

GENETICALLY MODIFIED CROPS FREE AREAS BILL 2003

Second Reading

Resumed from 24 June.

HON BRUCE DONALDSON (Agricultural) [11.18 am]: The Opposition supports the Genetically Modified Crops Free Areas Bill. I am mindful that two other gene technology Bills are before the House. Members would be aware that they represent the Western Australian complementary legislation to establish a nationally-consistent scheme of regulation through the Gene Technology Regulator. As those Bills have not been debated, I will be careful that I do not stray too far into the areas covered by them.

The PRESIDENT: I am sure there will be plenty of time to stray.

Hon BRUCE DONALDSON: The Bill is also the subject of a report by the Standing Committee on Environment and Public Affairs, which was tabled some time ago after a long and intensive study.

Through the courtesy of the minister and the Department of Agriculture, the committee had the opportunity to meet with a number of the buyers who come to Western Australia. The committee also received and had the benefit of a lot of submissions and had the opportunity to travel to Canada and the United States. It was very enlightening to be involved in the preparation of the report. The report has certainly been contentious in many ways because of the divided opinions and uncertainties that people have about gene technology.

This Bill gives some flexibility to the Government of the day, and to the industry itself, to designate the whole of the State as a genetically modified free area at some stage or to have zones. Members will be aware that there is a moratorium on the growing of GM crops in Western Australia, which will take us through to February 2006. The issue, as the committee saw it at the time, was that about 80 per cent-odd of producers are against the GM technology at present. I believe that the wider community is quite uninformed about this issue. That is understandable, because it is a complex issue, and there is consumer resistance to it in some parts of the world. The European Union is one of those.

It was interesting to learn more about the European Union and its growing of canola, for argument's sake. Although the European Union has set up quite a stringent regulatory procedure and framework to stop the import of GM crops, when it has good seasons, it is a net exporter of canola. At this stage I will confine my remarks to canola. Of late we have learnt that the United States is taking the European Union to the World Trade Organisation, as it believes the barrier that has been utilised is in fact a de facto trade barrier. One can remember the very strong words that came out of Europe about the Frankenstein food when people were dealing with GM technology. That was fostered mainly by Greenpeace and, I guess, a strong lobby group, as we know the farmers are in the European Union. The farmers have a huge lobby group. We saw on the television and read in the newspapers that when changes were made that the farmers did not believe would be in their best interests, they blockaded Paris. Therefore, a strong lobby group goes with this debate.

Much has been said for GM technology. There are some advantages - they were spelt out in the report - and there are some disadvantages. I will deal with the disadvantages first. At the moment Australia enjoys a clean, green image. The concern is that if Australia marches down the path of the use of GM crops, some of Australia's customers may not view that very favourably. All States have imposed a moratorium. The shortest one is in the State of Victoria, which has only a 12-month moratorium. I may be wrong, but I believe Victoria might allow the release of commercial Roundup Ready canola or the Bayer InVigor hybrid canola. However, that remains to be seen. It may not do so. Who knows - it might impose a further moratorium.

In its report, the committee referred to the validity of what was being used to stop the growing of canola in Western Australia. In May 2001, the Government introduced an interim five-year moratorium. The previous Government had also put in place a moratorium. Therefore, there was a continuation of the moratorium. The committee detected that, at this stage, probably an overwhelming number of producers are against the release of commercial canola. However, that may change. It must also be recognised that a group of farmers would like to access this technology. I believe the committee recommended that the non-commercial field trials should continue - that is, those in confined areas such as laboratories or centres of excellence for plant breeding etc - because the fear in Western Australia was that if we just put a blanket across the whole research area, we would lose a lot of very good scientists.

I will deal with some of the advantages that may or may not eventuate. I guess there are a couple of major points. The success of GM crops will depend upon the acceptance of markets and consumers around the world, as well as the attitudes and acceptance of growers. At the end of the day, the bottom line will play a very important part in whether the technology is welcomed and GM crops are grown. It would be subjective for anyone to say how long it will take for the technology to be accepted and whether there will be advantages because of lower production costs. It has been said by others that triazine-tolerant canola comprises about 80 per

cent of the canola grown in Western Australia. The use of triazine - more common terms are atrazine or simazine - has a residual effect on the soil. It is often said that it is almost a soil sterilant. Most crops are grown on a rotational basis; a lupin crop will be followed by a wheat crop, which lessens the weed burden for the following year. There is quite a build-up of triazine in the soil. I will use Roundup Ready canola as an example. The beauty of Roundup is that it does not have a residual effect on the soil. There are certain environmental benefits in using these sprays.

Some producers say that conventional breeding methods may be able to keep pace. In bringing the universities together, the minister may be able to avoid some of the duplication that has been taking place. That is overdue. If people set aside their intellectual property and work for the greater aims of the industry, there will be major benefits.

Hon Kim Chance: It does not sound all that difficult if you say it quickly, does it?

Hon BRUCE DONALDSON: It does not sound difficult. However, I know the minister is well aware of the problems that exist. However, if it comes off, there will be some major advantages. Maybe conventional breeding methods will assist in providing a high-yielding canola and be beneficial when dealing with some of the fungal diseases that occur. Fungal diseases, such as crown rot, have occurred in wheat this year especially in Carnamah wheat and septoria has occurred almost every year in certain wheat-growing areas.

Hon Kim Chance: The breakdown of rust resistance is also a major issue.

Hon BRUCE DONALDSON: Yes; that is another one. Saline tolerant crops of barley or wheat are very important, and conventional breeding has achieved some results.

It was very interesting to hear scientists in Canada and the United States say that about 30 000 genes can be introduced into one species of conventionally grown wheat and then spread into 30 000 genes of another plant. They said that it was typical of the number of genes sometimes found in wheat plants. Some are consistent but it is necessary to breed out the ones we do not want. With gene technology one gene can be introduced to the 30 000 genes, and subsequently studied to determine the effects of that one gene on the host plant. A lot of work is being done by some very capable people with expertise in the science world who are taking a reasonably responsible attitude towards gene technology.

