

**STANDING COMMITTEE ON
ENVIRONMENT AND PUBLIC AFFAIRS**

**GENE TECHNOLOGY BILL 2001
GENE TECHNOLOGY AMENDMENT BILL 2001**

**TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
ON MONDAY, 31 MARCH 2003**

Members

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

Commenced at 1.20 pm.

MORCOM, MS ANNE
Grains Market Analyst, Department of Agriculture,
examined:

The DEPUTY CHAIRMAN (Hon Kate Doust): You will have signed a document entitled "Information for Witnesses". Have you read and understood that document?

Ms Morcom: Yes.

The DEPUTY CHAIRMAN: These proceedings are being recorded by Hansard. A transcript of your evidence will be provided to you. To assist the committee and Hansard, can you please quote the full title of any document you refer to during the course of this hearing for the record. Please be aware of any microphones and try to talk into them and ensure that you do not cover them with papers or make noise near them.

Your transcript will become a matter for the public record. If for some reason you wish to make a confidential statement during today's proceedings, you should request that the evidence be taken in closed session. Please note that until such time as the transcript of your public evidence is finalised, it should not be made public. I advise you that any premature publication or disclosure of public evidence may constitute a contempt of Parliament and may mean that the material published or disclosed is not subject to parliamentary privilege. Would you like to make your presentation now?

Ms Morcom: I have been doing research into the potential marketing impacts from introducing genetically modified crops such as canola into Western Australia.

Hon FRANK HOUGH: Is this presentation an impartial opinion on genetically modified crops? Are GM and non-GM crops included in the analysis, or is it purely a study of GM crops?

Ms Morcom: It looks purely at the marketing aspect of GM crops. The presentation is in two parts. The first part is a brief introduction and overview of the global situation of GMOs. The second part is an investigation into the Western Australian canola industry and gives an overview of the past and current state of the GMO production industry. It looks at GMO export markets generally and assesses the top five major export markets in 2001-02. It is a totally unbiased report. It is based on facts and on research that the department has done. It purely provides information. It is neither emotional nor judgmental.

The DEPUTY CHAIRMAN: Thank you.

Ms Morcom: The first part of my presentation provides a brief background to the current state of GMOs. In 2002 just less than 50 million hectares of genetically modified crops were grown worldwide. GM crops were first introduced in 1996. In the following six years, the amount of GM crops grown increased 35-fold. When GMOs were first introduced in 1996, 1.7 million hectares were grown. As I said, that figure has increased to just under 50 million hectares.

Hon FRANK HOUGH: How many hectares of non-GM crops were grown? How big is the marketplace? What percentage of the total market is made up of GM crops?

Ms Morcom: The next couple of slides might answer those questions.

The first graph in the PowerPoint presentation shows the adoption rate of GMOs, which has been increasing by 10 per cent per annum. The second slide provides a breakdown of the major countries that are growing GMOs. As members would suspect, the United States is the dominant leader. In 2002, 66 per cent of the world's total GMO crops were grown in the US. Argentina is the second largest producer of GMO crops and accounts for 23 per cent of all GMOs grown. Canada is the

third largest producer and contributes about six per cent of world GMO production, mainly from canola. China is the fourth major producer and contributes 3.6 per cent of the total GMO production. South Africa, Australia - which grows cotton - Mexico, Bulgaria, Uruguay, Romania, Spain, Indonesia, Germany, and France make up the rest. The remaining countries account for less than one per cent of the total GMO market. The top four producers in the world account for between 90 and 95 per cent of all GMO production.

Hopefully this will answer Hon Frank Hough's question. In total, 81.5 million hectares of soya beans are grown around the world, of which 36.5 million hectares are genetically modified. That accounts for just under 45 per cent of total soya bean production. This slide gives a breakdown of each of the major crops. Rather than give members a total generalised figure, I have provided a breakdown.

Hon JIM SCOTT: Is that the total amount of crops grown or the total amount of crops that get sold on the market?

Ms Morcom: It is the total crop production. Some 138 million hectares of corn are grown around the world, of which 12.4 million hectares is genetically modified. GM corn accounts for nine per cent of the total production. Some 30.8 million hectares of cotton are grown, of which 6.8 million hectares are genetically modified. GM cotton accounts for 22 per cent of the market. Some 22 million hectares of canola are grown globally, of which 3 million hectares are genetically modified. GM canola accounts for 13.5 per cent of the market.

Hon BRUCE DONALDSON: Why is corn on the bottom of the page again?

Ms Morcom: That is a mistake.

Hon BRUCE DONALDSON: I was looking at the figure of 9.8 as opposed to 12.4 and nine per cent as opposed to seven per cent.

Ms Morcom: That is a mistake.

Hon BRUCE DONALDSON: It is a typographical error.

