

WESTERN AUSTRALIAN COTTON INDUSTRY, FEASIBILITY STUDY

Motion

HON JOHN FISCHER (Mining and Pastoral) [2.04 pm]: I move without notice -

That this House request the State Government to support feasibility studies relating to the establishment of a cotton industry in Western Australia.

If time permits, I will also move -

That this House endorse research and development undertaken by the public and private sectors to develop viable fuels in substitution for those derived from petroleum.

A Chinese philosophy holds that the world is controlled by the forces of Yin and Yang. In western parlance, that equates with action and reaction and checks and balances. Unfortunately, we have a new concept that seems to have been introduced by the so-called environmentalists that is best described as the no and no syndrome. The Greens (WA) make some pretence about caring for the environment and, to that end, they are prepared to use scientific data that is often of dubious credibility. As is the way with all ideologues, they believe that the end justifies the means, and they are invariably prepared to use all those means to get their way. This is extremely relevant to the two issues I want to discuss in the House today.

Although the salinity level of the Murray River is at its lowest level since 1942, the long-term prognosis of our major waterway is not good, simply because we are putting too much demand on its limited resources. This is an important issue, since it is calculated that if the Murray-Darling system were to crash, it would cost two out of every five jobs throughout the land. Fortunately, we are not powerless in the face of this grim scenario. Around Broome in the north of this State, we have large areas of very porous and infertile deep sands. When nutrients and water are added to poor soil it is transformed into some of the best cotton growing land in the world. Cotton has traditionally been a very water-intensive crop. If we were to relocate cotton production from the Murray-Darling basin to the southern Kimberley, it would represent an enormous reprieve for the Murray River and an enormous boom for the north of Western Australia.

The rule of thumb is that every 200 000 hectares of cotton produces 5 000 new jobs. This, by itself, offers a once-in-a-lifetime opportunity to do something serious about getting interesting, permanent and well-paid employment for Aboriginal people in a long-term industry. The existing aquifer has the capacity to irrigate only 20 000 hectares on an annual recharge basis. That is the Government's calculation, so it is probably on the conservative side, as it should be. Mind you, 20 000 hectares cannot be ignored as it would require a very large cotton gin and would provide 500 new jobs in the region. The aquifer that underlies this area is described as an open system, and because the soil overlying it is sand, it is easily and quickly recharged. The plan is to divert water from the Fitzroy River close to the sea and to drain it straight into the aquifer by permeating it through the sand. Water would be harvested only when the river is at a predetermined level. Given that that water would otherwise simply go out to sea, it would have no effect at all on the upstream ecology. In any case, the Fitzroy River is a mighty river, and the amount taken for irrigation will be a small proportion of the total volume. Unfortunately, and with total predictability, the Greens, who are supposed to represent the best interests of the electorate, appear to be in collusion with the Kimberley Land Council, which is certainly not representative of Aboriginal people in the area, and with Maria Mann, the self-styled expert on all the Kimberley.

Hon Robin Chapple has been asking questions about the insecticides that would be used on these cotton crops. However, I believe that the real environmental story is that the two-gene cotton will use 80 per cent less insecticide than the old type of cotton varieties. Because two-gene cotton is Roundup resistant, there will be no need to use any weed control measures that leave any residual action in the soil. I believe it is intended to use drip irrigation. It is more expensive than other systems but it is more water efficient and more easily controlled. If the moisture level exceeds 75 centimetres in depth, the irrigation is stopped so there will be no increase in the ground water level. Two-gene cotton is a genetically modified variety that has been highly successful. It has been so successful that over half the cotton grown in the world is of this type. The percentage is growing every year. Cottonseed oil, which is available in every grocery store, is processed from cottonseed that is not segregated. At least 50 per cent of it is derived from seed from genetically modified plants. This has been the case for well over a decade.

I am aware that there is another element in Broome, other than the Greens (WA), that does not want development of any sort. I refer to those people as "lifestylers". They have made their money and they want to lock up Broome in what they see as an idyllic state. Those people do not have children in the area who want or who will need jobs in the future. Exactly the same phenomenon occurred in Esperance when the export of iron ore through the port was mooted. It can now be seen how beneficial the industry is to Esperance. At the time,

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the vocal minority very nearly stopped the project. It would be a great pity if the same sort of selfish people succeeded, with the aid of the Greens, in stopping the growth in the experimentation of cotton, which offers so much opportunity to enhance the environment and to provide lots of good jobs in the area. I know that Aboriginal people are anxious for the project to proceed because they understand the value of real jobs for their children. They have approached me with those concerns. They know that welfare is killing them and they do not like it. They want to change. I believe those people are far more representative of Aboriginal aspirations than the zealots and ideologues who comprise the Kimberley Land Council. This Government has to come clean and say if it truly supports the development in the north with all the environment advantages it offers. Alternatively, will it continue to be a mere vassal of the Greens and their allies? The Government knows full well that procrastination can and will kill this golden opportunity. In my view, the Government does not have the luxury of waiting until after the next election. Indeed, it would be morally wrong to do so. I expect that the opponents of these projects will raise concerns about the production of cotton. They may even have the gall to claim they are concerned about commercial sustainability. Let me make it clear that this is not their responsibility. Cotton production is one of the most fluid markets in the world. There are occasional periods of overproduction and reduced prices. However, the cotton exchange in America is very effective in relaying price signals to producers and supply and demand is generally kept well balanced. I make it quite clear where I stand. I stand foursquare behind any sensible development that will create jobs and wealth and help develop the great Kimberley region. This development has the capacity to extend a helping hand to the environment in the eastern States. I do not think that the water crisis in the Murray-Darling system is due to any permanent climate damage. The problem is far more likely to be cyclical and will probably be followed by a period of excessive rain. There has clearly been an over allocation of available water resources in that area. The flow of rivers that run through the Queensland channel country cannot be bottled up. Those waters normally add to the flow of the Darling River. Instances have occurred with large dams on Cubby Station on the Condamine River, which have detracted from the total flow of the entire river system. Water use efficiency is something that should concern us all. The water that is stored on the Condamine River would grow probably 20 per cent more bales of cotton if the same irrigation system that is proposed for the Kimberley were used. I am informed that it cannot be done in that area of Queensland because the soil types do not lend themselves to that type of irrigation. The savings do not include the substantial losses due to evaporation that occur from holding dams, which is something that would not happen in the Kimberley. With all the positives going for the project, I believe that those who stand in opposition should stand condemned as environmental vandals.

Once again, I call on the State Government to decide if it will support this development. I hope that it will take a straightforward approach on this and not be seen as a mere lackey of the Greens in its opposition to it.

HON BRUCE DONALDSON (Agricultural) [2.17 pm]: Thank you, Mr Deputy President. I support Hon John Fischer in this project. I understand that the Premier was in the region recently offering assistance to establish a cotton project. I understand that the Kimberley Land Council and all the other zealots that the member referred to said that they did not want it. They convinced some Aborigines that it would be bad for the region. This is a wonderful opportunity. I believe a number of trials were conducted on cotton at the research station in Kununurra. When we visited, there was talk about genetically modified cotton and the significant reduction in the need to spray insecticide on the crops. One of the problems for the first cotton farms was the amount of spraying; the crops were sprayed almost weekly. The cost was prohibitive. The amount of insecticide used created a risk. In addition, it was too costly to make a profit. Genetically modified cotton requires at least 50 per cent less spraying of insecticide. I believe Hon John Fischer quoted a figure of 80 per cent. He is probably more correct than I. Once again, this is an opportunity to use Roundup Ready cotton.