Golden rice has been mentioned a few times in connection with the value of vitamin A to people whose main diet is rice. In countries in which people have problems with their eyes due to lack of certain nutrients, the addition of vitamin A to rice could be a major benefit. However, that process changes the colour of rice, hence the name "golden rice". People whose staple diet is rice prefer to eat white rice rather than an off-colour rice. That development can be considered down the track.

We are all aware that the Gene Technology Regulator, Dr Sue Meek from Western Australia, which position was established under the national scheme, has given in-principle support to the release of Roundup Ready canola and Bayer's InVigor hybrid canola. At present no State in Australia will allow it to be commercially grown. Canada exports some two million tonnes of canola. It was interesting to hear the comments of the buyers from Japan who came to Western Australia. They said it was not a problem because the DNA of canola oil is exactly the same, whether it is from genetically modified or conventional oil because of the processes involved. When I asked what they did with the meal, they said they fed it to livestock and asked whether we were worried about that. We said we were not.

Indonesia has the largest flour milling operation in the world, which mills close to 20 000 tonnes of flour a day. The Indonesians told us that the Government's priority is to feed the people. Ninety-five per cent of the flour manufactured in Indonesia is used domestically. They were concerned that if they accepted genetically modified wheat, their international buyers might be reluctant to take the five per cent of flour that they export. Other buyers accepted that there is not a strong difference between GM canola and conventional canola oil. However, they were more uncomfortable about GM wheat because the path from the grain to the mouth is more direct; whereas canola undergoes a refining process.

In both the United States and Canada we learnt that Monsanto and Bayer have applied to release genetically modified - Roundup Ready - wheat. Canada exports wheat to about 20 per cent of the world market; consequently it is rather nervous about whether its regulator will give GM wheat the tick. Both the United States and Canada are concerned that if approval to grow GM crops is given in either country, it will not be long before the crop is grown in the other country. Canada is concerned about the move by the chemical companies to introduce these GM wheat crops.

This Bill provides flexibility to the Government of the day. It certainly gives Western Australia the legislative power to determine when, how or where the release of GM crops may occur in future. In Canada, there is no segregation of GM crops from conventional crops because it is not seen to be of value. In Western Australia a

segregation experiment was conducted by transporting canola from Geraldton to Fremantle. I do not know the end result of it. A number of issues have been raised about compensation. Promulgation of GM crops could caused contamination of machinery chains, which could prohibit canola exporters from declaring their crop completely GM-free. A number of issues must be addressed, some of which the report addresses. I am sure members of the Standing Committee on Environment and Public Affairs and other members have read its very exciting report - it is only 350 or 360 pages long and makes good bedtime reading! No doubt when the gene technology legislation is dealt with in the House, some of the disadvantages that might occur with the release of GM crops will be explored further.

Another and very important mechanism of accountability is that when an order is made to establish a GM-free or GM zone it will be subject to disallowance of this House by way of a regulation under the Interpretation Act. I am sure that if producers want to produce GM crops, any Government would want to be very sure that there is consumer and market acceptance around the world before they do so.

I notice a number of amendments on the supplementary notice paper, and the number has increased in the past few days. I do not have a problem with most of the amendments I have seen.

Clause 4 is the crux of the Bill; it empowers the minister to make an order designating the State as an area in which genetically modified food crops may not be grown. I notice that in one of the amendments the word "food" is sought to be deleted. That can be dealt with in Committee. Clause 5 provides the detail of the offences that can be committed under the legislation and includes some quite stringent protection measures for buffer zones. That in itself is welcomed by the industry, especially the industry that does not support the introduction of GM crops in Western Australia.

Clause 7 embraces the compensation factor. Other clauses are more general and cover such matters as authorised officers, entry under warrants, general powers to enter places etc. A report written by Max Foster for the Australian Bureau of Agricultural and Resource Economics and the Grains Research and Development Corporation concludes on page 6 -

In the main, the current generation of GM grain crops apparently offers significant agronomic benefits and, thus, the promise of lower prices to consumers.

I have never seen producers really gain much from any farm product, even from those that provide greater yields. That is the unfortunate part of life. That occurs in other primary industries. Pressure is put on producers, but the price does not drop at the point of sale within the retail sector. The report went on to say -

The next generation of GM crops is likely to offer significant benefits in terms of quality. However, if the problems of consumer acceptance of GM foods require elaborate identity preservation arrangements, then these benefits could be largely negated.

That issue was considered comprehensively by the committee and a number of recommendations were made. The report continues -

In the short run, at least, Australian grain growers are unlikely to be greatly disadvantaged by not having access to GM grain crops. And they may even profit if premiums for non-GM grain evolve in the market place. The threat to the long run competitiveness of the Australian grain industry is that preferences for non-GM products may erode as the novelty of gene technology diminishes and the industry faces having lagged behind in its development in this area.

Price premiums for non-GM grain will reflect the strength of consumer aversion to GM crops. If these premiums are not large enough to offset the agronomic advantages that GM crops may have over conventional ones, then GM crops may eventually dominate the world grain markets.

There has been an explosion in the use of GM crops around the world. Up to 70 million hectares of GM crops are now grown around the world. A report on GM plants by the Rural Industries Research and Development Corporation states -

At the end of the day, the adoption of GM plant varieties and production systems will rely on a superior economic performance, i.e. lower costs, higher profits, improved prices. Adoption may also rely to some extent, as cotton does, on environmental attributes (say fewer sprays). All the economic evidence collected since 1960 suggests that the cost price squeeze on Australian farms is a fact of life.