[1.30 pm]

Ms Morcom: That just gives a brief overview of the global situation. The next part gives further detail on the Western Australian canola industry - what we produce and where we send it to - and then some analysis of the markets. The next slide gives some background on the production of canola in Western Australia. Before 1995-96, canola production was almost non-existent, mainly because of disease, which pretty well eradicated the industry. Growers could not grow the crop because of disease. Then a new breeding program and disease management was brought in, and production started to increase. It peaked in 1999-2000, when just under 1 million tonnes of canola were produced in Western Australia. Since then production has declined. The main reason for that has been a drop in autumn rainfall. Canola is very sensitive to planting time. It needs to be done near the beginning of May, rather than later in the month. The opening rains give a small window of opportunity to plant the crop. If you do not get that, that is the end of that crop, and you have to look at alternatives. Over the last three years, even though the grain industry had a bumper crop in 2001-02, not as much canola was grown as in 1999-2000, because of the opening rains.

Hon JIM SCOTT: It sounds like this will be a good year.

Ms Morcom: Exactly, especially since we nearly got drowned on the weekend! However, it is looking pretty good for farmers, which is encouraging. Generally the standard yields are around a tonne to the hectare. The next slide gives an overview of the contribution of the grains and canola industry to Western Australia. In 2002-03, grains contributed 53 per cent of the gross value of agricultural production in Western Australia. This is forecast to decline to about 43 per cent in 2002-03. That is mainly because of the drought we have just had.

Hon JIM SCOTT: Are these the figures for all grains?

Ms Morcom: Yes, for all grains.

Hon LOUISE PRATT: When you say this is mainly due to the drought, are there any other factors?

Ms Morcom: This is due to the drought.

Hon LOUISE PRATT: I was just wondering if there are any other international market factors. Is there an issue of the demand for the product as well?

Ms Morcom: No, it is just the drought. I should not have used the word “mainly”. I am used to talking to international people, where you would want to play down the vulnerability to drought a bit.

In last year’s harvest, prices were at record highs, not only because of the Western Australian drought; there were droughts all over the world. If a farmer got a crop, he would do exceptionally well. In 2001-02, 430 000 tonnes of canola were produced, which accounted for 30 per cent of Australian canola production, and in 2002-03, 330 000 tonnes were produced, which was 42 per cent of Australian production. Even though we had a drought here, it was not nearly as severe as in other States, particularly in New South Wales, which is normally a dominant canola producing State. In 2001-02 canola contributed 4.5 per cent of total grain production in Western Australia, and was valued at \$162 million. It is forecast that canola will contribute \$133 million to the Western Australian grains industry in 2002-03.

In relation to export markets, in 2001-02 agriculture and fisheries contributed 15 per cent of total exports from Western Australia. The proportion of canola in that total depends on the year and the amount produced. In 2001-02, 92 per cent of canola was exported. It was worth \$180 million, and amounted to 7.8 per cent of total grain exports in that year. In 2002-03 canola exports are forecast to the value of \$147 million, which is a decline of about 19 per cent, due to the drought and the reduction in production.

The next chart gives an overview of the main export markets for Western Australian canola over the past five years. Japan and China have consistently been the major markets. There has been a large variation, particularly in 1999-2000, but that is related to production as well. Prior to 1999-2000, Mexico was the third largest market, but because of supply factors Western Australia has not been exporting to that country for the past two years, and will not be exporting there for 2002-03. This is purely related to supply.

Hon FRANK HOUGH: The Japanese market seems to have more consistency, except for the drought years, whereas the Chinese market is all over the place.

Ms Morcom: The reason for that is that China is far more price sensitive. When global shortages occur, stocks go down and supplies are not as readily available, the price goes up. China is far more sensitive to prices, so it substitutes cheaper oils. That is why you see the variation more so in China, whereas Japan is a more stable market because it is prepared to pay the price. Japan has a demand for a certain amount each year, and it is prepared to pay. As the price goes up due to global supply and demand situations, the Japanese will pay the price, whereas other countries will not. That is why you see that exports to places like Bangladesh have declined as well. There is a price premium cut-off point, and once it gets to that level, those countries will substitute and go for cheaper oils. The major cheaper oils are soy beans and oil palm. In the Asian market, palm oil is far more accessible, so countries will substitute that for canola. Japan has a constant demand for canola.

Hon JIM SCOTT: That would be similar, I would imagine, to Mexico and some of the others that disappear off the list.

Ms Morcom: Yes; Mexico is also much closer to Canada, so it has a much larger freight advantage. Market variations are based on what is happening not only here in Australia, but also in those other northern hemisphere countries.

Hon BRUCE DONALDSON: Have you done any indicative sales monitoring on the 2002-03 crop? We only had 330 000 tonnes. Do you have any ideas about where that will be exported to?

Ms Morcom: Japan.

Hon BRUCE DONALDSON: Looking after our traditional market?

Ms Morcom: It will nearly all go to Japan, because of the shortfall.

Hon FRANK HOUGH: In 1999-2000 we seem to have double what we have produced before, and I see that China took all the excess. That was just a bumper year, was it?

[1.40 pm]

Ms Morcom: Yes, there are a couple of reasons. The opening rains in April are necessary to get the ideal planting time. The other reason is that canola started in the 1980s. Then the black leg disease came in, which is a disease that attacks the base of the stem of the crop and it all falls over just prior to harvest. There was no cure or pesticides for it. Everyone stopped producing canola. In the 1990s resistance to the disease was bred into the crop. The other major reason that we started to see the increase in production and exports is that Mitsubishi came into the market and started offering contracts. Not only was there an agronomic benefit but also a market benefit, so it was a combination of the two. Over the past two or three years weather has been a major issue. It must be extremely difficult for a company like the Grain Pool to manage customers when there are such huge fluctuations in supply.

