesis—there are some who have argued the labelling regime to be just that: a warning label so that consumers can 'avoid' the technology and seek to denigrate it.

In regard to the international trade implications, you would have seen the surprised look on my face. My view is that we are in breach of the WTO on five counts. This will have to apply to imported products, and again one of the options we put up in terms of our package of information to the ministers was the way in which they could go around the implications to the WTO and us as signatories to those agreements. I am just going to put them on the record. The first is the national treatment rule, which means it must apply to imported products as it does domestically. The second is the non-discrimination trade rule, which says you cannot discriminate in trade in like products where you are discriminating on the grounds of the production related process. Let me give you some examples. The first was 'dolphin-free tuna' and 'dolphin-free nets'. That case was lost—in other words, the tuna is the tuna is the tuna, irrespective of whether you have dolphin-free nets to catch it or not. Another example was shrimp or prawns and turtle excluder devices. Again, another case that was lost in front of the WTO. You are not allowed to discriminate between the trade in prawns just because the fisherman did not have turtle excluder devices. Another example was hormone growth promotants in beef: the beef is the beef is the beef. It is a like product. You are not allowed to discriminate just because it has had hormones used in it if you cannot substantiate a scientific case of public health and safety. Again, it was lost.

What did the Europeans do? They accepted the umpire's decision; they have now agreed to pay $140 million to the United States and $40 million to to Canadians—and those figures might not be accurate but they are close enough—in compensation, which is one of the three options that they had. The options were, firstly, accept WTO sanctioned trade restrictions—which probably would have started off with Hennessy cognac brandy in France as retaliation; secondly, fix it up—in other words, allow hormone growth promoted beef into the European Union—or, thirdly, pay compensation. Those are the three options you get when you get a dispute panel go against you. They took the latter—compensation.

The Technical Barriers to Trade Agreement requires signatories to the GATT code to have explored all other options or those options that provide meaningful information to consumers that are the least trade distorting, and Australia has not done that. Not only that, under the Council of Australian Governments agreement, the provisions of the WTO require that member states will ensure that their regional or provincial governments are bound by their commitments as signatories to the WTO. In the 17 December decision we had six states and territories roll the sovereign determination of two national governments as signatories to the WTO—Australia and New Zealand—in breach of the Council of Australian Governments agreement.

Mr ADAMS—But in standing with the Australian Constitution?

Mr Hooke—That is a matter that you need to take up with a constitutional lawyer, not me. If you sign an agreement under the Council of Australian Governments agreement, what

you have got here is, as you say, a clash between the constitutional responsibilities to the states and territories in matters of food standards and the constitutional responsibilities of two sovereign national governments.

CHAIR—One of the challenges of operating in a federal system.

Mr NAIRN—Mitch, you mentioned a couple of times, and Fran also raised it, the consumer research that you did. Would you be prepared to provide the results of that research to this committee? If not, would you provide us with the sorts of questions that were asked? Is it commercial-in-confidence? That is what I am getting at.

Mr Hooke—Some of it is. If I may, I will take the question on notice. I will certainly table for you the public take-out that we have used. I would also be prepared to table before the committee commercial-in-confidence—in other words, not to be published, not to be reproduced and not to go outside of this committee—the results of that research and the questions that we used. I will have a look at it in terms of its commercial sensitivity, bearing in mind that it has been paid for by a whole lot of food and beverage companies. You have my word of course—integrity is the name of the game here—I will not shred it for bits and pieces that we do not want you to know about that go against our argument. In fact, the integrity of the argument is bettered by some of the material that comes out in a quantified sense, and that is the back-up work we have been doing. The first phase was qualified research with focus groups—some 700 or 800 consumers were brought in to focus groups conducted by Liz Dangar and Associates—

CHAIR—Was that done nationally, in both metropolitan and regional areas?

Mr Hooke—I would have to take that one on notice. Off the top of my head, I cannot remember where they were drawn from.

Mr ADAMS—The Food Science Bureau has several organisations on it, has it not?

