



Address by the Chair
Sir Peter Elworthy

Launch of Sustainability Council of New Zealand

3 July 2002

Welcome to the launch of the Sustainability Council of New Zealand.

With me today are my fellow Councilors: Dame Susan Devoy, Professor Garth Cooper, Annabel Langbein, and the Council's Executive Director Simon Terry.

The fifth member of the Council, Sam Neill, apologises that he is unable to be with us due to filming commitments but we will later play a prerecorded statement from him.

I am going to give a brief presentation on the Council, its purpose and position and then invite my colleagues to provide their contributions before taking questions from the floor.

The Council

The Council's overall purpose is to assist the realisation of a sustainable New Zealand.

It is independent of any political party, company or other organisation.

What has brought us together for today is the GM debate.

In particular, the question of release of genetically modified organisms, or GMOs.

While it is the GM issue that brought us together earlier this year, the more we have discussed what we are concerned about and what we want to achieve, the more we see GM as just a part of the wider question of achieving sustainability for New Zealand overall.

Central to the notion of sustainability for us is protecting and enhancing New Zealand's ecosystems, the health of New Zealanders, and our ability to derive income from established land uses. GM bears on all of these.

It is also having an enormous influence on how other issues related to sustainability are to be addressed.

Sustainability issues inevitably involve overlapping and complex economic, ecological, health and food safety questions.

These issues are informed by expert opinion, but at their core are questions that rightfully belong with all New Zealanders.

- What level of risk is society willing to take for what potential gains?
- How rapidly should change progress?
- What systems will the public trust to represent their interests?

Fundamental to meaningful public involvement is open and informed debate.

We are concerned that the GM debate has become unnecessarily polarised and confining.

Polarised into science and commercial interests versus greens.

Often confined into narrow areas of confrontation on detail, adding to misinformation and confusing the main issues affecting New Zealand.

New Zealanders are clearly very interested in the GM issue and do not want to be left on the sidelines.

The Council will offer reliable and timely analysis, independent of commercial or political interests.

The polls indicate that we really care about this issue, that we think it is very important (as important to New Zealand's identity as the Nuclear Free debate), and that we want to be as well informed about the advantages and the risks as possible.

All the evidence points to that requiring more time.

Extending the Moratorium

Since the Royal Commission reported last July, a series of polls have been taken on attitudes to GM.

The polling has consistently shown that when asked specifically about the acceptability of releasing GMOs into the environment, over 60% of New Zealanders would rather it did not occur.

The Council is pro-science and sees real potential in medical and other laboratory applications deriving from gene science.

However, we share the concerns of the majority of New Zealanders on the issue of GMO release.

These concerns cover three broad areas:

- The trade risks to New Zealand
- The effects of GMOs on the environment and human health
- Whether the regulation will be sufficiently strong

The moratorium needs to be extended to enable a great deal more work to be done on these issues.

We do not pre-judge what the outcome of that investigation should be. We simply say that a great deal more work is needed if New Zealand is to take a truly precautionary approach.

We acknowledge the Government's signal that an extension may well be required to complete the work government has already started. We look forward to confirmation that this will in fact be government's view.

Claims implying that biological science is imperiled by an extended moratorium are not credible.

This leads us to now look at a series of myths that have grown around the GM issue.

"Progress in biotechnology depends on the release of GMOs"

