

CLOSING SUBMISSIONS for GE-FREE New Zealand, (Food and Environment)

The Commission has been presented with enormous amounts of information. This closing submission aims to articulate the key points which we ask the Commission to reflect in its report.

GE -Free New Zealand (Food and Environment) is one of the few groups speaking on behalf of ordinary New Zealanders, and we believe our position on GM in food and the environment is broadly reflective of the public. This is reflected in many research studies such as the AFFCO study showing over 70% of rural and urban New Zealanders support a future with organic agriculture, and is also shown in many submissions to The Commission itself.

Summary of Recommendations

In recognition of the current scientific understanding, common human values and a systemic breakdown in adequate and legitimate regulation, our plea to the Commission is to recommend the following:

- 1) Continuation of an indefinite moratorium on ALL new GE field-trials and releases in the open environment, for a minimum of 10 years
- 2) No lifting of the moratorium without a national binding referendum giving government a mandate to do so, by establishing what releases if any are acceptable, and then only after a further ten years of contained scientific research is available to guide such a decision.
- 3) Any referendum to include prior funding for consultation with non-commercially-interested organisations such as NGO's to assist fairness in communicating the range of views in the "debate".
- 4) Focus of government, regulatory and economic functioning, on the strategic positioning of NZ, as a GE-Free country in food and environment, maximising the potential of organics and primary production.
- 5) This focus should include improved biosecurity, regional development, local employment initiatives, development of appropriate knowledge-based innovation, tourism development, enhanced food exports, increased organic farming and also non-GE improvements to conventional farming prior to conversion to organic.
- 6) The direction of New Zealand towards an ecologically sustainable nation by 2020 to be reviewed in relation to community values, national benefit, and the global situation, after an initial ten-year period of following this strategy.
- 7) The introduction of a ban on the importation and sale of GM food until environmental safety, commercial liability insurance, full scientific safety testing, and longitudinal trials with human volunteers have been established, completed and peer-reviewed
- 8) The immediate and urgent extension of food labelling to include
 - ◆ Alert labelling (as referred to in the submission from the Ministry for Consumer Affairs), rather than small-type mentions in ingredients panels.
 - ◆ Labelling to apply to all food ingredients which have been derived from any process of genetic engineering, including foods defined as "substantially equivalent" and refined food products.
 - ◆ legal requirements for disclosure of GM ingredients used in food produced at point of sale.
- 9) An end to the "socialising" of risk from GM experimentation and uses. A legal requirement for privately-funded commercial insurance to be established, including for Crown-owned enterprises engaged in actions with proposed or potential commercial application.
- 10) An end to patents on Life forms and on naturally occurring gene sequences. An independent review of patent laws in relation to Life forms and the protection of the shared common inheritance

of the planets genetic material, including limiting corporate biopiracy, and exploitation of indigenous peoples and the worlds poor.

- 11) Legislation to allow GE-Free biozones to be established by local authorities, should any lifting of the indefinite moratorium on field-trials and commercial releases occur after ten years, as a result of a national referendum.
- 12) Establishing Independent ethics committees and systems promoting greater public involvement in determining acceptable medical uses of gene technology
- 13) The establishment of an independent organisation to monitor regulatory governmental bodies specific to genetic modification issues. Government funding should be available for the running of this organisation.
- 14) Establishing Biological safety committees and ethics boards to oversee any research or GM uses approved in fully contained situations.
- 15) The New Zealand government to reflect the values and wishes of the New Zealand people by acting as good global citizen amongst the family of nations. To participate in international forum in defence of: global sustainability, the precautionary principle; protection of public health and basic human rights; the sovereign rights of peoples to pursue policies independently of international trade legislation which might force adoption of gene technology or impose penalty on those seeking to avoid it for whatever reason; protection for the poor, and for future generations from unethical and inappropriate pressure in relation to patenting or use of genetic technologies, control over availability of seeds not produced with the technology, or experimentation and human trials of gene technology.

Medical uses

Our submission does not include a particular view or recommendations on medical GM uses. We believe most New Zealanders recognise the potential that genuine benefits may be derived from advances in scientific understanding of genomics and some uses of gene technology in containment. However the medical arena, and the use of transgenic higher animals to mass-produce pharmaceuticals or other products through “pharming” raises serious ethical issues. The issue of Eugenics and genetic discrimination as described in the submission from the Human Rights Commission is also of great public concern Such uses deeply impact basic community values, as well as New Zealand’s market image as a food producer.

