



ABN 67 104 140 918

A: 60 Leicester St, Carlton Vic 3053

T: 03 9347 4500 / 1300 133 868

F: 03 9341 8199

E: info@geneethics.org

W: www.geneethics.org

**Comments to the Senate Select Committee on
Australia's Food Processing Sector**

November 2011

to

Committee Secretary
Senate Select Committee on
Australia's Food Processing Sector
PO Box 6100, Parliament House
Canberra ACT 2600

T: 02 6277 3583

F: 02 6277 5719

E: foodprocessing@aph.gov.au

W: http://www.aph.gov.au/senate/committee/foodprocessing_ctte/foodprocessing/index.htm

Introduction

Thanks for the opportunity to make this submission. Gene Ethics advocates for the public interest, full participation and everyone's right to know how processed food ingredients are made and what they contain.

We will comment on: The regulatory environment for Australia's food processing and manufacturing companies including:

- food labelling;
- the National Food Plan

Our comments are based on remarks made in other forums. Please favourably consider these representations. Gene Ethics is ready to communicate further with the Committee if requested.

Food Labelling

The National Food Labelling Review report Labelling Logic was published in February 2011. The Food Regulation Ministerial Council (FRMC) is expected to announce its response to the report's recommendations on December 9 2011, for adoption by COAG next year.

To formulate their response to the report, the Council posed a series of questions to participants at closed meetings in Sydney and Melbourne on the review's proposed labelling hierarchy, front of pack and alcohol labels. We urged that the meetings be open to the interested public, at least to those who had made submissions to the inquiry, but the council did not accede to our request.

Nonetheless, Gene Ethics commented on the labelling hierarchy recommendations in a letter to Ministers. We submit our edited comments and requests to the Senate.

Recommendation 28 of Labelling Logic:

"That as a general principle all foods or ingredients that have been processed by new technologies {i.e. all technologies that trigger pre-market food safety assessments (under Food Standard 1.5)} be required to be labelled for 30 years from the time of their introduction into the human food chain; the application of this principle to be based on scientific evidence of direct impact on, or modification of, the food/ingredient to be consumed. At the expiry of that period the mandatory labelling should be reviewed."

Gene Ethics agrees with the report that a "distinctive labeling protocol with regard to new technologies" is justified. It follows that all the products, ingredients and processing aids derived from new food production, processing and packaging processes, techniques and technologies should without exception be fully labelled.

Therefore, all foods made using genetic manipulation (GM) techniques should be labeled. But on the basis of questionable and untested assumptions Food Standard 1.5.2 exempts most from any labelling at all. Exemptions from labelling are GM vegetable oils, starches and sugars; processing aids and additives; restaurant meals; meat, milk, eggs, honey etc from animals fed GM feed; and GM food that is under a 1% threshold for adventitious (accidental) GM contamination.

The assumption that oils starches and sugars contain no foreign DNA or protein depends on the refining process employed. The allergenicity of highly refined peanut oil also shows that DNA and protein are not necessarily the only potentially allergenic factors in refined products. Also, some producers appear to use the 1% threshold as a cover for routinely (not accidentally) including some GM in their processed products without labelling them.

We request the Senate committee to recommend the rescission of all labeling exemptions for foods, processing aids and additives registered under Food Standard 1.5.2 on genetic manipulation.

We also disagree that labelling is merely: “because of the (new) technological process”, that requires them: “to have pre-approval safety assessments.”

We seek acknowledgement that pre-market assessment and labeling requirements are necessary mainly because foods made using new technologies are genuinely novel in the human food supply. Other foods are generally recognized as safe and are approved by FSANZ because of their extensive history of safe use but the foods that require pre-market assessment have zero or very limited histories of safe use as food.

Further reasons that we oppose the blanket review and possible removal of mandatory labeling on novel foods and food products, registered under Standard 1.5, include:

