STANDING COMMITTEE ON ENVIRONMENT AND PUBLIC AFFAIRS

GENE TECHNOLOGY BILL 2001
GENE TECHNOLOGY AMENDMENT BILL 2001

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
ON WEDNESDAY, 18 SEPTEMBER 2002

Members

Hon Christine Sharp (Chairman)
Hon Kate Doust (Deputy Chairman)
Hon Jim Scott
Hon Louise Pratt
Hon Frank Hough
Hon Robyn McSweeney
Hon Bruce Donaldson

Committee met at 9.00 am

SUTHERLAND, DR SUE
Manager, Biotechnology,
Department of Agriculture,
examined:

ASHFORTH, MS KATY
Manager, Legislation,
Department of Agriculture,
examined:

The CHAIRMAN: Thank you very much for coming this afternoon. Welcome to the Legislative Council committee office. Although the committee considers this to be an information briefing, we have requested that it be recorded by Hansard, so that we can have the full benefit of the information that you provide and can refer back to it. We have therefore decided that this should probably be considered a formal submission to the committee in the form of a hearing. If you are happy with that arrangement, we will proceed with the formalities. Have you been provided with a document titled "Information for Witnesses"?

The WITNESSES: Yes.

The CHAIRMAN: Have you read and understood that document?

The WITNESSES: Yes.

The CHAIRMAN: As you know, these proceedings are being recorded by Hansard. You will be provided with a transcript of your evidence. Please provide the full title of any document to which you refer so that the record is correct. Hansard requests that you use the microphones effectively, so that they have a good recording. Once you have had an opportunity to correct your transcript, it will become a matter for the public record. If, for some reason, there is something that you wish to provide in evidence today that you do not want to disclose publicly, you can request that the committee move into closed session. You need to bear in mind that that is something you can do. The committee will consider your request and at that stage we would separate that information and not make it publicly available. Please note that until you have finalised the transcript, this evidence should not be made public. Premature publication or disclosure of public evidence may constitute a contempt of Parliament and may mean that the material published or disclosed is not subject to parliamentary privilege. I understand that you were given fairly short notice of this hearing.

Dr Sutherland: We received notification yesterday afternoon.

The CHAIRMAN: I apologise for that. I became aware of the short notice about an hour ago. We will obviously proceed today, and we are particularly grateful that you are doing this at short notice. If there is anything that is not touched on today that you feel should be provided to the committee, please feel free to come back and provide further evidence or material. Would you like to make an opening statement?

Ms Ashforth: Sue has a general overview that she could provide.

Dr Sutherland: We were not really sure in what order you wanted the presentations. We received an e-mail saying that you also wanted some information about the science of this area. That might be a useful area in which to begin.

The CHAIRMAN: That is fine. Members will speak up for themselves if I do not represent them correctly, but I think we all feel that we are very much in an introduction mode. We have different

levels of knowledge, both about the science and policy applications of gene technology. Could you please provide an overview for beginners of what you think is important. I request that you explain the basic science of how genes are modified.

Dr Sutherland: I will circulate some overheads from a PowerPoint presentation. There are 21 slide frames. I will not necessarily go through them all. This information is already in the public domain.

This is a complex area. It is difficult for us to get around all the issues, so I can understand how difficult it is for anyone else to keep up with the issues. The issues seem to be increasing as we proceed. I will start with the scientific and regulatory issues. We talk about marketing issues, identity preservation and political, social, food, labour and international trade considerations. More and more things come out of the woodwork; it is complex. There are many issues.

The terminology can be difficult. We hear many words such as gene therapy, biotechnology, gene technology etc. Basically all the work on DNA biotechnology stems from the fundamental discovery in 1953 by Watson and Crick of DNA, which is the basis of all living organisms. They received a Nobel Prize for that discovery. For the past 50 years people have discovered the characteristics of DNA and how it is translated into protein, which provides the building blocks of our bodies. In addition, many tools have been developed to manipulate DNA. This is what we refer to as gene technology - the tools to manipulate DNA. Back in 1972 a group of scientists said that the management of DNA must be examined. It was not DNA technology at that time, but an awareness of DNA.

It is now an invasive technology. I refer to biotechnology, which encompasses all fields including medical, veterinary, agricultural, environment, bioremediation and forestry - the list goes on for the fields in which this technology is used. It has been used for almost 30 years in a number of areas of biological research. Tools are being developed. A radio program on Monday night stated that particular research on the gene for rheumatoid arthritis took eight years to complete in the early 1990s. The tools have come so far now that what was done in eight years can now be done in six months. That is how fast this technology is travelling. What I tell you today may be out of date by tomorrow in some areas.