The Commission will be aware that other submitters, have indicated the need for regulatory reform which we generally endorse, and which include

- 1) Independent review of any medical GE uses allowed in containment
- 2) An Independent Biological Safety Committee and Ethics board
- 3) Public forums and greater public involvement in approval processes for medical experimentation.
- 4) A ban on Human germline engineering
- 5) A ban on higher animals engineered to mass-produce GM proteins

RATIONALE

The Environment:- Why the Moratorium on releases must continue

We challenge the argument that external GE field trials are being safely “contained “ when Dr Traavic and others have explained that they are in effect small-scale irreversible environmental releases.

For this reason we plea that the Commission supports in its report an immediate and indefinite extension of the moratorium on all new field trials and releases of GMOs.

There are benefits, which will derive from gene technology, and we do not reject the science per se. However the use of this most penetrative and transformative technologies must be controlled more effectively than has been the case to date, and in a way which reflects human community values.

Recent surveys by Consumer Link show only 13% of people are aware of the Royal Commission proceedings even at this stage of events. As stated in our original presentation, many more people would wish to state their opposition to the use of GE in the environment and our food were they in a position to do so.

We are not arguing against the possibility of contained and ethical research for medical uses, but believe New Zealand can develop the "knowledge economy" by judicious use of new learning, from fully contained research and applications of genetic technology, to help our clean-green environment to develop 'GE-Free'.

What's "Reasonable"?

We believe the public concerns as reflected in our submission, are reasonable and well founded.

We believe it is reasonable for human beings of all cultural traditions to see the new technology as something "substantially different" on a number of dimensions. We challenge the concept of "substantial equivalence" as unsound science, as the Commission has heard from many submitters.

We believe the legislative and regulatory response in strategic terms must be equally reasonable in the light of gaps in the current state of knowledge, legal liability, consumer rights to choose, and scientific and ethical concerns.

We believe our recommendations are reflective of the wishes of the broader community in desiring adherence to the Precautionary Principle. Beyond this principle, as it applies to the open environment and the global food supply, we accept different opinions exist, especially on where the ethical line should be drawn, for doing things in attempt to cure serious and rare disease, and possible uses in biosecurity.

Given some industries are actively opposing containing uses of this irreversible technology, and are pushing for full release, a national plebiscite, with adequate funding for publicising "both sides" of the debate, may be considered necessary to guide final decision making.

Even if a referendum is decided upon, a continuation of an indefinite moratorium on external uses of GM is required.

In any situation, and whatever the outcome of a referendum, we make a plea that the Commission recommend a minimum 10-year moratorium, solely allowing continued ethical scientific research in full containment to inform that decision.

After a referendum, the moratorium could then be amended accordingly, (partially lifted e.g. if citizens supported only privately insured uses for the most urgent biosecurity needs: or fully lifted e.g. if there is public support for an irreversible full-release scenario).

Labelling: Exemptions deny basic human rights and must be changed

In the absence of a ban on importing GM foods, labelling of GM food must include all foods at point of sale if consumer rights are to be restored.

It is unconscionable to claim regulators will restore consumer rights to know what is in the food and be able to choose in the tradition of "free markets", when the ANZFA standards will exempt all foods sold in cafes, restaurants, bakeries, fast-food outlets or anywhere where the food is prepared at point of sale.

Quite apart from the serious Public Health concerns raised by Dr Judy Carmen of the Australian Public Health Association, and the serious inadequacies of the ANZFA "assess it, don't test it" approach, the exemptions are likely to result in dumping of GE ingredients into these sectors. Companies keen to offload unwanted goods will find an easy outlet through which to push even 100% GE ingredients without any disclosure required.

Once again the poorest part of our community may suffer disproportionately from such abuse, being least informed about the choice to be made, and least able to afford anything but the lowest cost option.

This is indicated at Page 12 of the Maori Perspectives background paper to the Commission (Bevan Tipene Matua)

" Maori are going to be reliant on genetically modified food because we cannot afford to buy organic food so what are the implications for our health?"

Also in the background briefing on Consumer Issues (Joanna Gamble)- p 3 , it says *" price has been shown to be a powerful benefit.... the product manipulation study demonstrated a relatively small proportion of respondents who are willing to put their concern about the technology aside and base their purchase intentions solely on price"*

The Commission may also recall questioning during our original submission, suggesting it might be fair and acceptable for 'niche' markets for GM-free food such as flour to emerge. Such an approach is fundamentally wrong because it marginalizes, what is a community-wide majority desire into a segment of the market, which is likely to be available only to a minority.

