Extract from *Hansard*
[COUNCIL - Tuesday, 14 August 2007]
p3791b-3799a
Deputy President; Hon Barry House; Hon Bruce Donaldson; Hon Murray Criddle; Hon Kim Chance; Hon Paul Llewellyn; Hon Nigel Hallett; Hon Louise Pratt

GENETICALLY MODIFIED CROPS - MORATORIUM

Urgency Motion

THE DEPUTY PRESIDENT (Hon George Cash): I received the following letter this morning -

> Dear Mr President,
>
> I hereby give notice pursuant to Standing Order 72 I intend to move today;
>
> > "That this House consider as a matter of urgency the Carpenter Government's refusal to lift the ban on genetically modified crops in light of compelling evidence that the technology is safe, it is accepted by a growing majority of consumers and its continuation is disadvantaging Western Australia in a competitive market."
>
> Yours Sincerely
>
> **HON BARRY HOUSE MLC**
> Member for the South West Region
> Shadow Minister for Science, Innovation & Biotechnology

The member will require the support of four members in order to move the motion.

[At least four members rose in their places.]

HON BARRY HOUSE (South West) [3.45 pm]: I move the motion. I thank members for their support. Just in case any member is confused by the wording of the motion, I advocate that the moratorium on genetically modified crops should be lifted because there is compelling evidence that; firstly, it is it is safe; secondly, it is accepted by a growing majority of the community; and, thirdly, the ban is disadvantaging Western Australia.

This week is National Science Week, and today is Science Day at Parliament. I am sure that those members who have already looked at the exhibitions in Parliament will join me in congratulating Scitech and the Chief Scientist, Professor Lyn Beazley, for putting together a concept that is showcasing science in this state. Members will see in the corridors of Parliament many displays, demonstrations and so on extolling the virtues of science. A function will be held in the parliamentary courtyard tonight to further promote science and to acknowledge, recognise and promote many outstanding Western Australian scientists and their work in many fields, including medical research, energy, agriculture, food, water, environment, biofuels, healthcare, marine science, building products, sport, and innovative science - the list goes on and on. There is a vast scope of scientific research and innovation, and I urge members to have a look at and engage in that process.

Scientific discoveries, research and innovation have been the main driving force over the years, even centuries, for man's progress and advancement. We can enjoy the enviable lifestyle that we live these days because of scientific achievements in the foods we eat, the homes we live in, the creature comforts we enjoy, the modern transport we use and in our general lifestyle. I suggest that that is unsurpassed in the history of the world, and it is advancing at a breathtaking pace every day. Some members might argue that that is a subjective analysis with regard to our quality of life and so on, but I do not think members could argue that the world is not now enjoying a far better lifestyle than has ever been the case.

Although it is appropriate to understand and appreciate much of the progress around us today, it is also appropriate to question and to analyse the Carpenter government's continued refusal to lift its ban on GM crops. Although the state government might be abreast of many other areas of scientific advancement, in this area it appears to be hopelessly out of step with the rest of Australia and the world. Gene technology is the new scientific frontier, and Western Australia must get on board to avoid being lost in its wake. This debate has constantly been coming to public notice, most recently in a newspaper article in *The West Australian* of Saturday, 8 August, headed "GM cotton for Ord wins key support", and just yesterday in another article headed "More GM pressure put on WA". There is a host of supporting evidence to that effect.

My motion poses questions in three areas. Firstly, is the technology safe? Secondly, is GM technology accepted by the community? Thirdly, is the current moratorium on GM crops disadvantaging Western Australia? Recent reports that I will mention to the house in a few minutes suggest that the answer to all three of those questions is yes.

I will start by referring to a 2004 report titled "Backing innovation: the way forward for Australian agriculture - the impacts of State-based moratoriums on investment, innovation and Australia's future in biotechnology". It was put together by AusBiotech, the Australian biotechnology industry organisation, which represents about 2 000 members across the country, covering the human health, agricultural, medical device, environmental and industrial sectors. The 2004 paper highlighted the commercial advantage of GM technology and commented