Many of the applications of gene technology do not involve the development of genetically modified crops. GM crops are probably five per cent of the total picture of what is happening in the medical, veterinary and environmental arenas. We must embrace the fact that GM crops are one component, and they certainly get a lot of publicity. However, there are many activities occurring, certainly in the medical area, and involving huge dollars.

I will now talk about the science. A person's eyes and hair colour are all coded for by that person's DNA. If a person has blue eyes or brown hair, it is coded for by the DNA. All our biological traits are coded for by the DNA in our cells. DNA also gives us our building blocks, such as hormones and the enzymes in our mouths that digest proteins. They come from the codes in our DNA that make our body function. This overhead shows the nucleus and cytoplasm of the cell. In the nucleus of the cell are things called chromosomes. The genes are located on the chromosomes. Human cells have 46 chromosomes; a horse has 64; potatoes have 48; and sheep have 54. The number of chromosomes is not a measure of intelligence; it is what we have. Peas have only 14. That makes up the genome within the nucleus of a cell. These chromosomes are polymeric, tightly packed DNA. You might have heard of the double helix, which was discovered by Watson and Crick in 1953 and which I alluded to earlier. To tease this out, this overhead shows the double standard DNA. The DNA has a code, which codes for the protein that needs to be produced. It may be the enzyme in the mouth that digests food or whatever. There are such things as stops, which tell the genes to stop reading. That provides protein. Each code codes for one amino acid. The amino acids are built up together to give the protein. This code in the DNA gets transcripted into another form of DNA - RNA - which is translated into protein. To reiterate, the basic unit of

inheritance - which determines our eye colour and everything else - is a gene. A gene is a section of DNA, which makes the particular protein. In this next overhead, the section coloured blue shows the part of the DNA that makes the protein. The red part switches on that bit of DNA to make the protein.

More than 50 per cent of the DNA in plants, animals and humans is similar. If an enzyme that is coded in a plant is found in humans, the same code is in both. This has allowed the manipulation of DNA to occur. Rice has approximately 30 000 genes, and gets a bit of airing in the literature. That has been sequenced. Humans have approximately 40 000 genes, and that has also been sequenced. Indeed, most of the sequences for simple diseases in humans are known. A challenge in the human area is to examine how the multiple genes in some diseases interact, so that ways can be developed to manage the disease for people who are afflicted.

I move on to regulation, which I believe is a focus of this committee, and the gene technology regulator. The national Gene Technology Act 2000 provided for a gene technology regulator to be appointed. Most people know that a Western Australian, Dr Sue Meek, was appointed as Gene Technology Regulator. She runs the office of the gene technology regulator in Canberra. This office is within the Therapeutic Goods Administration. This office in Canberra manages councils such as the ministerial council, to keep the policy side of things away from the Gene Technology Regulator. The Gene Technology Regulator provides the day-to-day implementation of the national regulation to protect human health and the environment. The secretariat for the ministerial council and the gene technology standing committee are run out of the Therapeutic Goods Administration. The object of the Act is to protect the health and safety of humans and the environment by assessing the risks involved and looking at ways to manage the risks for the technology. The GTR's focus is specifically on the health and safety for humans and the environment. That was clearly reiterated for those who watched *Landline* on Sunday. The regulator has independence. She issues licences when she has been through the public consultation process, to which I will allude shortly. She has responsibility for the monitoring and compliance of all trial sites for GMOs. Mechanisms and processes are in place for doing that. It is a very stringent process. All field trial sites are in the public domain. There are many opportunities for public consultation.

The idea for the legislation arose in 1998, although the work was occurring in the 1990s. The federal Parliament released a report titled "Genetic Manipulation: The Threat or the Glory" in 1992, which identified that a national regulation scheme was needed. There was extensive public consultation throughout Australia during the development of the Bill. It interfaces with existing regulators, such as Food Standards Australia New Zealand, the Therapeutic Goods Act, the National Industrial Chemicals Notification & Assessment Scheme and the National Regulation Authority for agricultural and veterinary chemicals. I may have missed one out. It interfaces with existing regulators.

The Act includes the provision for expert advice. Many members will know that three committees are attached to the gene technology regulator. They are the Gene Technology Technical Advisory Committee, the Gene Technology Community Consultative Committee and the Gene Technology Ethics Committee.

