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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON PRIMARY INDUSTRIES AND REGIONAL SERVICES

Reference: Primary producer access to gene technology

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HOUSE OF REPRESENTATIVES

STANDING COMMITTEE ON PRIMARY INDUSTRIES AND REGIONAL SERVICES

Wednesday, 8 March 2000

Members: Fran Bailey *(Chair)*, Mr Adams, Mr Andren, Mr Horne, Mr Katter, Mr Lawler, 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, Mr Andren, Mr Griffin, Mr Lawler, Mr Macfarlane, Mr Nairn, Mr Secker, Mr Cameron Thomson 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

BRENT, Dr Paul James, Executive Level II, Food Product Standards, Australia New Zealand Food Authority 241

HEALY, Dr Marion Joy, Chief Scientist, Australia New Zealand Food Authority 241

LIEHNE, Mr Peter, General Manager, Food Product Standards, Australia New Zealand Food Authority 241

LINDENMAYER, Mr Ian Keith, Managing Director, Australia New Zealand Food Authority 241

Committee met at 5.17 p.m.

BRENT, Dr Paul James, Executive Level II, Food Product Standards, Australia New Zealand Food Authority

HEALY, Dr Marion Joy, Chief Scientist, Australia New Zealand Food Authority

LIEHNE, Mr Peter, General Manager, Food Product Standards, Australia New Zealand Food Authority

LINDENMAYER, Mr Ian Keith, Managing Director, Australia New Zealand Food Authority

ACTING CHAIR (Mr Adams)—Welcome. I declare open this public hearing into primary producer access to gene technology. Today's hearing is the seventh of this inquiry. I advise the witnesses that the committee's public hearings are recognised as proceedings of the parliament and warrant the same respect that proceedings in the House of Representatives demand. Witnesses are protected by parliamentary privilege in respect of 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 contempt of the parliament.

The committee prefers that all evidence be given in public, but should you at any stage wish to give any evidence in private, you may ask to do so and the committee will give consideration to your request. We have received a submission from your authority and have authorised its publication. Do you wish to propose any changes to that submission at this stage?

Mr Lindenmayer—No, Mr Chairman. I would note, however, that the submission was prepared a number of months ago. This is a rapidly changing environment. There are a few things that I thought I might say to the committee if the committee would like me to update the facts.

ACTING CHAIR—Okay. Before we begin our questions, you might like to make a brief opening statement in relation to that. Let me apologise on behalf of our chair, Mrs Bailey. She unfortunately had to leave the parliament for a day and is back tomorrow. She asked me to pass that on. Please make your statement.

Mr Lindenmayer—I thought it might be appropriate for me to begin by saying a few words about ANZFA, in that we are a unique organisation in terms of our statutory status and structure. It is not widely known that we are not a typical Commonwealth government statutory authority. We are a Commonwealth government statutory authority, but one for which there is no Commonwealth head of power under the Constitution. We therefore operate only because there is an agreement between the Commonwealth, the states and the territories, and a treaty between Australia and New Zealand, under which we exercise certain powers with the agreement of those other nine jurisdictions. Essentially, what we do is recommend food standards to the ministers representing the Commonwealth and those other nine jurisdictions. It is their responsibility to make decisions about whether or not to adopt those. ANZFA, in doing its work, has a statutory obligation to apply scientific, evidence based risk assessment, and the recommendations it puts forward are developed accordingly against that requirement. We are also required to have an extensive public consultative process, and the outcomes of those consultations greatly influence our recommendations. Those constraints do not apply to the decisions taken by the ministerial council.

Since the submission was lodged, there have been several processes involving consultation between ANZFA and the ministerial council. I will put those in context. In July 1998, the council adopted a recommendation from ANZFA to adopt a standard which required universal pre-market safety assessment and clearance of all genetically modified commodities, prior to their going into the food supply. It also accepted an ANZFA recommendation to require labelling in respect of substantially different foods—that is, foods that differ in respects such as their toxicity, allergenicity, nutritional characteristics and purposes of use. ANZFA did not recommend at that stage any labelling in respect of the majority of genetically modified commodities, which are substantially equivalent to their naturally occurring counterparts. Ministers, in accepting that recommendation, made a decision to come back and review the issue at a further meeting, which was held in December 1998, having regard to international practice. At that meeting they made a decision in principle that ANZFA should proceed to develop a further standard which would cover also substantially equivalent genetically modified foods.

In the course of early 1999, it was discovered that there were some foods already in the marketplace, not only in Australia but to a large extent around the world, which were genetically modified and which had not been the subject of regulatory scrutiny. There had been applications received in respect of six such commodities. The council accepted ANZFA advice that, in order to avoid a situation where, when the decision taken in July 1998 came into effect, those products would become illegal—that would be from May 1999. A decision was taken to institute a transitional provision under which foods that were already on the market, or other such foods that were genetically modified, would be allowed to continue in the marketplace subject to three conditions. One was that they be the subject of an application lodged by the end of April 1999; the second was that

they already be accepted by a regulatory authority of another country for consumption within that country; and the third was that there be no evidence available to the council that these foods were unsafe. That recommendation was adopted and effectively provided a period of grace for what turned out to be some 19 applications for commodities generally believed to be in the food supply or which the owners of the intellectual property intended to be in the food supply. They are currently being processed through the system.

Ministers met again in August 1999 and considered ANZFA's advice about the development of a new standard. They made a decision to proceed as quickly as practicable with a universal mandatory labelling system, covering not only foods that were themselves genetically modified but those that, while not containing genetically modified material, might have been the product of a form of genetic modification. The ministers also were conscious of ANZFA's advice that such a sweeping standard might incur very substantial costs and asked that a cost consultancy report be undertaken as a matter of urgency.

ACTING CHAIR—What was the date when that occurred?

Mr Lindenmayer—That decision was taken in August and the cost consultancy was initiated in September. The cost consultancy was done very urgently and, I have to say with hindsight, with less time than would have been appropriate. So the decision was taken in August, and the consultancy began in September and was finalised in October. The earlier decision I was talking about, about the transitional arrangement, was taken in March; the deadline for lodgment was April; the new standard came into effect in May.