A number of papers have been put out on some of the benefits that have applied, such as greater yields. Bayer InVigor hybrid canola is one that stood out, with an improvement of about 15 per cent, whereas Roundup Ready canola provides a seven or 10 per cent improvement. There are some benefits in terms of better farm management practices. It was certainly evident in Canada that a number of farmers would not have been able to grow canola because of a problem with weeds. They have a short window of time in which to grow canola, because they must wait for the snow to melt and then for the permafrost to disappear before they can plant crops,

as germination cannot occur until the ground comes up to the right temperature. We jokingly told them that we had the same short time frame in which to put in our crops. One guy said to me that he did not realise that we had snow in Western Australia. I said that we did not have snow; our problem was a lack of rain. They have a different set of circumstances from ours. We have a very short window of opportunity in which to grow canola crops, mainly because of a lack of rain at times and the lateness of the start of the season. Some Canadian farmers were very happy because they would not otherwise have been able to grow crops in certain parts of their property. They are well behind us, but are now starting to catch up, in the area of minimum till. They were not previously able to do that. With Roundup Ready canola, they have been able to accommodate the problems and improve their yields. However, we noticed that they still had not recovered from the pretty adverse seasonal conditions of the year before. I am not sure whether conditions have been a greater comfort to them this year, because I understand that some areas in Saskatchewan and Manitoba are still reasonably dry.

At the end of the day it will come down to a couple of things. Basically, it is the producers' bottom line. Western Australian farmers have always been regarded as the best dryland farmers in the world. That has been proved, because they have been sent overseas to assist other countries. A cost price squeeze continues in farming. If the amount of chemicals that need to be used in farming can be reduced, the cost of farming will reduce and farmers will be able to continue to use minimum till. If farmers can see advantages with gene technology - some of the issues we discussed were rust resistance, saline tolerance, resistance to fungal diseases and improved yield - there will probably be a push by producers in the medium term to access that technology. They will have to satisfy themselves. Farmers in Western Australia are responsible and take a very responsible attitude towards advancements in science that will assist them. They will have to weigh that up at the end of the day. It was important, rather than just have a blanket moratorium over the whole State, to acknowledge that there could be a push by industry in two years, five years or maybe even 10 years to commercially grow GM crops in Western Australia. I suggest that that probably would involve canola rather than wheat in the short to medium term.

Some members may not agree, but I believe that clause 4 is very important. If we do not give the Government, the minister and the industry of the day an opportunity to access any identified benefits, we will be doing a disservice to those who grow grain crops. There are a lot of unanswered questions - they will no doubt be raised when we discuss the other Bills - in the areas of compensation, segregation and costs and about whether there will be a premium for non-GM crops around the world. I very much doubt that that will occur.

While I was in Melbourne on the long weekend in June, I went to a supermarket close to where I was staying to buy some cornflakes. It cost \$2.50 for a small packet of ordinary cornflakes and about \$8 for the same size packet of cornflakes made from organically grown corn. Members can guess which packet I bought. I am not a skinflint but I chose the ordinary cornflakes. I am not sure whether consumers will buy those types of products from supermarkets just because they do not like genetically modified products. I do not think that will occur.

Food labelling is another issue. It has been a big issue in the United States and Canada. Countries like Argentina, Brazil and Mexico are growing large quantities of all sorts of GM crops and are readily selling them around the world. The minister will probably talk about the borer in corn crops, in his response to the second reading debate. I am sure members will be most interested when he talks about some of the other benefits that we do not think about.

The Opposition supports the Bill. I will conclude my remarks because the background to gene technology will be discussed when we debate the other two major Bills. This is a sensible piece of legislation. I note that there are a number of amendments to the Bill on the supplementary notice paper and they will be debated at the committee stage. The Opposition feels that there must be flexibility in the whole system, whether or not it is seen clearly by Western Australians, producers or consumers around the world. Perhaps we should designate the whole State a GM-free zone. Who knows, maybe canola could be grown more successfully in the area south of the Great Eastern Highway. All those issues must be addressed. Is segregation worth it? Does it acquit the cost? Who will pick up those costs? It is a very complex issue. However, as the Opposition and I see it, it is very important that we have some flexibility.

HON FRANK HOUGH (Agricultural) [11.52 am]: One Nation supports the Genetically Modified Crops Free Areas Bill. However, one issue that needs serious discussion is that of trials of GM crops in Western Australia. One Nation is not very happy about that issue, and it will come up for discussion. However, we do not want to put a spanner in the wheel at this stage.

When I originally became involved in the inquiry into GM crops, I had a very open mind. I do not think there is any middle ground to the issue. There are people who are anti-GM and there are people who are for it. The anti-GM people are totally opposed to it and have no flexibility, and the people who are for it do not seem to have any flexibility either. Madam Deputy President, you are also on the committee, and you may or may not have come to that conclusion. There does not seem to be any happy medium in this area.

I have asked three questions about GM crops over a period of 12 months. I recall a meeting at Parliament with the three main buyers - one was from Japan, one was from Korea and, I think, the third was from Taiwan. They spoke on the pros and cons of GM crops and on buying GM products. I clearly remember the question I posed at the end of the day because I wrote it down and it rings in my mind every time I think about the issue. The question I asked of them at the end of the meeting was: if they had a message for the Premier of Western Australia, what would it be? They said categorically that Western Australia should not become involved in GM crops.

The second question I asked was of a fellow by the name of Jim Miller in Washington. Jim is the chief economist and, I think, the national vice president of the North American farmers association, which encompasses 387 000 farmers. At the time I spoke with Jim, I posed one question to him. I asked him what his opinion was of GM crops. He said that more than 80 per cent of farmers in the United States would turn back the clock if they could and would never have grown GM crops.