Mr Hooke—No.

Mr ADAMS—That is your—

Mr Hooke—We have put it up, we have funded it, but what we have done is establish a group of 12 independent experts in their fields to verify our material—so on every food fact sheet, whether it is on the sugars and oils and fats and nutrition and dental caries and all that stuff about food safety, food nutrition and health, and then food safety and similarly on gene technology, down the bottom it says, 'This material has been independently verified and vetted by XYZ,' and we have a cast of 12. We have also established partnership programs with the Australian Nutrition Foundation and the Supermarket Institute and Retailers Association, and we will continue to leverage and integrate, if you like—it is not quite the right word—and utilise those organisations off the back of the material that we are producing and putting together. But at the end of the day, if it has no integrity, it has no credibility, and if it has no credibility it is worthless.

Mr ADAMS—Is ICM a member of your organisation?

Mr Hooke—Doug Shears?

Mr ADAMS—Doug Shears made comments over the weekend that we should step back five years and wait. From the evidence you have given this morning, you evidently do not accept that, but would you like to comment?

Mr Hooke—I have known Doug a long time. ICM is not a direct member of the Australian Food and Grocery Council, but Berri is. To be perfectly honest with you, the managing director of Berri sits on my board. Doug Shears made those comments from his perspective as the executive chairman, I think his title is, of ICM, which is an agribusiness company and has quite a range of investments and platforms. As I said in the *Financial Review*, I think it was last Thursday or Friday, in Cathy Bolt's article, very few people would disagree with Doug Shears's sentiments, but I do not know anybody who has put a moratorium on the agenda. It has not been on the agenda in my council—

CHAIR—It gets back to this question of information. We need to wrap this up, but I have recently seen an example of a brochure that I understand has been made readily available in all supermarkets in New Zealand. Is that something that you are familiar with?

Mr Hooke—Yes, I am.

CHAIR—Is that the sort of information that you are looking at also?

Mr Hooke—In a word, yes. We might do it slightly differently with a slightly different emphasis, perhaps more about the facts of the technology rather than the fundamental message of promoting the technology as being safe. Once you start moving into addressing direct messages like that you start moving to that grey area of whether you are promoting the cause or promoting a line as distinct from providing dispassionate and clinical information. Do not misread my comments as being critical of our New Zealand colleagues. Within the context of that information, the way it was put together, I thought it was a sterling effort and it is very sound and proper information. We might just learn from some of the reaction in New Zealand to that material, particularly from those who are vehemently opposed to the technology, and see if we cannot find a bit more clinical approach.

CHAIR—Is your web site interactive and how many hits are you getting?

Mr Hooke—We have not launched it yet. We have our own web site, of course, but the Food Science Bureau will be officially launched at the full council of the annual general meeting on 16 September. We would be more than happy to provide you with this information and details down the track, Madam Chair.

CHAIR—Thank you very much, and if you could follow up on the survey we would be grateful for that.

Mr Hooke—I will have a look at it.

CHAIR—Thank you.

[11.41 a.m.]

KREITALS, Mr Jock, Deputy Director, Grains Council of Australia

SPENCER, Mr Leigh John, Research Officer, Grains Council of Australia

LACK, Mr Steven William, Acting Managing Director, Grains Research and Development Corporation

CHAIR—I welcome the representatives of the Grains Council of Australia and the Grains Research and Development Corporation.

Mr Lack—May I take this opportunity to apologise for Professor John Lovett, who is overseas. He has taken an interest in gene technology but unfortunately cannot be here today.

CHAIR—We have received submissions from the Grains Council of Australia and the Grains Research and Development Corporation. Is one person going to act as the spokesperson?

Mr Kreitals—All of us will. I am going to provide an introduction—

CHAIR—I was just about to invite you to do so. Please go ahead.