The cost consultancy report was based on a worst case scenario—in short, what it would cost to establish both the presence and the absence of genetically modified materials in all ingredients in all foods. That report indicated a very high cost, some $3 billion for Australia and New Zealand in the first year and about $1½ billion thereafter per year. Ministers decided in October that a much more substantial and comprehensive cost study ought to be undertaken, and that has been under way, involving a consortium of Australian and New Zealand consultancy firms. We are expecting the recommendations from that to be available by the beginning of April and the intention is that, following receipt of that consultancy, ANZFA will be informing ministers in all of the jurisdictions. At this stage, the intention is that there be a further ministerial council meeting on 12 May to consider that report and to consider other work being done jointly by ANZFA and an intergovernmental task force representing all of the 10 jurisdictions.

ACTING CHAIR—Thank you. Would anybody like to make a comment?

Mr Lindenmayer—I think at this stage we might take questions, Mr Chairman.

ACTING CHAIR—So at this stage there are no products without labelling on the shelves in Australia or New Zealand that have been genetically modified?

Mr Lindenmayer—No, that is not true. It is our belief that there are substantial numbers of products on the shelves now that would contain one or more of the 19 commodities which are the subject of applications for approval to ANZFA and which are still under consideration. Of the 19 commodities, all but one are substantially equivalent and, therefore, under the current standard—that is the one that was adopted in July 1998 and came into effect in May 1999—they are not required to carry labelling.

Mr SECKER—What is the one that is substantially different?

Mr Lindenmayer—It is a high oleic product.

Mr SECKER—What does that mean?

Dr Healy—Oleic acid is a fatty acid.

Mr Liehne—It is a soy bean with an altered fatty acid profile, with a very high concentration of oleic acid. It has significant benefits for food production. It can withstand higher temperatures and, therefore, is of significant benefit in terms of storage and use in various products, particularly in products such as soymilk.

Mr SECKER—So the only one that is substantially different, is actually going to be better, healthier?

Mr Liehne—It has a benefit in terms of processing and in terms of nutrition.

Mr GRIFFIN—Is that one likely?

Mr Lindenmayer—To this point, to the best of my knowledge it is not.

Mr Liehne—If there is product on the market, it would have to be labelled. I am not sure that there is product on the market at this stage. It is product that is expected to be coming on the market. It has interim approval.

ACTING CHAIR—This is an interim approval. So there are products that are genetically modified that have been approved in the interim on the Australian and New Zealand market?

Mr Lindenmayer—Correct.

ACTING CHAIR—You also said that you would give it a tick if another country gave it the tick.

Mr Lindenmayer—There were three tests. One was to apply by the end of April. The two substantive ones were that the product had to both be approved by another country—we are not saying necessarily any country. It would need to be a country whose regulatory system was robust. And there would need to be no evidence available of any cause for concern about the safety of the product.

ACTING CHAIR—There would not be if it was an American tick. If there is nothing added to a product the American Food and Drug Administration gives it a tick. Anything genetically modified in America, as we understand it from the evidence we have received, is given a tick. Is that your understanding of the American system?

Mr Liehne—My understanding is that in the United States, there is a notification system for genetically modified foods which generally get an approval on notification. The companies putting in the notifications also go through an independent safety assessment for products that require a full assessment by the FDA. The FDA accepts that evidence as part of the notification.

Mr Lindenmayer—The United States is not the only one. Canada has already scrutinised some 43 genetically modified commodities.

ACTING CHAIR—And they have 45 commodities on the market without a label saying—

Mr Lindenmayer—In the case of Canada.

Mr IAN MACFARLANE—In terms of the issues that are being looked at in this inquiry, does that include a threshold level before the label may be required? We are hearing figures that, if we do move to some form of labelling of GMOs, whether or not they are substantially equivalent, there may be a regime introduced of one per cent or five per cent before a label is required to cover minor ingredient usage without such a threshold. That may make the information on labelling not useful.

Mr Lindenmayer—Certainly, thresholds are an issue that have been considered elsewhere. In fact, the EU has adopted a one per cent threshold.

Mr IAN MACFARLANE—But what about by ANZFA?

Mr Lindenmayer—It is a non-preferred approach. Ministers, in discussing the issue of thresholds, indicated a preference to avoid thresholds if that was practicable. The approach that we are considering is one that does not have a percentage threshold, but rather places the onus upon the manufacturer or the processor—whoever is putting the label on—to use the best endeavours to establish presence or absence. If it cannot be established as a result of either the smallness of the percentage of the genetically modified ingredient in the food, or for other reasons, that the food contains genetically modified material, then a 'does contain' label would not be required for this sort of purpose. Both testing and audit or identity preservation systems are acceptable means of establishing presence or absence.

Mr IAN MACFARLANE—I understand all that. Isn't it highly likely that greater than 80 per cent of goods on supermarket shelves will have some ingredients which are GMO? That would mean that basically all goods will carry this label saying the product contains GMO when in fact 99 per cent of the product is not a GMO.

Mr Lindenmayer—Certainly, it is highly likely that in the future a very substantial percentage of composite products on supermarket shelves will contain material, including highly refined material, derived from GM technology and that a substantial proportion of that will not contain material which is biochemically any different from the naturally occurring counterparts.

Mr IAN MACFARLANE—But just to put that composite into reality, most goods on supermarket shelves are composite products?

Mr Lindenmayer—That is correct. We estimate that of the order of 80,000 different food products are on supermarket shelves. Probably all but something like 4,000 or 5,000 of those would be composite products.

Mr GRIFFIN—If you take the 80,000 figure, for argument's sake at the moment, what percentage of products currently on shelves do you think probably include GM material?

Mr Lindenmayer—We would have to take a guess at that. In 1988 we made an educated guess of 500. My expectation is that that has probably increased several fold since then. What we need to bear in mind are two things in particular. One is that the movement of consumer sentiment away from GM commodities has caused many manufacturers to approach their suppliers and ask them some pretty tough questions about whether or not the ingredients being supplied are genetically modified.

The other consideration is that a sizeable proportion—the overwhelming majority—of composite foods, as well as whole foods consumed in Australia, are domestically manufactured. At the moment, there is only one food commodity being grown in Australia that is derived from a genetically modified source and that is cottonseed oil.

Mr ANDREN—Do you think we are perhaps approaching it the wrong way? Instead of trying to trace back through the genetically modified process, should we be requiring those who claim GM-free status to prove that before they put their product on the shelves?