The real (majority) public wish is subverted by general contamination of the food supply through GE constructs.

There is a clear need for urgent international action to stop further GE spread which could lead to minimum contamination levels having to be raised to 2% and later 5% and eventually to the irreversible contamination of all food at even higher levels.

Already the acceptance by regulators like ANZFA, of a 1% accidental contamination threshold, is unsupportable scientifically or in consumer rights terms, but sadly reflects the degree of contamination possible.

The Role of regulators, like the Commerce Commission, in ensuring fair-trading is of concern. Greater legal protection , or bureaucratic enthusiasm, to defend consumer rights under existing law is needed.

As detailed in the Ministry of Economic development briefing paper regarding the consumers guarantee act " page 6:

" this provides incentives for suppliers to properly inform people about the products they are supplying to avoid claims that goods are not of acceptable quality. However even if claims were made MED considers that the Courts will be reluctant to resolve issues concerning GMO's and products in the context of this Act"

In our view companies seeking to avoid GE ingredients, in line with consumer wishes, should be supported in their efforts by stronger national and international regulatory systems.

Those companies promoting GE use, under what are currently inadequate testing and tracking regimes, should be made liable for short and long-term impacts that are clearly envisaged within existing scientific knowledge.

Company refusal to voluntarily alert-label should be addressed by immediate changes to, and the introduction of, the long-delayed labelling system.

Informing the Public and Improving Regulation.

While there is an ongoing need for greater public education and discussion, we are also cognizant of the existing regulatory system, and market being characterised by a lack of choice, lack of informed consent, and the absence of public acceptance of “socialised risk”, arising from irreversible actions already taken by industry.

We ask the Commission to reflect the need to urgently address the inadequate processes (including ,but not limited to ERMA and ANZFA,) that have ruled to date.

It is true that many people do not know the detail of the complex issues raised by GM. They may not even know what genetic modification is, but would understand, the concerns over transgenic GMO food production, if they were told it was already going on in their food.

Part of this lack of information is a result of the attempt to exclude the public from the debate. There is a ‘ big lie’ clearly underpinning some uses of the technology, notably the idea that transgenic recombinant DNA techniques are “ no different from traditional breeding”.

The evidence has shown that the more educated, and knowledgeable people are about the range of issues, and how some GE uses have been globally implemented in the food chain, the greater is the concern that the public good has been subverted

Marginalising the public out of the debate

One of the greatest concerns about what the Commission has heard is that none of the important issues now being raised were previously openly part of public debate. THERE WAS NO DEBATE. There was no testing or tracking of GM foods arriving on our shelves, no labelling in place, no informed consent on uses of GE medicine, and no real comprehensive base of scientific understanding of complex relationships in nature, on which to legitimately base ERMA's approvals to proceed with GE trials in our environment.

The media, though covering the subject, have in many cases in the past, inappropriately joined with the Life Sciences industry in attempting to marginalize the New Zealand people and portray public

concern for choice, safety, ethics, community values and NZ's economic wellbeing, as being "ignorant scare mongering" or as somehow politically motivated in a "party-political" sense.

We make a plea to the Commission, not only to give voice to these most legitimate and commonly held perspectives, but to ensure that Parliamentarians of all political parties and government regulators are made aware of the TRUE SITUATION. We ask that the Commission, support and recommend, in its report, the middle-path we describe in our recommendations in the interest of all New Zealanders .

We urge that financial power is not allowed to further become a tool to actively attack and change human values. Rather, we believe the industries, such as those backing the Life sciences Network should behave in a way which harmonises with the public values and the public good, both through improved ethical practice and local and international regulation ,so clearly absent from the system to date.

GM: Too important for political point-scoring

We are concerned that the Commission make it clear in its report, that the issues surrounding GM for New Zealand, demands a cross-party approach in the national interest, as has been possible previously on issues such as superannuation.

We ask that any attempt to subvert the clear and consistent public call for containment of GE constructs from irreversibly entering the environment or spreading hidden in our food, be resisted by the Commission, and be the basis for developing strategic options to be considered by government.