Hon Kim Chance: Ingard and Bolgard are the two types.

Hon BRUCE DONALDSON: Yes. That is very important because people get nervous when there has to be a lot of spraying.

What we learnt at Kununurra was very interesting. Very few ladybirds can be found on farming land in Western Australia today. When I was a kid there were lots of ladybirds. I am talking about the chain of insects. Ladybirds get rid of a helluva lot of the fungus and small parasites that affect plants of any sort. There is a chain of insects and the ladybird is an important part of that chain. By engineering the cotton and introducing a gene, the cotton began to produce a sweet sap. Ladybirds are reappearing in Kununurra because the crops do not need to be sprayed as much. There were always ladybirds on general farming land, even in my area of Koorda. There are few ladybirds in Perth now. We do not see them very often in this day and age. They have literally been sprayed out over the years. The reappearance of ladybirds was considered to be a real plus that resulted from not having to spray the crops anywhere near what was required in the past. It allowed mother nature to tackle some of the problems that attacked cotton. That comment was made in passing. It was something that I had not given

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any thought to, as I am sure had no-one who was with me. The little ladybird is an important part of the chain of mother nature.

Hon John Fischer is correct in saying that there is a great recharge capacity in the Kimberley area. It would be great to be able to use some of the water that is presently wasted and goes out to sea, which is a great tragedy. It would provide an employment opportunity, which is part of regional development. In this case, as Hon John Fischer pointed out, it is paramount that we help indigenous families get employment for their kids. I was absolutely staggered when I heard what the Premier had announced in a media release. He had been up there. He was told to go home.

Hon Kim Chance: Only by a tiny proportion of people.

Hon BRUCE DONALDSON: Yes, but they become vocal and then they become the majority, for goodness sake. The misinformation will be spread by our friends in the Greens (WA) and by these zealots, as Hon John Fischer calls them. The next thing we will know is that it will be called Frankenstein cotton.

I do not know whether anyone else has been able to go to China and has looked at its huge cotton spinning mills. They are massive. I do not know whether Hon Kim Chance has ever had a chance to look at them. Some years ago I remember -

Hon John Fischer: I need a seat on your committee, Bruce!

Hon BRUCE DONALDSON: No. Just prior to the Tiananmen Square disaster, the Chinese Government invited 10 people from local government in Australia to be its guests for three weeks. Surprise, surprise, Bruce was one of the 10 people from around Australia who was selected to go to China.

Hon Murray Criddle: You always were lucky, Bruce!

Hon BRUCE DONALDSON: I just happened to be in the right place at the right time.

Hon Bill Stretch: He just happened to have his passport handy.

Hon BRUCE DONALDSON: I just happened to have my passport handy! We were taken to China at the cost of the Chinese Government. We saw what a slumbering giant China was. We went to some of the new areas in which companies in joint venture arrangements were manufacturing goods. We saw 44-gallon drums and other big and small drums being manufactured in China for export to the United States. The machines were just churning them out. What staggered us was the cotton spinning mills. The size of them was incredible. Modern machinery had been supplied by Germany and Japan. It was all automated. They were of massive size and went for as far as we could see. We saw not just one but a number of them. There is a huge demand for goods. China is battling to clothe its own people, given the sheer number of them. Companies involved in the joint venture arrangements would be given special tax concessions and deals by the Chinese Government if they could export a certain amount of their products. The whitegoods manufacturers that were in China - Westinghouse, Kelvinator and so on - said that refrigerators and other products were absorbed into the domestic market as fast as they could turn them out. That was back in 1987. They said they never got any breaks, because they could never manufacture enough quickly enough to export some. That situation has probably changed a bit since then.

I support what Hon John Fischer said. I will be most interested to hear the minister's response, as I am sure will Hon John Fischer. I hope that enough people will want this industry in the Kimberley to drown out the vocal minority. Let us get on and do something for the Aboriginals up there. This is an opportunity to do that. It would also be great for the economic development of the region. It would be great for Western Australia. It is tragic that those people oppose anything that looks like it might move, be successful or provide employment. They should hang their heads in shame as Western Australians when they are denying the very people they stand up for and who they say are being denied the advantages enjoyed by non-indigenous people. They are being offered help. People are poking in their noses to stop what I believe will be a very worthwhile development for Western Australia.

HON KIM CHANCE (Agricultural - Minister for Agriculture, Forestry and Fisheries) [2.26 pm]: I do not want to shock people, but after having supported a motion moved by Hon Christine Sharp in similar circumstances on the last occasion that we sat, I am now going to support a motion moved by Hon John Fischer. I hope that this spirit of bilateralism does not break out too broadly, or we will do ourselves out of a job. The Government supports the broad context of Hon John Fischer's motion. It is a very broad motion. I appreciate that, and want to comment on that. So far, we have all spoken specifically on the question of cotton in the west Kimberley. Hon John Fischer's motion did not restrict itself to that. I want to go a little broader than that question, although I will also comment on the west Kimberley proposition.

The Government supports the motion. Hon John Fischer has quite accurately pointed out that the studies that have been carried out so far on both the commercial and agronomic potential for cotton in the west Kimberley

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have indicated that the pindan landform is, if not the best, then certainly amongst the best in the world. The west Kimberley has a clear potential to be not only the world's best cotton producing area but also the world's most sustainable cotton producing area, for some of the reasons Hon John Fischer touched upon and for others that would be the natural consequence of a newly developed industry. We are able to learn from the mistakes of the past when a new industry is developed. Hon John Fischer touched on the nature of the pindan soil structure. It is a unique structure. I am not an irrigator but I have been around irrigation long enough to know what to look for and what not to look for. The pindan soil structure seems to me to be an ideal structure for irrigation of the high-technology kind. It is a beautiful, draining soil structure, which, if approached the right way, would be sustainable in the long term as an irrigation soil type.

The other factor that makes the West Kimberley area attractive - this could apply equally to the east Kimberley - is that the seasons are clearly defined, this year's events notwithstanding. This year was unusual for some reason. There is an almost 100 to one chance against rain falling in the June-July period in the Kimberley. This year we happened to have record rain in June in parts of the Kimberley, but that is very rare. June is clearly the month in which it would be aimed for the harvesting of the crop to take place. The one key determinant of quality in cotton is the need for an absence of rainfall on the mature boll. That can be guaranteed in the Kimberley as it can in very few other places in the world. There are a number of other factors; I have touched on just two.

There may be a number of challenges. Whenever agriculture has been tried in the Kimberley, for every advantage there seems to be a thousand challenges, particularly in the form of insects. That would have to be dealt with, but on the basis of what we have seen so far we can be enormously confident about the commercial future of cotton, given that the plants we have grown in the Kimberley were designed essentially for the black soil plains and not for pindan sandy landforms. Any farmer in this place would know that plants need to be specifically bred for particular soil types, particularly a plant like cotton. Despite the obvious disadvantage of not having a specifically bred plant for the soil type, the yields have been extraordinarily good - right up there with the best in the world. Similarly, the costs of production in the area would be remarkably low due to a number of factors I have mentioned and some that I will not, because the question does not ask about the agronomy. The agronomy and the commercial prospects are clearly strong in the west Kimberley. In the east Kimberley, the Department of Agriculture is conducting extensive trials, but they are taking place on the black soil plain, which is a more conventional type of agriculture. Trials are being conducted there with both Bollgard and Ingard, the two varieties of genetically modified cotton.

Hon Murray Criddle: Are they both Bt?