Mr Lindenmayer—I guess at the moment they are, but not by ANZFA, although within the state food laws there is a provision requiring that truth be used in constructing labels of foods or in providing other information in association with foods. The Trade Practices Act provides strong prohibitions under sections 52 and 53 against false or misleading representation. So anyone making a spurious claim about a product being GM free would be susceptible to action either by the ACCC or by a competitor under section 52 or 53 of the act respectively.

Mr ANDREN—Would the easier route be to label only GM-free products?

Mr Lindenmayer—It would certainly be very easy for us. I believe the ministerial council, which has given us our instructions in relation to the development of the new standard, would not regard that as adequate. We have put to the ministerial council some options which are less demanding and less likely to have a significant cost impact upon the consumer—and indeed upon industry—and the council has decided that it wants to go beyond those options that were put last year.

Mr CAMERON THOMPSON—I realise there is a study going on into this, but can you just give me your own opinion or view on the feasibility of a reliable test to determine whether something has GM material in it, at this stage? I know it is very early in the piece.

Mr Lindenmayer—I think it is better that my colleague answer that.

Dr Healy—There has been a lot of work around the world to try to determine what sort of testing would be appropriate for genetically modified foods in terms of identifying whether there is genetic material within a food product. A lot of this work has been going on in Europe, partly to support the legislation that Europe wants to introduce. The technology that is used is highly sophisticated. It is based on what is called the polymerase chain reaction. It relies on amplifying little pieces of DNA. Within the genetically modified organism there will be distinctive pieces that indicate that something has been added to the organism.

It is sophisticated technology. It is susceptible to contamination. It is susceptible to false positives and false negatives. Until recently, there have been some limitations in quantification. It has been largely a qualitative technique. There is now technology available that allows it to be quantitative. There are huge difficulties in detection methodologies in mixed products. The example that is often quoted is a pizza. You might be able to take the flour and test the flour that goes into the pizza. You might be able to test sugar, if there was sugar in it. You might even be able to test the cheese, but you will not be able to blend up a whole pizza and get the DNA out intact and test successfully, because of the other sorts of components that are in a whole food that would interfere with the test. So there are significant limitations to the test.

Mr SECKER—So composite foods would be very hard to test?

Dr Healy—Yes. People are seen to be successful in testing flour, some baked products, and products of that order.

Mr SECKER—Infant formula?

Dr Healy—I am not sure about infant formula.

Mr Liehne—If I could add to that slightly, the tests are specific for the particular genetically modified commodity, so each commodity would have to have its own series of test developed. In the EU, there are two commodities which they have concentrated on, one of which is Roundup Ready soya bean and the other is an insect resistant maize. They have got testing methodologies which have been standardised for the EU system in those two areas.

There are now moves internationally to try to coordinate activities with the US Department of Agriculture, USDA, to set up some laboratories that will validate testing methodologies for GM. At the moment, the only two that they have got validated and not in production are the two that are being used in the EU.

Dr Healy—I might add that the testing also comes back to the question about GMO free. There is a limitation on the testing in terms of its sensitivity. The numbers vary a bit, but once you are getting under one per cent, the general opinion seems to be that the testing is becoming more difficult, although some tests can go lower.

ACTING CHAIR—Does this come back to the questions from my colleague about the variation and people accepting variation? On the evidence you just gave us, we might as well give up now. We cannot tell if people start doing this. If there is a genetically modified food put out there, we cannot run a test and find out that it is modified.

Mr Liehne—This is why reliance has been put on documentary evidence about the presence or absence of GMO, until such time as the methodology is developed to a point where that is reliable.

ACTING CHAIR—The Europeans must be trying. We have had the Blair statement recently. Europe is not going to go down this track unless it has got some sort of labelling process.

Mr Liehne—If I were to interpret what the European position is in relation to GM, they have taken a position where, if an ingredient is derived from a commodity that may be GM, it is non-GM only if there is documentary evidence that it is not GM. And, if you have got the documentary evidence, if there is more than one per cent accidental contamination, then it is GM. In other words, they have taken a fairly harsh view on the basis of ingredient by ingredient in the way that they determine the presence or absence of GM.

Dr WASHER—So really there is no good science in the determination to test for GM food. This is not scientifically based, is it?

Mr Lindenmayer—I think it is perhaps a bit too sweeping.

Dr WASHER—Well, you correct me.

Mr Lindenmayer—My understanding is that the testing is a viable and effective means of establishing presence or absence, when you have something that you know something about—that is, a particular commodity.

Dr WASHER—Sorry; you misinterpreted. I mean the reason for doing the testing. I understand about the testing—for example, tests in starches and oils. In terms of the reason that you are trying to identify GMP, what is the science for that? Is this food unsafe? What is the scientific reason for doing it?

Mr Lindenmayer—We have no cause to believe that any of the foods that have come under our scrutiny to this stage are unsafe for human consumption. We are not proceeding on the sweeping assumption that none will be in the future, and we are aware that the transgenic technology holds out the possibility of moving something that is toxic or allergenic into its host.

Dr WASHER—So by labelling all foods GM modified now, how are you going to prevent that future event?

Mr Lindenmayer—Prevent, no. The prevention of that future event is through the pre-market safety assessment and approval.

Dr WASHER—And we already have that in place?

Mr Lindenmayer—That is already in place.

Dr WASHER—So there is no risk to the public that we can perceive scientifically?

Mr Lindenmayer—That is certainly our view.

Dr WASHER—And yet there is a big cost?

Mr Lindenmayer—Indeed.

Dr WASHER—So we are doing this promotionally?

Mr Lindenmayer—I cannot answer that.

Dr WASHER—If it is not scientific, what is the reason? Is it more correct to say that it is a political decision?

Mr Lindenmayer—That is not for me to say.

ACTING CHAIR—This in not an interrogation, Dr Washer.

Dr WASHER—No. But seriously, at the end of the day we have a totally unscientific reason for doing this. We know that we cannot test for starches and that we are not going to be able to make a decision on the percentage. So how can the ACCC litigate me if they do not know what it is going to be—three per cent or five per cent. The test does go down to one per cent genetic ID, so that is very accurate. But I think you have bought yourself a hell of a mess, and I think you are going to have a big legal challenge, quite frankly.

ACTING CHAIR—That is a good statement. You also gave us evidence about that professor in England who did the work with the potatoes and the rats. But he was proven to have a few friends later on.