that the state moratoriums are responsible for reducing investment in biotechnology and other life sciences research and for reducing the capacity to undertake research and development in Australia, which is essential to the growth and development of the agricultural sector and the broader biotechnology industry. Moratoriums also reduce the opportunity for university students to make careers in agricultural life sciences. They are reducing the competitiveness of Australia's farmers while allowing other countries, such as Canada, to gain entry into markets previously held by Australia. They are making the quest for environmental sustainability more difficult. They are putting the future agricultural breakthroughs at risk by diverting research resources into other areas, and they are accelerating the brain drain. In terms of safety, these moratoriums undermine the science-based regulatory system. They are contrary to the policy intent for a national coordinated system as agreed to by the Council of Australian Governments, and have created a two-tier regulatory process. The fundamental issue for governments to solve is the inconsistency in Australia's biotechnology regulatory system. AusBiotech supports the development of agriculture assessed on a case-by-case basis by properly constituted federal regulatory agencies, such as the Office of the Gene Technology Regulator, Food Standards Australia New Zealand, the Australian Pesticides and Veterinary Medicines Authority, the Therapeutic Goods Administration and the Australian Quarantine and Inspection Service.

I now move on to the 2006 statutory review of the Gene Technology Act 2000, which was tabled in the federal Parliament on 27 April 2006 - just over a year ago. The review noted that it was most unusual for states to intervene in the agricultural market in this manner, and this type of intervention would usually be undertaken only when there was strong and compelling evidence of a market failure. However, after examining a number of reports identified during consultations, the review could not find documentary support for a market failure. The review noted that the choice of variety was usually left to the farmer, who would consider market signals, customer preferences, production costs and yield, amongst other influences. The report went on to state that the moratoriums in all states except Queensland and the Northern Territory were causing detrimental rather than beneficial impacts and were counterproductive, as they were preventing the collection of information that would otherwise assist farmers in making choices about whether to grow GM crops. My understanding is that New South Wales, Victoria and South Australia are in the process of reviewing their moratoriums; Western Australia is the odd man out. The review also concluded that the moratoriums were having negative effects on the agricultural and research sectors. The report recommended that all jurisdictions reaffirm their commitment to a nationally consistent scheme, including a nationally consistent approach to market considerations, and work together to develop a national coexistence framework.

The third report I will refer to was released in June 2007. It is entitled "Community Attitudes to Biotechnology: Report on Overall Perceptions of Biotechnology and General Applications", and was prepared for Biotechnology Australia, Eureka Project 4001. It states -

> There has been an increase in overall support for the use of gene technology in food and agriculture applications since 2005. This is indicated by the significant increase in the mean rating (up from 4.9 in 2005 to 5.5 in 2007) . . .

That is on a scale of ten. The report continues -

> Based on group discussion feedback, the significant increase in support for biotechnology in food and agriculture (as compared to support in 2005) appears to be largely related to greater familiarity with the notion of GM crops and foods.

The report also noted significant increases in the perceived utility of all applications, such as modifying the genes of plants to produce food. That figure was up from 64 per cent to 83 per cent. Public support for GM food crops in countering drought and pollution rose from 46 per cent in 2005 to 73 per cent in 2007. When asked if GM crops should be grown in their state, 50 per cent of respondents said yes, with a further 30 per cent saying yes as long as the crops were strongly regulated. The highest values put on biotechnology applications were: cleaning up pollution, 97 per cent; developing environmentally friendly vehicle fuels, 97 per cent; recycling water more effectively, 96 per cent; helping to address climate change, 91 per cent; and combating salinity, 90 per cent. It can be seen that the range of applications goes well beyond just the provision of food crops.

The fourth report I will refer to is entitled "GM Canola: an Information Package", released in July 2007. It was prepared for the federal Department of Agriculture, Fisheries and Forestry by ACIL Tasman Economics Policy Strategy. I am sure other members may wish to talk about this, but very briefly the report states -

> Australia's main competitor, Canada, has been using genetically modified (GM) canola for 10 years with no appreciable loss of market share or price and enjoys significant agronomic benefits from the technology.

The report also refers to several areas involving safety, and refers to two GM canola varieties. It states -

> In 2003 these two GM canola varieties were approved for commercial use in Australia after the OGTR assessed that 'the commercial release of Roundup Ready canola will not pose a risk to human health and safety or the environment, which cannot be managed.