Hon KIM CHANCE: They are all Bt. The two I have mentioned and others that I have not mentioned but which have already been trialled in the west Kimberley are all biotoxin cotton. However, non-Bt versions have been grown, and I have also seen a wild species of Egyptian cotton growing in the area, which has a very strong capacity to resist insect attack. There are conventional breeding options there as well. This is a very low-yielding but extraordinarily high-quality cotton, which could still have commercial potential. There is a range of choices in the area.

To the extent that I am now prepared to take account of what has been said by people who have raised concerns about the west Kimberley cotton project in particular, I need to note that in many cases the concerns raised reflect a number of assumptions that I do not believe to be true. They have been spread amongst a population not experienced in cotton growing or in agriculture generally, and have been believed. I do not know whether they have been spread maliciously. One of the most profoundly misleading assumptions is that cotton is proposed in the west Kimberley as a monoculture. Even people with a sense of history and no agricultural education at all will know that cotton monoculture has not existed since the mid to late 1920s in the Tennessee Valley in the USA. In Tennessee, Georgia, Arkansas and Mississippi people discovered that cotton needed to be grown in rotation with other crops. It was discovered that cotton yields rose rapidly if cotton was grown in rotation with soya beans in particular, but also with black-eyed beans and other pulse crops. Cotton cannot be grown in a monoculture. The concept of a cotton monoculture is science fiction; it just cannot exist in real life.

Having dealt with that issue, we need to somehow change the paradigm of the debate in which we have been engaged and improve the quality of that debate. I received yesterday, and other members may have received as well, a media statement from Western Agricultural Industries Pty Ltd. It pointed to the result of the information sessions that WAI and the Department of Industry and Resources had carried out at the Paspaley Shopping Centre in Broome. The media statement indicated that, notwithstanding the negative comments that came out of that process and then later out of the Premier's visit to Broome, 94 per cent of respondents who spoke to the people operating the stand supported the concept of at least a continuation of feasibility studies. The people of the Kimberley, either Aboriginal or non-Aboriginal, do not have in any sense an agricultural tradition, other than perhaps a marginal pastoral tradition. Alienated as they are from the concept of agriculture, the people of the

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west Kimberley are prepared to at least look at what this proposition might offer. This is where we have to look at changing the paradigm somewhat. We have to go to the west Kimberley people, both non-Aboriginal and Aboriginal, and particularly the traditional owners who are so influential in this debate because in many cases they have only just been granted legal ownership of their land, and tell them that something more can be done with the pindan than is currently being done. That may not be a cotton monoculture, but it may be agriculture that will include cotton.

Let us look at what could possibly be achieved on the pindan. As Hon John Fischer said, the pindan is not a highly valued agricultural landform. In my father's day, when sheep were still in that part of the world, the pindan was regarded as absolutely useless country. With supplements, cattle have done reasonably well. Shamrock Station, for example, which is where much of this cotton has been grown, has been comfortably running around 5 000 head of cattle, which is quite remarkable for a station of that size. Even if the cotton crop was as large as 200 000 hectares, which is the maximum size of the project, it would still be less than four per cent of the pindan landform, which exceeds five million hectares in the Kimberley. It is a massive area. Every time I fly over either the west Kimberley or the east Kimberley, particularly the southern regions of the east Kimberley, I am struck by the amount of agricultural potential that exists there. Although we cannot quantify it with any precision yet, we all know there are significant quantities of water there.

How significant is this proposition, and how seriously should we be taking it? My colleague, the Minister for State Development, summed it up in a handful of words the other day. Western Agricultural Industries' proposition only deals with the 200 000 hectares in that arc between Derby and Eighty Mile Beach. It is an economic venture equivalent to half the size of the Gorgon gas field. The Gorgon gas field, by any world standard, is a monster resource and yet, this tiny chip of the pindan - less than four per cent of the total area of a landform that has been regarded at best as pretty mediocre cattle country and of very little other economic value - has an economic potential equal to half of one of the world's great undeveloped gas fields - the Gorgon. That is an eye-opener to me. Even though I have flown over the Kimberley and have come to understand something about its potential, I am aware that it is easy to get romantic and sentimental about its economic potential. A lot of people have been suckered by the Kimberley one way or the other. Members should think about those statistics and imagine the potential that exists with this economic giant operating in the pindan. Fully 95 per cent of the pindan would be totally untouched by human hands, which cannot be said of the Gorgon gas field. When Gorgon is exploited, all of it will be exploited. We are talking about exploiting less than four per cent of the total of the Kimberley. We must be serious about the way we approach this issue. A paradigm shift is necessary. We must ask what the agricultural potential of this area is and what part cotton will play in it. I do not think that Mr Logan from Western Agricultural Industries Pty Ltd would necessarily disagree with what I have just said.

The Western Australian Government is already a major supporter of cotton research in the Kimberley. Currently it is conducting trials through the cotton cooperative research centre in the west Kimberley near Broome and the Government has previously been engaged in trials at Shamrock, Nita Downs and Shalamar stations. The Department of Agriculture is directly responsible for cotton trials in the east Kimberley at the Frank Wise Research Institute. Hon John Fischer's implied criticism of the Government's actions is hard to understand knowing how closely the Government has been involved in that scientific research. The Western Australian Government has a long and active record of supporting cotton research on its own, and in partnership with the private sector and with the research and development community. This process has spanned both Governments. Governments of both political persuasions have been consistent and active in their support for research into determining whether cotton has a sustainable future in the Kimberley. To assert that the Western Australian Government has procrastinated in any way has no foundation. I will let that criticism slip off our back like water off a duck's back because it is not important in the total scheme of things. It is important to know whether the Kimberley can sustain and achieve the massive agricultural potential that it seems to have. On the balance of the studies that have been done so far, it seems to have that potential in great abundance. We must encourage the people of the Kimberley to understand that this development will bring benefits to everybody. It is not about just benefiting a single person or destroying the environment; it is about gaining an economic future for people, many of whom will not have one if a project like this does not get off the ground.

Hon Paddy Embry: Using wasted assets too.

Hon KIM CHANCE: Talking of wasted assets, the WAI media release said that the amount of water that moves out of the west Kimberley and goes to the ocean is approximately 10 000 gigalitres annually. I repeat, 10 000 gigalitres. I can barely comprehend the number of noughts in that.

Hon John Fischer: That is the total contents of Lake Argyle. It is just over 10 000 gigalitres. That is a lot of water.

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Hon KIM CHANCE: The total dam storage, the honourable the Minister for Government Enterprises -

Hon Paddy Embry: That is picking on your own.

Hon KIM CHANCE: From memory, it is about 196 gegalitres now.

Hon Nick Griffiths: You are not encouraging me to interject, are you?

Hon KIM CHANCE: No, not at all.

Hon Nick Griffiths: You are usually right.

Hon KIM CHANCE: Ten thousand gegalitres is an enormous amount of water.

Hon John Fischer: Seasonally, it is the second largest flowing freshwater river in the world.