Mr NAIRN—Just slightly along the same line, in quarantine we have something called minimum risk management for diseases in imported goods or foods, and that is theoretically acceptable out there in the broader community. So, really, nominating a percentage of three, four or five per cent—anything which is getting above five per cent is easy to test—would not be a dissimilar approach, particularly as it passes all the health standards. Nominating a percentage as to when something should be labelled would be a similar sort of approach to the quarantine approach, wouldn't it?

Mr Lindenmayer—In one sense, it would be. On the other hand, as Dr Washer and I think others have pointed out, this is not an issue that revolves around the safety of the product. It revolves around what I understand to be—and I should be a little cautious about attempting to anticipate the reasons that have led the council to this decision—a perception that a portion of the consumers want to know in order to be able to make an

informed choice, not necessarily for reasons of safety, although we do believe that some consumers think this food is unsafe. That is not our view. By comparison, the quarantine process in general reflects an assessment of the relative risk to the safety of consumers of the various imported foods.

Mr NAIRN—Yes, generally, but not necessarily. People might just want to know that an imported food item does not contain something. I think there are a lot of similarities. If, on the one hand, we say that we will make tests and have rules for quarantine based on minimum risk—and you can never say that something is not going to be there, particularly with a lot of fresh foods—similarly, with products that have GM technology, we could say that we know there is nothing greater than five per cent so, on a minimum risk basis, there is no GM in those foods.

Mr IAN MACFARLANE—Or an acceptable limit.

Mr Lindenmayer—That is a matter on which the ministerial council is going to have to make a decision. Our earlier advice was that the labelling ought to be in respect of the substantially different but not in respect of substantially equivalent.

Mr LAWLER—You talked about the cost of $3½ billion in the first year and $1 billion a year after that. Did they want a more in-depth study into the cost because they were shocked about how high or low it was, or was that going to happen anyway?

Mr Lindenmayer—My understanding is that ministers were concerned that this was a very large amount of money and would have a significant impact on the cost to the manufacturer and therefore to the consumer through food prices.

Mr LAWLER—So that was a shock to those ministers?

Mr Lindenmayer—It was based on an expectation that the requirement would apply a quite strong onus upon manufacturers of literally all products and all ingredients of all products to establish presence or absence. As I indicated in the introduction, ministers concluded that a range of options should be explored in the further cost consultancy. That is now occurring.

Mr LAWLER—So they are looking at a range of options and a range of costs?

Mr Lindenmayer—Yes.

Mr GRIFFIN—There was also concern, as I understood it, that there were some real question marks about the underlying work that was in the study because it had been rushed, understandably in the context of the time lines, and therefore some of the ministers had grave doubts about how accurate the study was.

Mr Lindenmayer—Certainly the consultant made it clear that his people could look at only a very tiny sample and needed to extrapolate from that tiny sample.

Mr GRIFFIN—So it was not only a question of the cost, it was also a question of the methodology.

Mr Lindenmayer—Yes.

Mr Liehne—It was also a worst case scenario. The ministers have since clarified the fact that a trace back or a paper trail would be one of the major methods for determining presence or absence, rather than universal testing, and that substantially changes the cost structure that might apply. That, indeed, is the basis of the further cost consultancy.

Mr Lindenmayer—As does the intention to use a best endeavours obligation rather than a must establish definitively obligation.

ACTING CHAIR—So it is the best endeavour to have only one per cent in the can, if that is written on the label—is that what we are talking about?

Mr Lindenmayer—The threshold of one per cent, or any other per cent, at this stage is not one of the labelling options envisaged. The best endeavour would be to establish the presence or absence. A protocol is being developed which says there are really four options—and I am sorry if this sounds like going back to basics. One is ‘does contain’, one is ‘does not contain’, one is ‘sometimes contains’ and one is ‘may contain’. A decision tree has been developed that involves the two processes my colleagues have been referring to—that is, either testing or the use of audit/identity preservation arrangements which then lead to a particular labelling outcome.

ACTING CHAIR—I am sorry, we have a division in the House of Representatives.

Proceedings suspended from 5.53 p.m. to 6.05 p.m.

Mr CAMERON THOMPSON—I gather that the costing of $3 billion and $1½ billion from then on was based on developing a test and implementing it over that period. Has there been any assessment of an alternative that would just involve some sort of paper trail?

Mr Lindenmayer—This was based on a combination: the use of an identity preservation system, as the paper trail system is called, and the use of available laboratory testing as well.

Mr CAMERON THOMPSON—What was the anticipated cost of that for the producers?

Mr Lindenmayer—That was $3 billion in the first year and $1½ billion thereafter. There were additional regulatory costs which ranged, depending on the severity of the regulatory regime, from a few million dollars in the event of there being nothing more than a very basic response to complaints, up to $150 million a year in the event of there being stringent audit and testing and things of that sort by the regulators.

Mr CAMERON THOMPSON—What component of that package was tied up in the testing side of it, and what was in the paper trail? It just seems to me that the only thing you can really do is have a paper trail.

Mr Lindenmayer—I cannot answer that question. In fact, I do not know that there was disaggregation of those two drivers, was there?

Mr Liehne—Not to that degree. The bulk of the cost was associated with testing. The regime that was looked at was looking at every component ingredient in a food, and needing to ensure that that ingredient itself either was or was not GM. Some of the complex ingredients that are used in very low concentration in food, such as flavours and those sorts of things, may have 40 or 50 sub-ingredients, quite a complex chemical to produce the flavour. The consequence of testing all the sub-ingredients in that was what generated that sort of cost. The cost was applied mainly to food processors and to the enforcement end of the spectrum. It was not applied at the farm gate, although clearly that sort of cost differential would have significant implications for the capacity to sell GM commodities into the marketplace.

Mr NAIRN—Have there been any feelings expressed by the WTO about the potential for some of the labelling laws, depending on which direction it ultimately heads, to be a non-tariff trade barrier?

Mr Lindenmayer—The WTO tends not to be pre-emptive in that way. The WTO, effectively, is the overarching body for the SPS and TBT agreements—the sanitary and phytosanitary and the technical barriers to trade agreements. In effect, it has provided the umbrella for them and it is then up to individual countries which feel that they have been the subject of regulatory restraints that breach one or other of those agreements to go to the WTO and invoke the complaint mechanisms. To the best of my knowledge, the WTO has not come out and said, 'If Australia does this, or if Australia and New Zealand do this, then these are the implications in terms of compliance or otherwise with WTO obligations.'

