GENETICALLY MODIFIED CROPS FREE AREAS EXEMPTION ORDER — DISALLOWANCE

Motion

Pursuant to standing order 152(b), the following motion by Hon Giz Watson was moved pro forma on 24 March —

> That the Genetically Modified Crops Free Areas Exemption Order published in the *Government Gazette* on 29 January 2010 and tabled in the Legislative Council on 3 March 2010 under the Genetically Modified Crops Free Areas Act 2003, be and is hereby disallowed.

HON GIZ WATSON (North Metropolitan) [8.35 pm]: I wish to speak to the disallowance motion that I moved back in March and to indicate that the Greens (WA) will take every opportunity that we can to keep Western Australia free of genetically modified crops. I realise that we have debated the question of genetically modified crops in Western Australia a couple of times in this place. Tonight I particularly wanted to focus on the so-called trial that took place and that supposedly has been the supporting evidence for lifting the exemption in this state. I wanted to touch on the following points: that GM canola cannot be effectively segregated from non-GM canola and other grains and indeed the trials have proven this; that this exemption order will deprive WA growers and consumers of choice; that it has the very real potential of damaging the livelihood of non-GM farmers, particularly those who choose to grow an organic product; that the contamination in the so-called trials last year, the test segregation, was proven to fail—there were 11 instances of failure of the segregation; that the cost of the contamination of non-GM crops by GM material is likely to be borne by non-GM farmers; and that the market advantage of non-GM canola and other crops will be lost.

This disallowance comes about under section 4 of the Genetically Modified Crops Free Areas Act 2003, which permits the minister to make an order that designates part or all of the places in the state where GM crops or a specific GM crop must not be cultivated. By this means a statewide moratorium was imposed—a while ago now. Section 5(1) of this act provides that a breach under the act is an offence with a penalty of $200 000. However, section 6 permits the minister to make a further order exempting a person or a class of persons from section 5(1), and this exemption can be subject to conditions. The effect of the exemption order is that technically cultivation is still not allowed, but there is no way to enforce this as there is no penalty for breach.

In 2009, pursuant to a section 6 exemption, GM canola was cultivated on a trial basis, supposedly to find out whether it was possible to segregate GM canola from non-GM canola and the agronomic viability of GM canola under WA conditions. In January 2010 the trial was declared a success in a report by the Department of Agriculture and Food. The minister has now made a further section 6 exemption order and it is this exemption order that I seek to disallow this evening. It was published in the *Government Gazette* on 29 January 2010 and reads —

> A person who cultivates genetically modified canola in Western Australia is exempt from the application of section 5(1) of the Act if the genetically modified canola is licensed for intentional release into the environment under the *Gene Technology Act 2000* (Commonwealth).

That is the commonwealth act. This was tabled in the Legislative Assembly on 23 February and in the Legislative Council on 3 March. The exemption order is strongly opposed by the Network of Concerned Farmers, the Organic Growers of Western Australia, the GM Free Consumer Network, the Wilderness Society, Greenpeace, the Conservation Council of Western Australia and various members of the public, as well as both the Greens Party and Labor Party of Western Australia. It is interesting to note at this point that also at least 20 shires in Western Australia have indicated that they do not wish to have genetically modified crops grown in their area, including the majority of the shires that are in Minister Redman's own electorate. Therefore, there is significant opposition in country electorates as well.

The first point I want to make is that GM canola cannot be effectively segregated from non-GM canola or other grains. This will deprive WA growers and consumers of choice and it will injure the livelihood of non-GM growers. The government has argued that the exemption order promotes freedom of choice between GM and non-GM canola. It does not and in fact the government actually conceded this point in answers to some questions that I asked in this place. Why can it not be segregated? I know some members in this place are familiar with canola and how light, small and mobile it is, but those members who might not have got the idea should think of mustard seeds, poppy seeds and hundreds and thousands. Canola seeds get into the crevices of farm machinery, escape through very small holes and cracks and they can be carried on the wind. The report of the trial includes a list of lengthy precautions that were taken to prevent GM seed from escaping. In this way, the report acknowledges the difficulties of trying to achieve segregation. On 13 August 2009 in the Legislative Council, the Greens brought on a disallowance motion regarding the exemption order that permitted the trials to take place. We said then that segregation would be impossible and that contamination was inevitable. The eighth report of

the Standing Committee on Environment and Public Affairs, which was published in July 2003, said the same thing. The report of the trial shows that, in fact, these predictions were correct. The trial, if members will recall, involved 19 commercial-scale plantings and 33 small-scale plantings—that is, a total of 52 plantings. Out of those 52 plantings, 11 incidents occurred and that is a rate of approximately 20 per cent failure. There was one incident of the seed being delivered directly to the site rather than to a quarantine authority as required, two seed spills, one incident of planting too near to a non-GM canola crop, and one incident of wind blowing seed into an adjacent cereal crop. There was one incident of the wrong amount of seed being sown and the site was abandoned, but some of the seeds germinated on that site in the wheat crop. There was one incident of delay in grain delivery while it was ensured that it was within the limits of wheat seed levels, one incident of grain being left in the wrong place, one incident of windblown grain over a fence onto a neighbour's land, one incident in which the machinery broke down so that a second machine had to be cleaned as well, and one incident of grain being delivered without prior notification. In addition, one site was planted with six hectares more of GM seed than was permitted by the exemption order and allowed under the trial. Under section 7 of the act, it is an offence to breach the conditions of the exemption, with a penalty of $200 000. Interestingly enough, this episode was not even registered as an incident let alone prosecuted as an offence under the act.