The third question I posed was to a professor at the University of Saskatchewan. I cannot remember his name, but perhaps Hon Bruce Donaldson or Hon Jim Scott can recall his name. He was a doctor of medicine and also the chairperson of the World Health Organisation. He made the point that nothing in all the tests and research that had been done on GMOs proved that GMOs were harmful to human beings. He was quite categorical about that. I questioned him again and he said that all the tests and the scientific history show that there is nothing harmful in GMOs. I asked him whether he would be prepared to write us a letter stating that in 10 years we will not suffer any harmful effects from genetically modified food. He said that he could not do that and I asked him why. He said that his tests proved it, but he could not guarantee in writing that that would never happen. My next remark was, "So it is probably as safe as thalidomide?" He said that if a marker gene was put in the crop, and if anything happened in 10 or 20 years - he went from saying that it was completely safe to saying "if anything happened" - the marker gene could be traced to find the problem. They were the three questions that I posed over a long period.

I listened to the comments of Hon Bruce Donaldson about costs. If the mean cost of the product were at a certain level, the technology would need to be used. The whole issue revolves around buyers. It does not revolve around producers. I can make what I like, but if no clown out there will buy it, it is stupid to make it. It appears that the general community is slowly becoming averse to genetically modified crops. It is no use saying that GM crops provide better yields, that they need less tillage, and can be produced more cheaply. The Government cannot tell people that they must buy a product that has been produced at a great cost. This is Australia, not America, which will threaten other countries with retaliation if they do not do what the Americans say.

We must consider the interests of Western Australia. Western Australia has great opportunities. It is an island. It has the ocean to the west and the Great Sandy Desert to the east. It is an island that is isolated from the rest of Australia. I hope that members do not think I am a greenie - I am not - but WA has an opportunity to show its clean, green image. GM crops are already being trialed in the State, which I seriously oppose. This issue is about growing GM-free crops. Hon Bruce Donaldson said that when he shopped for cornflakes, he found that there was a premium on GM-free cornflakes but not on GM cornflakes. Would people pay a higher price for GM-free cornflakes? If Western Australia remained the only State in the world that was GM free - if it remains GM free, and one would hope and pray that it does - Western Australian products could be sold to any country. GM-free products could be sold to countries with GM crops and they could be sold to countries with non-GM crops. If we sold only GM crops, we could sell only to countries that were prepared to buy GM foods. Today there may not be a premium on non-GM foods because there are still countries throughout the world that sell non-GM foods. Is there a premium for non-GM products? Perhaps not today, but it is possible that in several years, buyers from Japan, China and particularly Europe will pay a premium. Markets fluctuate and buyers come and go. We have an opportunity to be a GM-free State. The world is our oyster, and the market is open.

Hon Bruce Donaldson: Canada does not have any problems selling its canola.

Hon FRANK HOUGH: Canola is one of the products that can be sold even if it is genetically modified. However, it might be more difficult to sell GM wheat or rice or whatever. Western Australia is unique; it is an island, and it should be preserved. The Monsanto-Bayer groups initially said that GM crops could be grown 250 metres from non-GM crops. However, they then revised that figure to 750 metres and then 1 000 metres. We have been told that GM durum wheat appeared in crops that were five kilometres away - kilometres, not metres. That can happen anywhere. At this time last year, I was fishing from my boat about seven kilometres offshore from Ledge Point with a mate of mine. It was a very hot day; there was an odd puff of breeze. Suddenly a swarm of bees that had got caught in an air stream landed on the boat. They were seven kilometres out to sea. It is possible that they could be blown 20 kilometres inland from a GM crop to a non-GM crop.

Hon Bruce Donaldson: Did you get the honey?

Hon Bruce Donaldson; President; Hon Frank Hough; Hon Jim Scott; Deputy President; Hon Murray Criddle

Hon FRANK HOUGH: No, I got stung on the back of the neck. My friend surgically removed the bee sting. It hurt like hell, so we had to stop fishing.

Hon Paddy Embry: It must have been a bad hurt.

Hon FRANK HOUGH: The other problem was that we were not catching any fish. I was thinking of the fish bag limits at the time.

Hon Kim Chance: Good man.

Hon FRANK HOUGH: I always abide by the laws. I am thrilled that the Government gave the committee the opportunity to travel because it enabled the committee to speak with many people. The differences of opinion that were expressed to the committee were incredible. We spoke with two types of people: those who are in favour of GM crops and those who are against GM crops. The people who are opposed to GM crops seemed to be farmer types. They were slow talking and had good intentions. The people who are in favour of GM crops were very slick, educated and they were brilliant spin doctors.

Hon Murray Criddle: Who grows the 61 million hectares of GM crops in the world now?

Hon FRANK HOUGH: In Canada?

Hon Murray Criddle: Anywhere.

Hon FRANK HOUGH: Who grows it?

Hon Murray Criddle interjected.

Hon FRANK HOUGH: Not Australia. Is the member talking about Canada?

Hon Murray Criddle: I am talking about the world. You said all the smooth types were the only ones interested in GM crops.

Hon FRANK HOUGH: I do not think the member was listening to me. He missed the point. I said that the spin doctors who are in favour of GM crops were very well-versed and were high-pressure sales people. I was talking about the two different types of persons who were stating the cases for and against GM crops. The people against it are moderate people and the people for it are highly geared, highly educated, high-pressure sales people who have good education credentials.

Hon Bill Stretch: They don't fool us.

Hon FRANK HOUGH: No. I think the trip with the committee gave me some very good insights into the program. When I began to look into the GMO issue, I had an open mind. I was neither for nor against GMOs. As Hon Bruce Donaldson said, 370 pages went to print and another 1 000 pages could have been printed. I got a very clear picture of the pros and cons of GMOs. It all comes down to whether people will buy the products. We cannot tell people that they must buy GM foods because that is all that is available. Miller, a representative of the North American dealers, said that the dealers were very strongly pushing for the Canadians to produce GMO wheat. They believe that if the North Americans and the Canadians produced GM wheat, Australia would be dragged into the market and then the problems would not be insurmountable, which they would be if Western Australia remained a non-GM-growing State. I urge the public of Western Australia to support the non-GMO stance.

I will not delay the Parliament. One Nation will support the Genetically Modified Crops Free Areas Bill 2003 but will engage in a discussion about the already commercialised introduction of GMOs.