Hon JIM SCOTT: Mexico has trade agreements under the North American Free Trade Agreement, so I imagine there would be some change when they came into play. When was that?

Ms Morcom: I do not know the answer to that, but it was prior to Western Australia's becoming a major exporter of canola. The opportunities to export to Mexico would be very much price driven.

The next couple of slides look at the major markets in 2001-02, and they are Japan, China, Malaysia, Pakistan and the European Union. I will give an overview of the global situation of the major competitors for and exporters of canola around the world. The three major exporters in the world are Canada followed by France followed by Australia. Canada has traditionally been the leading exporter in the world, but over the past couple of years Canadians have had major droughts and problems with production, so their dominance and market share have decreased over the past couple of years. France is the second largest exporter of canola in the world, followed by Australia. Those top three countries represent about 75 or 80 per cent of total exports.

Canada is the major exporter of canola, and is the other major market. As members would be aware, it has introduced and adopted the GM technology. I have shown the Canadian major export markets over the past 10 years. Its major markets consistently over that time period have been Japan, China since 1998, followed by Mexico. The interesting thing to point out here is that GM canola was introduced into Canada in 1997. Prior to that there were three years when Canada exported to Belgium. Since that time period that market has diminished, mainly because of EU regulations, but Canada was not exporting to the EU in significant quantities consistently prior to the introduction of the regulations. Its major markets were Japan, China, Mexico and then the United States.

The major importers of canola around the world over the past four years have been China and Japan. The next couple vary depending on the season. They are Mexico, Germany and Belgium with the rest varying from year to year. Germany also produces canola, so it depends on the season whether it is a net importer or exporter.

I have given a background of the global situation and the major players in canola markets around the world. Our section has conducted an analysis of the five most important markets to Western Australia based on 2001-02. The major markets in that year were Japan, China, Pakistan, Malaysia and Belgium, which accounted for 99 per cent of total exports for that year. The analysis was done by segregating the market into three major regions; they were low risk, medium risk and high risk. Each level of risk gives an indication of the potential impact on the Western Australian market. Low risk means that there would be a low potential impact on the Western Australian market.

To make those assessments and to put them into those types of categories, we looked at 10 different indicators for each of those markets. We looked at GM legislation and labelling requirements in the country; the consumer awareness and concerns towards GMOs; the end use of the grain, making the assumption that if it were for human consumption, there would be greater concern than if it were used for stockfeed; the price premiums for non-GMOs; market access issues, such as the banning of GM exports into those countries; whether the country is already importing GM grain; whether there are food shortages in those countries; the influence and effects of non-government organisations, such as Greenpeace, and how active and influential they are in those markets; the GM trials that are currently being conducted in a country and what crops are currently commercialised in that country; and then the level of investment in biotechnology. Those were the 10 major criteria that we looked at in order to make the assessment.

Hon JIM SCOTT: You referred to the amount of investment in biotechnology. Are you talking about biotechnology as a whole or biotechnology for genetic modification?

Ms Morcom: The reports contain all the information. Depending on the country and how much information is available, we have tried to cover as much as we can. Sometimes it is hard to get that information. I have not gone into it in great detail, but it is in the report.

Hon JIM SCOTT: It is just that sometimes there is confusion between biotechnology and genetic modification.

Ms Morcom: I could not agree more.

We looked at the top five markets. This slide gives an overview of some of the information we found. This specifically relates to canola and not to other grains. The No 1 market for exports of Western Australian canola is Japan, and it has consistently been so.

[1.50 pm]

There are no consumer concerns about GM canola imports into Japan. Less than one per cent of the non-GM market attracts premiums. Generally, the majority of people are not concerned about GM canola. However, I know that wheat, for instance, is a different situation.

Hon BRUCE DONALDSON: Is that because the consumer is aware that the DNA profile of GM canola oil is no different from that of traditional canola?

Ms Morcom: Yes.

Hon BRUCE DONALDSON: It is the meal they want to stop.

Ms Morcom: It is not an issue. Western Australian producers import 43 GM products into Japan from six main crops. Those crops are corn, soya beans, sugar beet, potatoes, canola and cotton. The second-most important market is China. The majority of people in China have not heard of GMOs. A small proportion of the higher class is aware of GMOs, but the majority of people have never heard of them. Western Australian producers currently export genetically modified soya beans and canola to China. The third-most important market is Pakistan. The majority of people in that country have not heard of GMOs. Western Australian producers do not export any genetically modified crops to Pakistan. Malaysia is our fourth-most important market. It has no consumer concerns, and Western Australian producers export GM corn and soya beans. The European Union has been identified as a high-risk market. There are great consumer concerns about GMOs. That

has principally been driven by consumers who do not trust government regulations and scientists as a result of outbreaks of bovine spongiform encephalopathy, foot-and-mouth disease and things like that. Western Australian producers export GM grains to the EU, even though a moratorium is in place. They export corn, soya beans and canola.