It seems clear from those reports that Western Australia has been well and truly left behind in the whole scenario. I will refer to just one other document, which arrived on every member's desk this morning. It came from the Department of Agriculture and Food as part of the Science@Parliament package. It begins -

> Western Australia's agriculture, food and fibre sector generates about $6 billion annually, employs 49,000 people . . .

Further on, it states -

> Biotechnology and gene modification may offer the prospect of cheaper, more nutritious and more abundant food, both in the plant and animal industries. The use of such technologies may be critical to increasing the world's food production with less reliance on chemical fertilisers, herbicides, insecticides and fungicides. They may also allow growers to respond quickly to changing climatic or weather conditions. The use of genetically modified organisms, while potentially offering substantial benefits, remains controversial, mainly because of uncertainty relating to market access, food safety and environmental impacts.

I contend that most of that uncertainty is generated by the government itself in refusing to lift the moratorium on genetically modified crops. In conclusion, the moratorium may well have served a useful purpose six or seven years ago, when a two-year period was required for the gathering of information, conducting field trials and developing a regulatory regime. However, that time has well and truly come and gone. Now the moratorium is very outdated. It is unnecessary because there is a duplication of regulatory regimes, and it should be abandoned.

HON BRUCE DONALDSON (Agricultural) [3.59 pm]: This issue has been around for a long time. I was part of a parliamentary committee that examined the gene technology bills. At the time, we benefited from the arrangements made by the Minister for Agriculture and Food that allowed us to meet buyers as they came to Western Australia. As I think all the members of that committee said, we really appreciated that. The committee went to Canada, and I will come back to that. It was interesting to listen to the buyers. We met some Japanese buyers who imported about two million tonnes of Canadian GM canola. They told us that once canola oil has been processed, there is no DNA profile, which means that there is no risk. I asked what happened to all the residue and we were told that it was fed to the stock. They reassured me that it did not cause them any concerns. The Indonesian mill at Bogasari, which takes a lot of wheat out of Western Australia, is, I think, the second biggest flour mill in the world.

Hon Kim Chance: Bogasari is the biggest mill in the world.

Hon BRUCE DONALDSON: We asked what would happen if Western Australia sought to export genetically modified wheat. They replied that their charter was to feed the people with flour. Ninety-five per cent of what they actually mill is used domestically. He said they might be a bit worried about exporting the other five per cent because it goes from the mill into the mouth; whereas canola undergoes a long process.

We all know about the benefits of gene technology to pharmaceuticals, for argument's sake. It has been mentioned many times in relation to insulin. I think 247 other pharmaceuticals benefit from genetic modification. Without genetic modification, many pharmaceutical products could not be produced. The time is also considered ripe to genetically modify tobacco so that it can be used as a host plant for pharmaceuticals. I notice that the minister is smiling.

The conventional breeding program is a credit to Western Australia; it has been working very well. A scientist in Canada suggested that, with conventional breeding, 30 000 genes from one plant could end up in another plant. However, with gene technology, we can take the one gene we want and put it into 30 000 genes. There is then a smaller base from which to work out which genes should be taken out of the plant that is hosting the added gene to get right the genetic balance of the plant. That was interesting information. We also noticed that during that period, the issue of genetically modified crops became very divisive in Western Australia. Some people wanted genetic modification and some did not. In fact, quite a war was being played out in the rural newspapers and people were becoming quite aggravated and emotional about the effects of genetically modifying canola, for argument's sake. I have always said that, one day, producers will demand that we adopt that technology, and I think that push is coming to the forefront now. At one stage it was being pushed by a few producers, but that has gathered momentum, as does a rolling stone gather moss.

I think we have discussed in this house previously the proposal for field trials of GM crops in the Esperance region, due to the natural buffer strip in that area, subject to the agreement of the Esperance region. I was pleased that the minister moved to allow a commercial trial in Esperance next year on two hectares. I would have liked the area to be a bit bigger; nonetheless, it is a start. Whether we like it or not, the minister's party is in government and the government has consistently said that it would retain the moratorium until the end of the electoral cycle. That is the government's ideological position, so we can only tap away at the edges.