Mr Kreitals—The way we will structure our presentation is that I will provide an introduction, Leigh will reiterate some of our main recommendations and Steven will then address some of the issues from the GRDC perspective. We are then happy to take some questions. The Grains Council of Australia, as you are probably aware, is the peak national body for the Australian grains industry and represents 45,000 growers. The grains industry is a major contributor to the economic wellbeing of our nation and particularly our exports. Our average GVP is $7 billion a year, or approximately one-quarter of the total farm sector, and about 70 per cent of that is exported. So we are an export industry and we need to remain internationally competitive with regard to matters of production and efficiency in production vis-a-vis our competitors.

As part of the process of remaining competitive, we have a very good R&D arm, which is the Grains R&D Corporation, and it is the national organisation which uses grower contributed funds, together with Commonwealth funds, in administering and allocating the grains R&D moneys. The GRDC is legislatively required to be accountable to grain growers through the GCA, and that is in part why we are appearing together today.

In terms of R&D and its benefits, I think it has been pretty well documented that agricultural R&D produces a high return to both society and to the industry, which is in part why the government funds R&D as well as the industry. The GCA is a strong supporter of R&D and is also a strong supporter of the RDC model. As a strong supporter of R&D it is also a strong supporter of gene technology and the benefits that it produces both for growers and to Australia. In fact, I think it is important to point out that the Grains Council sees gene technology as an adjunct to conventional breeding and other forms of R&D rather than as a

replacement. I think we need to bear that in mind; it is an important tool as an adjunct rather than throwing all our money at gene technology.

Whilst I refer to it as being an adjunct, it is also a very costly adjunct and we have all seen stories about how much companies are putting into gene technology. From our point of view, to maintain Australia's competitiveness in this area, our first two recommendations relate to funding, and the first point of those is that the government should raise its matching contributions beyond the present cap of half a per cent and also that it should broaden the collection base for those to bring in downstream processors, et cetera who are also interested in this technology. I might now pass to Leigh to address the terms of reference.

Mr Spencer—Thank you, Jock. I will just run through some of the major points that we made in our submission and then highlight what we saw as being our key recommendations coming out of that submission. As Jock indicated, basically the grains industry in Australia is an industry that is very much export oriented. It is an industry for which over 70 per cent of the product, on an average annual basis, is exported every year. At the same time, the grains industry of Australia is not the major player in terms of production and in terms of international trade on the world stage. As a consequence of those factors, it is very important that Australia maintain its level of competitiveness and its efficiency as far as its grains industry is concerned, and that is something we think we have achieved to a large degree in the 1990s—the grains industry in Australia has been a very successful Australian industry in that period. We feel that a major factor in that achievement over that period has been the industry's uptake of new technology and something that is starting to become more and more important in that regard is obviously the uptake of genetic technology.

In that regard, I would like to make the point that we see conventional plant breeding as something that has been very important in the development of the grains industry in Australia, but conventional plant breeding is a slow process and a fairly costly process and we believe the introduction of biotechnology has the potential to improve the normal time periods in terms of the development of new products for the grains industry. In that sense we would make the point, as Jock mentioned briefly earlier, that gene technology is not really an alternative to conventional plant breeding; rather it is an additional method that allows breeders to speed up the process of producing new cultivars.

The council believes strongly that the grains industry in Australia very much needs to maintain its level of international competitiveness that it has developed over a long period and also in that context needs to maintain a global focus as far as the area of genetically modified foods and genetic technology are concerned. We think it has been widely acknowledged that there are very substantial benefits that can potentially flow to the Australian grains industry stemming from the use of new technology, including genetic technology, and these benefits can arise from such things as increased production efficiencies, quality improvements, decreased environmental impacts, et cetera. Those things are discussed in a bit more depth in our submission.

Basically I guess the bottom line is that the council is concerned that the industry must be given every opportunity to take advantage of the new technology that is available out there in the world if it is to maintain its current level of international competitiveness. Just as a point in that context, I would also note that Australian growers and the Australian

community generally, we feel, will be in very serious danger of falling behind our international competitors if those competitors have access to technologies that are denied to Australian growers and the Australian community. We had a recommendation associated with that basic discussion which reads:

Australian growers must be able to access gene technologies that are available to their international competitors as they, and the Australian community generally, would otherwise risk falling behind in terms of competitiveness.