All these incidents were managed and there were inspections and monitoring to check for GM plants in places where they should not have been. Plants that germinated in the wrong place were pulled out by hand or spot treated. The shippers who failed to deliver seed to quarantine were issued with an infringement notice, but it is worth noting that only one person suffered any legal repercussion during the GM trial. In instances in which GM canola was planted too close to non-GM canola, both crops were dealt with as though they were GM crops. These instances prove that the trial did not demonstrate an ability to segregate GM from non-GM canola. Although everyone involved was highly motivated and recently trained, there were still 12 mistakes—segregation did not occur. This is consistent with what has happened with GM canola elsewhere. For example, in answer to some questions that I put to this place in March this year, the government conceded that spillage does occur from road transport and that roadside volunteers of crops following harvest and transportation are normal occurrences. It conceded that GM traces may be found in pollen in beehives, that GM traces have been found in Canadian mustard and that GM canola volunteers are still being found in Tasmania at 12 of the 57 trial sites from the last decade. In answer to my question 1392 about whether it is possible to completely avoid GM contamination in an environment in which GM crops are grown, I got the following response from the government —

> If the agreed protocols for the segregation of GM and non-GM canola are complied with any adventitious presence will be kept below the Australian Grains Industry threshold of 0.9 per cent presence.

Therefore, "no" is actually the correct answer to that question. Thus the government has conceded that segregation is impossible. It is misleading for the government to say, as it did in its media release of 25 January this year, that the exemption order offers added choice to growers and hence to consumers. It does not; it removes the choice of growing or eating canola that is not GM contaminated. The choice that is really being offered to growers and consumers is between canola with lots of GM content and canola with a bit less GM content.

I want to address the question of the 0.9 per cent presence and how exactly the government intends to achieve this. The best attempts by everyone to control the amount of GM canola escaping during this trial period failed. The May 2009 information paper on GM canola published by the Ministerial GMO Industry Reference Group chaired by former member Hon Kim Chance included at page 33 a table of estimated average escape rates for each of the nine different stages in GM canola production. Separate estimates are provided and all three estimates show potential for contamination in at least six of the nine stages of the production process. Clearly, as the report points out at page 33, these levels will increase exponentially every growing season, if GM escapee plants are not controlled. This potential for exponential risk is actually the main risk.

I will talk a bit about the methods or the processes that are supposedly in place to keep the adventitious presence down to 0.9 per cent, which inevitably will depend on people following procedures very closely. In January 2010, the Department of Agriculture and Food issued *Farmnote* 409 entitled "On-farm segregation of GM and non-GM canola". This *Farmnote* suggested various procedures, including suggestions about labelling seed bags, storing seed separately and in vermin-free areas, retaining the lot numbers of seeds sown and records of where each seed was sown et cetera. Despite all the precautions GM canola growers are asked to take, the farmnote acknowledged that contamination can happen anyway. For example, officials from Western Power, telephone companies and others can access GM growing areas without notification and potentially transfer GM seed. Livestock grazing on canola stubble can excrete viable GM seeds for up to seven days after the last feed from any particular paddock. This risk might be small with each incident, but we must remember that the effects are exponential each growing season if escapee plants are not destroyed. GM canola seeds are very small and GM

canola plants look like non-GM canola plants. During the trial, as shown by the report, the department took a very active role in inspecting, monitoring and ensuring the destruction of GM plants that inevitably grew in places where they were not meant to be. However, there is no intention, as far as I can ascertain, for the department to continue that role at all. Farmnote 409 does not say that the department will help to clear up spills or provide other practical assistance. In fact, the farmnote even contains a disclaimer saying that no liability is accepted regarding its contents. Therefore, the management mechanism that will actually apply under this exemption order has not been trialled in Western Australia at all, yet it is being unleashed on growers and consumers alike.

The consequences of the escape of GM canola—I will headline these rather than go into detail because I realise other members want to speak tonight—include possible legal proceedings for breach of contract or breach of fair trading laws as a result of providing canola contaminated by genetically modified organisms and the possible loss of markets. I think one of my other colleagues might talk a bit about some of the correspondence that has been received from Japan and Europe in regard to consumer preference for non-GM canola. Other consequences are the possible loss of opportunity to get price premiums for non-GM canola, and possible legal proceedings for infringing the intellectual property rights of the GM seed manufacturer through cultivating GM grain without having paid for it and that, of course, as members will be aware, might be because it blew over the fence and contaminated a non-GM crop. Therefore, despite the economic losses that will potentially be inflicted on the income and livelihood of non-GM growers through no fault of their own, no special laws such as strict liability laws, which we have argued for in this place, have been introduced in respect of compensation. Instead, growers will have to rely on ordinary common law mechanisms such as suing for nuisance, trespass or negligence. But how realistic is this mechanism for the protection of non-GM growers without economic loss? For example, on causation, if a farmer has more than one neighbour growing GM canola, how can that farmer prove which farm that seed came from when there are identical GM seeds, particularly if the farmer does not even know which neighbours are growing GM canola and which are not? I raise at this point the bit of nonsense that the minister has perpetrated by suggesting that information will be provided to farmers indicating where GM crops are being grown. If farmers participate in putting that information up on the said website, it will not actually be available for at least another month, so it will not help farmers in their choice about planting —

Hon Jon Ford: And it's voluntary.

Hon GIZ WATSON: Yes, if they choose to participate; it is voluntary. It will not help non-GM farmers know who is growing GM crops.