HON JIM SCOTT (South Metropolitan) [12.10 pm]: The Greens (WA) support this legislation. We thank the Minister for Agriculture, Forestry and Fisheries for listening to the issues we raised with him and his advisers. We are very pleased with the final shape of the Bill. This is a very important piece of legislation. It is by far the most important piece of legislation the minister has brought to this Chamber. I say that because the current regulatory regimes in the United States, Canada and Australia are in a mess. That is probably also the case in many other countries, but I have not studied all of them. People in those countries are in trouble as a result of the failure to recognise the potential impact of genetically modified organisms. The United States and Canada now face the introduction of genetically modified wheat, and they know that 82 per cent of their market will go down the gurgler when that happens.

Hon Murray Criddle: Where is the world stockpile of the GMO grain that has come from the 60 million hectares?

Hon JIM SCOTT: I am not talking to the member right now; I am giving my speech. I will address the member and his little pro-GM mind if he likes.

Hon Murray Criddle: I am not stating a position. I just want the answer.

Hon JIM SCOTT: Okay. The member is wondering where it has gone. I will give him one example. In the United States not only GM corn crops but also all corn crops that have been contaminated with StarLink corn have had to be rounded up because they are unsalable. That has cost the United States its corn market in much of the world and more than \$1 billion. Some of the stockpile has been destroyed; that is where it has gone. I cannot speak for every GM crop in the world.

I return to what I wanted to talk about, which is the weakness with the legislation in Canada, the United States and Australia. That weakness results from the determination that there will be science-based assessments for health and the environment. A little background is probably needed. This is one of the really important issues that arose in the discussions the Standing Committee on Environment and Public Affairs had with overseas buyers of Australian grain. In particular, the representative from Mitsubishi Corporation - whom Hon Frank Hough just mentioned - said that we should not develop a GM market at this stage. He pointed out some things about the Japanese consumer. The current world GM crops are mainly soya bean and corn. The majority of those crops do not go directly to human consumption but are given to animal feed. Hon Bruce Donaldson referred to the oil that is extracted from canola. Very little of the DNA remains in the oil. The amount of DNA that remains is an impurity and depends on how well the product has been processed. Mitsubishi Corporation has been prepared to accept that oil. Hon Bruce Donaldson said that it was not concerned about it being in animal feed. However, since our meeting, a one per cent limit has been placed on the amount of GM material that can be in the feed given to animals in Japan. The representative from Mitsubishi Corporation referred to food that is directly consumable, such as soya products and bread made from GM wheat, and said that the consumers do not want a bar of it. They will not buy such products. That gentleman provided the committee with information about the Japanese market that showed that Australia is selling to Japan as much canola as it can produce. Japan is a large consumer of canola oil. The gentleman said that his company prefers non-GM material; however, it cannot always source sufficient non-GM material and the competitive nature of the industry means that the corporation cannot afford to engage in segregation and set up two different systems. At times the corporation is stuck with GM material but it would buy entirely non-GM material if it could. Graphs of the Japanese market clearly show that whenever Australia has a good year, it takes from Canada a larger chunk of the Japanese market.

The United States and Canadian markets face the imminent introduction by Monsanto of GM wheat. That will place those markets in absolute turmoil. Nearly all their buyers have said that they will not touch GM wheat as a direct-consumption material. If any contamination of wheat by corn or canola seed is discovered, the United States and Canada will lose their markets. That is a very great concern. There is the potential for contamination by not only the same grain but also different grains. Countries will not continue to buy from suppliers selling contaminated grain. That is very important. However, the United States and Canada cannot do anything about it because as long as Monsanto goes through the regulatory system it is able to offer GM crops for sale and people are able to buy them. Monsanto is holding back on its release of the grains as a goodwill gesture. However, as soon as the first GM wheat is released, those countries will be in big trouble because there is no way they will be able to control the situation. Australia is in the same position.

Hon Kim Chance: That is because the Australian Quarantine and Inspection Service will no longer certify Australian wheat as GM free because of the commercial trials of GM canola and the possibility that Australian wheat will contain some of that canola.

Hon JIM SCOTT: That is current.

Hon Kim Chance: Yes. Western Australia will certify.

Hon JIM SCOTT: Already those sorts of impacts are being felt. I had a slightly longer trip than some members. I know that Hon Louise Pratt also travelled to London at the same time as I did. I met with a number of people in London. However, I did another thing, apart from attending those meetings. I will talk about those meetings when we deal with the main Bill, because we will be talking about the health impacts and so on, and there are significant concerns in that direction. One of the other things that I did was that I took the liberty of going through all the supermarkets in the area in which I was staying to look at the way in which they are set up. Currently, there is huge growth in the area of clean, green, chemical-free, or low chemical, and certainly non-GM produce. Large sections of the supermarkets there were set up to cater for this type of produce. They were the biggest parts of the supermarket, not the small parts. That is one of the interesting things in this whole debate.

Hon Kim Chance: Was that in the major chains?

Hon JIM SCOTT: Yes, Iceland and Safeway, I think it was called. I deliberately went to a number of different supermarkets and looked at their produce. In Europe, the reality is that there is huge consumer concern. While we are talking about the possibility of the restrictions on GM products being lifted because of pressure from the United States -

Hon Bruce Donaldson: De facto trade barriers.

Hon JIM SCOTT: The member may call them de facto trade barriers. However, I was about to say that it does not matter whether those restrictions are lifted, because the supermarkets will not touch those products. Europe has set a figure of one per cent as the limit, but the figure is 0.1 per cent for the supermarkets, because that is the lowest amount that can be tested for. The people there do not want any GM products. Therefore, it would not matter if that restriction was lifted by certain countries or by the European Union; in fact, the restriction would remain, because the supermarkets would not touch those products. Therefore, we can forget that. The situation is much the same in Japan. The consumers union in Japan is massive. I have heard various figures quoted of the number of people who are members of that union, and the figures vary widely. From 15 million to 20 million are the varying figures that I have heard quoted of the number of people who have clearly stated that they do not want food containing GM products.