- Since case-by-case assessments are made for each novel food product proposed for registration under Food Standard 1.5, there is no objective rationale or case for a blanket or general lifting of mandatory labeling requirements after 30 years, or after any other set period of time for that matter.
- Novel foods are assessed and registered for sale on a case-by-case basis, without any objective scientific criteria or requirements for the rigour, quality, scope, scale and duration of evidence being set in advance. FSANZ says of GM food assessments (but it also relates to other novel foods considered under Food Standard 1.5) that it:
“... carries out safety assessments on a case-by-case basis, which means each new genetic modification is assessed individually for its potential impact on the safety of the food. We compare the GM food with a similar, commonly eaten conventional food from a molecular, toxicological, nutritional and compositional point of view ... to find out if there are any differences between the GM food and its conventional counterpart, which we already know to be safe to eat.”
Using this case-by-case ‘substantial equivalence’ methodology, FSANZ assesses very few parameters and has no objective scientific criteria set in advance that would be essential if the assessments were genuinely scientific, rather than ‘science-based’ as they claim.
- The range of values that FSANZ assessors consider acceptable when determining the ‘substantial equivalence’ of novel and traditional foods are also made on a case-by-case basis. Thus, there could be no objective justification for the blanket review of labeling requirements on novel food products, nor for blanket decisions to terminate mandatory labeling requirements.
- The proposed 30 year time frame is arbitrary and the panel gives no rationale for a general review of mandatory labeling after 30 years, rather than 25, 40 or 50 years from a technology’s first commercial use. The Labelling Review panel’s oblique observation that 30 years is a human generation has no objective basis. Yet many cancers may take at least 30 years to be induced and intergenerational harm may take multiple generations to be evident. For instance, Ermakova’s intergenerational studies of animals fed some varieties of GM crop feed found adverse impacts on the mortality rates and fertility of the offspring of treated animals.
- Moreover, the suite of foods created by or treated with particular new food technologies will presumably expand as new uses are found, and they may be more controversial or potentially harmful. For instance, the early use of food irradiation was on herbs and spices but it is now extensively used on tropical fruit where it poses new hazards that should prompt a stronger, not weaker, case for further mandatory labelling.
- Without mandated, independent, scientific data collected among human populations during the commercial use of a novel food product, there would be no sound scientific basis for a review and lifting of mandatory labelling requirements. For instance, despite a lack of sound scientific evidence, since no data has been collected, evaluated or published, the Genetic Manipulation industry, CSIRO and FSANZ routinely claim that human health has not been harmed by the eating of trillions of meals containing the products of GM techniques. The absence of good evidence for this bald assertion is the result of industry and government failure to label or monitor novel GM products. Absence of the evidence of harm is not a substitute for evidence of the absence of harm, which industry should be required to collect on novel foods.

- The panel makes no recommendations on how the proposed 30 year general labeling reviews would be conducted or by whom. FSANZ would be an inappropriate body to conduct such reviews as it is unresponsive to public concern and offers no role for real public participation.

On July 8 2011 at the Codex Alimentarius Commission - comprising the world's food safety regulatory agencies - the US delegation dropped its long-standing, isolated and unsupported opposition to the GM labelling guidance document, thus allowing the document to become an official Codex text. So any country now adopting full GM food labelling will no longer face the threat of a legal challenge in the World Trade Organization (WTO) because national measures based on Codex guidance documents or standards cannot be challenged as a barrier to trade. This removes one of the chief arguments for de-regulation and voluntary labelling. Australians and our customers in Asia, Europe and North America require more, not less, informative labelling. Establishing agreed uniform codes in Food Standards is the way to meet these national and international requirements.

Recommendation 34 of Labelling Logic proposes: That the requirement for mandatory labelling of irradiated food be reviewed now.

- While the Codex Alimentarius mandates the labeling of any irradiated food product in international trade, labeling should also be required in Australia.
- We strongly disagree with the proposal for a blanket review of the labeling of irradiated foods, which implies that their labeling may no longer be required.
- The irradiation of food has been allowed in Australia for less than a decade and originally applied only to tea and spices. The irradiation of fresh fruit and vegetables poses very different challenges to human health and nutrition, so that blanket termination of the requirement to label would not be in the public interest.
- FSANZ has sought to partly pre-empt the review. Proposal A1038, lodged by the Queensland Government for permission to irradiate persimmons only was amended by FSANZ in March 2011 to include a general review of Food Standard 1.5.3. Gene Ethics unreservedly opposes this application which should, instead, have been lodged and separately notified to the public under Part 3 of the FSANZ Act. The public was not notified of the FSANZ application in accordance with the provisions of the Act as it was secreted with A1038. We are very concerned that the application for a general review would preemptively weaken Standard 1.5.3, including the standard's labeling and record keeping provisions.

The Ministerial Council asks: Can you suggest an alternative solution to the issues that the Labelling Logic recommendations 28 and 34 seek to address?

- A proposal that we might find acceptable would be a case-by-case review of each registered novel food product (within the meaning of Standard 1.5) after it had been in the human food supply for 50 years.
- Each review would only be acceptable if it were based on independent epidemiological and other scientific evidence that the particular novel food product had been eaten by a significant number of people for fifty years and had done no harm to human health, safety and the environment during this period of registration.
- However, as long as the Codex Alimentarius continues to mandate the labeling of any novel food product in international trade, similar labeling should also continue to be required in Australia.

The labeling of all nanomaterials used anywhere in the food supply should, as the report proposes, be a matter of high priority. Because of their novelty and the lack of comprehensive data on their safety and biological fate (potential to accumulate in organs or the environment) if used at all in the food supply, they must all be labeled without exception. The exemptions that allow most of the products made using genetic manipulation techniques to be marketed without GM labels on the spurious pretext that they are 'substantially equivalent' to conventional foods.

Recommendation 2 of Labelling Logic: “proposes a Principles-based Framework, comprising a Food Labelling Issues Hierarchy Framework, to guide decisions about regulatory intervention.”