The next thing I would like to discuss fairly briefly is the discussion of commercialisation and marketing. Basically I would note that again the council is concerned to ensure that the benefits of gene technology accrue to grain growers and to the community generally. In that context it is important that newly developed plants are made available to growers and to the industry without any unnecessary delays. In that context we feel that there is a need to note that development of new crops through genetic technology normally involves very significant private investment—private investment in terms of research and development—and thus we think it is very important that that private investment is also not hindered. The bottom line there is that the council's view is that we really consider that there is a need to ensure that there is an appropriate balance reached between ensuring that the benefits of gene technology are shared by the growers and by the wider community but also ensuring that there are appropriate incentives in place for the development of new products by private investors and that those incentives are maintained. We had a recommendation associated with that which was:

That the Commonwealth ensure that appropriate incentives to encourage investment in gene technology Research and Development by private investors are maintained.

The next point I would like to discuss briefly is the cost to producers of new varieties. Basically, I would make the point initially that we feel there is evidence there to indicate that grower access to cultivars that have been developed using gene technology is generally, and is proving generally to be, more expensive than access to other cultivars, but we feel that this represents the cost of the intellectual property utilised in the development of these products, and that intellectual property, of course, is usually provided by the private investors, as we mentioned earlier. However, the premiums that growers generally pay for access to the products of gene technology basically represent the price of that access as far as access to the benefits of the technology is concerned.

I guess the bottom line as far as the grower community in Australia is concerned is that we feel we must have access to genetically improved products or technology at reasonable prices if the industry is to remain globally competitive. In this context what we see as being fundamentally important is the continued significant investment in research and development activities in Australia in order to try and maintain that access at a reasonable cost. The recommendation we had associated with that was:

That domestic investment in the development of gene technology products be encouraged in order to ensure that Australian producers' access to new varieties is not inhibited by cost factors.

The next term of reference that was outlined as far as the committee was concerned was—

CHAIR—Can I just interrupt you for a moment. I am conscious that we really do need to be finished around about quarter past 12. We all have the submission and we have all looked through the submission—

Mr Spencer—I will move through them a little more quickly.

CHAIR—I want to allow plenty of time for my colleagues to ask some questions.

Mr Spencer—Basically, as far as other impediments are concerned to access or utilisation, the things we identified were growing concentration in the industry, greater level of vertical integration as far as the sector was concerned, and also what we see as a trend developing towards the use of closed marketing loops. Our recommendation there was:

That the Commonwealth ensure that high levels of concentration in the gene technology sector do not act to restrict Australia's access to international gene technology or to hinder the development of Australian intellectual property.

I might make a few comments, and I will try and keep it brief, about the current administrative arrangements and regulatory arrangements as far as gene technology and access to the technology are concerned. I just note that a concern that we have is that at present there do seem to be a large number of different Commonwealth and state bodies that are involved in the regulation and administration as far as gene technology and access to GMOs is concerned. For example, there is GMAC, which is the Genetic Manipulation Advisory Committee, the body presently designated with responsibility for overseeing the development and use of novel genetic manipulation techniques in Australia; there is ANZFA which is responsible for developing a uniform food standard in Australian states and territories and also New Zealand; there is AQIS which has responsibility for assessing imports of genetic technology and making an assessment of whether genetically manipulated plants should be allowed into Australia. There is also, as I am sure you are well aware, the announcement in the Commonwealth budget this year of the intention to establish a new Office of Gene Technology, an office to be contained within the portfolio of the Minister for Health and Aged Care and having responsibility for all aspects of development, production and use of genetically modified organisms and their products where no other existing regulatory body has responsibility, and I have mentioned there are all these other—

CHAIR—So you are concerned more about duplication than these organisations filling in the gaps?