The Act regulates dealings with GMOs. It certifies facilities, so if we had a laboratory at the Department of Agriculture, the University of Western Australia or Princess Margaret Hospital for Children, that facility must be certified. If work is being done to take in a glasshouse, that must also be certified and inspected. I alluded to monitoring and reinforcement as well. The product development process can take between eight and 13 years to reach this point. At all these points, it must go to the Office of the Gene Technology Regulator. It may start as an exempt dealing at this stage, but obviously it becomes a dealing involving protectional release as we get to the final stage. At each stage they must have a licence.

Every GM product is assessed on a case-by-case basis. What is true for an agricultural product such as cotton is not true for canola. I could provide the areas, but time constraints may prevent me from doing that. The important point to remember is that each case is assessed on a case by case basis. There are opportunities for input during the process. The process to get a dealing with an intentional release licence can be up to 170 working days, which is between eight and nine months. During that period there are generally two periods of public consultation throughout Australia, with advertisements in newspapers and notices on early bird warning web sites etc. The application involves the Gene Technology Community Consultative Committee and national advertising. Once the risk assessment and risk management plans are developed, there is another period of public consultation. There is extensive consultation. The most recent case involved canola. An application was put at least two months ago, and we do not yet have anything about a risk assessment or risk management plan. I think she extended the public consultation period to five weeks. That will obviously be put in the very hard basket.

Field trials are necessary. The department is a research organisation. We must be aware of innovative and new technologies. If we can examine ways of adding productivity or sustainability to our farming systems, we must be aware of those new technologies. Currently in Western Australia we have cotton trials in Kununurra on 350 hectares of land. We have a licence for a poppy trial, but there will be no poppy planting this year. In fact, we probably will not plant poppies next year, because I believe Tasmania has its application for a licence in through the Commonwealth Scientific and Industrial Research Organisation. If the companies involved can plant in Tasmania, they will plant there rather than in Kununurra. Poppies probably will not be planted in Kununurra next year. For general interest, we have had field trials on small plots. Field trials are generally on plots the size of a backyard - from 0.01 of a hectare up to five hectares. The small plot trials test for varieties in our environmental conditions. The role of field trials is to ensure that crop processes are a manageable risk, and to assess the crop under Australian or Western Australian conditions. It allows the best varieties to be selected.

Hon JIM SCOTT: Are these purely Department of Agriculture trials?

Dr Sutherland: We have not run any trials other than on GM cotton last year or this year. In the past, trials in legumes by the University of Western Australia through the centre for mediterranean legumes have been run on our land. We are monitoring those plots. If we complete monitoring at the end of this year with no volunteer plants, the Office of Gene Technology will sign them off. Trials have been held on our land for the Aventis CropScience Australia. They have been run on our land through the Aventis Institutional Biosafety Committee. We keep a close watch on them. When members of the committee come to inspect them we walk the fields with them. They are on very small plots. Two Monsanto trials have been held on our land at, I think, Avondale and Wongan Hills. I think one was signed off by the OGTR, but they come through AgVictoria, the proponent for it. It is on our land and is identified on our web site.

It is a matter of getting the OGTR to sign off on some of these sites after monitoring has been completed. Some pea trials have been monitored for three years and we have been asked to keep monitoring them until the end of the year. Inspection was carried out a year ago. A PhD student undertook the pea work in conjunction with the Commonwealth Scientific and Industrial Research Organisation. They are on very small plots and some were on private properties.

The CHAIRMAN: If this inquiry wishes to have an exhaustive list of all the trials conducted in this State, will you go to the federal regulator?

Dr Sutherland: We have them on our web site and can print them off. It is a matter of getting the federal regulator to update their web site. We can update our web site. We have been onto the federal regulator since March this year when we arranged for the lupin licence to be transferred from the University of Western Australia to us. It was easier, being on our field research station manager's land, for us to take responsibility for it. I do not know whether it is on the OGTR's web

site. A week ago I spoke to Sue Meek directly because I was a bit disillusioned. We had updated our web site. People from Parliament or wherever could look at both web sites, but they might not match. The federal site could show that the licence is with UWA while we say it is with us. If they do not match, it does not look good. We are having to push the OGTR along on a number of issues; albeit, it has a lot of work on.

The CHAIRMAN: Are you categorically saying that the Department of Agriculture considers that it is responsible for keeping an up-to-date record in this State and that this committee can ask you for complete records even if they are not on your land or are not your trials?