Hon LOUISE PRATT: How do they do that if a moratorium is in place?

Ms Morcom: That is a good question.

The DEPUTY CHAIRMAN: That is a question we would not mind an answer to, especially in light of the moratoriums placed here in Australia. How do they slip it through?

Ms Morcom: They change the regulations.

The DEPUTY CHAIRMAN: Is that to allow for a particular crop?

Ms Morcom: It is not for a crop product.

Hon LOUISE PRATT: Is it for a specific processor?

Ms Morcom: I give an example that the committee would be aware of. Roundup Ready canola would be identified in the regulations as one product, and a different herbicide-resistant canola would be a second type of product. The trait is very specific, whether it be herbicide resistance, insect resistance or disease resistance. It is very much the trait or the gene that is inserted into the product that relates to the determination about what is allowed into the EU. I cannot answer how the regulations have been drafted, but they are very specific. An interesting thing is that since the outbreaks of foot-and-mouth disease and BSE, imports of soya beans into those countries have increased. Soya beans are used as a substitute for blood and bone. Farmers are looking for alternative vegetable protein sources. That potentially has opportunities for Western Australian lupins. The problem is that soya beans dominate the vegetable meal market around the world, accounting for 60 to 70 per cent of the global meal market. The global lupins market is minor in comparison - less than one per cent - and most people have never heard of lupins. It becomes very difficult to compete in that type of market. However, there have been opportunities to import non-GM lupins into the EU market.

The Euro-barometer survey was released in March. It shows that change is occurring in the EU. Although there are still major concerns about GMOs, it is no longer the number one food safety issue. The countries that are showing less concern towards GM crops are Spain, Portugal, Ireland, Belgium, the United Kingdom, Finland, Germany and the Netherlands. The countries in the EU that are still strongly opposed to GM crops are France, Italy, Greece, Denmark, Austria and Luxembourg.

Hon BRUCE DONALDSON: Could part of the reason for France's opposition be that the farm lobby has huge powers? It jealously guards its production. It would not matter whether it related to GM or non-GM crops; the farmers would see the imports as a threat to their livelihoods.

Ms Morcom: I think a similar example is the Australian wine industry. France proprietorised the name champagne so that all the producers in Australia had to change the name of their product to sparkling wine. French farmers are very parochial, proud and strong-minded.

Hon BRUCE DONALDSON: The French farmers comprise a strong political lobby group. When something goes against them they blockade the streets with tractors and every type of truck they can think of. It would be the biggest farm lobby group in the world. It has a far greater influence than does the United States farm lobby.

Hon JIM SCOTT: France and Italy are very much into "slow food". Its citizens are more concerned than others about what they eat.

Hon BRUCE DONALDSON: They are probably slow anyway.

Hon JIM SCOTT: They have more non-manufactured food and fewer high-tech methods. The opposition would also be consumer driven.

Ms Morcom: I have summarised the labelling requirements and price premiums for the five markets. Japan has labelling requirements for GMOs. Any product containing more than five per cent of genetically modified product must say so on the label. There are price premiums of between \$5 and \$15 a tonne for non-GM canola from Australia. That represents less than one per cent of the market in Japan. One of the major reasons is that Japan is going through an economic downturn, and it is more concerned about the price.

Hon BRUCE DONALDSON: Who pays that? Is it the consumer? We have been told that most of the Asian markets work on three principles: continuity of supply, the quality or safety, and price. They is why there are small premiums attached to non-GMO products. The average consumer will look at the two products and take the one with the lower price. I would not imagine there is great demand.

Ms Morcom: No.

Hon JIM SCOTT: I noted when you showed which countries supplied Japan with canola that the Canadian market has shrunk since the introduction of GMOs.

Ms Morcom: That is mainly because Canada's production over the past couple of years has been drastically reduced. It normally produces around seven million tonnes, and last year it produced three million tonnes. It has a domestic market of one million tonnes. The availability of their exports has -

Hon JIM SCOTT: The table showed a decrease in the total amount each year, and also that the Canadian contribution decreased each year.

[2.00 pm]

Ms Morcom: There is a table of the Canadian competitor analysis in that report.

Hon BRUCE DONALDSON: We met Bruce Delgarno, a farmer from Manitoba. You may have spoken to him.

Ms Morcom: No.

Hon BRUCE DONALDSON: He said that the farmers there had terrible problems from frost on their canola crops. It created a problem for them because they had frost damage. He said that the summer rainfall, which farmers rely on, was well down, as it is in Australia. The rainfall in his area in Manitoba was 14 inches. With the combination of the two factors, the production levels collapsed. We have droughts and they get frosts.

Ms Morcom: We get frosts too, but it is a different type of frost; it is not minus 30. That table summarises that in far greater detail. It is hard to go into too much detail in an overhead.