Mr Spencer—That was basically what I was going to get to.

CHAIR—Do you have any examples that you could give us where you believe that there is actual duplication occurring?

Mr Spencer—I do not know that there are any direct examples that have arisen as yet, but I think it is something that we, and certainly our members, see as a concern arising in the future due to the fact that it is a new area, it is an area where the regulatory arrangements are still being set in place, and we see all of these different bodies out there at the moment looking to, I suppose, establish their ground and establish the arrangements that they are going to operate in. So you have the Office of Gene Technology and you have

AQIS looking at various things and you have GMAC and you have ANZFA as well. They are all in the process of conducting public consultation processes, looking for comment on various proposals that they have in the pipeline at the moment. We have tried to stress to all of these organisations that they really need to ensure that they communicate with one another and that they ensure that the regulations that they put in place are consistent and that they try and minimise any possibility for duplication of those regulations. I do not think it is so much an issue yet, but we see that there is a potential for it to be a big issue in the future.

I guess the other point that we had in relation to the regulatory arrangements was just in terms of the way in which this new Office of Gene Technology is going to operate. We feel that there are certainly good reasons why the office should be located within the Department of Health and Aged Care and that is to deal with consumer concerns with regard to health issues, food safety issues and that sort of thing. At the same time, we are somewhat concerned that there may be a lack of input as far as industries like agricultural industries are concerned in the development of the regulatory arrangements that the Office of Gene Technology are going to put in place and also how they are going to implement those regulatory arrangements.

So what we noted was that, as far as the proposal is concerned, the office is supposed to have a formal consultative mechanism set up for consulting with the states and territories and also the Commonwealth health ministry. We feel that there is probably a need, and it is certainly something that we would encourage, for the office to also set up a formal consultative mechanism with the state and territory agriculture ministries and also with the Commonwealth Minister for Agriculture, Fisheries and Forestry. That is one of our recommendations.

Perhaps the final point I would mention is again in relation to the Office of Gene Technology. In relation to that term of reference, which refers to opportunities to educate the community on the benefits of gene technology, we believe it is very important that the public is made aware that there are benefits in this technology, where they are likely to come from, how the technology is going to work and that sort of thing. So we are very much in favour of a public education campaign, and we see the Office of Gene Technology as being the body through which this public education campaign really should be conducted. In that sense our recommendation was:

That the proposed Office of Gene Technology be established as quickly as possible with a mandate to educate the community about the safety of products developed through the use of gene technology and the potential benefits that could accrue to the community from the use of the technology.

We feel that is probably the best way to approach that issue of trying to educate the community in the most appropriate way.

CHAIR—Thank you.

Mr Spencer—I might pass over to Steve who is going to—

CHAIR—Did you want to make some comments?

Mr Lack—Given the time, Madam Chair, maybe it is appropriate to go to questions, but I would just clarify one point. The GRDC is a statutory body which has two stakeholders, one of which is the Grains Council of Australia which has summarised the text of their submission which reflects the GRDC's position as well, but just be aware that GRDC also reports to parliament and there are some obligations there on us having a focus on the public good aspect of this issue as well.

CHAIR—Could you firstly tell us a little bit more about the Graingene alliance and what it is doing and where it is heading?

Mr Lack—Certainly. To give you some perspective I need to point out early on that the GRDC does not undertake research itself. We are a body that contracts agencies to do research and we typically have contracts with CSIRO, state departments of agriculture and universities. What we try to do in our role is come to some agreement about where the industry is going and with that agreement try and get the scientific community behind that direction. When we look at what is happening in this area, one of the key things that comes to the fore is what is called 'freedom to operate'. We have our researchers today having to be aware of the GRDC's priorities, their own agency's priorities and being good at actually undertaking the research, and what they need to be more and more aware of is where they can actually work legitimately, who has patents, who has copyrights for the technology.