I think the minister is beginning to recognise that there is a groundswell in support of GM crops. I think he is also recognising another area that I think is very important; namely, if any success is to be achieved in the Ord River stage 2, it will be in the area of cotton rather than sugar. I do not think sugar will ever provide a sufficiently viable crop to make its production a real success. I think cotton has a big future in Ord stage 2, as also has sandalwood. Ord stage 2 lends itself to a variety of crops and has the potential to be a horticultural food bowl for Asia. A lot of people north of Australia will need to be fed in the years ahead. One day they might appear on the irrigated land of the Ord River and help themselves! That area is very important. At the end of the day, the production of genetically modified cotton saves a huge amount of chemical sprays that are needed for growing traditional cotton. Chemical sprays amount to one of the high costs in the process. Complaints have been made about the amount of environmental damage that continual spraying could cause. It also reduces the financial viability of the crop. Atrazine or Simazine, which is part of the Triazine family, is used as a pre-emergence spray for canola. However, it is regarded more as a soil steriliser. A few people did not agree completely and felt that it occurs only to a certain degree. However, I have noticed that three, four or five years after using Simazine or Atrazine on our farm, the vegetation on the paddocks was considerably reduced. We could drive around Koorda and know exactly who had been growing lupins or canola because there was very little return of the vegetation.

I noticed recently that Europe is set to lift its ban on GM crops. That is a very interesting development. The United States was going to take the European Union to the World Trade Organization. I think the Standing Committee on Environment and Public Affairs indicated in its report that it believed - I believed anyway - that the European Union was using the ban as a de facto trade barrier. For some years, when the United Kingdom and European seasons' yields were down and they did not have the volume of supply they needed, they had to import and they were very flexible about where they bought from. They in fact bought canola from Canada. They were not very consistent and were a little hypocritical. I would not agree with the United States taking anyone to the World Trade Organization because the United States should probably answer a few questions itself; however, I think that the GM ban was possibly used as a de facto trade barrier. The UK and Europe have been talking about potatoes and maize. That is a very interesting situation because that food comes straight from the ground, especially potatoes, which are only boiled before being eaten. Despite the regulatory regimes in Australia, the United States and Europe, there has never been a finding to indicate that GM crops would be adverse to the environment or our health. The regulatory regimes do not say, and rightly so, what genetic modification might mean to a country's market. Five to seven years ago, it could have been said that, in some cases, those markets might have been affected in light of the emotion attached to the issue of genetic modification. However, I believe that, throughout the world, the GM pendulum has swung. If we can assist our farmers by allowing them to use the latest technology to improve their production, we should be doing so. I hope that next year, and after the 2009 election, we will see greater use of gene technology in farming. That will be a very important step forward.

HON MURRAY CRIDDLE (Agricultural) [4.10 pm]: How appropriate this motion is, given that there are scientists within the building. I have taken the opportunity today to talk to some of those scientists about climate change, stem cell research and a number of other issues, including gene technology. It is very interesting. One of the scientists had an apple. He cut an apple about five or six hours ago, and the apple has not yet browned at all. That has been achieved without the use of gene technology. Some of the issues we face can be addressed over time using standard processes. I understand the debate and concern about lifting the moratorium on genetically modified crops at this time. I underline the fact that the National Party has made it very clear that it supports the immediate use of gene technology for non-food products, but that we have some concerns about its use in future food products.

This issue has advanced significantly in recent years. The process of gene modification has attracted a great deal of controversy. Genetic modification is basically the process of inserting selected genes into the DNA of another organism to achieve a particular characteristic. It is controversial because people think that this process thwarts nature. As I said earlier, the process has continued over many years and we have adapted plants to different conditions. Genetically modified cotton has been produced in the eastern states for about 12 years. Members of the National Party recently visited the Ord River, and one of the very clear issues in that area concerns the expansion of agricultural production. I am very much in favour of expansion of gene technology cotton production at the Ord River because cotton uses about half the water of other crops and is three times as

profitable. If industry is to develop, there must be economic drivers to allow it to happen. I think the government has lost an opportunity there. I understand the government's moratorium, but cotton is one of the broadacre crops required for the expansion of the Ord project. I notice that the minister has rushed to his pen to take notes; I will be interested to hear his reply!

Gene technology would also provide an opportunity for the broadacre production of sugar. The economics come into play, as with sandalwood production and the like. The Ord River has the potential to be the food bowl for horticultural product. A critical mass is needed for those development areas to become profitable in the long run. I might also say that canola production is moving in the same direction, although canola production involves issues with oils and the like. There is an opportunity to grow these products and others such as lupin oil for use in the development of biodiesels, and therefore to produce alternative fuel oils.