Hon KIM CHANCE: No-one would challenge that it is far and away the biggest in Australia by many multiples. Is there the potential to pick up some of the floodwaters at a low point in the river to recharge the aquifer? That is the most sensible proposition I have heard. I can give members a view about the dam, although I know that it is off the agenda. I looked at the three dam sites that were originally proposed at Louisa River, Margaret River and the upper Fitzroy River at Dimond Gorge. Had the Dimond Gorge dam been built and had no water ever flowed beyond the wall of that dam - of course, overflow water or discharge water would flow through any dam that is built - the total effect on the flow of the Fitzroy River would have been 17.5 per cent of the total water flow of the Kimberley; yet people said that the Fitzroy River could not be dammed. It cannot be dammed at Camballin because it is beyond damming. No feat of engineering could do that. However, to dam the upper Fitzroy River between Halls Creek and Fitzroy Crossing at Dimond Gorge at Mornington station would have arrested 17.5 per cent of the total water flow of the Kimberley if no water passed through it. In other words, people would hardly have known the difference. That proposition has gone. Can water be taken from the lower Fitzroy River? Of course it can. Can the aquifer be recharged? No engineering issues would prevent that being done. Even that is far into the future. There is sufficient water available in that area inland from Eighty Mile Beach to enable agriculture to be carried out.

However, this is not what the motion asks for. The motion simply asks that we continue working on the issue. Of course we need to work on the issue. I would love to spend more money on that research. Hopefully, in time, we will. We must change the paradigm and win back the confidence of some people who have been misinformed or who, for one reason or another, have lost confidence in what the Government is trying to do. This is a matter that everybody should support and should have confidence in because it is a wholly good thing to do. I believe that now things can be done in a way that will ensure we do not repeat the mistakes of earlier agricultural developments in other parts of Australia.

HON MURRAY CRIDDLE (Agricultural) [2.47 pm]: I have been fortunate to be able to look at cotton research in the Kimberley for some time starting with the experimentation that occurred at Kununurra, both privately and within the research establishment. Principally I will talk about Bt cotton. Five or six years ago I travelled to Broome after seeing what happened in Kununurra. Through my portfolio responsibilities in transport, I talked about the Broome port and the opportunities to develop a cotton industry that could use the Broome port. From there I met Mr Logan, who flew me out to what would have been one of the initial experiments, which was 25 minutes by air south west of Broome at Nita Downs or Shamrock stations. There I looked at a very small development of only 10 or 15 hectares of land that was under irrigation. The irrigation was six or eight inches - to use the old parlance - underneath the soil and was being pumped out through reasonably large pipes. That trickle irrigation experiment was very interesting. As the minister said, it is pindan country. It looks like ordinary wattle scrub to me. There is nothing special about it at all. The machinery used there was very basic but the results were quite extraordinary. There was talk about producing seven bales to the hectare, which is very close to what is produced in the best country in the eastern States. The results were very encouraging at that stage.

Hon Kim Chance: I think it may have been seven bales to the acre, which was a very good yield.

Hon MURRAY CRIDDLE: Yes, it was a very good year. I am sure I should have said seven bales to the acre.

It surprises me somewhat that there is a recognised protest against experimentation that could lead to a potential industry of quite large magnitude. We always seem to focus on aspects that may lead to some possibility of lack of viability and sustainability -

Hon Kim Chance: It could go wrong.

Hon MURRAY CRIDDLE: It could go wrong, as the minister has just said. However, we tried to find out whether these industries will be detrimental or whether their development would be of enormous benefit, which should be recognised, to the community, Western Australia and Australia. The issue needs to be debated. I am

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pleased to hear the minister say that the Government is supporting this. The question has been around for some time. The big problem with a developing industry is that, the longer it is left, the less likely it is to come to fruition. Investment money does not hang around. Private enterprise does not leave investment money in a bank account. The money will go off somewhere else. I can quote the example of a mine near Esperance that took three years to get environmental clearance. We very nearly lost the opportunity for a very large investment. We need a process whereby these aspects can be ticked off more readily. The information is there. Members have heard me talk about time frames many times during debates in this House; in fact, so many times that they must be sick of hearing me say it. However, we need to recognise that industry should have the opportunity to go ahead with projects if they are at all feasible.

I understand that Aboriginal issues in the area need to be addressed, but from talking to the people concerned, I am sure that by and large reasonable arrangements can be arrived at and people can get on with the job. I can see enormous advantages for the north. The development in the north, particularly at Kununurra is not great in the scheme of things from Western Australia's point of view. Further agricultural development needs to take place to allow that whole region to stand alone. I know it has enormous mineral wealth, but if we are to be serious about agriculture and the use of port and transport facilities at an economic level, the area needs further development, given the water in the area and the vast expanses of land. We talk about soils in agricultural and agronomic terms nowadays. We can now put virtually whatever nutrients we like into soils to allow us to grow any product at all. Technology has advanced so quickly in cereal growing, the agricultural sphere in which I work, that we could not imagine 10 years ago what is happening now. There have been enormous turnarounds in the technology used in these areas. This is an opportunity to develop what could be a very useful and viable industry for the people in the north who may well be looking for further employment and opportunities to benefit Western Australia.

HON ROBIN CHAPPLE (Mining and Pastoral) [2.56 pm]: It will be no surprise to hear me state my opposition to large-scale irrigated agriculture in the west Kimberley. It is not a proposal that I support and neither do the traditional owners, especially in the Broome area. It is important to put this whole debate into context. I wish to go back to a number of statements that have been made. First, we are looking at significant developments of the cotton industry in the northern end of Australia. In the 1960s, the Ord irrigation scheme developed two dams. The cotton industry failed in that area in the 1970s. In 2000, the area was again targeted for cotton production. The Daly River in the Northern Territory and the Daly basin were used for broad-scale agriculture. Small-scale trials were conducted in 1992 in the area of Katherine, and from 1996 to the present date genetically modified cotton trials have been held. More trials were held in the Borrooloola area. Western Agricultural Industries Pty Ltd conducted cotton trials in the Shire of Broome from 1994 to 1999.

I noted the comments made by Hon Murray Criddle when he spoke of the site he visited at Shamrock Gardens. Very few people would be aware that cotton has escaped from that area and is now alive and well in the surrounding bush. We face the whole issue of the control of potentially a massive monoculture. In 2002 Monsanto Australia Ltd applied for the commercial release of Bollgard II double Bt - *Bacillus thuringiensis* - gene cotton and Bollgard II/Roundup Ready cotton in northern Australia. A 1995 to 1997 survey in the New South Wales found pesticide residue in 60 per cent of rainwater tanks up to 3.6 kilometres from the likely deposition sources relating to cotton. At Richmond Gulf, Queensland trials of up to 400 hectares ceased in 2001. In 2000 over 12 000 hectares were identified as suitable for cropping. Nearly 2 million megalitres were to be taken from rivers via storage dams to irrigate the area. I am well aware of the irrigation proposals with the WAI program and the document put out by the Office of Major Projects in support of the project. It has been noted in this House from answers to questions that the Office of Major Projects document was misleading. One of the statements in the document stated -

What sort, if any, opportunities will there be for local Aboriginal from the project?

WAI has often invited the traditional owners to meet and discuss a land use agreement as it strongly believes that its project offers a much needed new direction of opportunity for Aboriginal people. WAI's most recent invitation, issued to the Kimberley Land Council . . . , as representatives of the traditional owners, on the 12 November 2003, is a further commitment by the company to move forward to achieve a land use agreement by offering an extensive range of opportunities.

The KLC and the traditional owners, the Karajarri people, have written to Mr Logan on numerous occasions stating that they do not want cotton in their country in the Kimberley. They are not prepared to discuss any agreement with him because their position is no. On that basis I need to make sure that Mr Logan quite clearly knows the position of the Karajarri people.