Currently in China there are no GM labelling requirements, but the Government is in the process of reviewing and updating that. It has introduced an interim period for import requirements for GMOs. It currently requires safety certificates for all imports of GMOs. That has been going on for over a year now and has caused a great deal of misunderstanding and confusion in the marketplace. The interim period is until September 2003, and the Government is still in the process of trying to work out how it will introduce the regulations into China. There has been some confusion over that. Currently there are no price premiums for importing canola into China. As I said to Frank before, and it is in the report, there has been a substitution towards soya beans, mainly because of the price difference.

Hon FRANK HOUGH: The Chinese do not give us any premium at all for non-GM products. They do not care.

Ms Morcom: You do not even need to segregate it that far. They will not give any premium for any canola over -

Hon FRANK HOUGH: They are purely price buyers.

Ms Morcom: Their imports of canola have been going down and their imports of soya beans have been going up. Over the past two or three years, the price difference between canola and soya beans has been getting greater and greater. It will eventually be to the detriment of canola, regardless of whether it is GM or non-GM. Only a few markets such as Japan will be prepared to pay that price differential between the two. In 2002-03 canola reached \$580 a tonne in the eastern States. For the next season, it is currently priced at \$380. The full price for 2002-03 is currently around \$510.

Hon FRANK HOUGH: The variance in price between GM and non-GM canola is between \$15 and \$30.

Ms Morcom: That is for a very small niche market. Generally there are no price premiums. If we forget the GM debate for the moment, the price difference between soya beans and canola has been getting greater and greater over the past couple of years, mainly because of supply and demand. The supply of soya beans has been expanding exponentially because there has been much larger growth in South America, particularly in Brazil and Argentina. The farmers in those countries have increased acreage and are expanding. Now they produce more than the farmers in the United States produce. The US traditionally has been the major producer of soya beans in the world. The overproduction of soya beans is beginning and canola production has been shrinking.

Hon LOUISE PRATT: In regard to soya beans, are both GM and non-GM crops under production? My understanding is that the soya bean market is a lot more sensitive to whether a crop is GM or non-GM.

Ms Morcom: In the US there is 60 to 70 per cent GM; in Argentina there is up to 90 per cent GM; and in Brazil officially it is zero, but it gets smuggled in over the border, and between 20 and 40 per cent is grown illegally at the moment.

Hon LOUISE PRATT: Does that mean they export it as non-GM?

Ms Morcom: Yes, but that is causing an issue.

Hon LOUISE PRATT: So the GM-free soy milk that people buy is not necessarily GM free?

Ms Morcom: It is causing an issue in China at the moment because of the safety certification.

Hon FRANK HOUGH: The soy market seems to be moving up and the canola market is going down. Is that across the board in the world market?

Ms Morcom: Yes; I am talking globally. It peaked in 2002-03, up until a couple of months ago. It has been very current. I note that it is still 2002-03, but basically new crops will be planted from now on in Canada and Australia, so we are now looking at the 2003-04 market and prices. Because there has been such a high price differential between canola and soya beans, it has priced itself out of the market. Consequently the prices are rebounding and the price of canola must keep coming down further and further until it gets to a price that all consumers globally are prepared to pay, and then demand will start to take off again. It is just the way.

Hon BRUCE DONALDSON: Would it be true say that it is market driven? Even farmers who have planted canola, irrespective of the start, are questioning the value of canola if the price comes down to about \$300 a tonne, which it will. They reckon that the cost of production in many areas where they started growing it has caused them to drop it from their program, and that will happen. It will continue to be grown in the more traditional areas in which it should be grown - that is, areas with higher rainfall - but it is being scrapped in areas with medium to lower rainfall levels. While it was \$500 a tonne it was terrific and everybody rushed in.

Ms Morcom: If they could.

Hon FRANK HOUGH: It gets down to supply and demand again.

Hon JIM SCOTT: What is the rainfall threshold? If there are continual reductions in the level of rainfall in the State, it might not even be a question of growing canola after a while.

Ms Morcom: It is more the timeliness of it than the total rainfall. The rainfall at the initial planting is crucial.

Hon JIM SCOTT: If it becomes more and more unpredictable and uncertain -

Ms Morcom: That is a very valid point. The only issue against that is that breeding is continually being done to make these plants more drought tolerant. There is an association in Western Australia called Canola Breeders Western Australia Pty Ltd. It is a consortium comprising the University of Western Australia, the Council of Grain Grower Organisations Ltd and, I think, a German company that has recently invested. That organisation has been going only since 1999. It expects its first commercial release next year. The great thing about that is that it is a state-based breeding program, so it makes it more likely that canola crops will be grown and bred to adapt to WA conditions, rather than crops that are bred in the east, which are not as likely to do as well because they have not been grown specifically for this State.

[2.10 pm

That will be one of the things.

I want to mention something quickly; I will not go into it because we will get way off track. The department has been looking at alternative oil seed programs. Part of the advantage is that they are industrial-type; they are not canola but include mustard and other types. They are much shorter and drought-tolerant, so they can be grown in the eastern zones where the rainfall is less. They also require less pesticide because they are more disease and pest-tolerant than the commercial ones. There are other alternatives out there; it does not have to be just the way it is at the moment. Just because things are one way now does not mean that they will stay that way in the future and it is all doom and gloom. If there are alternative oil seed programs, and bio-energy and bio-fuels start taking off, it will be a different situation. That is very different to what we are talking about.