Mr GRIFFIN—The US have threatened it, though.

Mr Lindenmayer—There have been some questions asked. I think 'threat' is probably too strong a term.

ACTING CHAIR—That is a bigger issue I think.

Mr IAN MACFARLANE—To follow that up; in terms of us moving for whatever reason, be it emotional or political—it is certainly not going to be scientific—to a regime where GMOs are labelled, don't we then expose ourselves to a non-tariff trade barrier from, let us say, Europe, bearing in mind the problems we still have in Europe in regard to hormone growth base growth promoters. Don't you think we are exposing our ability to trade or risking our ability to trade?

Mr GRIFFIN—If we don't label we are going to expose ourselves to Europe, I would have thought.

Mr Lindenmayer—I do not want to duck the question unduly or unreasonably, Mr Chairman—

ACTING CHAIR—To the best of your ability.

Mr Lindenmayer—This is an issue that Foreign Affairs and Trade in both Australia and New Zealand are much more expert in than we are. In developing standards we nevertheless have regard to what we believe are the potential trade implications and we take advice from them on those. If I can just go one small step beyond that and say that, at the moment, the world environment is changing by the week almost, certainly by the month, in this regard, with recent developments in Europe and with Japan now developing a couple of sets of standards, one from an agricultural perspective and one from a health perspective. I was in Canada six weeks ago for a meeting with Canadian and US senior regulatory food officials and, in both of those countries, they are quietly reviewing their regulatory—

Mr IAN MACFARLANE—Are they reviewing to make it tighter or reviewing it to make it more practical?

Mr Lindenmayer—They are reviewing it in the light of increasing consumer and environmentalist pressure on their respective governments.

Mr IAN MACFARLANE—You might want to duck this question as well, because I do not think it actually falls right in your gambit. In terms of GMO labelling per se, would you not agree that the only exercise with labelling is to give the customer useful information, and that an absolute zero tolerance or close to zero toler-

ance will not give the customer that useful information as to whether or not the product they are eating is basically 99 per cent GMO or one per cent GMO?

Mr Lindenmayer—Our statutory obligations include two that relate to customer information. One is the provision of information to allow informed choice and the other one is information to prevent fraud and deception. To the extent that a customer has a very strong wish, for whatever reason, for information about whether or not the product contains genetically modified material, one could argue for a labelling requirement that said manufacturers have got to place on their foods labels that will allow the customer to know whether or not such material is present in a particular food. The issue of whether the cost incurred by the manufacturer and then transferred to the customer is justified by the utility for the customer of that information is a question we cannot answer.

Mr IAN MACFARLANE—I was not asking you to answer a question on cost; I was asking you to answer a question on usefulness.

Mr Lindenmayer—Well, that usefulness, I guess, is in the eyes of the consumer.

Mr IAN MACFARLANE—To complete the point, is it feasible to consider a system which has 'GMO free' as best can be established, and all the costs associated with that, or 'This product contains less than—' say 'three per cent GMOs'—not dissimilar to 'Product of Australia' and 'Made in Australia', which has confused everyone anyway, but let us do it again?

Mr Lindenmayer—Certainly, the GMO-free option is one that there is a fair amount of demand for, and that is one of the things still under consideration. As I indicated earlier, making that claim has important implications under the Trade Practices Act as well as under the state and territory, and New Zealand food acts, and the New Zealand fair trading act for that matter. In relation to the other option, as I said, the ministerial council has not given us riding instructions in relation to considering a particular threshold level. The approach that is being adopted there is one that would avoid—

Mr IAN MACFARLANE—Let alone a dual approach?

Mr Lindenmayer—Yes. The approach we are proposing of due diligence or, if you like, best endeavours, avoids an obligation on manufacturers to go to what might be seen to be extreme, and certainly very expensive, lengths in relation to, say, minor ingredients within a food.

ACTING CHAIR—Under the methodology that was used at the time?

Mr Lindenmayer—Yes.

Mr Liehne—Currently there are rules and conventions which go to the way that ingredients are listed on foods. They are listed in order of their contribution to the food, by weight, from the highest contribution down to the lowest. In terms of the identification of GM material, it is proposed that that be associated with the actual ingredient in the ingredient list. So that if your GM ingredients come at the bottom end of the list they are a minor contribution to the food; if they are among the main ingredients, then there is a more significant contribution by weight to the composition of food. If that is taken in conjunction with the proposal that we have that the characteristic or defining ingredients of food be accompanied by an indication of the per cent contribution by weight to the food itself, it would then give a fairly ready system for determining what percentage of the product does contain GM ingredients or what percentage of the product is a GM ingredient.

ACTING CHAIR—Have you spoken to the people that grow organic food? Have they put submissions to your council for your considerations when making recommendations to your ministerial council?

Mr Lindenmayer—In relation to this issue?

ACTING CHAIR—Yes, labelling.

Mr Lindenmayer—Yes.

Dr WASHER—Just to come back to this labelling then, what is wrong with voluntary labelling? Those who wish to know should know and voluntary labelling in a free marketplace without legislation like this would certainly account for that. So why wouldn't we do that? We are imposing legislation on those who do not want to know.

Mr Lindenmayer—This is an issue that we have, in fact, raised in papers that we have prepared in the past and we have drawn attention to the fact that the market already drives voluntary labelling in relation to a range of things including kosher and halal, vegetarian, fat free and other such things and, in that case, those who wish to have that additional information meet the additional cost incurred in having that on the label. We have raised that issue but the ministerial council has indicated a more general labelling regime is what it wants us to develop.

Dr WASHER—Canola, as you know, is one of those being planted out as GM altered, but what a lot of people do not know is that we have got herbicide resistant canola that is being naturally mutated. As you are probably aware and your scientists will tell you, now we are looking at suppressor and activated genes and we

do not need a splice and technology will not pick that up. What are we going to do scientifically? How is the ACCC going to handle that?

Mr Lindenmayer—It is a new world.

Dr WASHER—We already have it so I need a scientific answer. If we are going to use legislation this is where your nightmare comes. How can you enforce that?

Mr Liehne—This issue was certainly one of the issues discussed at length with both the ministerial council and the enforcement agencies. This is the reason there is such reliance upon the audit paper trail in terms of determining the presence or absence of GM in foods at this stage.