I recognise that GM products have been consumed in North America since 1996 without any ill effects, to my understanding. Obviously the people of North America are happy with that. There is also the issue of medicine, as Hon Bruce Donaldson has mentioned. Insulin and other products are necessary for the improvement of health, and that is something we cannot overlook. These products are very much better for the environment because they require less spraying for weeds and insects, and less fertiliser. These are major benefits.

I have spoken to scientists about climate change, and many have highlighted the fact that the northern agricultural region will come under enormous pressure. I live in that region, and I can tell members that the region has been under enormous pressure for the past two years. This year the region's future is on a knife's edge; if there is no rain, we are in real strife. The point that needs to be made is that there is an opportunity to take on, for example, wheat crops that have resistance to rust, drought, septoria, frost and salt. I understand that the current production methods for a salt-resistant wheat plant have improved out of sight; however, such initiatives might also benefit from the use of GM technology. The way those technologies are developed will be absolutely crucial. Grasses and a number of other products will be required in those areas in order to make the areas viable into the future.

We face a very difficult time. I recognise that the National Party has a problem. As we go forward, we need to take the community along with us with regard to food. As I said earlier, if GM food products and GM-free food products are placed side-by-side, I think the message will get through to the community as it begins to buy and accept GM products. In many cases, GM products will probably be cheaper, anyway. We will see. If there is mass production of GM products, the rational conclusion is that that production will be cheaper in the long term. The community will have to bring that forward. Production will be cheaper because there will be less use of crop sprays and fertilisers. These are the sorts of impacts that will lead to a hastening of GM production in the future.

The National Party's position is that it would like the moratorium lifted immediately on non-food genetically modified products, particularly in the northern agricultural region, which is an isolated area. The National Party, however, has some reservations, based on community concerns about releasing GM technology into broader food production.

HON KIM CHANCE (Agricultural - Leader of the House) [4.17 pm]: I thank Hon Barry House for raising this important issue. Perhaps we should give consideration to raising the matter as a substantive motion, because it is very clear from the number of people who want to speak on the motion that it is a big subject. It is a very important subject. I certainly support any move to have a substantive discussion on this matter. Notwithstanding this, we have a limited opportunity and I have only a few minutes in which to outline the government's primary position.

Hon Murray Criddle - this is what sent me racing for my pen - referred to an "opportunity lost" in the Ord. I have to ask: which opportunity, and why was it lost? I refer to the issue of cotton in the Ord as a separate matter. It is generally misunderstood that responsibility for the decision-making process for cotton production north of the 22nd parallel south was transferred from the commonwealth government to the state government. People have, by implication, said that it is because of the state's moratorium that cotton has not been grown north of the 22nd parallel. In fact, that is quite incorrect. This was wholly in the commonwealth's hands until October 2006. It has been an issue for the state only in the past few months. I might add that no cotton, GM or otherwise, is grown in the tropics of Australia. It is grown only in the subtropics.

Hon Murray Criddle: I have been to a cotton experiment south of Broome at Nita Downs station, and it grew quite well there, I can tell you.

Hon KIM CHANCE: Yes, so have I; not at Nita Downs, but at Shamrock Gardens and the 12 Mile district. It grows extremely well in the Pindan country. When I said that there is no cotton grown in the full tropics, I

obviously meant no commercial cotton. It seems to grow well. In fact, not much cotton is grown in the full tropics anywhere in the world. Generally, cotton is a subtropical crop.

Hon Murray Criddle: The thing with GM cotton is that it will adapt.

Hon KIM CHANCE: It does seem to have that capacity.

The point I am trying to make is that this matter was in the hands of the commonwealth Gene Technology Regulator until October 2006. In talking about the question of the ban, Hon Barry House dealt fundamentally with the moratorium. I believe we need to deal with two instruments: the policy position, which is the moratorium, and the legal position, which is the Genetically Modified Crops Free Areas Act 2003. That act had the support of every member and every party in this house. Not one member voted against that bill. That bill fundamentally reflected what I think is probably the best report ever delivered to this house. That report was the report of the Legislative Council Standing Committee on Environment and Public Affairs into the Gene Technology Bill 2001 and the Gene Technology Amendment Bill 2001. The fundamental recommendation of that report was that the state adopt a gatekeeper role with regard to GM technology, which is exactly what the Genetically Modified Crops Free Areas Act does. The report recommended also that an investigative process be established. The government has picked up that recommendation with the establishment of the Ministerial GMO Industry Reference Group, which has recently released a discussion paper on cotton.