Hon JIM SCOTT: Yes. We might be better off with eucalypts.

Hon BRUCE DONALDSON: The gentleman from Canada said there were 400 varieties of canola they could choose from. In Manitoba, it was brought down to 20. That is a bit like putting Western Australia against Victoria. Manitoba can choose from 20 varieties that are best suited to it.

Ms Morcom: It is the number one canola producer in the world, whereas Western Australia has been producing for only a few years. We do not have that choice.

In Pakistan there is no GM labelling and there are no price premiums. Malaysia has no GM labelling but it has plans to introduce food-labelling laws later this year. It also has no price premiums. It is a very price-sensitive market. Because it is the largest producer of palm oil in the world it uses a significant amount of it as a substitute. The EU has a threshold of 0.9 per cent that was introduced at the end of last year. It was previously one per cent. It has premiums of \$10 a tonne.

Hon FRANK HOUGH: I find the red lettering on the overhead hard to read.

Ms Morcom: Maybe I should turn off the lights.

Hon BRUCE DONALDSON: I can read it all right.

Hon FRANK HOUGH: Of course you can, as you are sitting right in front of it. I am a mile away.

Ms Morcom: The next criteria that I have summarised are the GM crop trials and commercialisation in the five markets. Japan is trialling rice, canola, tobacco, soya beans, corn, sugar beet and a range of fruit and vegetables. It has commercialised tomatoes, canola and corn. China is trialling 60 crops including, for example, rice, tobacco, corn, peanuts and soya beans. Cotton is the major crop but it also grows tomatoes, sweet peppers and petunias. Pakistan is not conducting any trials, but we are getting into what Hon Jim Scott said about the difference between biotechnology and genetic modification. It is hard to get information out of Pakistan, as I am sure the committee can appreciate.

Hon JIM SCOTT: They could be breeding anthrax!

Ms Morcom: Yes. It currently does not have any crops commercialised with GMOs. Malaysia is trialling rice, papaya, orchid, pineapple, oil palm and rubber. It does not have any commercialised GM crops. The interesting thing about the EU is that it has been trialling a lot of different GM crops. The adoption of trials has been diminishing over the past three to four years because of all the Frankenstein-type concerns; it has been detrimental to investment in those areas.

Hon JIM SCOTT: They also had a lot of problems with contaminated seed being sent from the United States and so on.

Ms Morcom: There has been a range of different issues. It is mainly the concerns of consumers that have stopped companies from investing.

The DEPUTY CHAIRMAN: Do any of the Asian countries - not the EU - have legislation that deals with genetic modification?

Ms Morcom: Japan, China and the EU have. Pakistan does not but Malaysia is in the process of reviewing the issue and introducing legislation.

The DEPUTY CHAIRMAN: Of the countries that have legislation, what areas do they cover? Do they pick up on labelling or marketing?

Ms Morcom: Labelling.

The DEPUTY CHAIRMAN: Similar to what we propose?

Ms Morcom: Yes, similar in environmental and health impacts.

In conclusion, from the five markets we analysed, all countries, including Japan, China, Pakistan and Malaysia, were identified as low-risk countries to Western Australia if it were to commercialise canola. For 2001-02 that represented 99 per cent of total grain exports from Western Australia, which were valued at \$179 million. The market identified as being of high-risk to WA is the EU, which accounts for less than one per cent of total exports. That is a snapshot for that year but the EU has consistently not been a major market for canola exports. I believe we exported to Germany for the first time the previous year. It is the only year we have exported to it; it tends to be an opportune market because the EU has its own region - France and Germany - to purchase from. It purchases mainly from its own region. Those countries tend to be net exporters.

Hon BRUCE DONALDSON: You are really saying that the EU is insignificant and is not worth worrying about from a market point of view.

Ms Morcom: It is opportunistic.

Hon BRUCE DONALDSON: That is all it is. The countries classified as low-risk are our major importers, which obviously do not have great problems.

Ms Morcom: Yes, for canola.

Hon BRUCE DONALDSON: I am talking about canola.

Ms Morcom: I want to make clear that I am talking only about canola.

Hon LOUISE PRATT: Regarding Western Australia's reputation as a producer, if we were to start producing GM canola would that rub off on the perceptions of our other crops or would the marketplace make the distinction?

Ms Morcom: That is a good question. Each grain is traded independently and on the same merits. Japan is the only major market with Western Australia that imports all our grains across the board. It buys wheat, barley, oats, lupins and canola - all the major grains produced in Western Australia. For total grain exports the most important market to Western Australia is Indonesia. That is because it buys wheat from us. It is the only grain it buys from us; it does not buy anything else. Japan is highlighted because it purchases a range. All the other markets buy only specific grains.

Hon JIM SCOTT: One of the things I find hard to bring together is that we hear groups like the Japan Consumers Association saying it wants GM-free products but the marketers say they are not worried about them. There seems to be a difference between what the consumers and what the marketers are saying.

