

GENE TECHNOLOGY BILL 2001

Third Reading

MR KUCERA (Yokine - Minister for Health) [9.31 pm]: I move -

That the Bill be now read a third time.

MR MASTERS (Vasse) [9.31 pm]: The Opposition will support this Bill. However, we have had some four or five hours debate in the consideration in detail stage pointing out the many deficiencies, shortcomings and other problems that the Opposition sees in the Bill. I guess the one thing in favour of the legislation is that, first, it will provide a high degree of consistency with federal legislation. Clearly, everyone should be reasonably comfortable with that. Secondly, it will be only about three years until the federal legislation is reviewed. I can only hope that the next Government, which I presume will be involved in reviewing that legislation, will consult more widely and listen to some of the concerns that the Opposition has put forward to try to make sure that, in three years, the revised legislation will be better.

In the 10 months or so since this Bill was first introduced, a number of noteworthy things in the field of gene technology have occurred. It is worthwhile to quickly go over them to show, as has been said many times before, both the dangers and the potential benefits that will flow from the application of this technology. For example, an article in the *New Scientist* of 15 June this year refers to the potential for lifesaving drugs and other chemicals to be introduced into the human body via bacteria that we could drink. The article states -

Just swallow some genetically altered bugs and let them make a home in your gut. Hey presto: a cheap and steady supply of home-made medication - for life, perhaps.

Another article in the *New Scientist* of February this year states that "Genetically modified bacteria could save your teeth". A person could go to a supermarket or a chemist and buy a particular type of toothpaste that contained genetically modified bacteria to fight against the various microbes that normally attack teeth.

Mr Logan: Have you got one for saving your hair?

Mr MASTERS: I will have to think about that one. I have not yet seen it mentioned in the literature.

The article goes on to say that once these bacteria have been introduced into one's mouth, the toothbrush can be thrown away. In theory, there will be no need to brush one's teeth morning and night.

Mr Day: What sort of bacteria are they?

Mr MASTERS: I cannot provide the detail.

Mr Day: I would like to know.

Mr MASTERS: I will let the member read the article later on.

In the past few months, the world's second most populous country - namely, India - has opened the door to genetically modified crops. I believe that it will be only a few years before India overtakes China as the world's most populous nation. Although I note that many objections to and concerns about GM crops are put forward by groups such as Greenpeace and other green activists, nonetheless the bottom line, I am sorry to say, is that if countries such as India, Sri Lanka and China overwhelmingly adopt this new technology, countries such as Australia will not be able to do a great deal to stop the technology becoming standard practice throughout the world.

An article from only a few days ago states that Australia is planning to declare war on the European carp, which has been introduced into most of the rivers of eastern Australia and, I think, into some of the watercourses in Western Australia. Genetic technology will be used to modify some specimens of European carp. Those fish will then pass on genetic traits that will stop female carp reproducing. I can think of some people whom I would like that trait to be passed onto! Nonetheless, this sort of technology could potentially bring enormous environmental benefits to Australia.

An article in *Nature* magazine of May this year refers to anti-malarial mosquitoes. Mosquitoes of various species are known to carry the malaria parasite. However, it is now being said that it will be possible, in theory at least - give it only a few years and that theory will be practice - to have mosquitoes that are genetically modified in such a way that they will have a reduced ability to transmit the malaria parasite. In turn, if those mosquitoes out-compete the natural non-GM malaria mosquitoes, in time we may find that mosquitoes around the world are unable to carry malaria and, potentially, other human parasites and diseases.

Also, in the 10 months or so since this legislation was first introduced, many of the concerns that were expressed by green and other community groups have been put to bed. An article in the *New Scientist* of June this year is headed "Much Ado About Nothing". Its subtitle reads -

Horror stories: until now, the debate over genetically modified crops has generated more heat than light

The article goes on to say that although few concerns have been given any substance, there has also been a lack of obvious or spectacular benefits from genetic modification; hence the title “Much Ado About Nothing”.

Another article from November last year entitled “Global Warming - An ENN Special Report” states that genetic engineering may have found a niche where it can help save the lives of millions of people from the world’s most endemic diseases. It goes on to say -

By using biotechnology to incorporate useful genes into an almost limitless variety of common plants, from rapeseed and tobacco to potato, tomato and banana, scientists aim to produce cheap and stable vaccines in an edible form -- and beat disease.