When we are dealing with this issue, it is important that we consider the consumer. I believe that the GM industry and its proponents have missed their target. Much of the effort of the GM industry has gone into convincing scientists about the benefits of GM technology. A polemic exists within the scientific group as well. Some scientists are bitterly opposed to GM; some scientists enthusiastically support it. The debate has also been concentrated around producers, and around farmers, as has been referred to this afternoon. Neither of those groups will be important when it comes to making the ultimate decision. The most important group will be, as always, the consumer. Next to no effort has been made to convince consumers that they should adopt GM technology. The reason we should be concerned about consumers is that they are the people who buy the product. They are the people who determine market preference. It is not the analysts on the futures market in Chicago who determine markets. Fundamentally, it is consumers who determine markets. GM technology should be a consumer-driven issue. The states have been given specific legislative responsibility for this area as a result of the commonwealth Gene Technology Act 2000. That act specifically preserves a role for the states. Health and environment are responsibilities of the commonwealth. However, that act specifically designates that the states are the determining party for market purposes. "Market purposes" includes consumers. If the states are not happy with the way in which consumers are responding to GM technology, they need to ask why. The key concern that is expressed by consumers is that they are not certain about the health impacts of GM technology. They have not seen the animal feeding trials. When I raised this issue in this house previously, I was sent references to 137 published animal feeding trials. We went through every one of those 137 references. It was a very time-consuming process. However, not one of those 137 concerned a long-term animal feeding trial that was dedicated to assessing mortality and morbidity in the animals subject to the feeding trial - not one. Some of the 137 trials lasted a few weeks. Most of them were comparisons between GM corn, for example, and non-GM corn, based on specific economic parameters, such as the growth rate of breast meat in chickens. Some dealt with mortality, and a few dealt with the question of morbidity. Even fewer weighed critical organs post-mortem, yet that is the basic thing that needs to be done in an animal feeding trial before we can convince consumers that GM technology is safe.

Hon Bruce Donaldson referred to the role that the GM or biotechnological industry plays in the pharmaceutical industry. In order for a pharmaceutical product to receive an international grading and be accepted as a drug suitable for sale, it must go through a range of levels of assessment. Those levels have not been addressed even remotely for GM foods. I am not suggesting GM foods should have to go through four or five different levels of assessment. However, some objective measurement or assessment should be undertaken for GM foods. That is why the state government has initiated an independent feeding trial by the Adelaide-based group, the Institute of Health and Environmental Research Inc. I think there is a question without notice on that matter today. The very existence of that small trial has caused the GM industry to basically lose reason. Some amazing allegations have been made about the people involved in that trial, and their position. Why is the GM industry so concerned that an independent trial is to be conducted? Perhaps that is where the GM industry needs to lift its game. The government is neither pro-GM nor anti-GM technology. We are responsive, though, to voters, as is the opposition, I am sure. We want to be responsive to voters. Voters are consumers. Consumers are telling us they are not too sure about GM technology.

I have 59 seconds left, so I will conclude my comments. Is there a growing majority in favour of GM technology? I do not think so. A Westpoll conducted between 6 and 8 August 2007 found that 48 per cent of people were against lifting the moratorium, 42 per cent were in favour of lifting the moratorium, and 10 per cent

were unsure. That is not a majority. I will table a graph. The graph at the top is expressed in United States dollars, and the graph at the bottom is expressed in Australian dollars. The graph sets out the price differential between Canadian and Australian canola in the two currencies that I have mentioned. Members can read the results for themselves.

[See paper 2951.]

HON PAUL LLEWELLYN (South West) [4.28 pm]: It is almost National Science Week. As I understand it, science is divided on the matter of whether genetically modified organisms are safe or unsafe. Science is also very much divided on whether GM technology is any more capable of delivering environmental, social and economic benefits than is conventional breeding technologies and scientific development and inquiry. Social scientists are also divided on whether there is compelling evidence of community acceptance of GM technology. I want to lay out this argument. The motion calls on the house to consider as a matter of urgency the Carpenter government's refusal to lift the ban on genetically modified crops in light of compelling evidence that the technology is safe, it is accepted by a growing majority of consumers and its continuation is disadvantaging Western Australia in a competitive market. None of those things can be substantiated with compelling evidence. The practical effect of the moratorium is to prevent the commercial planting of herbicide-tolerant canola.