I turn to *Bacillus thuringiensis* Berliner cotton and its problems and values. I will read from a summary of research on the environmental impact of Bt cotton in China from the Dayuan XUE, Nanjing Institute of

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Environmental Sciences the State Environmental Protection Administration of China. I will paraphrase it and then get down to the detail. Within 17 generations, cotton bollworm pest had developed resistance to Bt cotton. In fact, that did not matter because, in that period, 20 or so other species moved into that area and became predatory species. Cotton bollworm as an issue did not eventuate because, by that time, so many new species of insect had moved into the area to predate on Bt cotton that it was not a functioning operation.

The fourth point of the executive summary states -

Both laboratory tests and field monitoring have verified that cotton bollworm can develop resistance to *Bt* cotton. Laboratory tests for selection of *Bt*-resistant bollworm indicated that susceptibility of bollworm to *Bt* cotton fell to 30% after 17 generations under continuous selection with a diet of *Bt* cotton leaves. The resistance index of the bollworm increased 1000 times when the selection was continued to the 40th generation. Based on these results, the scientists concluded that *Bt* cotton would probably lose its resistance to bollworm in fields after the *Bt* cotton had been planted for 8-10 years continuously.

We are developing a monoculture with the idea of Bt cotton, which will be a failed experiment. With regard to broad-scale clearing, I again refer members to my little map that I will hold up - those who have driven between Port Hedland and Broome and then on to Derby will get some perspective of the size of this area - which shows all the areas in which the proposal is to go ahead.

The topic of water also comes up within the debate. Notwithstanding the processes being put in place for drip feed irrigation, which is a far more effective watering method, it will still require massive amounts of ground water. One of the issues that has been discovered and consistently argued about is that using ground water from that area would reduce the ground water head to such a degree that there would be an influx of sea water via the underground aquifer into that region over time. About five years ago some significant studies were done by the Kimberley Land Council in which all of that was articulated.

The other issue that beggars belief is this attitude in the world and in Australia that it is all right to bugger up somewhere else, and when we have stuffed up the Murray-Darling or wherever else, we will leave that in its state of disaster and move the problem elsewhere. We will not take cotton away from the Murray-Darling area; we are just going to build more cotton fields in the wilderness zones of the Kimberley. We already know that there have been cotton proposals in Ord stage 2. They are not the primary consideration at this time, but with the amount of cotton that is proposed by Mr Logan and potentially others going into the Kimberley in the future, it will involve a massive land clearing event. That will occur in an area in which a large percentage of the community - about 40 per cent - is indigenous and has significant ties and responsibilities to its lands. Those people have a responsibility for and a history and culture related to those lands, which we have denied for a considerable period. It is those people who are saying enough is enough. They do not want cotton or broad-scale land clearing in the Kimberley. Members will be aware of the many other projects that have been developed in the Kimberley that have certainly raised the ire of the indigenous community -

Hon Bruce Donaldson: Can you give us some examples?

Hon ROBIN CHAPPLE: The land clearing in Liveringa is one. It was totally illegal, and nothing was done about it. There are proposals for trials relating to teak trees near Lombadina. Permission has been given to do that in an area, but when we look at what is proposed, although it has not been granted, it is a significantly large area.

Hon Bruce Donaldson: With regard to what you have just talked about, have you worked out its total percentage of landmass as part of the Kimberley and the Pilbara region?

Hon ROBIN CHAPPLE: I think the percentage would most probably be, taking into account Ord River and other places, about seven per cent or something like that.

Hon Bruce Donaldson: Rubbish. I mean landmass. Go and do your figures.

Hon ROBIN CHAPPLE: I am talking about all the issues in front of us. Notwithstanding that, the issue is that experiments have failed elsewhere, so why do we have to repeat them in Western Australia? Why do we have to repeat them in the only part of WA that has any remote resemblance to a pristine environment?

Hon John Fischer: Have you ever been out the back of Shamrock?

Hon ROBIN CHAPPLE: Yes, I have.

Hon John Fischer: A friend of mine started Shamrock. Out there a dog cannot open its mouth to bark. If you are talking about pristine country, it is red pindan!

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Hon ROBIN CHAPPLE: The member does not comprehend that different environments have different values. Many people who travelled to the Pilbara in the past call it a flat wasteland. The variety of species through the Pilbara is one of the most extensive found anywhere in the world. Just because it happens to be flat and red does not mean -

Hon John Fischer interjected.

Hon ROBIN CHAPPLE: The member has this notion that if the land has nice tall trees growing on it somewhere, it is viable or a valuable environmental asset. Each area has its own significant environmental value and each area should be looked at in its own right.

Hon Paddy Embry: Do you acknowledge that iron ore in the Pilbara also has a value?

Hon ROBIN CHAPPLE: Absolutely. I am a miner; been there, done that. I am not saying that we do not do these things but I am saying that we do them in the right places at the right time, but certainly not with Bt cotton.

On that basis, I am sure there are many other people who want to enter into this debate. I will take my leave but put firmly on record that I will be supporting those people in the Kimberley who do not wish to see cotton trashing their country or broad-scale land clearing. I hope there are other members in this place who might do likewise.

HON NORMAN MOORE (Mining and Pastoral - Leader of the Opposition) [3.08 pm]: Some debates in this Chamber are quite predictable, and this is one of them. I have to say that I was pleasantly surprised by the attitude of the Minister for Agriculture, Forestry and Fisheries who, as he gets older, seems to be getting more and more sensible, even though I have always regarded him as being a sensible person. Although I did not hear his whole speech today, I heard the latter part of it and was impressed with his understanding of the Kimberley, the needs of the Kimberley and the potential for agriculture in the Kimberley region. The Kimberley region of Western Australia is vast. It is a huge part of the State; it is a huge landmass in the context of the whole world for that matter. When listening to people like Hon Robin Chapple, people get the idea that broad-scale agriculture will start in the west Kimberley and work its way across to the east Kimberley and do to the Kimberley what has happened to the south west of Western Australia with the development of the wheatbelt! That is not proposed. That is why there was an interjection from behind me asking what proportion of the landmass was being discussed. We have often had a similar argument about the effect of the mining industry on the environment. I read somewhere that the landmass in Western Australia affected by the mining industry is only one per cent, possibly less. Yet we still have complaints about how the landscape is being raped. I cannot remember the words used by a certain actress when she described the Pilbara, but they were rather unfortunate. I see that she is whingeing about something else today; I am not sure what it is. I think her name is Toni Collette.

Something that has concerned me a great deal over the past 20 years about the Aboriginal people of Western Australia has been the strategy adopted and implemented by some to create Aboriginal communities across the remote parts of the State. When I first became a member of Parliament, which is a fair while ago, most Aboriginal people were living in towns.

Hon Robin Chapple: You may not be here for much longer.

Hon NORMAN MOORE: That is for my electors to decide, not the member.