Dr Sutherland: If they are on our land, we know about them or if they have been through our Institutional Biosafety Committee. If Monsanto or Aventis approach a farmer who agrees to run a trial, we are not always told. We are responsible for what is on our land and what comes through our Institutional Biosafety Committee, which we might negotiate to be on private land.

The CHAIRMAN: In other words, for the committee to be sure it has exhaustive information regarding this jurisdiction would we need to go to the federal regulator for all the records?

Dr Sutherland: Yes. I would go to the regulator, not the web site. Keeping web sites up to date is time consuming. With ever-decreasing pools of staff it is a matter of hitting someone on the head to get it done. I am not speaking for the federal regulator. Ours was much more up to date a week ago than the federal regulator's site.

In Australia, already more than 100 field trials have been undertaken in various crops. I have identified the ones we are involved in such as cotton, canola and poppies. Carnations have been commercially released throughout Australia. We have been involved in field pea trials.

Some of the crops used are insect resistant and herbicide tolerant cotton. I am sure most people are familiar with these cotton crops. Cotton and carnation crops are commercially grown. We are expecting today a decision from the regulator on the commercialisation of boll-guard cotton, which contains two genes. A meeting was held in Queensland on the weekend after everybody had had input. I believe Sue Meek will be making an announcement today.

In the rest of the world, the European Union is certainly getting in on the act. In the past six months it has made 73 approvals for field trials. It is running more than 1 000 field trials now. Countries include Belgium, France, Germany, Spain, South Africa and Indonesia. Much is happening in Europe. The major traits are summarised in the material provided.

GM Cotton has been grown in this State. It is called BT cotton. It has the gene from *Bacillus thuringiensis*, which is a widespread bacterium in the soil and is naturally degraded in the soils as natural products. The BT gene is inserted into the plant. It is specific for what is called the helliothis moth. Part of assessing whether this should be accepted into the environment is to assess other insects and other friendly insects to make sure it is not killing the other insects involved. That part of the risk assessment has been done.

This slide is a demonstration of one with the BT gene and one without the BT gene. Reports in various parts have referred to up to 50 per cent reduction in the use of pesticide, which has allowed more sustainable agriculture, particularly in relation to ground water.

Investigation is being undertaken into reducing pesticide further by using "integrated pest management", a technique that people have been working on for 20 years to bring together the best management systems to reduce the use of pesticides. A weed integrated management system is also focusing on reducing the amount of herbicide used. In Australia we spend $1.2 billion on herbicides just for agricultural crops. The report I was reading before I came said that we spent easily as much as that on other agriculture. The amount of money spent on pesticides and herbicides is enormous.

We will refer to GM-free zones later.

Hon FRANK HOUGH: You said that advancements have escalated in the past few years substantially and we are trying to develop GMO crops to avoid pesticides being used on crops. Why have we not put a mangrove tree gene into a gum tree and created gum trees that can be grown in salt country?

Dr Sutherland: That sort of work is going on in Queensland. A person in Murdoch University -

Hon FRANK HOUGH: I noticed yesterday that in China rice is being grown in salt water.

Dr Sutherland: That may be the case. It takes eight to 13 years to get a product to market. Development takes five years. We could say why have we not found a cure for cancer by now, if this is happening. It takes a long time to get things to market. Obviously, the environment in getting things to market worldwide has not been encouraging.

Hon FRANK HOUGH: There are 330 million square kilometres of salt-affected areas in the world, and that is increasing.

Dr Sutherland: In America the gene has been put into tomatoes. The beauty of that is that the salt is expressed through the leaves rather than the tomato. Putting the gene in does not always mean the gene will express itself in the way we want. This is why it can take up to five years to develop. It is not a matter of putting A into B and getting an outcome. Work can continue for a year without an outcome. The gene may not express itself; it may not switch on. While I take your point, much work is being done on investigating salt-tolerant crops. Obviously that is a huge area of potential.

Hon BRUCE DONALDSON: With regard to complementary legislation, the Government has signed an agreement. What scope is there for Western Australia to move outside that which is in place?

Ms Ashforth: If a state fulfils its part of the agreement, there is not much scope to move out of this regulatory scheme. The whole idea is that it cover everyone. The Gene Technology Bill offers very little scope if it is to be classified as a corresponding law for the purposes of the commonwealth Act and the scheme as a whole. The commonwealth Act does not have to recognise it, but the State still has its legislative powers. It can basically legislate on whatever it likes. To be part of the national scheme for gene technology regulation the States need to pass corresponding laws.