Whereas at the moment we might have to go to a doctor to get a prescription, in future years we might go to the doctor to get a quantity of tomatoes or bananas to eat, and by ingesting those particular foodstuffs we will be taking on board medicines, drugs, vitamins and other things that our body will need to protect us. Also on a positive note, several years ago concerns were raised that the pollen from genetically modified canola might be so toxic, because it contained a toxin from bacteria, that it would kill the monarch butterfly, which occurs in the tens of millions in North America. I am happy to say that concern has been put to bed. An article in *The Economist* in September last year is subtitled “Genetically modified maize is not that bad for monarchs”. However, further evidence suggests that genetically modified canola pollen can spread up to 800 metres from where the GM canola was planted. Scientific results indicate that only seven in every 10 000 non-GM canola plants were fertilised with GM pollen at a distance of 800 metres from a GM crop. Nonetheless, that indicates that the previously regarded safe buffer between a GM crop and a non-GM crop measured in tens of metres has now expanded to several hundred metres. In some cases a safe buffer now needs to be at least 800 metres if we want to keep our non-GM crops totally free of genetically modified material.

I will refer to a controversy that hit the scientific community’s news earlier this year when two American researchers found what they believed to be genetically modified corn that had contaminated large areas of wild maize in Mexico. The wild maize was not growing naturally; it was grown for farming purposes by the indigenous people of Mexico. Since 1998, Mexico has been officially free of genetically modified corn or maize. Therefore, the finding earlier this year that genetically modified traits had been found throughout large areas of Mexico was of great concern and was very much jumped upon by campaigners against genetically modified organisms to prove that this technology posed severe dangers to the natural environment. However, as recently as 15 June 2002, *New Scientist* contained a large article - I will not read it in full - which I will summarise by saying that the researchers had found some, but not conclusive, evidence of genetically modified organisms having spread more widely. More importantly, the article stated that the two scientists who were responsible for the research had been waging a campaign against this sort of technology in general and against a company called Novartis in particular. I will not go into the detail of the research, because it is quite complicated. However, it appears from the research that those academics - who should have been professional and ensured they reported only their research findings - allowed their emotions to cloud their judgment; that is, in fact, what happened. Because they were opposed to this technology and to the involvement of Novartis in certain activities at their university, they may well have deliberately - if we believe some of the accusations - misinterpreted some of the research results they got from Mexico.

Finally, there is an article in *New Scientist*, again the edition of 15 June this year, referring to genetically modified food, subtitled “Is it worth worrying about?” It is worthwhile to quote part of the article, which states -

Contrary to many reports, however, no studies have found any evidence of transgenes in wild maize.

That refers to the incident in Mexico I referred to a few moments ago. The article continues -

The genes spread despite a ban on the planting of GM maize that Mexico imposed in 1998 specifically to prevent such contamination. Maize was bred from wild grasses in Mexico 6500 years ago, and a rich selection of strains is grown by small farmers.

...

There is no doubt that old varieties and wild relatives of crop plants are a valuable resource for breeders. But they’re already disappearing fast, and the main threat is not GM pollution but the abandonment of traditional varieties in favour of modern hybrids.

The article states that this will not necessarily spell doom, according to certain authorities. The article continues -

The Bt gene -

That is, the gene from the bacteria that produces a toxin that might have got into wild corn in Mexico -

won't wipe out other genes, but will make the overall mix that little bit richer. And if plant scientists find a desirable trait in a contaminated variety, they can easily breed plants that contain the desired trait but lack the Bt gene.

The article concludes by saying -

It seems unlikely that the contamination of Mexican maize with the Bt gene will have any serious consequences. But it is deeply disturbing that extensive gene flow took place despite Mexico's effort to prevent it.

Those few words indicate two things: the worst fears of those opposed to gene technology have not yet come to fruition and I believe that they will not. Having said that, some of the other quotes I read indicate the enormous promise of gene technology and it is for that reason that the Opposition will support this Bill. However, I remind the Government that the Bill contains deficiencies that need attention as soon as possible.

Question put and passed.

Bill read a third time and transmitted to the Council.

House adjourned at 9.47 pm