As I said, most Aboriginal people were living in towns. I might add that they were not living in good conditions. Nevertheless, that is where they were living. Since then there has been a quite significant development of out-stations and communities quite remote from towns across the State. Many Aboriginal communities are in the central desert, the southern Kimberley and the Pilbara. Many quite significant Aboriginal communities have been created. It was put to me originally that the intention of these sorts of developments was to enable land rights claims to be made on the basis that people were resident in certain parts of the State and were going back to where they came from so that would enhance native title or, in those days, land rights claims. What concerned me most was that quite large groups of Aboriginal people moved into the remote parts of the State creating communities that had no economic base at all and no capacity for any economic base. The situation developed in which mendicant Aboriginal communities were being created and could not survive without outside support and assistance, which was being provided on a regular basis. Because there were no jobs to be had, young people in particular found that they had nothing to do. There are too many of these communities in the State where there are simply no jobs or employment opportunities; there are no economic prospects for the communities. I suspect that that in itself is a serious disadvantage if we believe - I do - that Aboriginal people, in the same way as the rest of the community, ought to be part of the economic process. Being gainfully employed is an important part of one's life. In addition to the creation of the outback community program, I am concerned by its association with the notion that there should be no creation of any economic activity. Today's debate is whether there should be cotton developments in the Kimberley. There have been other arguments about

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economic development in certain parts of the State where Aboriginal people happen to live, such as mining activities, for example. Regrettably, the reaction of those who seem to get the ear of the media is that the Aboriginal community does not want economic development. The same argument is used against a potential cotton project in the vicinity of Broome and the west Kimberley. I saw a program on television the other night in which an Aboriginal leader was arguing that the community did not want a cotton development near Broome. I heard the same argument put when our Government sought to have a second resort development at Gantheaume Point in Broome. The argument was that people did not want that built in the town. It amazes me that the people who argue that there should be no tourism at Gantheaume Point are the ones who are saying there are not enough jobs for their people. That is not just Aboriginal people; that is the broader community. Interestingly from a tourism perspective, Broome has now reached a plateau. Unless there is a significant development of the sort proposed at Gantheaume Point or somewhere else in the reasonably near future, tourism in the town will not grow. The manager of Qantas has indicated that there is no need for any more flights to Broome because the place is now saturated; the number of seats on aeroplanes is the same as the number of beds available in Broome. If we ignore the fact that the population will grow, and if we ignore the fact that Aboriginal people and other members of the Broome community will increasingly look for jobs, that approach means that the place will not progress. There will be an increase in the number of people who are not employed.

This motion does not ask for a cotton industry in the Kimberley or anywhere else. It asks for support for feasibility studies relating to the establishment of a cotton industry in Western Australia. That is a very appropriate motion. Hon John Fischer is to be commended for bringing this matter before the House. By doing so he has shaken the tree and the things that fall out of trees are the things that fall out of trees. The House has been told by at least one member, Hon Robin Chapple, that people do not want these things and if they say no, that is the end of it. If the Greens (WA) had been running Western Australia in 1829, the first settlers would have gone back home! Someone would have said, "No, you cannot." We would not be sitting here; we would be sitting under trees or back in England where we came from, if that is where we came from. It certainly is where the first lot came from. Subsequently, people have come to Western Australia from all over the world to enjoy the great lifestyle, including people from Croatia. That is what human beings do these days. If we accept that local inhabitants will say no, that is as far as it goes and no more work will ever be done, we will not get the sort of economic development that has led to the standard of living that we have in this country. It is my humble view that the people who make noises on behalf of the Aboriginal community and who argue that Aboriginal people do not want development do not reflect the views of the vast majority of Aboriginal people. The vast majority of Aboriginal people I know are very keen to obtain well-paid jobs so that they can have the benefits of our society that they think are appropriate to them. The notion of the noble savage is simply ridiculous. I always found it strange, particularly when an Aboriginal community was established in the central desert but a truck had to go there every week to take it provisions. If the truck did not do that, the people would have starved. The Aboriginal community is not now in a position to return to living a traditional Aboriginal lifestyle; it is no longer an option. To me, the option is that we recognise traditional Aboriginal cultural values but, at the same time, we recognise that Aboriginal people are part of the broader economic community and should be able to benefit from that community in the same way as everyone else. The view that some white activists hold is that if an Aboriginal person is part of the western industrial society, there is something wrong with him and he has jettisoned his own cultural background. That is absolute nonsense. All societies evolve and change and take on different ways of doing things.

I believe very strongly that we need economic development in the Kimberley. It is a serious pity that Ord stage 2 did not proceed. I hope the prospect exists for it to go ahead in the future. I am aware of some of the serious problems that that project faces, one of which I have raised in this House before; namely, there is not enough water. It is an extraordinary state of affairs when, in assessing how much water we can use from Lake Argyle and the Ord dam, a government agency tells us that we have to take into account the new environment of the Ord valley. Humans created that environment when they built the dam and, having done that, we now have to keep half of the water to preserve that new environment. That does not make a lot of sense to me.

Hon Paddy Embry: It will get worse and worse when we get to the third, fourth, and fifth stages.

Hon NORMAN MOORE: Exactly right.

Hon Kim Chance: There are still people in Tasmania who say that we should drain Lake Pedder to take it back to its original boundaries, even though the new environment has already been created. The argument is exactly 180 degrees away from the Ord argument.

Hon John Fischer: In relation to Kununurra, cotton uses slightly over half the amount of water that sugar uses. As a secondary crop, there would be benefits in that area as well.

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Hon NORMAN MOORE: Yes. One of the things I am finding most interesting about being a member of the committee that is looking at water resources in Western Australia is being told interesting facts by those involved in the business of water. The explanation and description of what must happen with the water in Lake Argyle astounds me. As has been said before, one of the problems with Ord stage 2 was the fact that there might not be enough water. As we have just heard from Hon John Fischer, the growing of cotton would require less water than the growing of sugar, which was to be the fundamental crop of stage 2. Maybe there is a good argument for doing a lot more work in that area. If we are prepared to accept, and continue to accept, the Water and Rivers Commission's analysis of how much water we can use from the Ord dam, we should be looking at Ord stage 2 having crops that use less water. Again, irrigated agriculture is taking place in the north because there is so much water there.

Hon Paddy Embry: Having had the initiative to build the dam, we should just get on with things.

Hon NORMAN MOORE: It amazes me that one of the problems that we are told faces Western Australia, and indeed Australia, is a lack of water. However, when anybody looks at ways and means of using water in those places where there is lots of it - there are vast amounts in the Kimberley - we are told that we cannot touch it. Hon Robin Chapple said that if we were to use any underground water, we would reduce the head and, therefore, salt water would flow in. It is my understanding that the aquifer is to be replenished on an ongoing basis from water in the Fitzroy River, which now goes into the ocean. We will hear, of course, that we cannot reduce the amount of water going into the ocean because that will affect the ecology of the ocean, as was put to me the other day. When it was suggested that we could harvest the fresh water that comes from the aquifers of Western Australia and bubbles up under the ocean out to sea - I am told we can technically capture that and bring it onshore and use it as fresh water - we were told that we cannot do that because an ecosystem exists where the fresh water comes up on the seabed and if we were to take that fresh water, we would destroy that little ecosystem. In the view of people such as Hon Jim Scott, whatever we do in this country will have an effect on the environment and, therefore, we cannot do it. I do not know where that leaves us as a society.

We now have an excellent standard of living. However, as I argued a little while ago, many people in our community do not have an excellent standard of living, particularly Aboriginal communities which need development to create jobs, wealth, economic activity and growth for their children and their children's children and so on. We have to have economic growth, otherwise the country will begin to decline. The sad thing about Western Australia these days is that when anyone puts up a proposition for economic development, the initial reaction from some Aboriginal groups and all green groups is no. If a person has enough intestinal fortitude to push his way through the process, he will come up against government agencies and departments that will put so many obstacles in his way that he will become frustrated and go somewhere else. The exception is those who were involved with the Mauds Landing project. They lasted 15 years before they got told to get lost - most last about 10 years or so. We have a serious problem in this State because people who invest money to create wealth are losing interest, unless they are companies like ChevronTexaco, which was immediately able to persuade the Government to give it a state agreement Act. Companies like Coast Coral - or whatever its name is - or people doing a marina development at Coogee have to go through years and years of protracted negotiation and obstacles.