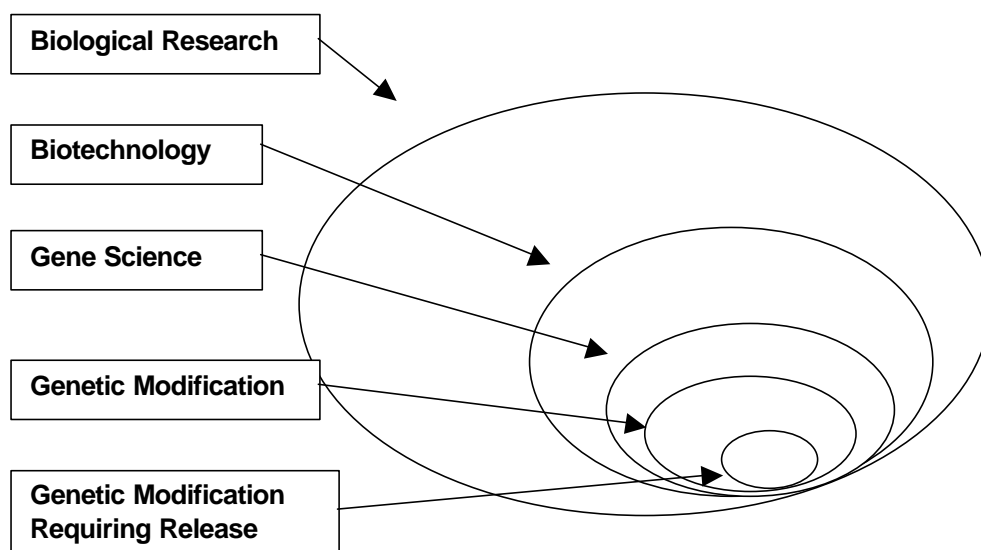
This myth takes various forms but its underlying message is that a moratorium will stop biotechnology in its tracks and turn the clock back on science.

This message is simply wrong.

While research involving GM release gets all the publicity, this technology is actually just a small part of the overall effort going into innovation through biological research.

Biological research, and its commercial application through biotechnology, involves everything from species identification and conventional plant breeding through to cloning.

- **Biotechnology** is the applied science section of biological research.
- Research that involves **genes** is a part of biotech.
- Research that involves **modifying genes** is smaller part again of gene science.
- Research that involves **modifying and releasing genes** is a smaller part still.



Clearly, we are dependent on conventional biological research for most of our work in the primary production sector.

Most of the applications for cutting edge gene technology simply support conventional techniques. They tend to involve gene manipulation only inside the lab.

The product will have benefited from GM technology, but no GMO capable of reproducing itself ever leaves the lab.

For example, plant breeding is now informed by GM technology but conventional breeding methods are now overwhelmingly preferred by those actually undertaking commercial breeding.¹

It also underlines the point that even if certain GM technology projects are delayed by a moratorium, there are very often conventional alternatives capable of delivering the same benefits.

New Zealand would also tend to attract scientists wishing to focus on research directed at such alternatives.

“New Zealand will lose all its good scientists if GM release is delayed too long”

New Zealand’s biological scientists will not be short of cutting edge projects under a moratorium, despite claims to the contrary.

When announcing the present moratorium, Research and Science Minister Pete Hodgson stated that “I am unaware of any existing or immediately prospective research in New Zealand that will not be able to proceed within the constraints announced today”.²

European scientists have been working under a de facto moratorium on commercial release for nearly four years. Biological science in Europe has not shut down as a result.

As described above, it is increasingly the application to conventional processes of gene science techniques that do not involve gene manipulation, that are driving the initiatives with real commercial potential.

“The Royal Commission carried out a full analysis on all the issues”

The Royal Commission did not carry out a full analysis. It was partial and incomplete.

That was implicitly acknowledged when the Government set a two year moratorium in place and set out a workplan that went beyond the work the Commission recommended.

The Government was not prepared to begin immediately accepting applications for release, as the Commission had suggested.³ It wanted to know more before making that call.

¹ *There’s No Substitute for Good Breeding*, New Scientist, 18 May 2002, p 47.

² *GM Research: Forward with Caution*, Hon Pete Hodgson, media statement, 20 October 2001.

³ “The Royal Commission proposed a different way of dealing with near term release of genetically modified organisms. It recommended that the first applications for release should be called in by the minister. The government does not believe that course was acceptable. It left the state like a possum in

Three examples illustrate the incomplete state of the report.