During Cross examination of Greenpeace, there was an attempt to suggest the political will needed for a GE-Free NZ (where any ethically-approved GE uses are developed in safe containment), was in some way related and limited to the 5% voting support for the Green Party at the last election. The implication was that the majority of political parties, (and implicitly their voters), would hold a different view, and that this was OK because only 5% of New Zealanders supported the "green" stance. This is not true.

While it may be that prior to the report of this Commission becoming available our major political parties may have policy seeking to promote the rapid spread of GE technology into all our lives, it is clear that such an approach would be contrary to the public will or the public good.

It could be argued that in a democracy 'the voters will decide'. However unless within a fairly-funded public referendum the political spin achieved by big-spending PR campaigns (such as the US \$50 million PR budget for the Life Sciences organisations in the US), and the wide range of other political issues would likely leave the complex issues around GM, again marginalized from true public scrutiny, as they were prior to the Commission. (Indeed the reason why GE-Free NZ campaigned for over two years to have a Royal Commission established is because it is the least likely structure to be subverted from its true functions).

Protecting the Public Good

We believe, one of the functions of the Commission is not just to enquire into " the public interests", but to make recommendations that protect the public interest, including those of future generations. This responsibility seems to fit with the Commissions mandate as representatives of the Crown whose legitimacy is today founded on the will of the people through the rule of law and democracy.

As a grass-roots group we have not had the money to have legal representation here each day but hope that the Commissioners, and the Legal Council assisting the Commission will in some way keep the public of New Zealand's wishes and interests at the forefront of deliberations of issues in the Warrant.

We believe a continuation of enforced introduction of the technology under "socialised risk" is wholly unethical. We do not believe it can be a legitimate strategic option for New Zealand to continue the current course of action characterised by unlabelled foods, step by step releases through field trials (not actually contained to prevent gene spread), and then irreversible commercial release.

In our view it is wrong for any interested parties to attempt before this Commission to marginalise the breadth and consistent concerns held by diverse groups including the general public who support GE-Free New Zealand. The people calling for containment and who some might attempt to characterise as "just a load of greenies" include Maori, Jews, Muslims, Hindus, Buddhists, Christians of many denominations including Catholics, Anglicans, Quakers, Presbyterians, Methodists, non-denominational Christians and atheists, food Producers and Exporters, Organic and Conventional Farmers, Bee keepers, Scientists from all over the world, Medical professionals, Public Health experts, the peoples of other countries including the majority of consumers in our major markets of Japan, Britain, Europe, Australia and the United States, the people and farmers of the third world countries like India, Sri Lanka, Philippines, African states and many others.

Current Scientific Knowledge

Dr Traavic of Norway stated in his submission that given the current scientific knowledge about the complex relationships at the genetic level, it would be fair to say "there are no 'experts'". Warnings from witnesses like Mae Wan Ho, Joe Cummins, and many others should be recognised as showing a concern for rigorous scientific process and the precautionary principle in contrast to the gung-ho enthusiasm for irreversible implementation of the technology amongst some sectors of business and some scientists. The surprises revealed to science in the recent human genome project confirm that very little is yet understood compared with what remains to be understood.

It is significant that the 'scientific debate' itself seems to have been characterised by a view on one side that science knows enough to introduce genetically modified organism into the environment and the food chain without any long-term testing or even perceived need to do testing. The assessment procedures of ANZFA and the US FDA have been shown to be based on the inadequate concept of substantial equivalence, which to independent scientists and consumers alike is essentially nonsensical.

Field trials as approved in New Zealand by ERMA have also been described as effectively "small scale releases" because of the failure to ensure Horizontal gene transfer, insects, soil microbes and other vectors do not result in irreversible spread of artificial gene constructs capable of replication and thus changing the "small" scale "up".

We believe the process of ERMA's approvals of external field trials is based on inadequate data, and that this fact should have been recognised by authorities early on and resulted in a halt to approvals. Repeated pleas made by the public in submissions to ERMA have gone unheeded. Instead even as this Commission has been sitting, some of the most contentious experiments have "had to proceed": including human genes in cows, purportedly for medical research purposes, but also likely to impact meat/ dairy production and adversely affect our global clean-green positioning.

The Commission is urged to consider what changes to ERMA's application and processes relating to GMO's and the HSNO act in general are warranted, especially as they relate to biosecurity and a long-term strategic plan for the country's exports and tourism industries to be GE-Free.

Ethics and the need for commercial insurance

The clearest evidence of the paucity of scientific knowledge on which to base decision making is the absence of any calculation of risk by the globally-accepted experts in the field of risk: i.e. the commercial insurance industry.