One of the things the GRDC is finding out is that the research community has not really the resources at this stage to fully understand and embrace those issues, so we have done two things. The first thing has been to form an alliance with CSIRO and the Australian Wheat Board to generate some IP that we can trade with multinationals for access to IP that may have been produced overseas. The other initiative that we have done besides Graingene is that we are working on a proposal to put together a national centre for education and training in IP, and that is being progressed with Biotechnology Australia, through DISR and now AFFA. So I suppose what we are trying to do is put the research community in a better position to, firstly, understand IP issues and, secondly, take some advantage from the IP that we do generate in Australia and to be able to trade that with overseas companies.

CHAIR—Do you see your having a public role in this as well? I think just about every single submission that we have had and every witness who has appeared before us has talked about the need for information to get through to the members of the public, and not just the members of the public. When we were in Western Australia, for example, you would have to say that some of the grain growers of Western Australia were very hesitant about using the technology and were not sure whether they were going to get the returns that everyone was telling them that they were going to get. I am interested to know about the public aspect of the work that you are doing.

Mr Lack—Following on from some of the discussions that this committee has had this morning, I think the grain-growing community is probably thinking about their markets and they are probably thinking about the costs—particularly the costs of segregation—and maybe the GCA can follow up on that. Just to give you some idea of what the GRDC has done recently—and it is unfortunate that Professor Lovett is not here because he has taken a keen interest in this—you are probably aware that we were involved with the Australian Consensus Conference on gene technology in the food chain, so we have played a role there

in trying to bring together some disparate groups with the aid of community input to generate some idea about where we go in terms of educating the community. We are a member of the Agrifood Alliance of Australia, and Wendy Craik gave you some ideas this morning as to the membership of that group and what it is trying to achieve.

Through our own processes we have communicated to growers the progression of the technology. We have a newspaper which we call *Ground Cover* which circulates across the industry's 45,000 grain growers and we put articles in there about the technology and where it is progressing. As I mentioned previously, in terms of the research community, we have embarked on a program whereby we hope to establish a centre where we can promote their understanding of particularly patents. Maybe the GCA representatives might want to talk to you about the hesitancy on the part of the primary producers in terms perhaps of the cost.

CHAIR—And whether it is the cost of segregation that is causing that hesitancy.

Mr Spencer—There certainly has been a hesitancy as far as some of our members are concerned in terms of uptake of this technology. I do not know that it is so much issues to do with costs and costs of segregation and that sort of thing so much as it is more perhaps a lack of an understanding of the benefits that are likely to come out of the technology in some quarters and that sort of thing. As a consequence, we have been trying as hard as we possibly can to get the message out there about where we see benefits coming from, as far as our members are concerned, how they can access the technology, how they can go about using it better, that sort of thing.

I guess the major way we have done that is by having our president and other members of our executive committee continually making speeches to various conferences, particularly to the conferences of the state agriculture bodies and the state farming bodies, et cetera, outlining where we see the benefits coming from and why we think they are going to benefit our guys. We have also put out fairly regular news releases trying to make our guys aware of what the arguments are and what we think they should know as far as this technology is concerned and just trying to make them more aware of how it operates and how access issues are going to be dealt with and that sort of thing, and generally what the benefits accruing to them are likely to be.

Mr Kreitals—Whilst we have been talking about cost, we have to remember that Australia is, as both Leigh and I have said, basically an export oriented grain supplier and that as part of our way of being competitive we have already got a lot more segregation than our other overseas suppliers. I would probably be pulling a number off the top of my head but I think we have, in terms of wheat for example, something like 60 segregations for different markets and different qualities already. So certainly with GMO crops, if they are to be segregated, there are costs there, but those costs have to be weighed up against the benefits, and it may well be that this provides us with a continued competitive edge that we already had through the marketing organisations that we have in the grains industry.

Mr NAIRN—Does the industry accept that any new costs in that segregation area are a matter for the industry or is there some debate about who might bear that cost?