Hon BRUCE DONALDSON: If WA were to honour that agreement as part of the national framework in setting up the regulatory regime, which I think everyone would welcome for the sake of consistency across Australia, are there any areas in which WA has its constitutional rights? Must any change be agreed to by a ministerial council? It will be difficult to have changes made; they must be agreed to around the table.

Ms Ashforth: The State does not need any kind of ministerial council agreement to change any of its Acts. However, that relates to whether that would prevent it being a corresponding law.

The CHAIRMAN: Did you wish to make a general presentation to the committee today? I appreciate that you are from the section in the department that deals with legislation.

Ms Ashforth: No, I will just answer any questions the committee may have.

Hon JIM SCOTT: I think everyone here is looking at the scope of the Bill in terms of what exactly it will and will not control, given that the federal legislation covers health and the environment. Basically we are hearing that it is about, I guess, the marketing purposes, although the federal legislation allows that anyway through regulations. The State is seeking to fit its legislation and other things in with the federal legislation. What will be the scope of the state legislation and what exactly will it control?

Ms Ashforth: This Bill is designed purely and simply to ensure that the scheme established under the commonwealth legislation - the legislation that establishes the regulator and the committees - is exactly the same. However, technically, it will apply to anyone who is not covered by the

commonwealth legislation. It too is concerned with the protection of the health and safety of people and the environment. However, the Commonwealth cannot cover everyone because it is constitutionally limited. Without this Bill some individuals who are not trading or financial corporations or are not involved in interstate trade, or who did something that was not a quarantine risk would not be covered by the commonwealth Act and they could create monsters in their basement. The Commonwealth Act, which is in operation, has very wide coverage. That is why the system is operating and applications are being made.

Hon LOUISE PRATT: If there were no commonwealth Act and just a state Act, could areas of gene technology activity come into Western Australia that the State could not control?

Ms Ashforth: No; because the State could pass this Bill and set its own regulatory system that would apply only in Western Australia. The idea of having the national system and all the state Acts is so that everybody is governed by the same laws.

Hon LOUISE PRATT: Are there no corporate bodies, for example, that the State could control?

Ms Ashforth: As long as they are in Western Australia, yes.

The CHAIRMAN: Can you provide us with some precise advice about those activities that are not covered under commonwealth powers for which these Bills that we are considering need to apply?

Ms Ashforth: It is difficult to be precise except to say definitely that individuals and partnerships operating only in Western Australia and not involved in interstate trade and not doing something that would create the risk of pests or disease, will be covered by the state Bill, as will state agencies that operate only within the State as state agencies. Most of the people who are involved in this research are what we regard as constitutional corporations and are covered by the commonwealth Act. Probably all the people involved in this sort of thing know that the commonwealth Act is now in place and act as though they are covered by it anyway. However, if the WA Act did not come into play, people might start thinking that they should make sure that they are not covered by the commonwealth Act so that they can do what they like with gene technology rather than get a licence.

The CHAIRMAN: As you are aware, clause 21 of the Gene Technology Bill provides for recognition of areas as follows -

> (aa) recognising areas, if any designated under a law of Western Australia for the purpose of preserving the identity of one or both of the following -
>
> (i) GM crops;
>
> (ii) non-G M crops,
>
> for marketing purposes;

Are you aware how that is proposed to be implemented?

Ms Ashforth: The ministerial council is currently developing a policy principle for the purpose of recognising designated areas, if any, under state law. When that is in place, which is expected to be at the end of the year, and if any areas are designated for GM or non-GM crops, they will be recognised for the purpose of the Act. That will prevent the regulator issuing a licence if to do so would be inconsistent with that policy principle.

The CHAIRMAN: Do you know what laws are intended under this jurisdiction?

Ms Ashforth: This Bill contains a consequential amendment at the back to the Agriculture and Related Resources Protection Act to allow regulations to be made under that Act. When the Bill is passed, that will be a means of designating areas for that purpose. Until the Bill is passed, if the State wants to make laws designating areas as GM or non-GM it can do so, by separate legislation.

The CHAIRMAN: At the moment it looks likely that the way in which that is implemented will also be determined at a commonwealth level through the ministerial council.

Ms Ashforth: No. The ministerial council and the policy principle have no influence on how a State might choose to designate areas.

Hon FRANK HOUGH: Does the commonwealth Bill not allow for designated areas?