There are two levels. Governments say various things, but in most instances they are under pressure from the United States. However, consumers are the people who should be driving this issue. The GM industry has turned on its head the traditional idea that the consumer is the person who should be listened to. The GM industry has said that people should have these products and should have no choice. A Canadian canola seed-selling company came to Australia about two years ago. I took a clipping from the *Countryman* because a person from that company had said that he believed Australia should join with Canada and grow GM canola, because then the European consumers who have no choice; they would have to eat it. That is the attitude, and it is wrong. Believe it or not, GM crops are a small niche market. They are presented to us as the future, and that there is a huge, non-stoppable machine. However, those crops make up only three per cent of the total world market. It is a tiny portion. Therefore, we must make sure that we protect our existing industries. This legislation is the only way to do that, due to the very deficient federal legislation.

Hon Christine Sharp interjected.

Hon JIM SCOTT: To the agreement, yes. I took from the web site set up by Non-GM-Farmers.com the *Hansard* from the Senate estimates hearings. Most of it comprises Senator Heffernan and Senator Cherry questioning Sue Meek from the Office of the Gene Technology Regulator and her adviser, a Mr Slater. I will quote from that, because it gives an idea of some of the problems. It starts with a quote from Sue Meek. She said -

“It is not for me to judge whether or not industry can or cannot segregate for marketing purposes. The way that the Gene Technology Act has been formulated by agreement with all state and territory governments is that economic and trade impact issues are outside the scope of this office.”

That is certainly one of the reasons that this legislation is before us today. She went on to say -

As I said, Senator Heffernan, the issue of whether or not the crops can be segregated for marketing purposes is one that industry has to work out.

The idea is that it should just be left to industry. She said further -

We look at three issues in relation to our risk assessment and risk management plan: toxicity and allergenicity is one of them; the second one is whether or not the genetically modified organism itself could be moved out of the site where it is grown; and the third one is whether the introduced gene could be moved into other plants. So there are three key areas.

She said -

It is my business to assess whether or not that genetic modification has an adverse impact on human health and safety in the environment.

Senator Cherry put this question -

Only the narrow issue of that gene, not what that gene is for.

Dr Meek said -

Whether or not the modified plant behaves differently, for example, in the Australian environment to the non-genetically modified variety is certainly something we would take into account, but what we need to look at is whether the risks that are presented, if they are indeed presented by a genetically modified organism, can be managed.

Another question was asked by Senator Cherry. He said -

What research have you commissioned on the issue of human health effects of GM crops?

The answer was quite an awakening for me. I was quite surprised when I read it, because I was under the impression that the role of the Office of the Gene Technology Regulator was to ensure that GM products were safe for human consumption. The answer from Dr Meek was -

Directly, we have not commissioned research. Obviously, Food Standards Australia New Zealand does a lot of work in assessing food products.

Senator Cherry said -

But they have commissioned no research either.

Dr Meek said -

I am not aware of what they have done, -

That is a bad start -

but there is obviously a great deal of data. All seven lines of the Bayer and Monsanto oils from those canolas have been approved both nationally and internationally.

Senator Cherry asked -

And once that is done, you don't investigate that further?

Dr Meek said -

We would look at any effects relating to toxicity and allergenicity related to the handling of the genetically modified organisms, but we would not reinvestigate food use.

That had not been investigated anyway by anybody. In fact, no testing is going on of genetically modified foods by the OGTR or by Food Standards Australia New Zealand. I also asked how food in the United States is tested for safety. I was told that the molecules of the genetically modified product are examined and if they are substantially equivalent to the molecular structure of a safe, non-toxic food, the product is considered safe. If it has similar molecular structure to a toxic organic substance, it is considered not to be safe or that it warrants investigation. There is no system of testing food for safety. I understand that only three tests of GM products have been carried out and two of the products were found to be flawed. I will not go further down that path because I will deal with it during debate on the other Bill. It is well worth noting that the Office of the Gene Technology Regulator is doing very little testing. It is not testing for health impacts. In fact, it has claimed that GM crops will have no environmental impact. Dr Stephen Powells gave evidence to the Western Australian Standing Committee on Environment and Public Affairs on his research into the spread of GM canola to not only paddocks containing non-GM crops but also into other plants, such as close relatives of the crops that make up some of our most important weeds in the farming system.

A member of the Opposition: Which crops?

Hon JIM SCOTT: Canola crops.

A member of the Opposition: Bassicas.

Hon JIM SCOTT: Yes, Bassicas, as my colleague pointed out. Dr Powells' research was interesting because it indicated that only a low level of contamination spread to other crops. He could find no evidence of crossovers to other species. Quite frankly, from what I have heard of the Australian research, I have some serious concerns about the methodology that was used. Compared to the research done overseas, that research falls in a hole. Tests in Canada have revealed some significant out-crossing. We spoke to people with vast experience in this area, such as Rene Van Acker, who is based at the University of Saskatchewan. He is an expert on the spread of canola as a weed. The theoretical approach applied by the Australian Gene Technology Regulator that the latest GM canola variety can be given approval without any need to create a buffer zone flies in the face of testing in Canada and the advice of Rene Van Acker, who has vast experience, that a mile-and-a-half or a kilometre-and-a-half buffer zone should be established and, even then, major problems will arise.

The testing in Canada has revealed huge amounts of out-crossing. I have numerous documents that illustrate a problem. A document I found this morning from the Organic Consumers Association states -

“non-GM canola has been contaminated to a significant degree in Western Canada” and “it is likely that a release of GM wheat with only the confinement regulations that existed with the release of GM canola would lead to the uncontrolled spread of GM transgenes within the wheat genome of Western Canada at an even more rapid rate, and to an even greater extent, than is being realized with canola.”