An interesting fact about whether Australia is out of step with the rest of the world in the debate on the use of technology to produce GM canola is that of the 20 countries around the world growing canola, only two - the United States and Canada - are growing GM canola. If Australia produces GM canola, does that mean that we are following the general trend? Does it mean that we are in step with global trends on genetically modified organisms? I would say not.

There is an argument that says that if we do not use GM technologies, we will lose opportunities - environmental opportunities, food production opportunities and the opportunity to save the world through climate change. I listened to Hon Barry House talk about the small document that came in packages sent to members of Parliament in the past few days. He said that there were only a couple of reservations about GM technology. Some of those reservations are that there could be adverse environmental consequences and adverse consequences on food. We do not really know. There is not enough evidence. Hon Kim Chance outlined the paucity of information attesting to that. We are uncertain about market penetration and the impact of GM crops on the economy.

The comparison between the acceptance of pharmaceutical products and GM products is a very important comparison to make. There is no way that we would accept pharmaceutical products coming into the marketplace and into general practice without extremely rigorous scientific investigation and controls; we have heard nothing about that in this debate on genetically modified organisms. There is therefore a schism in the scientific community. There are fads and popular beliefs in the scientific community on the potential for a technological utopia; that gene technology will somehow deliver us from all the other problems that science and technology have created in the first place; and that somehow or other science will rectify and resolve some of the market failures that have occurred through a lack of investigation of the consequences of GM technology on the market. It so happens that I believe science has a major role to play. However, we must be extremely cautious about the way in which we adopt public policy and scientific methodology and about the way in which we construct these decisions. If there is uncertainty and if there is risk, there is also liability. If the industry that is promoting genetically modified organisms is prepared to accept liability for damages and loss that may occur as a result of taking on this technology, it should put its money where its mouth is and sign off on strict liability provisions. We in the Greens (WA) put forward a proposal for the previously debated Gene Technology Bill to include a provision whereby a licence holder would be liable to compensate another person for the amount of loss and damage caused to that person as a result of introducing genetically modified organisms. If we go down the pathway of using genetically modified organisms, we must sign off on the liabilities; then we can leave the scientific questions to resolve themselves.

I will read briefly from a letter to the South Australian government from a Japanese consumer organisation - believe it or not - called "No! GMO Campaign". The letter goes like this -

> **Japanese Consumers Request South Australia to Continue Moratorium on GM Crops**
>
> Japan mostly depends on imported canola because its domestic cultivation is very limited.

The letter is in Japanese English. It continues -

> GM free canola is supplied by your country while GM canola is imported from Canada. Your decision to have a GM free policy has been highly appreciated by consumers around the World, which leads to the worldwide reputation of Australian canola.

> GM canola from Canada has caused serious problems in Japan. It has begun to grow wild and spread as a result of spillage from imported seed and from cross pollination. Once contamination occurs, it is irreversible. Even in the country like Japan where GM canola is not commercially planted, we face the problem of GM contamination.
>
> If GM crops will be approved and cultivated in your country, cross pollination and contamination will be inevitable.

There is no way that we can separate the gene pools, and this is where strict liability applies. People who believe that they can separate the gene pools and keep that strict separation should sign off on liability for any damages that might occur if they are wrong about that. This is at the heart of the debate. The letter continues -

> Reputation of your crops would be badly damaged. In the case of canola, your product will be no different from Canadian canola, and Japanese consumers would stop buying it. You may lose the competitiveness on the world market.
>
> Japanese consumers do not want to eat GM crops whose safety is not proven. Safe and environmentally friendly crops are what we really want. We sincerely ask you to continue your moratorium on GM crops.

It is signed -

> Keisuke Amagasa
>
> Chairperson
>
> No! GMO Campaign

Clearly these Japanese consumers have a view about this issue, and it is to oppose GM crops. However, their arguments are well known. Again, I suggest in the context of uncertainty and of risk of liability that if the opposition or indeed any industry wishes to pursue GM crops, they should sign off on strict liability and take responsibility for the consequences.

