GM Free Food Producer

SUSTAINABILITY
COUNCIL of NEW ZEALAND

Which Way On GM Food Production?

- New Zealand is currently a GM Free Food Producer. There is no commercial production of GM food.
- In October that could change when the moratorium on GM release expires.
- Premium export markets are highly sensitive to GM content, rejecting even trace GM contamination.
- Yet there are no systems that can assure GM crops will not contaminate conventional crops.
- New Zealand faces a major marketing and branding issue.
- This document proposes a way forward that does not compromise the gains that can be made from using GM in medicine and provides for continued research into all GM applications.
- It proposes that New Zealand commit to remaining a GM Free Food Producer for the next five years.

July 2003

SUSTAINABILITY COUNCIL of NEW ZEALAND

PO Box 24 304 • Wellington • Tel: 04-9133655 • Fax: 04-9133760
Email: council@sustainabilitynz.org • http://www.sustainabilitynz.org

Premium Markets Reject GM Food

- Consumer perceptions, far more than scientific findings, dictate market realities for NZ food producers.
- Resistance to GM food in premium markets is very strong and is spreading to more countries.
- European consumer resistance has led to many major food producers and supermarket chains going GM Free. In the UK, all the major supermarket chains have done so.
- Asian consumers are also resistant to GM foods. Japan, Thailand, Korea and Taiwan are among those rejecting GM imports.

"71% of Europeans do not want GM foods."
European Commission Eurobarometer Survey, 2001

"We've stumbled so badly in Europe that certainly that battle is lost for five to 10 years."
Senior Vice President of Research Plant Genetics and Biotechnology, Dow Agrosciences, 2000

"Between 20% and 30% [of consumers in major export markets] state they would cease purchasing New Zealand commodities if New Zealand released GMOs."
Economic Risks and Opportunities from the Release of Genetically Modified Organisms in New Zealand, Ministry for the Environment, April 2003

"In many parts of the world consumer concerns are growing about the safety of biotech foods, which have led key market countries to implement or consider regulations that may restrict U.S. biotech exports."
Report to US Congress, General Accounting Office, June 2001

"A majority of Europeans do not support GM foods. These are judged not to be useful and to be risky for society."
European Commission Eurobarometer Survey 2002

Markets Demand No Trace Contamination

- Contamination has become the key issue as markets are very sensitive to trace GM content.
- While labelling laws may allow for contamination thresholds, major food purchasers tend not to.
- This was most clearly signaled through reactions to the proposed introduction of GM wheat.
- Not only would major buyers in Asia and Europe not take GM wheat, they would not take any conventional wheat from a country producing GM wheat. This is because they could not be sure the conventional product was free of contamination.
- This sensitivity was highlighted to New Zealanders when 'routine testing' by a Japanese pizza maker revealed 0.05% trace GM contamination in New Zealand grown corn.

"The European milling industry will simply not buy one more kilo of any U.S. wheat at all if GM wheat is commercialised."
Grand Molini, largest miller in Italy, 2002

"Regardless of government approval, contracts will stipulate no adventitious presence of GM wheat."
100% of Japanese wholesale buyers surveyed by US Wheat Associates, October 2002

"I cannot tell you how to run your business – but if you do grow genetically modified – or enhanced – wheat, we will not be able to buy any of your wheat – neither the GM nor the conventional."
Rank Hovis, supplier to 30% of the milling and baking industries in the UK, 2002

"Coexistence" = Contamination

- The Royal Commission said NZ should "preserve opportunities" – for both GM and conventional farming. It recommended keeping plantings apart to avoid contamination of conventional foods. This approach has become known as "coexistence".
- Since then, study after study shows GM crops able to spread further than previously thought and that contamination during harvesting and transport is more of a problem than expected. 50% of New Zealand farmers do not believe controls will prevent GM contamination.
- Efforts at true crop segregation have not proved reliable. The European Commission does not believe zero contamination is possible. Such measures are also costly.
- "Coexistence" is only possible if contamination is allowed.
- Once a GM crop variety is released, the choice is ultimately between being a farmer of a GM crop or of a GM-contaminated crop.