Ms Ashforth: It has that provision in clause 21.

Hon FRANK HOUGH: If it has provision it has covered everything has it not? Does that mean our scope is zero?

Ms Ashforth: No it says that state laws may be recognised.

Hon FRANK HOUGH: We are talking about designated areas.

Ms Ashforth: There must be a law designating areas, and the States can do that.

Hon JIM SCOTT: In the designated areas which, from memory, are commercial crops for marketing purposes, what then would prevent a person who wants to grow a backyard GM product, not for marketing purposes but for his own use in a non-GM?

Ms Ashforth: The fact that the person would not have a licence, for one thing.

Hon JIM SCOTT: Could that person get a licence from the federal Gene Technology Regulator?

Ms Ashforth: Not if there were a designated area. The idea is that the regulator would not issue one because that would be inconsistent with the policy principle recognising that this area was designated a non-GM area.

Hon LOUISE PRATT: What if something has already been given general release, such as the blue carnations? Can there be a non-GM zone that has GM plants?

Ms Ashforth: That would be a matter of looking at it when the time comes.

Dr Sutherland: Carnations are probably grown in enclosed areas. It would depend on how the GM-free zones were set up. That which is put in that area would define what can be grown in it. The zone may be for GM food crops. That terminology is used in Tasmania, where it looks as though the growth of GM poppies is being allowed, but not the GM food crop, canola.

Hon LOUISE PRATT: Would that be an overlapping zone so that it is not just -

Dr Sutherland: No; it may be a GM-free zone for a food crop.

Hon LOUISE PRATT: Therefore, cotton might be allowed in one area but not canola, and it is GM-free for a specific purpose.

Dr Sutherland: It could be a crop-by-crop basis. There are many options. I am not suggesting any one option is ideal.

Hon JIM SCOTT: I should have asked why the Bill has been written in this way. Is it just for marketing purposes rather than for general purposes?

Ms Ashforth: The Act regulates where and when GMOs - not just crops but any GMOs - would be able to be dealt with. That system is designed to protect health and safety and the environment. However, for marketing purposes, identity preservation is a separate issue. It is just an acknowledgment that that matter remains a separate issue, for the State, and one that is not dealt with by this Act. In order to facilitate any law a State would make, that provision is included.

Hon JIM SCOTT: The State could set up zones for other purposes that were not for marketing purposes.

Ms Ashforth: Once again, the State's legislative power is unencumbered. If the State were to pass laws that are inconsistent with the federal law there would be problems.

Hon BRUCE DONALDSON: The States were reminded to change the identifying persons legislation to ensure it was complementary to the federal legislation, or the Western Australia Police Service would not have been able to use CrimTrac, the national database, in Canberra.

Dr Sutherland: I think it works with veterinary, chemicals and food.

Hon BRUCE DONALDSON: It empowers commonwealth officers to operate in the State.

The CHAIRMAN: If it identifies that a residual area - marketing - is not covered by the national system, are any other major residual areas, as it were, not likely to be important for matters of public policy?

Hon FRANK HOUGH: Would litigation be one? I am worried about litigation. If a crop were cross-pollinated and Monsanto sued for using GM technology, it would be difficult to chase around after the birds and bees that did it.

Ms Ashforth: No; as you say, the Bill does not address any liability between parties.

Other aspects have not been identified by me. I have not heard of many others. I suppose that is because the issue has centred around the basic regulatory system and GM and non-GM crops and when and where they should be grown.

Hon ROBYN McSWEENEY: If Kojonup said it did not want GMOs in its area and a person obtained a licence to grow 200 hectares of canola, what would happen? Obviously the States can override local councils. If local government gets the hump in that area because it does not want GMO crops, how will the legislative process work?

Ms Ashforth: While it is not covered by any law, one could get a licence to grow a GM crop anywhere in Western Australia. The idea is to legislate to accommodate people in general who want some areas kept free from GM crops.

The CHAIRMAN: I ask people to speak clearly because *Hansard* is having trouble getting the record.

Dr Sutherland: A response would be sought from the Shire of Kojonup as part of the public consultation process. In addition, companies would not rush into Western Australia. Part of their policy would be to approach a farmer or talk to the neighbours. I believe their method of public relations has improved greatly. As part of public consultation, the Shire of Kojonup would be sent information directly and asked for a response.