The Precautionary Principle: The Commission did not believe it could or should apply one form of the precautionary principle to GM assessment. However, New Zealand has already committed to the precautionary principle in international treaty and this obligation was not analysed sufficiently.⁴

Liability: The Commission concluded that there should be no requirement for GM developers to carry any form of insurance but did not address in any detail who will carry the financial risks of GM if something goes wrong.⁵

Co-existence: Very worryingly, the Commission proposed a regime whereby GM crops would be grown in separate areas from conventional and organic crops. However, it undertook no significant study to support its notion that GM genes could be prevented from contaminating the non-GM crops. Even the Hon Pete Hodgson commented when the report was released that he thought there would be problems getting bees to observe no-fly zones. The concept of “coexistence” between GM and non-GM crops has since been described as generally not economically feasible by a report from the EC and by at least one Australian state government.⁶

“Preserving opportunities”, the main theme of the Commission’s report, can not usefully be achieved by allowing GM crop planting

Truly preserving opportunities must involve a continuation of the moratorium while more is learnt about the effects of GM release.

Precaution and Scientific Uncertainty

Having addressed the myths, let us now return to the Council’s key areas of concern, starting with scientific uncertainty.

The Council takes as its starting position the precautionary principle.

In simple terms, the principle requires that if the risks to the environment are serious, and understanding of those risks is inadequate, then steps should immediately be taken to prevent harm.

There is currently inadequate understanding of the potential effects of GMO release – both in New Zealand and internationally.

The first rule of medical practice is “do no harm”.

The Council’s position is that release into the environment should not be considered until the relevant scientific questions have been answered and the necessary regulation put in place.

the headlights, not knowing when to expect an application and not in the near term having completed the further work the Commission itself recommended before approving any release.” Helen Clark, Press Release, 30 October 2001

⁴ Royal Commission Report, p 68

⁵ Ibid, (p323)

⁶ *Scenarios for co-existence of genetically modified, conventional and organic crops in European agriculture*, European Commission, May 2002, p (vi)

That is going to take far longer than the 15 months left under the current moratorium.

The risks include the potential for irreversible damage to our biological heritage, harm to human health, and to our soils and ecosystems.

Once GMOs are out on our lands through commercial release, they are there for ever.

The list of major issues about which there is clearly insufficient understanding includes:

- The potential for gene migration from one species to another (Horizontal Gene Transfer);
- Effects on biodiversity;
- Contamination and the ability to keep separate GM and non-GM plants;
- Ecological impacts (for example, effects on soil systems).

Even after this work is completed, we would do well to remember that some of the most disturbing conclusions about the safety of particular products and certain major new technologies were not confirmed until 20 years or more after they were first released.

This was the case with DDT, ozone depleting chloroflourocarbons, cigarette smoking, and asbestos, among others.

Why Take the GM Road for Agriculture?

But the GM debate is far from just a question of scientific uncertainty.

The trade and marketing risks for New Zealand are enormous. .

We agree with the government that biological research is of great importance to New Zealand's economic future.

As already outlined, there are areas where gene technology offers opportunities for advancement at relatively low risk.

The medical sector is rich in such examples.

The use of gene technology as a tool for plant breeding and similar diagnostic research has also proved a great asset.

But it's a completely different story with GM agriculture. There the benefits are far from obvious.

First, only a minority of New Zealand farmers want it. One survey showed 49% of farmers wanted to see NZ GM-Free while only 21% wanted to grow GM crops.⁷

Second, public opinion is against commercial release. Polling has consistently shown ratings of over 60% against the release of GMOs into the environment, often even for field trials.⁸

⁷ New Zealand Farmer and Grower Intentions to Use genetic engineering Technology and Organic Production methods, Cook, Fairweather and Campbell, Lincoln University, September 2000.

⁸ TV1 Colmar Brunton Poll, October 2001, 62% opposed field trials, Consumer Link Poll, June 2002, 64% believe GMOs should be kept in the lab.

Most important however is the final step in the chain. Consumers in both New Zealand and many of its prime export markets do not want to eat GM food.

All major UK supermarkets have gone GM-Free and other northern EU nations are heading that way.

The EU is still our biggest customer for agricultural products and 71% of Europeans say they do not want to eat GM food, no matter what level of testing has been applied.⁹ Japanese consumers are also very resistant to food containing GM products.