ACTING CHAIR—So you would go back to where it is actually produced?

Mr IAN MACFARLANE—Wouldn't there be an argument that that is not actually GMO; it is the splicing of two naturally occurring—

Dr WASHER—What I am saying to you is that with mutation now that will not be picked up by this technology of the genetic ID, for example, which picks up to one per cent. We have herbicide resistant canola. New technology allows us to do this. We do not gene splice so the legislation is defunct already. What are you going to pick it up with? We cannot pick it up in starch and oils anyway. This is legislation based on insanity—no-good science.

Mr GRIFFIN—It is not legislation, for a start.

Dr WASHER—It is coming up to that.

ACTING CHAIR—It will be the public interest that resolves it.

Dr WASHER—Voluntarily, we should allow people to do it, if they want to identify this.

Mr CAMERON THOMPSON—Is the responsibility of ANZFA to establish what is safe criteria for food, or to recommend on that to your ministerial council?

Mr Lindenmayer—To recommend to the ministerial council.

Mr CAMERON THOMPSON—You said earlier on that it is your view that GM material is safe for human consumption.

Mr Lindenmayer—It was not quite as sweeping as that. On the basis of the work we have done—

Mr CAMERON THOMPSON—This is what I want to get to. Are there elements of GM material that you do not believe are safe, or you have questions about? Are there other bodies around the world, similar to yours, that are targeting areas of this type of technology and are claiming that it is unsafe?

Mr Lindenmayer—What we are saying—and I will ask my scientific colleagues to supplement this—is that on the basis on the work we have done in examining the 19 commodities we currently have on hand for their toxicology, allergenicity, anti-nutritional and other properties, we have no reason to believe—to this point—that any of them are unsafe. I guess it is reasonable to say we have no reason to believe that the technology itself is intrinsically unsafe. That said, it is possible to use the transfer of genetic material in order to incorporate something that is unsafe in its current location into a new location and to make that new location unsafe.

For example, there has been a widely publicised transfer of a Brazil nut allergen into another product which produced allergenicity in that other commodity. There has also been some movement of lectins, which are a naturally occurring toxin, from snowdrops into the potato that was mentioned a little earlier. The transfer of that toxicity with the transfer of the gene that brings that property is therefore not something to be wondered at. It is a little like putting other toxins into other foods, like putting strychnine or cyanide into another food. If you move a toxin into a food, it is not surprising that that food becomes toxic. But that is not a reason for dismissing the movement of ingredients into foods, generally.

Mr CAMERON THOMPSON—I am not trying to do that. Did you say you had 19 commodities that you have basically overseen? Do you reckon they are all right?

Mr Lindenmayer—They are currently undergoing scrutiny. Two of those have completed their scrutiny. Others are at various stages of progress. On the basis of that work to this point, we have no cause to believe that they are unsafe. Equally, in respect of those 19, we have canvassed the scientific literature, including material that has come from the regulatory scrutiny of them by other agencies. None of that gives us any cause to believe they are unsafe.

Mr GRIFFIN—Eighteen of the 19 were substantially equivalent? Is that correct?

Mr Lindenmayer—Correct.

Mr GRIFFIN—Of those 18, two have completed the process of consideration.

Mr Lindenmayer—Yes.

Mr GRIFFIN—How detailed is that process of consideration? I would like to say for the record, I think these ones are safe. Don't get me wrong. But, essentially, one of the issues here that has been discussed widely is that when we talk about the question of something that is substantially equivalent, the actual degree of testing that is done is relatively minor, on the basis that it is substantially equivalent and therefore there is no reason to suspect there is a problem. We take the point in the US, which is basically that a notification from a company for production is seen as being sufficient on the basis of some checking they might have done themselves. What degree of checking is done on those materials to decide whether they are safe?

Mr Lindenmayer—Do you want to take us through the process, Marion?

Dr Healy—The decision on substantial equivalents can only be made after looking at the data package that we require the applicant to submit.

Mr GRIFFIN—Which is?

Dr Healy—I will take you through the elements of the data package. We specify the type of data that is required and we require the applicant to submit that to us. We would then look at that data, as well as other material that is in the general scientific literature and other material that we may be aware of, draw on relevant experts in the area and so forth.

There is a number of categories of issues that we would like to consider in a safety assessment. The first is the new piece of DNA itself and what properties that it is going to confer, so we would ask for a full set of information about the DNA sequence. You are going to have the gene of interest and you are going to have lots of little pieces of DNA that are going to be around it. We want a fully characterised set of information around the DNA. We want to know, in quite a lot of detail, how that piece of DNA has been inserted into the genetically modified organism. There are a number of different techniques that have different impacts, if you like, on how the DNA goes in and where it goes in, so we want that full set of information. We would then want a set of information that would look at the potential for toxicity and allergenicity in particular. There are a number of predictors of potential allergenicity and we would require a full data package of those, as well as some toxicity testing. They are the issues that are associated particularly with the gene that is being inserted.

We would then want to know what sort of impact the gene might have on other components of the organism which might impact on the food. There are a number of ways of looking at it. One way is the selection process the organism goes through from when you start to do the genetic manipulation to get to commercialisation. As in conventionally bred plants, there is a whole range of selective processes that go on to ensure that the plant, if it is a plant, or the organism, is viable, that it is fit, that it is high producing—all the qualities that you would ask for from a commercially produced variety. However, we would then want a full compositional analysis that would go through a proximate analysis, that would look broadly at protein, fat, carbohydrate. We would then do a very detailed amino acid analysis, a fatty acid analysis. Depending on what the product is, we would then look at what might be called anti-nutritional factors, factors that have the potential to have a harmful impact, to see whether any of those have been changed. Let me see if I have missed anything—

Mr GRIFFIN—Any testing done?

Dr Healy—We do not do testing ourselves. We do not have a laboratory capability associated with ANZFA, but, of course, the applicant has done extensive testing and that information is provided. We request that information.

Mr GRIFFIN—If they provide longitudinal studies of usage—

Dr WASHER—Could I just follow that up?

Mr GRIFFIN—I thought I was asking questions.

ACTING CHAIR—Okay, if it fits into Alan's question.