Hon BRUCE DONALDSON: Has the Department of Agriculture considered the situation? If I were a farmer at Kojonup and wanted to grow a GM crop, but the shire, acting on my behalf, said no because Johnny Smith down the road says no way in the world will he allow it, that would impinge on my right as a landowner to grow a GM crop. I would be paying the same amount per hectare to buy the land as Johnny Smith down the road pays for his land. It would be a bunfight.

The CHAIRMAN: Is there a question here?

Hon BRUCE DONALDSON: There is a question. Have you considered that the issue of GM zones, free or otherwise, will lead to a huge capacity for litigation?

Ms Ashforth: It has been recognised what a difficult area it is. It will be very problematic. Sue Sutherland is getting out the paper on GM-free zones. It is a separate matter from this legislation, the Gene Technology Bill and the commonwealth legislation, which will govern all dealings with gene technology. It is intended to make sure it cannot happen in an unregulated fashion. It is much wider than people's opinions about GM crops.

The CHAIRMAN: We are tabling the Summary of Submissions on Genetic Modification Free Zones dated June 2002 from the Department of Agriculture.

Hon JIM SCOTT: Complex systems could be developed in which some crops could be allowed and not other crops. To my mind that would be more difficult and more expensive to regulate. Who is paying for the regulation? Is it spelt out through the legislation in some way? Is the federal or the State Government paying for this?

Dr Sutherland: When the Act was passed in December 2000, the decision was made that the federal Government would pay for the cost of the new regulatory scheme for the first two years. After that, if I remember correctly - it was in the intergovernmental agreement - the Government would move into a cost-recovery mode. In the past couple of months a paper has come from the Office of the Gene Technology Regulator. It brought a consultant on board called Acumen Alliance seeking submissions across Australia on cost recovery. The outcome of that was a consultant's report. The thrust of it is that the industry is still very much a fledgling industry. The figure is about $8 million a year. There is no transparency in the system. If five trials are being run in one year the cost may be the same as in the next year for only one trial.

Most of the work is being undertaken by CSIRO in Australia, and public money is mostly funding the research. At the moment the OGTR is referring back to the federal Government to see what its response will be to probably funding it for another two years and reassessing it. Whatever the response, it will go back to the ministerial committee. This Acumen report is confidential. It has recommended that the federal Government not go into cost recovery at this time.

Hon JIM SCOTT: It must be fairly difficult to work out the cost of the regulatory system. It will no doubt depend on how complex are the systems that States implement.

Dr Sutherland: We would bear the cost of that.

Ms Ashforth: That is a different matter from the cost of the regulatory schemes in the Bill and the commonwealth legislation.

Hon JIM SCOTT: Once people are commercially growing this stuff, to ensure that they are sticking to the zones it must be regulated. The more complex the process, the more expensive it will be.

Dr Sutherland: If you are the proponent with the licence you would have much responsibility in terms of auditing and monitoring that site. We do not undertake any genetic modification work within the Department of Agriculture. We have been doing trials on our land on behalf of CSIRO and other organisations. If it goes through what is called our Institutional Biosafety Committee - there are about 1 700 in Australia, one at all the institutions - be they medical, veterinary or plant organisations, the proponent takes responsibility for the auditing and monitoring. The overall monitoring is the OGTR's responsibility.

Hon JIM SCOTT: People took things into their own hands to spread the calicivirus and if that occurs, black-market seed will be available and people will not go through the normal systems.

Ms Ashforth: They would be committing a serious offence under the legislation.

Hon JIM SCOTT: How would you find out whether a serious offence was committed if some kind of regulatory system existed that allowed for inspections?

Ms Ashforth: There will be under this scheme.

Hon JIM SCOTT: That is a self-regulatory system.

Ms Ashforth: No; extensive provisions exist for inspection and monitoring.

Dr Sutherland: Inspectors were here last week inspecting a laboratory they signed off to be decomissioned. They also inspected the laboratories and glasshouses at Murdoch University.

Hon JIM SCOTT: You are talking about trials. I am talking about commercial growing, which is different. It is easy to keep tabs on 20 or 30 or even 100 trials. If 1 000 different varieties of crops were being grown commercially around the State it would be a different picture.

Ms Ashforth: Until the growing of those crops becomes a notifiable low-risk situation or they are exempt, they must be the subject of a licence held by someone, to which conditions will be attached.

Hon FRANK HOUGH: After 150 years of being GMO free, was there ever a fledgling thought that we should be perhaps a gene-free State? Was that ever discussed or have we accepted GMOs are coming here and we must fall in line? Did we think that perhaps we could be the only State in Australia that would handle non-GM crops?