Mr Kreitals—We have a saying in the grains industry that the grower bears all costs. Certainly some of those costs would come back to the grower; but, as I said, it depends on the benefits. If the benefit-cost ratio was not in it, we would not do it. But, at the same time, consumers also have to see what the benefits are for them and decide how much they are prepared to pay.

Mr NAIRN—But, given the decision of the state and federal health ministers on labelling and things and where that debate is likely to go, is there the potential for growers to say, 'You governments are forcing a certain regulatory position which we don't necessarily agree with, so if we're going to comply with it there's going to have to be this additional segregation at particular points which we wouldn't normally do and, therefore, you should pay the costs'? Is that the sort of debate that we are going to get into?

Mr Kreitals—I go back to my point that we are largely export oriented, and you are obviously asking the question from a domestic market point of view.

Mr NAIRN—You could end up in that same debate globally as well. Who knows what is going to happen? Europe, for instance.

Mr Kreitals—If I were to give an answer to that question I would be crystal-ball gazing. I think at this stage it really is early days and I do not know where that is going to pan out.

Mr Lack—I think it is important in this discussion to distinguish between the domestic and the export markets, even though some of the issues obviously are the same. But particularly for agriculture and grains, which are export oriented, it is about market share. At the moment our market share in the world grain trade is 15 per cent, so one of the things that this technology could offer us is just maintenance of that market share. The early discussions this morning were on consumers, their awareness and the particular requirements they might have in the future, but you also need to think that, as well as those domestic consumers, the export market is a consumer market, and that is being driven again by large multinationals which are becoming more and more demanding in the product specifications that they are requiring. So I think, while the arguments are similar, there are particular issues to do with the export market and the nature of Australian broadacre agriculture in particular.

Mr SECKER—Does the Grains Council have a view on the ANZFA decision to require labelling of all GMO products, and can you see any problems with that decision?

Mr Kreitals—Being totally honest, we do not have a policy on that. Our president has said that we have to maintain consumer confidence and I think that is the approach we have taken to a lot of things. To be honest, we do not have a policy on that.

Mr SECKER—Can you see problems with that decision? Obviously there are segregation costs, regulatory costs.

Mr Kreitals—There are potential problems but there are also potential benefits.

Dr WASHER—Just to cover a little bit of what Patrick said but from a different angle, do you perceive that demand now for grain is getting more specific—for example, if we deal

with wheat, high gluten content, noodle type wheat, biscuit wheat, bread wheat—and being separated into different demand products where segregation is going to be part of the deal anyway? I know I am making a statement, but do you agree with that statement?

Mr Kreitals—I personally would agree to it. I do not want to be avoiding the question, but it is getting into an area of marketing where I do not have that detail, other than that comment that I made earlier that there are a lot of segregations and we have responded to demand. So, yes, I would agree to that statement.

Mr Lack—There is an additional complication in the case of the grains industry with the segregations in that someone such as the AWB might do a lot of blending to meet a particular market specification. They may have three or four categories of wheat and they will blend those to meet a certain requirement in an overseas market. So obviously the number of segregations that you may need in a GM and non-GM world becomes quite large.

Dr WASHER—Would you say that our germ plasm and most of the grains in this country are suitable for our current environments, just from a standard breeding?

Mr Lack—The background to that really is that when the First Fleet arrived we made a strategic decision to import most of our agricultural germ plasm. So all the wheat varieties that we have today actually come from land races around the world; they are not domestic varieties. Whenever we want to improve a quality trait or a yield trait we have to go back to those particular places where those land races came from.

To make that process a bit more feasible, countries have built up genetic resource centres throughout their domestic environment and Australia has a number of these domestic resource centres which also work closely with international agencies such as, in our case, CIMMYT and ICARDA. One of the issues at the back of this debate also is the extent to which Australia can continue to have access to that germ plasm which flows around the world relatively freely. At the moment you would say that, in terms of resources, the germ plasm that we do have in Australia would cover most of our needs, but if there were particular traits that we had not currently thought of we would need to go back to the international market and try and find those traits.