[2.20 pm]

Ms Morcom: Japan needs to segregate non-genetically modified grains from the moment they arrive in the country and all the way through the process. If a plant is dealing with GM-canola, the whole plant must be shut down and cleaned. The grain has to be segregated and a new processing line has to be put through. At the end of the day, when that product reaches the shelf, the extra efforts and costs involved to produce it are not justified by the extra price obtained for the product. I understand that there is no operation in Japan that has a canola crusher that exclusively deals with non-GM canola. They have either a combination or they have both. However, the majority of the operations are not prepared to cater for the niche markets because there is no demand and they cannot get a good enough price to justify the process.

Hon JIM SCOTT: Is it likely in the future that specialist mills will do either one thing or another -

Ms Morcom: The Japanese are smart because they have realised that there is no DNA in the oil. They learnt that a long time ago and have used it to their benefit; that is, by not paying for price premiums. They have been aware of that fact and have made the most of it. There will always be niche market opportunities. This is the same with anything such as organics and the different types of oils varieties that we talked about before - there are new high oleic oils coming onto the market now. There will always be niche market opportunities, not just for canola but for everything.

Hon JIM SCOTT: There are claims that testing has shown that the GM-soya does not have the same cancer fighting abilities as non-GM soya. I do not know how that can be worked out. However, when dealing with a health food, surely there will be some tendency for people to want it to remain in the market.

Ms Morcom: In the long term, technology will have tremendous benefits in terms of developing products that will have beneficial traits such as cancer fighting properties or the ability to lower cholesterol. However, GM foods need to get through this first stage of adoption of production trait benefits. It will then advance to the next two categories of beneficial benefits to the consumers. In the long term, those types of benefits will act in the opposite way to what you said. Technology will create products that will have health benefits. It will not happen overnight but over the next five to 10 years.

Hon LOUISE PRATT: Obviously drought can impact on all crops and, in particular, on supply. If this creates shortages of a particular product, is it true to say that that might then increase the acceptability of the GM version of that product?

Ms Morcom: I think that is true. When making this presentation, particularly with the report, I constantly contacted the Grain Pool of WA to get its feedback on its experiences. It said that 2002-03 has been the first year in which there had been no mention of GMOs. It is more concerned about getting hold of supply. That is its number one priority.

Hon FRANK HOUGH: When you are hungry you will eat anything.

Hon BRUCE DONALDSON: We imported a shipload of corn to the eastern States to help feed stock. It was carefully monitored and we made sure that it was not spilt. It was interesting to see Australia importing corn to feed stock.

Ms Morcom: Wheat has also been imported from the United Kingdom.

Hon BRUCE DONALDSON: Is it not correct that there is very little GM-wheat around the world?

Ms Morcom: There is no GM-wheat. It is being trialled at the moment. If it is to be commercialised, the first would be Roundup Ready wheat, which is currently being trialled in Canada and the United States. However, Monsanto has learnt - one would hope - from its mistakes with canola. It is taking a much more cautious approach and will not introduce it until the market is ready, which could be two to 10 years from now. However, it will not commercialise anything at the sacrifice of not having market acceptance.

Hon BRUCE DONALDSON: Monsanto indicated that at a previous hearing. There is no great rush to commercialise GM-wheat. You referred to Indonesia, who buys a lot of wheat from Australia because it has the biggest number of flour millers in the world. It has said that at the moment its policy is to first feed the people. It would buy GM-wheat from Australia if it was safe and if that is what Australia exported. However, at the moment it is happy because 95 per cent of its flour is used or consumed domestically and only five per cent is exported. Indonesia was more worried where that five per cent of exported grain would go if it were buying GMO wheat - hypothetically - from Australia.

Ms Morcom: As I showed on one of the slides, one of the criteria for making this announcement is whether the grain is for human or feed consumption. I know that canola oil is for human consumption but markets like Japan know that there is no DNA in it. However, with bread and flour, Japan is more aware of consumer awareness and acceptance. I personally do not know when that will be but I would not imagine it will happen for a number of years.

Hon LOUISE PRATT: This may be a little too hypothetical, but Monsanto has provided evidence about how it would go about segregating its crop to maintain a GM-free crop next to a GM-crop. If someone wanted to access a market like the European Union with a non-GM crop, what would be the viability of those different types of segregation regimes in terms of still maintaining access to a market like that?

Ms Morcom: I will answer that question in a slightly different way. It is a good question but I would like to add something else to be able to answer it more completely. You might be aware that there was a change to the Grain Marketing Act at the end of last year. The Grain Licensing Authority is now in place and a committee is in the process of being put together. I raise that point because the Grain Pool and the marketing authority have had a complete monopoly on the marketing of canola exports up until now. They have had to export bulk licence for canola. Anyone who wanted to do container loads had to put in permits to export containers overseas. With the change to the Grain Marketing Act, any business can now export the prescribed containerised grains - barley, canola and lupins - without requiring a permit.