There is also the question of intention, recklessness or negligence. What would happen if the GM canola–growing neighbour did all he could reasonably do but the tiny GM canola seeds were spread by wind, as happened not once but twice during the trial? The GM farmer could argue that it was not intentional or reckless and, in fact, it was not even negligent. There could be very complex litigation. Litigation will not necessarily be limited to non-GM growers. A shire may be party to proceedings, as shires will be responsible for any roadside spillage. Transporters and contract harvesters may be liable for spills or if they have not cleaned their equipment thoroughly enough. What would happen if a third party were to be hired by any of these people to carry out any of these responsibilities but failed to do so adequately? Then of course there is the whole question of how much such litigation would cost. There is a very real question about access to justice in terms of the additional burden on non-GM growers. Of course, there are also social ramifications for rural communities by pitting neighbours against neighbours in this way. Litigation between neighbours is capable of splitting small communities, and community unrest would affect social cohesion in that community. There are very real prospects of those kinds of repercussions.

GM canola is not agronomically viable. The second proposal to be tested in the trial was the agronomic viability of GM canola. GM canola does not contain a gene that makes it any better quality or that yields more than non-GM canola. The difference between GM canola and non-GM canola is that GM canola contains a gene that makes it resistant to the weed killer being used on the canola; that is, GM canola is a weed-control tool. Interestingly, if other traits produced differential growing rates or oil production, those traits were not related to the GM traits; they were other variations in the seed. The GM trait is about making the crop tolerant to pesticide use.

Another defect in the report's assessment regarding agronomic viability is that the department's findings rest on surprisingly little data. As already noted, the report contained limited details of five cases in which growers were particularly enthusiastic, and, in addition, the report contains a statement that a further 12 commercial growers indicated that they thought that Roundup Ready canola would be viable for their farms. I suggest to members that this is inadequate evidence on which to base an exemption order with such potentially negative impacts on the lives and livelihoods of growers and the choice available to consumers. I also draw members' attention to the fact that the reports on the five cases for which some details were provided are entirely subjective. The

comments in the report are those of the growers. There is no reference in the report to any independent checking of the assertions made regarding agronomic viability. This is notwithstanding that clearly some growers were not neutral and held strong pro-GM views before the trial was held, which they were quite happy to share with the public at every opportunity. For example, according to my notes, the grower in case 3 is reported as saying, "Frustrated for the last 10 years that we were denied similar opportunities". That was in comparison with Canada. The grower in case 5 is reported as saying, "Long interest in technology which could have been here 10 years ago … invited to visit Victoria in September in 2008 by Monsanto to view crops and attend field days there, which reinforced positive view. Approached by Pacific Seeds to participate in the 2009 trial". That is hardly a neutral or scientific assessment of agronomic viability.

Lastly, the limited information in the report regarding agronomic viability does not include an adequate comparison of Roundup Ready GM canola and other canola varieties, particularly the non-GM triazine-tolerant variety, which I understand is the main alternative variety used.

In conclusion, because I know that other members wish to contribute to this debate, the exemption order is based on trials that established neither the ability to segregate GM canola from non-GM canola in Western Australia—in fact, they proved the opposite—nor the agronomic viability of GM canola in Western Australia. Further, the inability to achieve segregation and prevent the contamination of the crops of non-GM growers by those of GM canola growers means both the loss of freedom of choice to grow and eat non-GM canola and the potential loss to non-GM canola growers and their families of their livelihood and their way of life through no fault of their own.

I urge members to support this motion to disallow this exemption order. I conclude my remarks by saying that there is ongoing and significant opposition to the growing of GM crops in Western Australia, particularly GM food crops such as canola. I will continue, as will my colleagues on this side of the house, to take every opportunity to put in the public arena the facts about the nonsense that this trial was. It was a fig leaf for a decision that had already been made by a minister who has been heavily lobbied by the agrochemical industry, and he is going to suffer very badly at the next election.

HON ROBYN McSWEENEY (South West — Minister for Child Protection) [8.56 pm]: To use an old expression, but a good expression, the horse has actually bolted on GM crops and it is actually doing a gallop. This is the third time that the Greens (WA) have moved to disallow this order. We obviously do not support the disallowance motion. It was an election commitment by the Liberal–National government. When I said that the horse has already bolted, 850 growers have done their accreditation and 450 growers have signed licence and stewardship agreements. These are what I would call proper farmers. Two hundred tonnes of seed have been ordered and it is estimated that about 30 000 hectares of GM canola will be planted this year, but due to continuing dryness, the actual figure is still unknown. The first seed was planted last month.

When Minister Redman first came to government, there was a ministerial reference group that was an initiative of the previous government. I think it had to have one more meeting before it wound up when the Liberal–National government was elected, and that meeting was held. The report from that ministerial reference group did not make any recommendations. The members of the group did not reach any common agreement because there were split viewpoints, as there are in the community at times. However, issues were discussed. Those issues included agronomics, segregation, marketing, economic health and safety, and the legal aspects of GM canola. They are the same issues that were discussed in 2003 when I toured America and Canada on a committee trip with Hon Bruce Donaldson to look at not only GM canola, but also the whole range of GM crops.