Dr WASHER—Would it matter if these seeds—say, genetically modified seeds—were taken offshore and imported in, or would it be better to put those genes into gene plasm currently within Australia?

Mr Lack—That is another issue. Certainly, in this debate where everyone is saying the multinationals have the trump card in having the patent on a particular gene, what Australia does have, after a hundred years of plant breeding, is the cultivars that grow in our environment. So you need access to an Australian cultivar to put your new gene into, in most cases. It does become a bit complicated in that up until recently a lot of grain varieties were not PBR'd and anyone can actually take one of those varieties that are out there in the public domain and put their gene into it and call it their own. In the last few years plant breeders in Australia more and more have PBR'd their varieties, so that becomes another matter. There would have to be an arrangement between the two proponents to come up with that outcome.

CHAIR—In the GCA submission you talked about moving to an end point royalty system. Could you give us some more details on that?

Mr Spencer—What was our actual recommendation in relation to that?

CHAIR—You felt that you were going to move towards that system.

Mr Spencer—It looks as if there is a trend to move towards that sort of thing and to move towards, I suppose you would call them, closed loop marketing schemes. We are not exactly sure how far that trend is going to go and whether it is going to be something that is going to become the norm in the future in terms of the development of this sort of technology, but we would see it as being something of a concern if these sorts of closed loop marketing schemes do develop on a large scale because of a potential there to deny access as far as Australian plant breeders are concerned to the benefits of gene technology. I guess in that regard we would probably to some extent link that to the way in which the industry and the businesses are developing in terms of gene technology and the world generally, but also within Australia, and that is that you are getting this sort of situation where multinationals that have access to a particular type of gene technology are steadily acquiring new smaller players within the industry and looking to vertically integrate as much as they possibly can and move down towards the root of these sorts of marketing schemes that have the potential to deny access.

I think at the moment you are looking at a situation where there is probably a very limited number—I think about seven has been mentioned to me—of multinational corporations that control the great majority of gene technology and gene technology development within the grains industry worldwide. These companies are all entering the Australian market now; they all have Australian subsidiaries and they are looking to take over Australian companies and gain access to gene technology and gene technology processes within Australia. We do have some concerns with regard to the potential for those closed loop marketing schemes to take over and deny access as far as Australian growers are concerned.

At the same time, we are also aware that there needs to be a balance struck because the problem is, as I mentioned earlier, to really develop this technology on a large scale and in the appropriate way you need large scale investments, and in many cases it is these multinational corporations that have the resources and the facilities to actually engage in these investments, and of course they are going to want a return on their investment, so you have to ensure that there is still some potential there for them to gain a return on their investments and have the appropriate incentives to engage in those investments. But certainly that sort of move towards closed loop marketing schemes we would see as a concern in terms of potential denial of access.

Mr Kreitals—Just to add to that, the Grains Council has always been a supporter of a PBR system as a way of providing incentives to private breeders and the end point royalty is one way of providing those rewards. I think everyone has observed that that is gathering some pace, but at the same time in your question about a movement towards end point royalties, if that was to be seen as a replacement of the present system of levies and such,

we do not see that happening. We are very strong supporters, as I said, of the RDC model and the present levy arrangements; the end point royalties would be an adjunct to those.

CHAIR—Just one final question: the GRDC suggested in its submission that Biotechnology Australia should give greater consideration to strategies that will protect Australian intellectual property, specifically in the area of gene technology. What strategies did you have in mind when you made that statement in your submission?

Mr Lack—I think I have already mentioned that to some extent. Since we provided this submission the world has moved on a little bit. We were referring there to what has now turned out to be a relationship between us and Biotechnology Australia whereby we would fund this education program.

CHAIR—If there are no further questions, thank you very much for attending. Thank you for your very detailed submissions.

Resolved (on motion by **Mr Cameron Thompson**):

That, pursuant to the power conferred by section (a) of standing order 346, this committee authorises the publication of evidence given before it at public hearing this day.

Committee adjourned at 12.20 p.m.