"Co-existence with thresholds in the region of 0.1% is virtually impossible in any of the scenarios considered. A 1% level "might technically be possible but economically difficult because of the costs and complexities."
Scenarios for co-existence of genetically modified, conventional and organic crops in European agriculture, EC Joint Research Centre, May 2002, p vi

"Contamination of non-GM crops by GM crops is inevitable, segregation is not practical and … identity preservation can be achieved, but at significant cost."
Western Australian Parliamentary Select Committee Report, July 2003

"A zero level of adventitious presence is unobtainable in practice."
European Commission Scientific Committee on Plants, as reported by the Commissioner for Agriculture, March 2003

No First Mover Advantage – And No Going Back

- New Zealand farmers do not believe existing GM varieties, designed for North American conditions, offer clear benefits. The 22% of New Zealand farmers that say they want to use GM are generally looking to new types of seeds.
- It is 5–10 years before these GM seed varieties will be available – seeds that could offer more than just alternative ways of dealing with pests and disease.
- On the consumer side, GM food may gain acceptance in the future and new seed types may offer benefits that make it worth adopting. But it is far too early to tell.
- Analysts believe it will be at least 5–10 years before consumer acceptance could change in Europe. At that time GM seeds could be planted the next season with no loss of market position.
- In the meantime, there is no first mover advantage. And there is no going back from any widespread release as GM contamination would be too difficult to remove.
- The choice is clear. For at least the next five years, New Zealand can preserve its marketing advantage as a GM Free Food Producer without giving up any real opportunities.

"New Zealand grain growers see little of value for them in the current range of modified crops."
Federated Farmers, Newsroom, September 2002

"The Committee is clearly of the view that any advantages [to GM crops] that may have been available to 'early bird' countries no longer exist."
Western Australian Parliamentary Select Committee Report, July 2003

"The application of biotechnology at present is most likely to reduce yield variability but not increase maximum yields. More fundamental scientific breakthroughs are necessary if yields are to increase."
Economic Issues in Agricultural Biotechnology, USDA Bulletin No 762, February 2001

NZ Sustained On Clean And Green

- New Zealand earns its way in the world through exporting mainly land-based products. 50% of exports are agricultural and this is five times the average for OECD nations
- New Zealand's key brand is "Clean and Green" and major exporters believe they derive market premiums through this.
- Fonterra puts the value of 'clean green' to each dairy farmer at between $18,000 and $49,000 a year.
- Tourism, the biggest foreign exchange earner, is marketed as 100% pure NZ.
- Why compromise this overall brand and risk the current earnings base when at best GM food could bring only tiny gains in the next five years?

"Our marketing evidence is that the perception of GM status of New Zealand food production will influence the buying behaviour of consumers for all New Zealand products."
Zespri International to the Royal Commission, 2000

"The commercialisation of a single GM grain crop may tarnish WA's overall reputation of being a 'clean and green' non-GM producer and thus have implications for the marketability of other WA agricultural products."
Western Australian Parliamentary Select Committee Report, July 2003

"Maintenance of this 'clean-green' image is important so as to minimise the impact the release of a GM organism may have on the prices received for New Zealand exports in these markets."
Economic Analysis Results and HSNO Act Implications, Cabinet Policy Committee paper, 28 March 2003

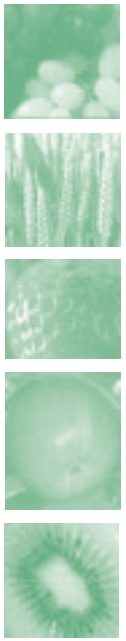
Risks To The Environment

- There are also risks to the environment.
- It is far too early to know what the long term environmental effects of GM agriculture will be. Crops have only been growing commercially for the last seven years and there is still relatively little research into the effects on the environment.
- One concern is the risk of the inserted gene spreading unintentionally to other plants.
- Another is that certain GM varieties will become dominant, spread further than intended, and affect biodiversity by out-competing conventional plants.
- Letting GMOs outside the lab vastly raises the risks in terms of economy and environment.

"Little is yet known about the environmental impacts of genetically modified organisms, and in particular in New Zealand "on the potential adverse effects, or risks of such effects, on the indigenous biota."
Report of the Royal Commission on Genetic Modification, 2001