With regard to health and safety, this would be the most overregulated area. Australia's regulation of genetically modified organisms is in line with international best practices and standards. The Office of the Gene Technology Regulator and Food Standards Australia New Zealand are independent bodies that are responsible for assessing the safety to the environment and human health of any GM variety that is to be released in Australia. Roundup Ready canola was assessed to be safe in 2003 by these regulators. On the matter of segregation, the member calls it contamination; it is just different language. The member calls the 0.9 tolerance level contamination; we call it a tolerance level. The purpose of the 2009 canola trials was to assess the agronomics of GM canola in our environment and to assess the industry's capability to segregate non-GM canola from GM canola with that tolerance level. The report suggests that it would be uneconomical for farmers to grow GM canola. Coming from a farming background, my dad would never grow anything unless it was economically viable. As members have seen, many farmers are signing up to grow GM canola. They cannot all be silly. If it is not profitable for them to do that, they would not do it. We have farmers on this side of the house and they are nodding their head in agreement.

Farmers in New South Wales and Victoria grew 10 000 hectares of GM canola for the first time last year and this season they are considering planting up to 100 000 hectares. Farmers participating in the Western Australian

trials will be able to assess for themselves a business case for growing GM and will be able to decide whether it will assist them to grow their farming business.

The report states that the group is not qualified to comment on legal matters. The Western Australian government believes that this issue has been considered extensively and the Australian and international reports and experience conclude that common law is sufficient to deal with any issue arising out of growing GM crops.

With respect to market and price premiums, there was some anecdotal evidence for non-GM premiums in Japan. Also there were claims that non-GM certified canola from Japan has decreased by 20 000 tonnes. The reality is that Japan imports 1.5 million tonnes of GM canola a year from Canada and 85 per cent of canola grown in Canada is GM. Considering the number of people in the world, when the Asian countries consider buying grain, they do not care whether it is GM or non-GM.

The report did not make any recommendation but it certainly raised issues that have been around for many years. Minister Redman said that he would certainly take action. That action included the Department of Agriculture and Food conducting a random audit of GM canola farmers throughout this growing season to evaluate compliance with stewardship protocols—the minister will be provided with a report on this audit, which he will table in Parliament; the minister will write to all farmers who choose to grow GM canola this growing season, impressing upon them their responsibility to adhere to stewardship protocols, including the need to notify their neighbours that they are using this technology; the department will contact all known organic growers recommending that they advise their neighbours of their organic status; the department will build the capacity of its geographic information system to more accurately reflect the location of farmers, organic farmers and other sensitive land users using this technology and the information will be publicly available on the department's website; the director general of the Department of Agriculture and Food has written to all certified organic growers; and a letter from the minister to all commercial grain growers will be sent by next week. It is a proper course of action to follow and I commend the minister for taking that action.

Not much more can be said about GM canola. It will be grown and this motion will not be disallowed. As I said, 850 growers have undergone accreditation and there will be more. These 850 farmers will grow GM canola and it is their choice to do that.

HON JON FORD (Mining and Pastoral) [9.04 pm]: I will try to not go over the arguments that Hon Giz Watson raised. She covered areas that all members know well. I will concentrate on choice and emerging issues with GM crops worldwide.

Firstly, I refer to the issue that the horse has bolted when it comes to GM crops. The minister said that the horse has bolted and 850 farmers are growing GM canola and all of them cannot be wrong. Some of them could have been led down this path. Many of them may not be competent farmers. Everybody makes mistakes. When people are fed rubbish, they sometimes follow that advice. Everyday people are led down the garden path by scams. I reckon this is a scam by chemical companies. One in particular wants to use technology that even now it is having to research to determine the long-term effects of the use of some of its product.

I will touch again on "the horse has bolted" argument. Members know that road safety is a big problem. The horse bolted on road safety when cars were allowed onto our roads. Unfortunately, people die every week on the roads in this state and across Australia. We do not refer to those deaths as a tolerance level; we refer to them as deaths. We must be careful about the language we use.

I will refer now to choice. One of the biggest problems with GM farming is that the only people who are getting a choice are those who want to grow GM products. A non-GM farmer would not know who his neighbour is and cannot guarantee that segregation will work. The sham trial demonstrated that the products cannot be segregated. To argue this issue sensibly there must be a tolerance level. It is the only way in which the argument would work.

Hon Jim Chown: What is the difference between your colleagues here and your colleagues in New South Wales and Victoria on this?

Hon JON FORD: I represent Western Australians, not the people of New South Wales or Victoria. We are segregated from them by a desert; thank God!

I will quote from Mr David Kibble, who is an anti-GM campaigner and who has a small landholding at Boyup Brook. He stated in an email —

> Having worked with grain harvest contractors myself I can tell you that cleaning out machinery and hopper bins is "best effort" and rarely done to any exact standard. Without GM in our food chain this does not matter so much but once we have GM Canola in the system it won't be long before it is everywhere. This will lead to a number of issues—cross contamination of seeds to farmers and loss of exports to countries who ban GM etc.

It is a simple statement. Members know it is true, because it has already been said that we must have a tolerance level, because segregation and contamination control does not work. The seed that drops from the back of trucks as farmers drive down the road drifts onto properties. Where is the choice for non-GM growers? Where is the value for them? Where is the protection for them? We are advised by the Department of Agriculture and Food that common law will give them some compensation. They do not have a hope, without farmers throwing out good money or good lawyers that will take on their case pro bono. What protects farmers from companies such as Monsanto that decide that a farmer's crop has in it a percentage of its product, even though it is not the farmer's choice, and, therefore, the farmer is liable to pay for the use of that technology? Where is the choice in that? Where is the protection to those farmers? We have not seen legislation before this place that seeks to protect non-GM growers from such companies. We have not seen any legislation before this place that protects non-GM users from contamination and loss of their crops. All we have is a voluntary website that is all about protecting GM growers. That is because it is not compulsory. It is on a voluntary basis. There might be 400 people on it, or there might be 850. That is what I hear from the growers I talk to. These people feel very, very exposed.