That was not the report I intended to quote from; nonetheless, it was relevant. Reference has been made to the spread in Europe not through pollen but via contaminated seeds. Rene Van Acker said that was the most likely source of contamination that we should fear; not from the flow of pollen, which had been a problem. It was very

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interesting because one of the other groups we spoke to in Canada was the organisation that represents growers of certified seeds in Canada. I can provide members with the proper name later.

Hon Murray Criddle interjected.

Hon JIM SCOTT: Members of that group told the committee that it is impossible to buy non-contaminated certified, pedigree seed that is not contaminated with GMOs. Canadian seed growers were able to tell our committee that they could provide seed in Canada to grow non-GM crops but they wanted a five per cent tolerance. However, five per cent tolerance will cause significant problems.

Hon Kim Chance: Seed growers allow five per cent.

Hon JIM SCOTT: Yes. Markets everywhere handle only one per cent tolerance.

Hon Dee Margetts interjected.

Hon JIM SCOTT: That is right. Some very interesting information came out of Mexico recently where GM corn is not grown and where native corn comes from. There was significant pollution of the Mexican corn crops by, in particular, StarLink corn from the United States, which is not for human consumption. That was the corn which caused the US to lose its corn market and it had to withdraw from the shelves massive amounts of that product which is used to make taco shells etc because of that contamination. Even the wild corn in Canada has been contaminated by StarLink corn. The article I have from CorpWatch, a group that watches the behaviour of corporations, reads -

Last September the Mexican environment ministry (INE) announced that cornfields in the states of Puebla and Oaxaca turned up GM-positive. In November, Nature magazine published a peer-reviewed article that confirmed INE's findings. According to Antonio Serratos, of the Mexico-based International Center for the Improvement of Maize and Wheat (CIMMYT), if a farmer with a one-hectare plot plants a single row with GM seed, 65% of the plot will be GM in only seven years.

That is pretty staggering and does not really fit in with Stephen Powles' theory of life. Of course, Stephen Powles was paid by Monsanto to do that research.

Hon Dee Margetts: And he is the chair of the Gene Technology Technical Advisory Committee.

Hon JIM SCOTT: And he is the chair of the Gene Technology Technical Advisory Committee. I do not believe that people with that sort of vested interest should be supplying the scientific evidence for the Gene Technology Regulator. One reason for the need for this legislation is that the Gene Technology Regulator has said that she thinks it is okay to release this new hybrid product in Western Australia. I point out to Hon Bruce Donaldson that the huge percentage gain in crop yields was not quite accurate because the figure was obtained by comparing the yields from this plant with the worst yielding - not the average yielding - of the other canolas. Secondly, all hybrids, no matter whether they are GM hybrids, will outperform non-hybrid plants. That is called hybrid vigour, and has been known for a long time. The Gene Technology Regulator has said that it is okay to release this crop. She is not concerned about segregation. According to her statement to the Senate Estimates Committee, that is up to industry. However, it is of great concern to farmers who want to maintain their markets. As the committee pointed out, at this time no facilities are able to provide segregated storage or transport of GM produce and non-GM produce. We do not have the systems in place. We must be able to control it by regulation. Thank goodness the minister has moved this technology on to the House.

All the national schemes are failing us, whether in Canada, the United States or Australia. The markets for GM produce are far smaller than for conventional or organic produce, which 100 per cent of the market is prepared to go with. There are no restrictions on the existing markets for conventional or organic produce. In fact, the organic market is the most rapidly growing market for all types of crops, probably in response to GM.

Hon Bruce Donaldson: There is a greater risk of gastroenteritis with organically farmed products.

Hon JIM SCOTT: That is absolute rubbish.

Hon Bruce Donaldson: No, it is not.

Hon Kim Chance: It is a red herring.

Hon JIM SCOTT: Hon Bruce Donaldson has raised another bit of propaganda that has been put out by the industry. I have the research on what he is -

The DEPUTY PRESIDENT (Hon Kate Doust): Perhaps Hon Jim Scott should not stray from the Bill we are dealing with today and should not be distracted by the red herring that has been thrown to him.

Hon JIM SCOTT: I should not indeed. There are significant negatives with the growing of GM products. The positive that has been put to us is greater crop yields. All the research shows that for the majority of crops there

are no improvements in profits for farmers or yields of crops. In fact, the latest research from the United States shows that there has been a massive increase in the use of herbicides in the United States since the introduction of GM crops. There has been no reduction in herbicide use. The other problem we will have is that we will be faced with a lot of products. I am glad that the minister has amended the reference from food crops to crops, because a number of food crops are being grown in the United States not for food but for pharmaceutical and industrial products. That is of real concern. For instance, one of the products being grown in corn is blood coagulates. Nobody wants to eat his plate of cornflakes in the morning and end up with coagulated blood. We know that it is impossible to constrain the spread of these plants.

Hon Dee Margetts: Heart attack crunchies!

Hon JIM SCOTT: Yes. We need to be very careful about pharmaceutical food crops. Even the trials of these sorts of products should be conducted in glasshouses and not in an open field situation.