Hon Paddy Embry: They're going offshore, aren't they?

Hon NORMAN MOORE: Of course! They are also going to the other States.

What I am saying does not have a great deal directly to do with the motion. I will come back to the point that what Hon John Fischer is proposing in his motion is worthy of support. I am pleased to hear the attitude of the Minister for Agriculture, Forestry and Fisheries; indeed, it is the right attitude. I hope he does not allow those people in the bureaucracy of the Government to which he belongs - they were the same people when I was there - to get in his way. If the minister has any good ideas about this, the bureaucrats will make sure that he does not get what he wants, unless he rides roughshod over them. That is one of the problems that Governments have faced for a long time - ministers are not prepared to tell the bureaucrats what the Government wants them to do. Rather, it is the other way around; when the Government puts up a proposition, the bureaucrats say why it cannot be done. That is one of the problems we have in this State at the present time. I have often told the story of the bureaucrat who said that the Mauds Landing project would go ahead over his dead body. He is still alive, and the Mauds Landing project is dead. It was not going to happen because he decided it was not going to happen, and he is not even the boss! I make that point because if the Minister for Agriculture, Forestry and Fisheries wants things to happen - Hon John Fischer and I want things to happen - the Government and its minister have to take control of the agenda. They have to ask for proper environmental assessments and assessments of the interests of Aboriginal people and other groups. They have to do those assessments quickly and be sensible about them. They have to start off knowing what they want and work out how it can be done, instead of stating what they do not want to happen.

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HON JIM SCOTT (South Metropolitan) [3.28 pm]: Initially I was not going to speak on this issue but the issues that have been raised today have prompted me to make a response. I have been surprised by what some speakers have said, although I have not been surprised, as usual, by Hon Norman Moore's comments.

Hon Norman Moore: One thing about me is that I am consistent.

Hon JIM SCOTT: The Leader of the Opposition has been around a long time and his views have not changed in the 20 or 30 years he has been a member of Parliament. That is the problem. We need a bit of a roll over in this place. We need people in this Chamber who live in the real world.

Several members interjected.

The DEPUTY PRESIDENT: Order, members! I am sure Hansard understood every word that was said.

Hon JIM SCOTT: We have heard the usual stories about how the Greens hold up development and we have heard it asked what it is like with the Greens here; indeed, things are wonderful. In Western Australia today we are having to solve a whole lot of problems caused by the attitude that has been shown here today. We are trying to solve the problem of overclearing in the wheatbelt and the huge salinity problem that is threatening to take two-thirds of our wheatbelt. We are talking about the problems of climate change, which have halved water supplies in this State. Some long-term members do not understand that things are changing. Things must be done sustainably. It is not development if it causes destruction.

Hon Paddy Embry: Are you helping the wheatbelt?

Hon JIM SCOTT: Members opposite such as Hon Paddy Embry, who used to be a member of One Nation but is now in the damnation group -

Hon Paddy Embry: I asked whether you are helping the wheatbelt.

Hon JIM SCOTT: Am I helping the wheatbelt? I was not talking about helping the wheatbelt.

Hon Paddy Embry: You were talking about the wheatbelt.

Hon JIM SCOTT: Hon Paddy Embry can hop up and talk about the help he gives the wheatbelt in a minute. I will tell the honourable member about how he has helped the wheatbelt. The interesting thing about One Nation members, as they used to be, was that they were against huge multinational corporations coming into this country, exploiting people and doing things like foisting -

Point of Order

Hon FRANK HOUGH: What does One Nation, which is a group that no longer exists in this Parliament, have to do with the growing of cotton in the north of Australia, which is what the honourable member is waffling about?

The DEPUTY PRESIDENT (Hon Jon Ford): I am sure Hon Jim Scott was getting to the relevance of his argument.

Debate Resumed

Hon JIM SCOTT: I am merely bouncing off some of the comments that have already been made. I am saying that the attitude of some members seems to have changed a bit over time. They are now becoming the champions of some of the people they opposed just a little while ago, when they were members of One Nation. They have completely reversed their position and have become the lackeys of the very system that they once said they did not like. The interesting thing is that they want to push into this area the same industry that destroyed the Murray-Darling Basin. They are saying, "Look, this is a new area. There is not much. She'll be okay. We can have this trial." It is not a trial. That is a joke. It is to cover a huge area. Trials are conducted over small areas. I know what a trial is; it is when something is tested to see whether it works. A massive commercial enterprise such as this cannot be called a trial. That is a joke.

I am not really surprised by the actions of the former One Nation members. It is mock surprise. They have always been all over the place. However, I am surprised by the Minister for Agriculture, Forestry and Fisheries. We went through the debate on genetically modified crops in this State. He must understand the impact this crop would have on Western Australian agricultural products. Hon Paddy Embry should listen to this. Our markets will be severely damaged by this genetically modified crop. This is economic stupidity. I cannot believe that the members of this House who pretend to represent the Agricultural Region and protect agriculture can go along with this very silly move. If GM crops are brought into Western Australia, we will lose the ability to market our products as clean and green. It will unfairly impinge upon the vast number of farmers who are already here. The people who have destroyed the Murray-Darling Basin want to come into Western Australia and destroy this area. They want to plant Bt cotton, which is a totally useless crop at the best of times. Bt cotton has been a failure

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wherever it has been run. It was a failure in Indonesia. Monsanto runs around saying that it was a success. However, a press release from the Institute of Science in Society found otherwise -

It transpires that the GM cotton failed to out-perform the indigenous variety in all but one of the 9 districts. Worse yet, the GM cotton succumbed to drought and the brown hopper. Vivid photographs showed the browned-out GM cotton field next to the lush green field of indigenous cotton, which is resistant to both drought and the brown hopper.

It was a failure in terms of its yield. It creates insect resistance. There are significant other problems with it.

The Institute of Science in Society wrote a letter to the Indonesian Government on the GM cotton planted in Indonesia, which states -

Monsanto's GM cotton is 'Bt-cotton', so named because it is genetically modified with a toxin gene from *Bacillus thuringiensis*, a species of bacteria that live in the soil, to kill the cotton bollworm and other insect pests. There are many different Bt toxins from different strains of *Bacillus thuringiensis*, that are toxic for organisms from bacteria to butterflies and beetles. Several Bt toxins have been incorporated into a range of crop plants including besides cotton, maize, rice, and potato. There has been no long-term environmental and health impact studies *anywhere in the world* before Bt-cotton, as indeed any other GM crop, was approved for commercial release. Many environmental and health problems have emerged since. Let me review briefly the problems specific to Monsanto's Bt-cotton before I address the more general hazards of GMOs.

Almost as soon as it was released, Monsanto's Bt-cotton ran into difficulties. The Bt-gene went unstable, and failed to perform in the field in both the United States and Australia. Monsanto's Roundup Ready cotton, engineered to be tolerant to its own brand Roundup herbicide, suffered the same fate the following year. The cotton balls became deformed and dropped off when the plants were sprayed with Roundup herbicide. I understand that the Bt cotton crop in Balleang village, Ujungloe district in Bulukumba (South Sulawesi) has become infested with the brown leaf hopper *Spodoptera* as well as the bollworm *Helicoverpa armigera*, as reported by the local newspaper *Fajar*, 17 June 2001. This is most probably due to the same transgene instability, now known to affect all GM crops.