I have received a letter from three European traders. Members may be aware of these companies. They are AgroTrace in Switzerland, Eurograin in Germany and Holtermann in Norway. They say in their letter —

> Whilst the oilseed industry claims it will be able to segregate non-GM and GM canola, the experience in Canada has shown that segregation is unlikely to be successful. The contamination of non-GM canola with GM material will be inevitable. There is also a danger that other important export crops such as wheat will be contaminated with GM material.
>
> We understand that under the proposed segregation protocols the cost of segregation will be borne entirely by non-GM farmers. These costs will invariably be passed along the supply chain and are likely to increase the cost for a non-GM product.

These people are actually appealing, prior to GM being allowed —

Hon Jim Chown: That letter is a sham. That has been proved in an interview. Do your research.

Hon JON FORD: Just say that it is a sham. Just say that they are talking about concerns in the European market.

Hon Jim Chown: It is a sham. They have admitted it. It is on the public record. They do not do any trading with Western Australia at all. I will table it.

Hon Ljiljanna Ravlich: You could just about make a speech on it!

Hon JON FORD: Yes. The member can make a speech if he wants.

On 17 May—yesterday—on the Bloomberg Businessweek website, there was an article headed "India Rejects First GM Vegetable, Hampering Monsanto". The article refers to how the Indian government wants to bring in GM, because it has people who are desperate for food, and it has a problem with food security. However, the government has been forced by public opinion not to allow GM at this stage. The people in this region are so desperate for money that they will grow opium for the heroin trade, and they will grow hashish and marijuana. But popular opinion is forcing the government of the day to prevent the introduction of GM.

The government can put its head in the sand and argue that no-one else in the world cares, that it is not taking away markets from farmers, that it is delivering choice and that it is up to people to decide whether they want to take up this technology. However, the reality is that this government has taken away choice for non-GM farmers. The government has admitted that it cannot achieve segregation and it cannot achieve non-contamination. It is just a tolerance level. We can apply that to any number of other things. I have talked about road safety. I have talked about mine safety. The Minister for Mines and Petroleum had said that he cannot guarantee a safe workplace in the mining industry. Indeed, one of the first things the minister did when he came into that portfolio was to remove a key performance indicator from the budget papers that referred to the number of lost-time injuries and fatalities that were occurring in the mining industry, because, as he said, it was not up to the government to set those levels. What a defeatist attitude! Is that because we are accepting a tolerance level for deaths in the mining industry? That is what I have been trying to get to.

Hon Robyn McSweeney: Is GM canola going to cause deaths? Is that what you are saying?

Hon JON FORD: No. I am making a comparison with the argument. The government chooses to use the tolerance argument. It is taking away real choice from people who choose not to grow GM. The government is not giving these people any protection. The government has talked about giving these people protection.

Hon Jim Chown: That has not been the experience anywhere else in the world. I think you are drawing a very long bow.

Hon JON FORD: Let us see what the Commonwealth Scientific and Industrial Research Organisation has to say about GM. The CSIRO said in an article that GM technology controls only two of the 22 pests of cotton in Australia. It also said —

> Ecologists predicted exactly what would happen—that minor pests would become major pests by filling the ecological niches left by helicoverpa disappearing.

It also said —

> CSIRO is developing ways to better control and manage emerging cotton pests to reduce their potential impact on the cotton industry.

It then referred to aphids and mirids and other emerging pests. I will sit down in a moment so that other members can speak on this motion. In that same article, the CSIRO gives its response to a big problem that is emerging in China, where a lot of fertile crops are now falling over because they are being overtaken by other pests.

Members opposite can sit there and put their heads in the sand, and they can argue all they want. I would be just about ready to accept their arguments and give GM a go if they could put in place some protection for non-GM growers. However, the government refuses to recognise that that is an issue. The government has taken away choice for farmers in Western Australia. It is forcing them into GM production. It was a sham trial. I do not know why the government even bothered to have a trial. The government said that it was an election promise. It said that it was going to bring in GM. It seems to me that the whole point of the trial was so that the government could give some pretence—a small fig leaf, as I think Hon Giz Watson said—to make it look as though it was being open-minded and objective. The government was not being open-minded and objective. The intention of the government was to introduce GM crops. The government can argue all it wants. But no-one in this place, and no-one in the community, actually believes it. I know that some farmers are struggling and are looking for ways to make their farms viable. But to introduce this technology—when problems are emerging with this technology and we will need to buy other technology to overcome those problems—is not good for Western Australia. It is also not good for our farmers, and it does not give them a choice.

HON BRIAN ELLIS (Agricultural) [9.17 pm]: I have to say that I admire Hon Giz Watson and her dedication to her cause. Despite the fact that farmers can now commercially grow GM canola, despite the fact that GM canola is already in the ground, despite the fact that the majority of farmers want to have the option of growing GM canola, and despite all the facts that are presented on the Department of Agriculture and Food website, which answers all the queries put up by the opponents of GM canola, we are now debating our third or fourth disallowance motion on this matter. The growing of GM canola is not compulsory. It is an option that is available now to the farmers of this state. This is an option that has been denied to the farmers in this state for many, many years, while the rest of the world has been gaining an advantage over this state's agricultural industry. I would have thought that the Greens would be in favour of this technology. GM is a far cleaner technology and it is much better for the environment, because it does not put so many chemicals into the environment.