This glaring absence should not be used to justify even more small-scale and uncontrollable releases pretending to be controlled field trials for the sake of scientific learning.

Any such learning, given the scientific evidence before the Commission, and international obligations regarding the precautionary principle should in our view be undertaken in contained laboratories, and involve artificial models of environments.

Even in a worst-case scenario, where enforced use of GM against the public will lead to more field trials being allowed, it is morally repugnant to continue to socialise the risk onto the backs of that same unwilling public. The falsification of the market, by socialising risk, instead of normalising commercial relationships, for this largely profit-driven technology, must cease. We make a plea that the Commission makes this a priority in assessing which strategic option is legitimate.

We urge the Commission to recommend government make liability, for damage to health and the environment, the individual responsibilities of those in industry enforcing that risk.

Current Uses of GM in NZ

We support a recommendation from the Commission that all external trials and GM uses cease as a matter of priority. As the saying goes "If the kitchen is on fire, put it out- don't let the whole house burn down".

There may already be examples of contamination from trials but that demands prompt action to stop and contain these breaches, rather than adding to the problem.

There is also the potential for horrific abuse through "pharming" of animals. We urge the Commission to reflect common values which are opposed to "pharming" as an unethical approach to mainstream production of foods or medicines when alternative production with fully-contained micro-organisms, and preventative approaches, have yet to be reasonably explored.

We believe the line to be drawn is between contained uses, where live genetic material does not escape the patient's body, and those GM products resulting in ongoing release of live genetic material capable of replication or being taken up and integrated into the genomes of other organisms.

The policing of such a protocol may not achieve 100% success, forever, but at least it would be a more responsible approach than throwing our biosecurity doors wide-open and setting fire to our home.

Economic Well-being

In the background briefing paper by Janice Wright (The Economics of Genetic Modification) page 5 the need for caution is clear, and supports our recommendations to the Commission

“ keeping an option open has commercial value..but (where) one alternative is irreversible and the other not ..the reversible alternative is the better choice”

She comments in relation to a GE-Free or BIOTECH NZ

“ economics would probably prefer mixed strategies..spreading risk” but we believe that to adequately spread such risk, genetic engineering must be contained within the laboratory.

We believe International pressure for Free trade in agricultural products, must not result in loss of basic sovereign rights and the protection of the environment and public health.

We believe protection and development is needed to support the New Zealand economy as a producer of clean, green and natural produce, and for tourism.

New Zealand has already benefited from Advanta moving seed production here to ensure it is GE-Free. Recent repeat contamination of US corn seed with Starlink, also shows how important New Zealand may be as a sanctuary from GE pollution.

New Zealand's economic wellbeing has already been threatened by applications for release of GE canola and wheat. The effects from when the world markets reject GE agriculture, and the damage to our national position and agricultural exports would be irreversible.

Legal Aspects

The background briefing paper, to the Commission, discussed regulation in the US and UK referring to " stringent assessment" (but not testing, and was deeply flawed as evidence from Steven Druker's submission shows) However there was no mention on LIABILITY.

We submit that what is needed to legitimise the process is data open to actuaries within the commercial insurance industry to calculate premiums.

The current absence of data is effectively proof of the degree of uncertainty and incalculable risk. We can only repeat the fact, that given the public concern and support for the precautionary principle, it is unethical and immoral to impose risk on the public purse through socialisation, rather than rest responsibility on those set to profit from the patenting and privatisation of genetic material and keen to rush implementation of irreversible technology.

Maori and the Pakeha public voice

It is an important observation that Maori concerns have a great deal in common with general civil societies' concerns as stated in the Background briefing papers to the Commission (Bevan Tipene Matua) page 5

" wider concerns raised by Maori about GM and GMO's are often similar (and sometimes identical) to those of the general public as indicated from the following statement in the draft Te punikokori report;

" so for me, if a Maori is saying it's a unique Maori view, I say don't pigeonhole Maori into just talking about Whakapapa and mauri- or kaitiakitanga or tino rangatiritanga, because I also want to talk about antibiotic resistance, horizontal gene transfer, and about crossing with valued flora and fauna and not just indigenous species"

We urge the Commission to recognise the importance of common human values such as those shared by Maori and non-Maori New Zealanders in regard to much needed regulation and removal of genetic engineering in the food and environment of New Zealand.