Trade risks

New Zealand would be taking a much greater gamble than other nations if it did adopt GM agriculture.

New Zealand is highly dependant on exports for its income.

And agricultural production accounts for a high proportion of our export returns.

The Europeans are currently working on traceability regimes that will allow more and more food produce to be traced to its point of origin and to pinpoint its makeup. Consumer power will only grow stronger through this.

If GM food is rejected in the marketplace, there will be no hiding in the more sophisticated markets.

Yet, if New Zealand were to instead choose to hold back from GM technologies, and brand our products as free of GMOs, this information would also reach the consumer.

According to detailed research by Professor Caroline Saunders, New Zealand could be expected to obtain higher returns for its food exports if it were not a GM producer than if it embraced GM agriculture.¹⁰

Her study across a range of export foods showed at best minimal additional returns under GM production, and distinct benefits under the zero or low GM option.

She also noted that as an island nation, New Zealand is uniquely placed to sustain a non-GM future as it is not subject to the threat of contamination, including cross-pollination, from nearby countries.

Our customers are telling us that there is nothing but punishment for New Zealand in pursuing GM for agriculture.

Official assurances that GM food is safe have not been accepted by these customers. In commerce and trade terms, the customer is always right.

⁹ European Commission poll, 2001.

¹⁰ Economic analysis of Issues Surrounding Commercial release of GM Food Products in NZ, Caroline Saunders and Selim Catagay, Linclon University, 2001, p 9.

Clean Green Image

This is before we even consider the impact on New Zealand's clean green brand of allowing GM agriculture.

Whether or not it is justly deserved, New Zealand trade benefits enormously from our clean green image.

A recent Ministry for the Environment report estimated this is worth perhaps \$1 billion a year to the country.

Our biggest company, Fonterra, puts the value of 'clean green' to each dairy farmer at between \$18,000 and \$49,000 a year.¹¹

It is also a fundamental driver of the similarly large foreign exchange earner, tourism.

Whatever the science of GM food, specifically or as a class, consumer perceptions are strong in many nations that GM is neither clean nor green.

So taking the path of GM agriculture is a fundamental branding and marketing question, regardless of the science.

Should we deliberately walk away from a successful and highly desirable brand in order to embrace a food production technology that so many key markets are currently resisting?

If we adopted GM, we run the risk of becoming an undifferentiated producer of low value bulk agricultural products alongside the US, Argentina, Canada and increasingly China?

Most of all, do we need to take the decision now?

I recently attended a week long seminar in Europe with other farmers from various nations.

The European farmers advised me that "You would be crazy to plant GM crops in New Zealand given current consumer attitudes. You New Zealanders do not realise the priceless advantage you derive from your 'clean green' image – deserved or not. Your butter, your lamb, your fruit would all lose their premium place in the market overnight if you adopt GM agriculture."

The risks and rewards of GM agriculture would be far from equally shared. Any gains from the early adoption of GM technology in agriculture will tend to be concentrated with a few major interests. But all New Zealanders carry the risks.

Regulatory Issues

The other major area of concern is regulatory issues governing GM. This includes liability law and the adequacy of protective regulations.

We are not convinced by Government's repeated assurances that New Zealand's approach is fully precautionary.

We are not convinced that we can fully trust the current processes in place to assess GM proposals, monitor GM activity, and protect New Zealand from unwanted GM contamination.

The Council will soon be reporting on various aspects of GM regulation.

¹¹ *Dirty Dairying debate will not go away – Fonterra, Dominion, 18 June 2002.*

Conclusion

The question we are addressing today is about the scale of the work that needs to be done before New Zealand makes the decision in principle on whether or not to allow GM release.

It is not precautionary to set a timetable for first release until the investigation has been done that will inform a decision.

We do not expect that the scientific study required can be completed in less than five years.

The current timeframe is not nearly long enough to make an informed choice.

As a Council, we see a clear case for a five year moratorium and subsequent review.

The onus is on those who seek a faster timetable to detail how the outstanding scientific questions will be answered in time, and to provide a far better business case for this than has been presented to date.