Dr WASHER—It adds to that. As you know, we have far more than 19 drugs on the market that are genetically modified, like the insulins, et cetera, and most vaccines. I do not know how many, I have lost count, but literally all our new drugs coming out are genetically modified. They are being injected, intravenously given, sometimes swallowed, et cetera—no labelling, no problems. Would the testing on this be any less than for those drugs that are so readily utilised?

ACTING CHAIR—That is a slightly different question. I would like to deal with the one that Alan raised in relation to the long-term situation.

Dr Brent—I could comment on that one.

Mr GRIFFIN—If I could just continue with the point I am essentially making. I am not saying I agree with the particular concerns that have been raised when we talk about the question of testing; they are the sorts of issues that are raised and I am interested in getting your views on the record about that.

Mr Lindenmayer—I should say that Dr Brent has been in both the drug regulation and the GM food regulation domains.

Dr Brent—In terms of longitudinal studies, they are not required. In fact, we usually get a 28-day feeding study. If you think about the relevance of a longitudinal study, particularly from a toxicological point of view, how would you get a dose response from a whole food? Toxicologically, it would tell you nothing. Industry know that; scientists know that; regulatory scientists know that. There is a perception in the community that these things would be good to do. What we require is a 28-day feeding study so that we can see that the animal puts on weight, that there are no acute problems. In terms of the other question, I think it is fair to say that the testing that is done on a drug or a new chemical—I have also done tox on new chemicals—is much more comprehensive than what is required for these foods.

Mr GRIFFIN—Because you only make studies, et cetera?

Dr Brent—Yes.

Dr WASHER—What about human insulin, for example, which is not substantially different; what we call substantially equivalent? That did not undergo that extensive testing?

Dr Brent—I think you will find that the insulin would have gone through the Therapeutic Goods Administration and it would have been subject to very comprehensive toxicological testing and also clinical studies.

ACTING CHAIR—You change DNA by using an enzyme. It grows, you produce something and then you manufacture something. What is to say there is not something at the beginning, because there are changes here, that we do not measure over a long period of time?

Dr Healy—The process is very precise. Not only is it very precise, but there is an ability to characterise the process to a much greater extent than what would have happened with almost any conventionally bred variety. Currently, the sorts of genes that are being used are ones for which there is quite a lot of information. I guess the Bt toxin from *Bacillus thuringiensis* is probably the best example where it has been used in the organic industries as an organic pesticide for a considerably long period of time. Many of the genes that are currently being used have been part of our food supply in some form for considerable periods. Some of the genes that are being used to confer herbicide resistance are actually coming from bacteria—soil bacteria which will be associated with our foods in any case in various forms.

There is actually quite a lot of historical evidence, in the sense that all of the genes that are being used at the moment have been part of our food supply in some way. That is not to say that there will not be a problem in the future and we cannot say that there would not be a problem. I guess the view that ANZFA has taken and that Australia has taken in developing the standard is a very cautious one. We are saying that we will do a premarket safety assessment before these products go on to the market, just in case. I would like to highlight that that is really quite different from the approach that is taken with conventionally bred products. If it was a naturally occurring mutation, or even an induced mutation, the products would not be subjected to the same level of scrutiny. So the approach is very cautious for these products.

Mr CAMERON THOMPSON—With respect to the process of genetically modifying something, is it right to say that ANZFA's position is that you regard that as a process that is basically safe, leading to human consumption? You do not drag in a toxin, or you do not do something like that?

Mr Lindenmayer—What we are saying is that to this point we do not have evidence that indicates that there is any safety concern in relation to the things that we have examined in all the literature we have looked at, notwithstanding the fact that there are some cases where the use of the technology has brought about a problem of one sort or another in the food. In our view that was a function of a poor choice of the transgene rather than the function of anything intrinsically unsafe in the technology.

Mr CAMERON THOMPSON—The second part of what I asked you before was whether there were organisations in the same position as you elsewhere in the world that were adopting a significantly different position on that question.

Mr Lindenmayer—I am not aware of any.

Dr Healy—My understanding would be that regulatory agencies around the world would have a very similar position. The details of how various products are regulated vary a little bit from country to country. In fact, most countries base their regulatory framework on principles that were developed through OECD consultations during the 1980s. The underpinning regulatory principles are very much the same. I am not aware of any agency that takes a significantly different view to ANZFA in terms of safety.

Mr CAMERON THOMPSON—I am not a flat earther. We talked about 500 different commodities being on the shelf a few years ago and now there are many more than that. Are you saying that all those derive from the 19 that you have checked?

Dr Brent—That is right.

Dr Healy—The way that you can get an indication of what might be in our food supply is by looking at which particular GMOs have been commercialised and what the production levels are like around the world.

Primarily, it is soy and corn in the United States. So corn oil and soy oil are very widely used in our food supply. If we just take those two examples, those two oils will be used in very many products.

Mr Lindenmayer—We consider that it is unlikely that those products on the shelves that contain GM foods would contain things outside the 19, but we cannot be categorical about that.

Mr CAMERON THOMPSON—Part of this process is informing the public about it. I wondered whether you thought there was a case for ANZFA to have a greater educational role in this regard.

Mr Lindenmayer—We think it is important that we do so. But it is also important that, as the regulator, we maintain independence and an open mind about the safety and other aspects of any technology, so that we will approach it, and be seen to approach it, in a fair and objective manner. Having said that, we are currently in the process of developing, under Dr Healy's direction, two separate but associated documents that set out the processes that have been put in place for the safety assessment of genetically modified foods and certain other associated information. We are hoping that they will be available publicly by around June this year.

ACTING CHAIR—Most of the 19 products that go into the food chain come from a couple of commercialised changes which have basically been driven by several world companies. Has any thought been given to asking them to do the work on proving that everything is safe?

Mr Lindenmayer—They do.

Mr Liehne—They are the applicants.

Mr Lindenmayer—They provide the data set that Dr Healy was talking about a little earlier.

ACTING CHAIR—You were talking about the transgene being wrong and that that might have caused some problems—the history we have of things going wrong. Who is going to keep a record of that and say, 'You can't do that'? Are we going to have a world bank of this information? Do you think it is too early to consider that?

Dr Brent—That would come under the GMAC umbrella.

Dr Healy—Maybe I will ask for the question to be clarified. There is an issue about the information that is in the scientific literature and providing, if you like, a database to enable agencies or interested groups to access that information, but I wonder whether you might be asking about adverse effects?