HON NIGEL HALLETT (South West) [4.37 pm]: I will make a few brief comments in this GM debate. It is important, when considering the Western Australian grain growing industry now, to acknowledge that somewhere around 10 million tonnes of grain are grown annually. When we consider the challenges of drought, frost, weeds and the salt implications that occur in much of the wheatbelt, the advantages that GM technology can afford the WA farming fraternity are quite large. In the past two years a small industry at Corrigin, Grain Biotech Australia, has conducted trials on salt-tolerant wheats. That industry produced a 23 per cent higher yield compared with the standard varieties of wheat. When we consider that the world is reducing its agriculture use and the population is growing, we must consider that responsible biotechnology is not the enemy but that starvation is. It was interesting to hear Hon Paul Llewellyn say that there is no evidence that GM is a safe alternative. I take the contrary view: there is no evidence that foods made from GM crops are less safe or safer than traditional foods. GM foods are much more extensively tested than traditional foods.

Hon Paul Llewellyn interjected.

Hon NIGEL HALLETT: I am sorry; I did not interrupt the member. I am taking the opposite view of the member. I will not accept interjections.

In 2006, the countries that were growing transgenic crops were the United States, Argentina, Brazil, Canada, India, China and Paraguay, just to mention a few. Trials done in China on rice showed that farmers who grew GM rice suffered fewer pesticide-introduced illnesses than those growing the old varieties. Each year, 50 000 Chinese farmers are poisoned by pesticides, and around 450 of them die. In the study, the farmers who grew GM rice reported no cases at all. That mirrors the results of a previous GM study of cotton in which 22 per cent of farmers using non-GM cotton reported illnesses but only five per cent of farmers using GM cotton got ill.

We talk about preserving the wilderness, land and biodiversity. We have to increase crop production on agricultural lands. GM technology, along with other agricultural practices and improvements, can make a significant contribution towards this. Current GM crops require fewer pesticide applications and far less tilling of soil. Therefore, there is far less erosion.

I acknowledge that genetic modification is not the magic bullet, but it is certainly a big part of the answer to food production to eliminate hunger. It is interesting that the federal Leader of the Opposition is calling for an inquiry into the cost of food in Australia. It comes back to simple supply and demand. There has been a significant drop in food production in Australia. A lot of that is to do with the present drought conditions. We also know that, through genetic modification technology, we can increase productivity in dry areas.

There are many GM products in the pipeline: medicines, vaccines, foods, food ingredients and fibres. In 2006, a total of 250 million hectares of crops were planted in 22 countries by 10.3 million farmers. The majority of the crops were resistant to herbicides and insects: soya, soybeans, corn, canola and cotton. GM rice may include increased levels of iron and vitamins, which may alleviate malnutrition in Asian countries. These are among the benefits.

The Australian grain industry is ready to move ahead with the commercialisation of GM canola. I respect the stance of the current Minister for Agriculture and Food, Hon Kim Chance, but I also note a significant change in coming around to accepting evidence that will convince him to soften his stance.

The planting of GM food crops is banned in all states except Queensland. There is speculation that bans will soon be lifted in New South Wales and Victoria. People have talked about cotton in the north of this state. We have seen the same variety grown in Queensland. To me it does not make sense that we are not prepared to let that variety into Western Australia. I will finish on those few words.

HON LOUISE PRATT (East Metropolitan) [4.44 pm]: I will keep my remarks brief. It is premature to remove the moratorium. Since we looked at introducing the moratorium many years ago, there have been some changes in international markets. For example, the European Union has introduced some very limited GM canola varieties for certain purposes. However, the European Union still restricts the importation of GM canola to a significant degree. That has not changed. The EU is not looking to change its position substantially in that regard.

The analysis that the Standing Committee on Environment and Public Affairs undertook to back up the moratorium still stands. One of the key issues we looked at concerning the agricultural economics of the issue was that although there is a more productive system yielding greater quantities, what has not been adequately factored into the cost analysis of lifting the moratorium are the costs associated with the preservation of identity of the grains. Who will bear the considerable costs when we need to segregate GM crops from non-GM canola? Those costs can well and truly offset the gains made.

Motion lapsed, pursuant to standing orders.