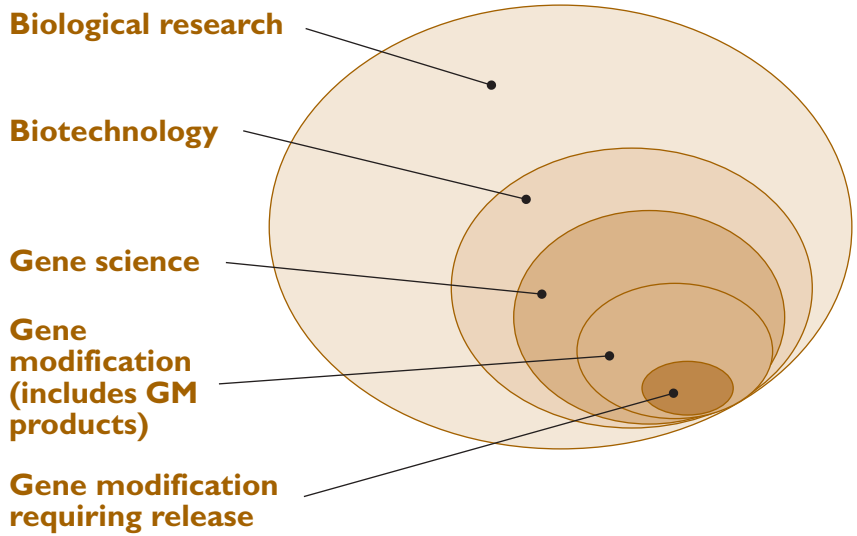
"Although some environmental effects of specific transgenic crops might be predicted, many effects … may remain undetected during precommercial field trials."
US National Research Council, Environmental Effects of Transgenic Plants, 2001

"Recent experience in Canada with herbicide-tolerant canola […] provides a warning that some crop plants have the potential to become serious weeds of agriculture."
Royal Society of Canada, Expert Panel on the Future of Food Biotechnology, "Elements of Precaution", 2001



GM Release Not Necessary For NZ Research

- GM is just a small part of biological research and biotech in New Zealand.
- Research leading to GM varieties that require release is even smaller – a mere 3% of government funding for biological research.
- Creating live GMOs for release is just one way of working with biotechnology. Often the benefits of GM can be realised inside the lab so that a live GMO does not need to be released.
- GM food research can continue in the lab and under field trials. Release is not a must for New Zealand research in the next five years.



ERMA Not The Right Place To Make National Policy

- The Environmental Risk Management Authority (ERMA) is the government body that approves or declines applications for release.
- There are major economic, strategic, marketing and branding issues to be addressed and they apply to all potential GM food releases just the same.
- These are fundamental national policy calls, not issues for "case-by-case" consideration.
- Relying on case-by-case decision-making would leave the food industry unable to build a market reputation for GM Free food as from one month to the next, the nation's producer status could change.
- The decision whether to give up New Zealand's GM Free Food Producer status should be a matter of explicit government study and policy.

"Given the results of the economic modelling, it is clear that the economic consequences of a release of a GM organism could be potentially significant for New Zealand's future well-being."
Economic Analysis Results and HSNO Act Implications, Cabinet Policy Committee paper, 2003

"The balance of risk against benefit, in practice, has been subjugated by a process-driven style that is perceived to weigh science inputs more heavily ... than other considerations."
ERMA Review, 2003

Australian States Resist GM Food Production

- While the first GM food crop is being considered for commercial approval by federal regulators, the 5 Australian states where this crop (GM canola) could be grown have each introduced measures to protect their status as GM Free food producers.
- New South Wales has introduced a 3-year moratorium on GM food releases.
- Tasmania has committed to an extension of their moratorium on GM food production until 2008.
- Western Australia has announced a 5-year moratorium on GM food production, and is now passing a law providing the ability to set GM Free zones. The intention is that this covers the entire agricultural region.
- South Australia and Victoria have both put in place holding mechanisms to prevent GM canola from being grown commercially this year.
- Australia will be in a position to claim a marketing advantage over New Zealand food producers if the commercial production of GM foods is allowed in New Zealand.

"Our agricultural exports make a massive contribution to the economy of this State and no government can afford to let that be put at risk."

Western Australian Minister for Agriculture, Kim Chance, April 4 2003

"This legislation is being introduced to allow more time for the New South Wales farming community and the broader community to be assured that the introduction of GM canola, or any other crop primarily for food, will not adversely impact on the marketing domestically and, more importantly, overseas of non-GM canola and other non-GM crops."

NSW Minister for Agriculture and Fisheries, May 21 2003, 2nd Reading of the GM Moratorium Bill

Action Required

- Protecting New Zealand's interests will require Government action.
- The first step is a declaration that New Zealand intends to remain a GM Free Food Producer for the next five years, with protections then designed to preserve this.
- Also needed are law changes to improve ERMA processes. The relevant law is being amended now and changes are needed should there be GM Food releases at a later stage.

AGENDA: GM FREE FOOD PRODUCER

1. New Zealand declares there will be no commercial GM food production for the next five years.
2. ERMA is required to decline an application if benefits to the nation do not outweigh costs.
3. Those who make or use GMOs are made strictly liable for any resulting financial damages.
4. Applicants to ERMA are required to prove they can meet claims for damages.
5. ERMA is required to act in accordance with the precautionary principle.
6. Full traceability is required for any GMO released.