I will go through the process so that members will understand what was happening before GM canola came to us. I am a third generation farmer, with a fourth generation on the farm, and a fifth generation running around the paddocks. Why on earth would I put my family and my industry at risk if I did not believe that this was a good option that is being presented to farmers, and a good option for the future of our farmers? The process that we go through now with non-GM is that my son will be using a knock-down chemical of probably one to 1.3 litres to the hectare of Roundup. Then, when he has enough moisture in the ground to go ahead and plant the non-GM canola seed, he will spray two litres of Atrazine and three litres of Trifluralin in front of the seeding. Once it is seeded, he will then go back and spray two litres of Atrazine plus an insecticide on top of the ground. During the season, probably three or four weeks later, he will follow up with half a litre of grass spray.

That is what is happening now, as opposed to what will happen when we go to GM canola; there will possibly be two sprays of one to 1.3 litres of Roundup. We can see that it is far better for the environment and for the soil if we go to GM canola. Atrazine is one of the more potent chemicals we put out and can be a sterilising chemical.

We have heard a lot of arguments tonight that have been gone through before, and I wish to concentrate more on the facts rather than the myths. One of the reasons that so many of the GM myths seem to have been perpetuated in this state is that the Western Australian Department of Agriculture and Food had no fact sheets available on its website during the term of the previous government. Since the Liberal–National government has come to power, the department now mysteriously has all the fact sheets available for those who wish to find out the facts.

Hon Giz Watson interjected.

Hon BRIAN ELLIS: The member is quite welcome to have a look; it might answer some of her queries.

These myth-busting fact sheets are not from Monsanto, but from our own Department of Agriculture and Food. What do they say? A fact sheet entitled, "Misconceptions about GM technology" states —

> GM canola does not cross-pollinate to any greater level than existing non-GM types.
>
> …the actual transfer of genes between canola varieties is very limited. Extensive Australian tests show a field average GM content of less than 0.1 per cent, well below the 0.9 per cent standard required for all Australian and most international, non-GM canola.
>
> …
>
> Gene flow to any other plant species is generally nil, except for some related Brassica species where crossing is extremely rare and the resultant hybrid typically have reduced fertility.
>
> …
>
> It is very difficult for accidental contamination to occur through either pollen or seed flow to an extent which would raise the presence of GM material beyond the threshold level of 0.9 per cent.

As I have previously mentioned in this place, a 10-year US-based study found that GM canola plants did not become weedy, invasive or self-sustaining.

An article published in *Nature Biotechnology*, volume 28, number 4 of April 2010, entitled, "Peer-reviewed surveys indicate positive impact of commercialized GM crops", states —

> Last year, 14 million farmers in 25 countries grew GM crops commercially, over 90% of them small farmers in developing countries.
>
> …
>
> This analysis summarizes results from 49 peer-reviewed publications reporting on farmer surveys that compare yields and other indicators of economic performance for adopters and non-adopters of currently commercialized GM crops. The surveys cover GM insect-resistant and herbicide-tolerant crops, which account for >99% of global GM crop area. Results from 12 countries indicate, with few exceptions, that GM crops have benefitted farmers.
>
> …
>
> Of the 98 results in our survey of the peer-reviewed literature that compare the economic performance of GM crops to their conventional counterparts, 71 indicate a positive impact, 11 neutral and 16 negative.
>
> For GM herbicide-tolerant crops, 12 of 17 results show a positive impact on economic performance, whereas 4 results show no difference and 1 result shows a negative impact.

Two food science and biology academics have launched a new website called "Academics Review" to examine claims against GM foods made by Jeffrey Smith in his book *Genetic Roulette*. I know that a lot of anti-GM canola proponents refer to this book. The scientists are Dr Bruce Chassy, PhD, professor of food microbiology and nutritional sciences at the University of Illinois, and Dr David Tribe, PhD, senior lecturer in food science, food safety, biotechnology and microbiology at the University of Melbourne. According to Dr Chassy, most of the so-called evidence Jeffrey Smith cites for his theories about GM foods has never been peer-reviewed or examined by the international community of scientists for verification. In *Genetic Roulette*, Jeffrey Smith details 65 separate claims that GM technology causes harm in a variety of ways. On the "Academics Review" website, the eight sections that correspond directly with the book are compared with peer-reviewed science; section 1 deals with the top 20 urban myths about GM crops. I do not intend to go through them tonight, as we do not have time; I knew Hon Nigel Hallett would be disappointed! However, those members who wish to be informed can look at that website.

Another myth is that our world trade status may be adversely affected. This does not hold water at all, given that there are now more than 23 countries around the world growing GM canola. According to a brochure produced by the federal Department of Agriculture, Fisheries and Forestry, entitled "Market Acceptance of GM Canola", virtually all Canada's export canola can be considered GM; but this did not stop its exports reaching record levels in 2006. At that time, Canada had a market share of 71 per cent over the preceding three years, excluding intra-EU trade. According to the brochure, countries that produce GM products dominate world trade in grains and oilseeds. The Department of Agriculture and Food fact sheet to which I referred earlier states —

> While there are clients who specify 'non-GM' or 'GM-free' canola, the demand is small, declining, and usually does not offer a significant premium.