Ms Ashforth: People have definitely thought about that.

Hon FRANK HOUGH: Were they outweighed by the multinationals ?

Ms Ashforth: The thought behind the Bills is more that this kind of research work with genetically modified organisms is occurring. We do not want it to happen in an unregulated manner. That is the point. It has occurred in all fields, and not just agriculture.

Hon FRANK HOUGH: I thought that perhaps in agriculture we could let the South Australians and Victorians fight it out for the next 10 years. If they have problems and we are GMO free we would have a good start.

Ms Ashforth: That is a political decision. If the State decided to prohibit the growing of GM crops, it has the legislative power to do that. It would be a matter of what was in the legislation and whether it was consistent.

Hon BRUCE DONALDSON: Is genetic engineering occurring in the marine world? Is it subject to the same regulatory process?

Ms Ashforth: Absolutely.

Hon BRUCE DONALDSON: I saw its effects in Norway, which are excellent. Applications will be made for some gene technology to be applied in the marine habitat in Western Australia.

Dr Sutherland: It will apply to aquaculture areas as well as fisheries.

Ms Ashforth: The term used in the legislation is very widely defined.

The CHAIRMAN: Has there been any subsequent policy work to this summary of submissions by the Department of Agriculture in recommendations or policy frameworks coming out of this? Is it as far as you have got in pursuing zoning?

Dr Sutherland: That is correct. I am not sure of the date on that. That is the document.

The CHAIRMAN: Are we up to date on the documentation?

Dr Sutherland: Yes.

The CHAIRMAN: As you have been stressing to us, change is happening constantly in this field. On behalf of the research officer and of the inquiry, when a matter of any significance arises, will you be so kind as to make us aware so that we are able to keep up to date with the issues with which you keep up to date?

Dr Sutherland: I am involved in the development of the policy principle, a key area that we hope will be completed by the end of this year. The time frame shows that it will be. It is being drafted by the federal Government at the moment but it appears to be taking longer than the Government said it would.

The CHAIRMAN: Are you providing input from Western Australia into that ministerial council policy process?

Dr Sutherland: Yes, as a working group. We developed the first policy principle, and it is being drafted by the federal Government. There have been several phone link-ups on this.

The CHAIRMAN: I hope that at some stage over the next months we will continue to have an opportunity to understand the fundamentals of the modification that occurs when the gene is altered and the process by which that is done.

Dr Sutherland: I could have given a demonstration but I did not know what to expect today.

The CHAIRMAN: I understand. We are very much beginning on this.

Dr Sutherland: It is complex.

Hon FRANK HOUGH: How much weight do you give the people who make a submission? I can see the names of two screaming nutcases who have complained about registration of political parties and abortion, and I am trying to think of the other.

Dr Sutherland: We played a straight bat on that.

Hon FRANK HOUGH: It went past the keeper I hope.

Dr Sutherland: The point Hon Bruce Donaldson made about farmers' rights was raised by WAFarmers, so it is in that document.

Hon JIM SCOTT: You referred to a low-risk GMO. Are you saying that once something is a low risk it will not be regulated?

Ms Ashforth: It must still be notified. There is provision under the Act to notify low-risk dealings as specified in the regulations. They will be dealings subject to prior licensing that have had their risk assessed by the regulator over time. They will be specified dealings for which a licence will not be needed to carry them out.

Hon LOUISE PRATT: Will that mean that those products could be introduced into non-GM areas without notification?

Ms Ashforth: At the moment there are no non-GM areas. Non-GM areas might be related to crop areas. The notifiable low-risk dealings are not now, and are not likely to be in the near future, related to the growing of crops. They are contained in laboratory dealings that do not have any chance of propagation without human intervention.

The CHAIRMAN: I imagine that is exactly the sort of thing this policy position that has been elaborated needs to cover.

Ms Ashforth: No; the policy principle is limited. It is one that will recognise designated GM or non-GM crop areas. Policy principles can be made on other things, such as ethical issues or other matters prescribed by legislation, but no other subject has been prescribed yet. We are not aware that any policy principles on ethical issues are being developed at the moment. Recognition of designated areas under State law is being worked on.

The CHAIRMAN: Is that at a policy level rather than a practical level?

Ms Ashforth: It is on the level of the policy principle provided for in the Act.

The CHAIRMAN: Thank you for coming in at short notice and providing a very interesting briefing.

Committee adjourned at 2.15 pm