That's not all. Target insect pests became resistant to the Bt toxins and drastic 'resistance management' strategies had to be adopted. Bt toxins are themselves a problem, as reviewed by ISIS last year. Active Bt toxin leaks from plant roots into the soil where it is not biodegradable and accumulates over time, with knock-on effects on all trophic levels in the ecosystem. Bt toxins harm non-target beneficial and endangered insect species, such as the monarch butterfly, swallowtails and lacewings up the food chain. Bt toxins are known to be allergens for human beings, and to have harmful effects on rats in feeding trials. Allergens and toxins can be transferred via GM pollen and dust to farm workers and the general public.

In the Philippines recently a lot of people became ill because they were exposed to Bt cotton pollen. The letter continues -

Another hazard in Monsanto's Bt cotton is the antibiotic resistance marker gene that UK Government scientists have warned against, on account of its serious implications for the treatment of gonorrhea. European regulators are agreed that antibiotic resistance marker genes should be phased out, because they can spread to pathogenic bacteria, making life-threatening diseases potentially untreatable.

This is a stupid thing to be incorporating in this State. I thought that the Minister for Agriculture understood that if we are to maintain a good record in terms of clean, green produce in this State, it means that we must establish a reputation for that. That means that we should not allow so-called trials of genetically modified crops. They are not trials at all but are massive commercial crops covering very large areas.

Hon Paddy Embry: Does the minister share your displeasure?

Hon JIM SCOTT: No, he does not share my displeasure. I am displeased with the minister because he is letting down the people of the Agricultural Region in Western Australia by allowing this mock trial to go ahead. It is a trial that is not a trial. He has fallen for the same old thing that has been used by this industry over and over again. When Aventis conducted canola trials around Australia, it needed 1 200 plots scattered throughout our agricultural districts to test seed for the Canadian market. Anybody who has half a brain will understand that that is nonsense. The Canadian market would require testing of seed that was suitable for its climate and soil types. If the spread of these crops were really to be minimised, that testing would have been done in one spot only and would not have been spread over a vast area. This issue is in the same category. It is a deliberate attempt to undermine the GM-free status of this State so that the GM companies will be able to market their produce without any competition from any completely GM-free areas of the world.

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Hon Kim Chance: There are only two trial sites in Western Australia. One is at the Frank Wise Institute and the other is west of Broome.

Hon JIM SCOTT: We are currently debating a measure about whether or not we should be growing this cotton in the north west of the State.

Hon Paddy Embry: What is the connection between cotton and food?

Hon JIM SCOTT: As Hon Paddy Embry seems to be such a good agriculturalist, I point out to him that cottonseed is in fact a food. It is used extensively. If the member buys a can of sardines or oysters, he will see that is the case. Cottonseed oil is quite often used in those sorts of products.

Hon Kim Chance: Confectionary also uses a lot of cottonseed oil.

Hon JIM SCOTT: It is also used for animal feed. It is a food.

Hon Frank Hough: Are you making a case for cotton?

Hon JIM SCOTT: I am not. Unfortunately cotton is one of those crops that are susceptible to many insects, and requires huge amounts of herbicides. The industry says that biotoxins are a way of getting rid of herbicides. However, a report by Charles Pembroke in the United States pointed out that, since the introduction of genetically modified crops, a reduction in the use of herbicides and pesticides had not occurred. In fact, use of those products had increased. It is a sham. Most of the products have been developed to sell products, rather than to advantage farmers, increase yields or anything else. They are, in fact, corporate profit measures, not for the benefit of farmers or anyone else in Western Australia.

People ask how this can affect the agricultural area if it is in the Kimberley. If we are to market Western Australia as a State that is GM-free, it must be a State that is actually GM-free. We already know that that is an advantage in marketing our products. Higher prices are being paid for products that are non-GM. Access is available to more markets. We will cut ourselves off from a large percentage of the world market by going for GM products. We will have 100 per cent access if we are GM-free. It is very simple economics.

Hon Norman Moore: Can you give us an example of a product for which we receive a premium because it is non-GM?

Hon JIM SCOTT: Yes - canola. We currently get more for our canola than the Canadians get, even though their canola has a higher oil content than ours, because ours is GM-free. We also have access to the European market, which Canada does not have, because Europe does not want genetically modified canola. We do have those advantages.

Hon John Fischer: If we grew a non-GM crop, it would not prevent us from growing a different crop like cotton.

Hon JIM SCOTT: Yes, it would. It is our status as a growing area in the world that is important. The United States and Canada have been told by the importers of wheat crops that if any other sort of seed contaminates their wheat, their markets will be shut down. That is because human beings do not directly eat certain crops very much. To a certain extent we can get away with growing those, but as soon as genetically modified seed contaminates a crop, even if it is only as a result of accidental seed intrusion from other types of crops into, say, a wheat crop, the importers do not want a bar of it. The Canadian Wheat Board has said that Canada will lose 82 per cent of its market if GM wheat is grown there, or if wheat is contaminated with another kind of GM seed.

Hon John Fischer: You are wasting time. Half of the cotton grown is genetically modified.

Hon JIM SCOTT: I am not wasting time. It does not matter how much cotton is genetically modified. Once the contamination has occurred, it is done. If the member cannot understand that, he should not be in this place. This idea is very silly. It is environmentally damaging, it is economically stupid and it is simply a ruse by the same old gang to try to get GM crops into Western Australia by the back door. If members fall for this, they are mugs.

HON JOHN FISCHER (Mining and Pastoral) [3.45 pm]: I thank honourable members who spoke in favour of this motion, to support feasibility studies relating to the establishment of a cotton industry in Western Australia. There is no doubt that, from the point of view of two members in this place, the flat earth society is well and truly in action. I was disappointed in their reaction to this motion. I was concentrating more on the west Kimberley area, south of Broome. However, I most certainly support the introduction of GM cotton into Kununurra. I have had the opportunity to speak to the proprietor of Desert Seeds, and he informs me that, based on the trials they have done, it is the only cotton that will grow in that area. I mentioned recently that over 50 per cent of the cotton grown in Australia is genetically modified, including virtually all the cotton grown in New South Wales. In my opening remarks I said that the cottonseed industry does not distinguish between GM cotton

Hon John Fischer; Hon Bruce Donaldson; Hon Kim Chance; Hon Murray Criddle; Hon Robin Chapple; Hon Norman Moore; Hon Jim Scott; Hon Frank Hough; Deputy President

and original cottonseed when it is used for processing. That has been going on for years. I am cognisant of the time, and I would like to make sure my colleague has time to speak on a second motion, so I will be brief.

When I was coming into work this morning in the car I heard a news item that IBM was the subject of legal action because during the Second World War the German Government used IBM machines in implementing terror tactics against people, and IBM was to be held responsible for that. This kind of thinking absolutely amazes me. We live in a world in which it is becoming more and more common practice to object to things regardless of the beneficial outcomes that can arise. For someone to totally turn his back on feasibility studies, such as this cotton growing project in the Kimberley, when the obvious benefits are so huge - to not even be prepared to look at a project - is, in my opinion, a definition of membership of the flat earth society. We would still have a man walking with a red flag in front of each vehicle if some of these people had their way. In fact, we would probably still be in the age of the horse and cart. It is tragic that people cannot at least test the benefits. We talk about who we represent. I know who I represent. I represent the people of the Mining and Pastoral Region, and I represent the people who have been severely disadvantaged and need to have these economic opportunities, so that they can live a life similar to the life we have enjoyed for a long time. I have no doubt about who I am representing when I put forward this motion. I commend it to the House and I thank those who have supported it.

Question put and passed.