ACTING CHAIR—Adverse effects on things. If we learn that one gene out of a fish does not fit in a tomato very well and it has an effect on people, it gives them asthma or something, do you take that role?

Dr Healy—We would certainly be acting on that information. Products go into the food supply only if we consider that they are safe, and then have been through the legislated decision making process. Certainly, if evidence became available that some particular product had been approved, we would then act on that information and reassess our assessment. There is a lot of talk worldwide about the necessity for setting up databases, if you like, that would provide information about the products that have been commercialised and the information around their safety and so forth. There is some mechanism through the OECD at the moment, but that probably is not the only mechanism that could be used. In some of the discussions around international standards and international agreements that are being talked about in terms of genetically modified organisms, there is some discussion about the need for constructing a central data collecting point.

ACTING CHAIR—So we do not have to reinvent the wheel?

Dr Healy—No, but we certainly keep a very close eye on the literature.

Mr Lindenmayer—In my discussions with other food regulators in North America in January, one of the outcomes was an agreement that we would exchange safety assessments on genetically modified commodities. So that too will help to ensure that what one regulator concludes is known very quickly to other regulators.

Dr Brent—Taking up Ian's last point, there was a GM food safety conference held last week and the consensus of that conference was that no major demonstrated safety concerns were identified during the three days of the conference. This conference has been well publicised. The findings on safety were that there should be an ongoing review of the methods of assessment and also sharing of data in assessments. That was an international view.

ACTING CHAIR—But there is a big gap between the reality of that statement and the political reality of us who sit here in parliament. There is a big gap between that statement and us being able to satisfy everybody out there.

Dr WASHER—You mentioned the lectins and potatoes. That was an experimental test that never was released into the human food chain, and under current regulations it would be, would it?

Mr Lindenmayer—Correct, and the same with the Brazil nut.

Dr WASHER—They would not get released into the food chain under our current technology methods.

Mr Lindenmayer—Correct.

Dr WASHER—There are now a lot of naturally mutated foods, and there will be more naturally mutated foods done by very clever technology, that bypasses this. And the oils that come into the country we cannot test for anyway, so that is irrelevant. They will bypass this technology. You cannot test for them. Safety is what the issue should be and what we should be focused on, not the labelling, which is totally and utterly ridiculous.

Mr GRIFFIN—To put a slightly different view on it, the issue is proving safety and developing a consensus on what is safe. The problem at the moment—and it is a very difficult problem to actually fix, given the views that are out there in the community—is how to establish a regime which is generally considered to be safe. The problem you have there is developing a consensus around the question of what in fact is a safe regime. . That is the big problem. I do not know how you develop that consensus other than by probably long-term usage, but that is the real issue.

Dr WASHER—The problem is that if we do this we defocus from the fact that, because of this method of creating a new product, we may default on being careful about other forms of mutating a product that do not undergo that same stringent research process. At the moment this type of product is looked at very carefully. But you and I know jolly well that naturally mutated products could be very harmful and traditionally have been. We have had poisoning in the past by naturally mutated products, for example potatoes and lectins. They were not researched well because we defocused and clouded the issue because of emotionalism and that did compromise human safety.

Mr ANDREN—It is all wrapped up in perceptions out there that Monsanto and other multinational chemical companies and such have a hold on a large part of the intellectual property. There is a healthy suspicion amongst consumers about just who is in control of this thing and whether it is some form of agricultural imperialism. Given that, I think it is easy to transfer that suspicion into the consumer and the food thing, too. I want to get back to negative or positive labelling. You are suggesting that both be utilised. Is that the international trend, to have genetically modified or GM free on each?

Mr Liehne—GM free is a voluntary label that is put on by the manufacturer to seek a market advantage. In putting on a negative label of that sort they need to make sure that they are consistent with other regulations that go down to consumer protection. They would need to be consistent in Australia with fair trading laws in the states and territories, with food acts about false and misleading representation and, ultimately, with the Trade Practices Act. In New Zealand they would need to be consistent with the fair trading laws which are the equivalent of our Trade Practices Act.

Internationally the focus is on the positive labelling of GM commodities. In Codex the position is unclear. They will be discussing two broad strategies: one of which is to label only on difference, and the alternative which is to label when it is a GM commodity containing DNA with a subsequent protein or when it is different from its traditional counterpart. The Codex position at the moment is excluding consideration of highly refined products. It is also excluding consideration of some of the enzymes that may be used in the production of food. Codex are also raising the prospect of needing to have a consideration of, and discussion around, the threshold levels within that labelling regime. The negative claims are purely voluntary in the international scope of food standards at this stage. That is certainly the case in the EU and it is certainly the case in the US, Canada and elsewhere.

Mr ANDREN—Consumers are going to have to take their reading glasses from now on. It strikes me as strange, as I said earlier when someone else suggested it, because it seems far simpler that we should go down the route of the GM free label alone and assume that the rest has some GM component.

Mr Lindenmayer—That is already open to any manufacturer but that manufacturer needs to have regard to the obligations my colleague has just identified under the Trade Practice Act and other acts.

Mr ANDREN—The expense would be a fraction of what it is if we are going down a total label.

Mr Liehne—One of the issues about negative labelling is that it is really focusing on a niche market in terms of negative labelling. Some of the considerations we have had from industry have been concerns that they want to make use of the technology because they see that the technology and the ingredients that may be produced using these technologies will have significant benefits to them. They are very concerned. Rather than have to go to the position of having the evidence to justify a negative claim, they would prefer to be in a position where they do not have to positively label. But they would prefer not to negatively label.

ACTING CHAIR—It is one of the issues that this committee has grappled with. This debate is being driven by those that own the technology. It is not being driven by farmers; it is not being driven by consumers; it is being driven by the commercialisation. That is okay in itself but the public interest has to be the telling principle here. That is the major issue that we, as a committee, have confronted. We are only a committee reporting on a pretty small section of this debate but that is what we have basically come across.

Thank you very much. It has been more of a round table than just a gathering information from you. That helps us with our thoughts processes and we have many members who like to make a statement at the same time. Thank you very much for your time and your expertise for our committee. I remind members that we are going to see some gene technology on Friday morning. There will be some information in your office tomorrow in regard to the matter and where we are going.

Resolved (on motion by **Mr Griffin**):

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 6.50 p.m.