[2.30 pm]

There is also provision in the Act for people to apply for permits for bulk licences for those three prescribed grains. I have raised that issue because the market is slightly more open and there are more market opportunities for those kinds of thing. So rather than one company doing all the marketing, there can be niche marketers. For instance, the Joe Blows down in Fremantle who have only small businesses could contract with a couple of growers in Western Australia, the grain could be contained on farm, they could have their own farm storage and have greater supply chain management. This is a hypothetical scenario because it has not yet happened, but with the change

in grain marketing, those types of things will potentially open up. Irrespective of GMOs, one would hope that there would be greater value adding opportunities through more people being able to sell containerised grains overseas.

Hon JIM SCOTT: Does that not add a huge amount to the cost, as all these little things would be segregated all over the place rather than being contained in a bulk system?

Ms Morcom: That is right. It just depends. For instance, the Europeans have been and will continue to be very driven by identity preservation. They want traceability back along the supply chain. If they want that, they will have to be able to pay for it. We are talking about niche market opportunities.

Hon LOUISE PRATT: Is the kind of regime in which a GM crop is grown next to a non-GM crop able to provide adequate traceability for those types of niche markets?

Ms Morcom: They are supposed to be able to. I use "supposed to" because it has not yet happened in Western Australia. No-one has seen what the crop and risk management plans would be like for those companies. I have to say that I do not know, because it has not yet happened. We do not know what it will be like. One has to have faith in the regulation systems, the protocols and the science behind it to support that type of thing.

Hon FRANK HOUGH: A big problem at this stage is that the Grain Licensing Authority does not have a board because they cannot determine who will be on it. The minister does not want the people who have been suggested. Am I right?

Ms Morcom: You may know more about that than I.

The DEPUTY CHAIRMAN: Anne may not be able to comment on that.

Hon LOUISE PRATT: Monsanto told us that its crop management plans would be quite acceptable to the market. That is really the key question that we are vexed with ourselves.

Hon JIM SCOTT: What needs to be looked at is where on the planet anybody has tried to grow two completely segregated systems and has managed to keep them segregated. They are certainly not doing that in the United States. Even the organic stuff is being contaminated. The original Indian corn in Mexico is 90 per cent contaminated by GM varieties etc. How will any market be able to offer a GM-free product if contamination is that widespread?

Ms Morcom: I do not know the answer to what I am about to say; I will raise this issue to bring it to your attention. A group of organisations - Co-operative Bulk Handling Ltd, the Grain Pool of Western Australia, the Department of Agriculture and the Grains Research and Development Corporation - conducted a trial last harvest into identity preservation. Again, that is in the report. The idea was to conduct a trial on identity preservation for GM and non-GM crops. A new canola variety was introduced to Western Australia for the first time in 2002-2003. It is a South Australian canola variety called ATR-Eyre. It is a non-GM canola. It was a new variety that had never been grown here. It was taken as a protocol as a GM. It was grown for the first time in Western Australia last year and was identity preserved all the way through from on farm to storage to the port. I do not know the answer because I am not sure of the final outcome of the trial. I looked at the trial in December, before the trial or harvest had finished. The Grain Pool of WA and CBH have the results of that trial and will present those results.

Hon JIM SCOTT: That is a trial of a new variety for a single season with about half a dozen people growing it.

Ms Morcom: It was the first season it was grown. I think the trial will run for two years. They have started that process. One can look at that in two ways. The positive point is that at least people are trying to trial and test it to see whether it can be practically done. The negative point is that it is a shame that it was not done earlier. It is a catch-22 situation.

Hon BRUCE DONALDSON: Have you ever spoken to our importers of canola? I know it is not transgenic; it is triazine-tolerant canola, which was developed through plant breeding - through biotechnology, in that sense - and so has tolerance for a herbicide. Eighty-five per cent of the canola we grow in Western Australia is TT canola. What is the difference if there is tolerance or resistance? I have been a farmer nearly all my life, although I am not farming now. One of the things that attracted us was the plant breeding program, which was continually upgraded through the Department of Agriculture and the University of Western Australia etc. The only thing that drove me as a grower of grain crops was to get the best potential yield that could be achieved in rainfall of 12 inches or less and which could give me the best returns. The grain could have been slightly disease resistant. To me atrazine and simazine cause sterilisation of the soil, which I have never liked. Quite frankly, with a species of crop such as canola, Roundup is of greater benefit to the soil. If anybody has ever farmed lupins and has had to use atrazine and simazine as a pre-emergent, he will know that it sterilises the soil. You get very little from such an area unless a wheat crop is grown on it in the following year, which most people do. Even then it takes a long time for pasture or any other grasses to regenerate.

Ms Morcom: I think what is more of a concern with atrazine, more so than simazine, is ground water contamination.

Hon BRUCE DONALDSON: These are the issues people do not talk about.

Hon JIM SCOTT: I think there is also a problem with glyphosate with the surfactant that is used. The glyphosate is all right, but the surfactant is not.

Ms Morcom: Atrazine is a global chemical. I think Ciga-Geigy had to go through quite a lot of regulation. There have been strong threats that it would be taken off the market because of ground water contamination.

The DEPUTY CHAIRMAN: Thank you, Anne. I think everyone has got a lot out of your presentation today. You have given us some valuable information that will help us with our inquiry.

Committee adjourned at 2.39 pm