Before new GM crops are approved for use in Australia, they are subject to rigorous scientific assessment by the Office of the Gene Technology Regulator. This includes the potential spread and persistence of the crop, and the

potential for the crop to become a weed. I would like to point out the onerous conditions that are placed on farmers before they get to grow GM canola. They must attend a Roundup Ready canola accreditation course; sign a licence and stewardship agreement, which outlines the stewardship and commercial obligations; and review and complete a technology user agreement, including paddock risk assessment and management option guide scores, which capture specific planting details and resistance management strategies in the paddock. Other grower licensing requirements include informing neighbours of plans to grow Roundup Ready GM canola, including buffer requirements; maintaining a minimum separation between GM and non-GM crops; declaring the GM status of seed, hay, straw or other material in all transactions; and keeping adequate paddock records. Growers must also collect seed from the seller and store it on the farm in the original packaging and separate from other canola seed; sow the seed using clean equipment; observe buffer zone requirements; keep the empty seed bag labels; monitor crop growth stages and weed populations; apply glyphosate at required stages of crop growth; inspect crops for herbicide efficacy with a seed seller; apply required plant and equipment hygiene at harvest; deliver to an appropriate receival site; at delivery, declare canola as GM; not retain GM canola grain on the farm; destroy all GM volunteer plants that germinate on the farm; and clean down grain spillage and storage areas. In addition, if a product of gene technology is destined for human consumption, it has to be assessed against a rigorous set of standards and approved by Food Standards Australia New Zealand. Some of the safety considerations required to satisfy Food Standards Australia New Zealand are that all new genetic material and proteins must have been examined in detail, the new genetic material must stay the same and be passed on predictably from generation to generation, the new proteins must be unlikely to be toxic or allergenic, and the new genetic material must be able to be digested by the human gut without significant impact on human health. They are the stringent controls that have been placed on farmers before they can grow this product.

I will refer quickly to the trial that Hon Giz Watson made so much about. Eleven minor events occurred. I would have been surprised, or in fact concerned, if there had not been any. At least those 11 minor events proved that the procedures and protocols that have been put in place do work. That was shown by the fact that the crop was eventually sold overseas. Everything that was put in place to prevent, contain or handle any major or minor mishap was found to work. If those mishaps had not occurred, we would not know whether such things could be controlled. I have no fears. My generation and future generations will gain a lot from this technology. Future technology might perhaps produce drought-tolerant and frost-resistant wheat. I cannot say that all farmers will take up this opportunity, but that is the whole point. It is another tool that farmers will use. I am pleased that they at least now have that choice and can make that decision.

HON LYNN MacLAREN (South Metropolitan) [9.33 pm]: I will add to the comments made by my colleague Hon Giz Watson and refute some of the comments made by members of the government in this debate. I will try to do this very quickly. I am sorry if Hansard has difficulty catching up; I will try to be very careful about checking that.

The PRESIDENT: Order! Hansard will have a much better chance of picking up all of the remarks if three or four of the conversations that are taking place in little groups were to cease.

Hon LYNN MacLAREN: Thank you, Mr President. According to the book, *Genetic Roulette—The Documented Health Risks of Genetically Engineered Foods* —

> In October 2005, Wayne Parrot compiled 60 abstracts entitled, "General Safety and Safety Assessment of Specific Genetically Modified Crops from Scientific Journal Articles." The list was presented to the minister for agriculture and food in the government of western Australia as evidence that sufficient research had been conducted to conclude that GM food was safe. According to an analysis by epidemiologist Judy Carman, "A review of these abstracts found that most were animal production studies. … In fact, only nine abstracts could be considered to contain measures applicable to human health. The majority of these (six abstracts; 67%) found adverse effects from eating GM crops." Carman pointed out that several other studies with adverse findings had been omitted from the compilation. She concluded, "The list of abstracts therefore does not support claims that GM crops are safe to eat. On the contrary, it provides evidence that GM crops may be harmful to health."

I am very concerned that the decision made by this government has been based on poor science. I will point to some of the consumer issues regarding GM foods and the growing of GM crops in Western Australia. I will start by quoting from *Choice* magazine—we are all pulling out our magazines—and its article entitled "Who's afraid of GM food?". The article talks about labelling. I am sure that all members have been inundated with information from many lobby groups on this issue. I want to draw attention to this article in particular because the public of Western Australia is extremely concerned. The article states —

> Proponents of GM claim food is cheaper because GM crops need less application of pesticides and are easier to manage. But this argument is difficult to sustain, given GM seeds cost farmers more than non-

> GM varieties and increasing evidence that GM varieties of corn and canola can require higher levels of application of pesticides than some non-GM varieties.

That information completely contradicts what Hon Brian Ellis just told us. It continues —

> Still, the GM industry is big on promises of tastier and healthier foods that have yet to become reality …
>
> So far, it seems big agribusiness has benefited more than consumers, and not surprisingly these companies often produce the pesticides to which their GM crop varieties are tailored. Monsanto became the world's largest seed firm in 2005, and in 2007 increased its control through the purchase of Delta and Pine Land, the world's largest cottonseed company.

Are members seeing a pattern? The article also states —

> This is because the labelling requirements under the Food Standards Code apply only to foods that contain artificially modified DNA or protein. Products such as canola oil —

The product we are about to export around the world —

> … don't need to be labelled, even when they're made entirely from GM canola. The same applies to products from animals fed GM feed such as canola meal. These do not require labelling on the grounds that GM protein or DNA cannot be detected in the end-products — meat, eggs or milk.