It is worth relating that there is some concern about the ownership of seeds. Most members will be aware of the Schmeiser case, which I will not go into in detail. Basically, Mr Schmeiser's crop was contaminated with a GM plant. He took seed from the Roundup Ready canola hybrid and grew it on his property. It ended up that he had to pay Monsanto a huge amount of money for the intellectual property in the seed. Those sorts of issues will cause farmers a lot of concern. Who owns the seeds? I am not aware of any solution for that in Australian legislation. I am concerned about that aspect, particularly as the whole purpose of GM technology is to take control of the ownership of seed, whatever the crop that is being grown. What really brought that home to me on the trip to Canada was looking at the way in which GM seed is produced. They gave us the example of corn. Indian corn is very sweet and has red skin. Seeds were taken from the larger varieties of corn, which were not so sweet, and placed in the bottom of a chamber. The red bits of the Indian corn were scraped off and stuck to tiny pieces of gold. The gold was put at the top of the chamber and the door closed. A blast of CO₂ forced the gold to penetrate the corn seed at the bottom of the chamber, which was then taken out and grown. However, it was not the sort of lovely precise idea that people had of the technology. My first thought was that it was clear that sweetness would not be the only thing that would be shot into the seed below. Also, it would not be placed in the right point in the gene string. I thought that it would not be known what would come out of those seeds until they were grown. Indeed, that was the case. The seeds had to be grown. The company then had to go through the same traditional selection process. I asked myself whether it would not have been easier just to grow a row of Indian corn alongside a row of other corn to allow for pollination crossover. That would be just as quick, much easier and less costly. Then suddenly the penny dropped. The difference between the two technologies is that the patent rights are owned in one case, and are not in the other. That is the secret of this technology. It is not about helping farmers; it is about helping seed companies, particularly chemical companies that have recently gone into growing seeds so that they can insert tolerances to their own chemicals. It is very important that farmers in this country be allowed to continue to harvest their own seed and regrow it. That is another reason the legislation before us is very important.

Another issue of great concern, which became apparent to me in Canada and the United States, is the uptake of genetically modified crops. I heard comments that it is wonderful that these crops are expanding at a great rate, that people are taking them up and that they are very popular. The web sites of the various associations that grow either corn or canola did not seem to express the same amount of glee and happiness. In fact, I note that there are now reductions in the amount of corn and soya bean crops planted in the United States. I wondered why the uptake has been like that. The reason is that it is linked to the cost of segregation. The way the legislation is written in those countries - or their lack of proper regulation to protect non-GM crop growers - has meant that all the segregation costs are pushed on to the farmers of non-GM crops. In Canada that cost is about 20 per cent of their total output. It very significantly increases their cost of production. If a farmer's crop is next door to another person's GM crop, and that farmer accidentally uses some of the seed from the GM crop, he is likely to be fined and will have to pay large amounts to Monsanto. Alternatively, if he has to pay a large amount to segregate his crop, he will be at a huge disadvantage compared with his neighbour who is growing a GM crop. He has no choice. He must take it on; he cannot afford not to take it on. That is why this legislation is so important today - it will reverse that cost. If we did not do that, we would set in place an impossible situation for our farmers who want to grow non-GM crops to maintain their markets in the future. They would be forced to grow GM crops. There would be no other choice.

Furthermore, consumers also would be left with no choice. If I had more time, I would go into the reasons that this legislation is important for consumers. If we allowed a spread of crops - as has been done with maize crops in Mexico, where 65 per cent of the plots were genetically modified from just one row of a crop in a one hectare plot - very soon we would not be able to provide non-GM food to consumers. Not only would we lose our markets, but also people in Australia would have no choice whatsoever. I am very pleased that the minister has introduced this legislation into the Parliament. The Greens support it. We hope it is very effective and will provide the protection that it appears to provide. I will reserve my remarks on a number of areas that I have not

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addressed until we debate the other legislation because there is a great overlap between them. However, it is important that people understand that this legislation at least gives the opportunity for non-GM farmers to continue to produce and for non-GM consumers to continue to get that product. I support the legislation.

HON MURRAY CRIDDLE (Agricultural) [12.55 pm]: First, I point out that after a large amount of debate at the National Party conference, a moratorium was called for on the growing of GM crops until 2007. I assure Hon Jim Scott that I am not talking from the point of view of GM farmers. I also indicate to the House that I have a very significant interest in a farming operation, which, incidentally, does not grow canola.

There is a great deal of confusion about the real argument about GMOs. During the debate at our party conference, the young people pointed out that the issue is not about whether we keep this crop away from that crop; the real issue is the impact of GM foods on the health of people in the world. We are entering into that fear of the unknown, beyond the current debate on this legislation. One of the key issues of anything related to gene technology is the definitions of “gene technology”, “genetically modified crops” and “genetically modified organisms”. I often wonder about chickens nowadays. There is three or four times as much meat on the body as there was a few years ago and I would like to know how that has happened. Consequently, I do not eat too much chicken. The issue that concerns me is the impact that a gene taken from one species - it might be from a fish or whatever - and put into grain may have on the health of people in the future and whether they will start growing scales.

Hon Kim Chance: Transgenics.

Hon MURRAY CRIDDLE: I am putting it very simply. That is the issue that people are really worried about. Transferring genes from plant to plant does not concern me so much. Indeed, the production of lupins has progressed. We know of the wonderful work that has been done in Western Australia with the sweet white lupin, and Dr Gladstones is pre-eminent in that area. They are the sorts of issues that people worry about. In fact, I understand that this legislation designates areas within which GM crops cannot be grown. However, it will still allow for the cultivation of crops for experimental purposes, so it will not prevent research into GM crops. That is absolutely essential. We could well use the experiences from overseas, but that technology will be allowed to go ahead. The points made at the National Party conference were about the effect on the health of people and the definition of “gene technology”. The other day I heard a lady say on a radio program that the real issue the definition and how far we go with the introduction of genes from other species.

This Bill will allow parts or the whole of Western Australia to be declared genetically modified crops free, and it will be an offence to knowingly cultivate GM crops in that area. There is an opportunity to impose significant penalties. That will be another issue, particularly if the eastern States start to grow GM crops. People have said that Australia is an island. It may not be as difficult as it seems for people to cross the WA border with a truckload of something or other. It would be very difficult to prevent the introduction of genetically modified grain into the crop of a farmer who wants his crop to remain free of GMOs. It is all very well to talk about the perception of a clean, green image, but, in reality, it will be very difficult to maintain. As Hon Bruce Donaldson has said, experiments have been done on the grain handling chain to see whether grains can be kept separate. It would be very difficult to prevent contamination by a canola seed in the system.

Hon Bruce Donaldson: That is why Canada gave up. It did not even worry about it.

Debate interrupted, pursuant to sessional orders.

[Continued on page 14200.]

Sitting suspended from 1.00 to 2.00 pm