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## **Submission on the review of the Gene Technology (GM Crop Moratorium) Act 2003**

### **Introduction**

The Organic Federation of Australia (OFA) believes that the current risks of using genetic engineering in agriculture will outweigh any benefits. Experience has proven that negative publicity about Genetically Modified Organisms (GMO's) will cause a downturn in the market prices that are received by producers. We believe that a moratorium on the commercial release of these unique organisms should continue until significant scientific and regulatory issues are resolved and it can be proven that the benefits outweigh the negatives.

### **The Safety of GMOs is not Fully Tested.**

There are several well documented cases where GMO's have proven unsafe for human and animal consumption.

- A genetically engineered L-tryptophan supplement was marketed in the US in 1989 by Showa Denko KK. Within a few months of being sold it had caused the deaths of 37 Americans and the permanent disability of over 1,500 others. (Source: House of Representatives 1991. *FDA's Regulation of the Dietary Supplement L-Tryptophan.*) By late March 1990, 1,411 cases had been reported to the Center for Disease Control (CDC). The agency's final total estimate of the number of cases was 5,000 to 10,000.
- A genetically modified field pea, developed by CSIRO to be resistant to insect attacks has been shown to cause illness when fed to mice. CSIRO decided to abandon the project when the mice developed lung inflammation.
- There are now three feeding trials of GM potatoes, all of which show negative health effects. Two of these: Ewen and Pusztai, 1999; Fares and El-Sayed, 1998, showed significant organ damage. The results of the latest trial of GM potatoes were published and showed that the potatoes caused 'considerable damage to the organs of the rats in the study'. Dr Irina Ermakova of the Russian Academy of Science said that the GM potatoes were 'toxic' to lab rats and 'cannot be used in the nourishment of people'.

It is our understanding that most of the current GMO's in commercial and trial production have not had the scientific rigour of the above pea and potato trials and the safety of these products is unknown.

### **Market Losses**

Concern about the safety of GMO's has caused severe market losses.

Examples of these are:

- The first GM tomato – the *Flavr Savr*, was withdrawn from the market after public concern due to a feeding trial that showed stomach lesions. These concerns also affected the sale of Tomato Puree products made from GM tomatoes and led to widespread market rejection of GM products.
- The introduction of a GM papaya has devastated the Hawaiian Papaya industry. The selling price for the papaya crashed from US \$1.23 per kilo to \$0.89, after major buyers in Japan and Canada rejected them. Non –GM Hawaiian papaya growers who sell to Japan have to pay extra for segregating and testing their papayas to make sure they are non-GM. The Japanese market shrunk from US \$10.3 million in 1998 to \$4.6 million in 2005. Canada accepted GM papayas in 2003 however the price didn't recover. In the 2004

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and 2005 growing seasons, the selling price averaged less than 80 cents per kilo. This was uneconomic for the farmers.

- Western Australian Agriculture and Food Minister, Kim Chance has stated that Australian canola prices have now exceeded the prices for Canadian GM canola, where previously Canadian prices consistently exceeded Australian prices. "In 1998, the difference between Australian and Canadian canola prices was about AUD\$70 a tonne in favour of Canada," he said. "However, by May 2006 Australian prices had exceeded Canadian prices by some AUD\$50 a tonne. (Source: DAFWA, 2006) "This is a great turnaround for Australian canola growers and a clear indication that WA's GM-free canola is highly valued in the international marketplace."
- Japan banned imports of U.S. rice and the EU is requiring that all rice imports from the U.S. be tested for contamination after a variety of genetically engineered (GE) rice unapproved for human consumption contaminated the U.S. food supply. "This is real money that farmers are losing," said Arkansas Rice Growers Association.

The future bad publicity of GMO's grown in Australia or other countries, causing health problems or contamination of non GMO products, will cause market rejection of many Australian products if GMO's are introduced here.

### **The Costs Outweigh the Benefits**

The financial benefits and agronomic needs for GMO's have not been sufficiently proven to justify their introduction on a commercial scale.

There is a growing amount of credible scientific data backing the numerous benefits of best practice organic and biodynamic systems. These include high yield, drought and flood tolerance, water-use efficiency, low input costs, soil health, absence of toxic pesticides, minimal off-farm nutrient run off and the sequestering of greenhouse gases from the atmosphere.

The OFA questions the need for GMO's to reduce pesticides and increase drought tolerance when organic systems have already achieved these outcomes.

### **Conclusion**

The OFA believes that the Moratorium must stay until there is rigorous science that proves:

- Adequate health testing procedures to guarantee food safety
- Effective buffers zones and segregation systems between GM and non-GM

Furthermore there needs to be legislation that guarantees full compensation for industries that suffer financial losses as a result of contamination from GMO's before a moratorium can be lifted.

Yours Sincerely,

**Organic Federation of Australia**



Andre Leu  
Chairman