Many consumer groups are fighting the growing of GM crops around the world. In WA, Janet Grogan from the GM Free Consumers Network sent a very interesting discussion paper to all members on the health and safety concerns of GM crops. In the discussion paper she pointed to the South Australian feeding trials that our own government set up, yet it has not waited to see the results of those trials before starting to grow GM seed in this state. That is wrong. She talks about the many risks that are involved in the growing of GM crops. Contamination is inevitable. We have heard significant evidence to that effect. It is unrealistic to expect zero contamination. We heard from Hon Jon Ford about tolerance levels. Her paper states —

> As a consumers group our main concerns relate to human health and consumer choice, both of which we believe will be compromised with the introduction of GM crops into WA.

There is significant evidence that Monsanto has failed to meet good laboratory practice. The group, Mothers Are Demystifying Genetic Engineering, has carefully analysed the information upon which FSANZ has made its decision, saying —

> **We know the GM canola is planted for this year, but this does not prevent it from being banned for next year, but better still, removed. Indeed in the USA GM sugar beet is under legal challenge and may be banned, though it was already planted. This material makes it very difficult for a politician to support the planting of this crop on the basis that 'FSANZ approved it'. The Gene Technology Regulator used the same Monsanto material.**

That material is discredited in this report. I have probably run out of time because I want to give Hon Giz Watson time to respond to members' comments, but I want to make three more pertinent points that should be noted on the record.

Japan, which is one of those Asian countries referred to, has written to all of us and said that there is a petition with 155 groups representing 2.9 million consumers who do not want to buy GM canola. They do not want GM oil. I know this personally because I was lucky enough to be visited by members of the Seikatsu Club Consumers' Co-operative Union who, when they visited WA were very kind to drop into my office. They also have written to other members, particularly to the minister, Terry Redman, to say —

> The Tohto Consumers' Co-operative currently buys canola from Canada but it is considering changing its source to WA because it wants uncontaminated non-GM canola.

They also state —

> As you may know, the Seikatsu Club Consumers' Co-operative Union has purchased non-GM canola from Western Australia since 1998 —

They are one of our valued customers —

> We buy a total of 13,000 tons of non-GM canola 2009/2010 in conjunction with the two oil crushers who work with us.

The markets in Japan do not want Western Australia to grow GM. They are very concerned about us growing GM canola as they want to protect their market and they have a consumer network that is active in trying to

prohibit this. We have also received from John Wood a very excellent one-pager. If members did not get the arguments and absorb all of the material we got, they should at least have read this letter. It reads —

> There exist irrefutable and compelling reasons to disallow GMO crops…

Mr Wood lists all the bullet points and I wish I could read them all to members, but I have run out of time. Mr Wood states, in part —

> WA is perfectly placed to capitalise on the supply of GMO free food to world markets including parts of Australia that have gone down the path of allowing GMOs. But we face losing that unique marketing position because consumers in Western societies and in Australia are, in increasing numbers, rejecting the inclusion of GMOs into their food supply.
>
> Dr Erwin Chargaff, Professor Emeritus of Biochemistry, Columbia University, discoverer of "Chargaff's Rules" (the scientific foundation for the discovery of the DNA double helix) —

Let us say an esteemed scientist —

> has this to say on sustainability and GMOs. "I have a feeling that science has transgressed a barrier that should have remained inviolate... You cannot recall a new form of life...It will survive you and your children and children's children. An irreversible attack on the biosphere is something so unheard of, so unthinkable in previous generations, that I only wish that mine had not been guilty of it".

I will finish with two comments. One is from David Kibble, who is also quoted by one of the other members who commented on this. He said —

> If we must have GM crops in WA then they must be regulated and segregated.
>
> There must be measures in place to clean up spills and litigate against contaminators —

We have seen that the measures currently in place are not significant —

> There must be safe guards to protect our export markets by segregated grain stores —

Members, if we are going to go down this path a lot more effort has to be put into segregate these crops —

> There must be mandatory labelling to ensure the public has a choice at the supermarket.

The Greens are working on that mandatory labelling at the federal level, and I have made a submission to the food labelling review. Finally, the recommended distances of just five metres for harvesting grain and 400 metres for seed production in Australia are manifestly inadequate according to Bob Phelps, the director of Gene Ethics, who has also pointed to the fact that Canada, which this government has consistently pointed to as a model for WA, requires 800 metres! What we have in place is not sufficient. Hon Giz Watson and I—following on from former members of this house before us, Hon Chrissy Sharp and Hon Jim Scott—will continue to put up a disallowance motion whenever we can and argue against the growing of GM crops in Western Australia.

The PRESIDENT: I know that other members want to contribute to this debate, but the time being 9.45 pm I am required to put the question.

Question put and a division taken with the following result —

Ayes (14)

Hon Matt Benson-Lidholm	Hon Adele Farina	Hon Linda Savage	Hon Alison Xamon
Hon Helen Bullock	Hon Jon Ford	Hon Sally Talbot	Hon Ed Dermer *(Teller)*
Hon Robin Chapple	Hon Lynn MacLaren	Hon Ken Travers	
Hon Sue Ellery	Hon Ljiljanna Ravlich	Hon Giz Watson	

Noes (19)

Hon Liz Behjat	Hon Phil Edman	Hon Nigel Hallett	Hon Norman Moore
Hon Jim Chown	Hon Brian Ellis	Hon Alyssa Hayden	Hon Helen Morton
Hon Peter Collier	Hon Donna Faragher	Hon Col Holt	Hon Simon O'Brien
Hon Mia Davies	Hon Philip Gardiner	Hon Robyn McSweeney	Hon Ken Baston *(Teller)*
Hon Wendy Duncan	Hon Nick Goiran	Hon Michael Mischin	

Pairs

Hon Kate Doust	Hon Max Trenorden

Question thus negatived.