It also claims that the proposed labelling hierarchy: “underpinning the Framework is risk-based and identifies food labelling issues in descending order from food safety, through preventative health, new technologies and consumer values.” But the panel does not enunciate the core principles that should underlie such a hierarchy. The report merely says: “... the Panel further recommends a more precise set of principles and criteria to guide decisions about government intervention in food labelling.”

Hence the Ministerial Council asks:

As a broad concept, is a Principles-based Framework and hierarchy of food labelling issues a useful basis for guiding decisions on the appropriate regulatory approach for different food labelling issues?

Gene Ethics’ response is that:

- **We do not support industry self-regulation alone at any level of the proposed hierarchy.**
- We cannot endorse any ‘principles-based framework’ until the detailed principles that will underpin the proposed hierarchy are widely and openly discussed and agreed to by everyone.
- The public and public interest advocates must be enabled to participate in formulating the detailed principles before we can decide whether the framework is useful or not.
- As it stands, the only agreed principle that appears to apply to the hierarchy is that all food should be safe, but this appears to be very narrowly defined as phytosanitation.
- The hierarchy needs much further elaboration before we could seriously consider supporting it.
- In particular, the principles that determine the operational and compliance requirements of the scheme must be clear and unambiguous so that it can be monitored and enforced.
- All labelling must, most importantly, meet all shoppers’ right to know how a novel food was made and what it contains. Labelling must fill its role of fully informing and empowering everyone to be able to select what is best for them according to economic, health, safety and personal preference criteria. All foods and food ingredients should be labeled without exceptions.
- Without full and honest labeling, markets are distorted and do not function optimally as the food industry possesses information denied to shoppers. If business and government are really committed to free markets rather than shallow rhetoric, all should welcome, support and encourage more food labeling. Labelling is a robust mechanism to encourage competition in marketplaces, for every-one’s benefit. Shoppers are entitled to optimum value for their hard-earned dollars and better information enhances the quality of our purchasing decisions.

The Ministerial Council also asks:

What are your views on the various elements of the Review Panel’s proposed Framework, and in particular the distinct tiers for food safety, preventative health, new technologies and consumer values issues?

- We do not agree with the paper’s claim that: “Food safety is relatively straightforward and requires little explanation.” Food safety comprises much more than just short term phytosanitary safeguards so we do not agree that: “Labelling is required here to protect consumers from direct and immediate threats to their health.” This paternalistic construction of labelling as a protective measure is narrow and disempowering. The casting of citizens as ‘consumers’ also subordinates our crucial role and subordinates us to other interests that are assumed to be more important and powerful. Serving the needs and interests of the families who eat food should be the primary goal of food production and supply chains. For instance, inferior fast and junk foods that are a long-term hazard to good health are made to maximize profit rather than feed people well, and should be marginalised or eliminated.
- The panel’s construction of preventative health labeling is also vexed. We would agree with labels to assist preventative health strategies only if: “labelling directed at the overall health of populations, where label information is one element of a range of strategies that make healthy

choices easier for the majority of a population,” to always fully and fairly inform and empower us all to take responsibility for our own healthy food selections. An emphasis on balanced and diverse diets, primarily of fresh fruits and vegetables and minimally processed grains and other foods, would be the core of such messages. But such regime should also be subject to regulation through the Food Standard.

- Exercise and other components of a healthy lifestyle such as dental hygiene and minimizing salt, fat and sugar consumption are also essential to preventative health measures so genuine advice (not promotion or hype) on healthy foods should only be part of a much wider strategy.
- The report claims this approach will meet the needs of: “A population-wide approach (that) may focus on primary prevention (directed at maintaining the health of the whole population) or on secondary prevention (directed at population sub-groups with incipient or developed chronic diseases or conditions).”
- But those people suffering chronic diseases as a result of poor lifestyle choices, limited budgets and poor access to food and other resources need health education rather than more labeling of processed and refined foods. Measures other than labeling are needed to encourage and empower their transition toward more healthy fresh diets and away from highly processed foods that are modified merely to qualify for a healthy tick.
- Junk and fast foods which are high in sugar, salt, fat and highly refined and processed ingredients should never qualify for any preventative health labeling, or promotion in a broader health context.
- Truthful, transparent and accurate information must be on all food labels. Food labels must not include promotional or advertising material, such as questionable high-level health claims, claims of enhanced functionality for specific diseases, or claims of nutrient enhancement to synthetically redress the negative impacts of processing on food quality and nutritional value.
- The limited space on food labels must be used to maximum effect and benefit for everyone along the supply chain, from seed to spoon.

The Ministerial Council further asks:

In the case of consumer values issues, what are the practical implications associated with self-regulatory and co-regulatory measures where proposed by the Review Panel as the dominant modes of intervention?

- Labelling systems should be informational, not promotional in their intent and content. Standards, benchmarks and objective criteria enshrined in Standards should be required so that shoppers can understand what it really means if a product is allowed to claim, for instance, ‘product of Australia’, ‘dolphin-friendly’, ‘free-range’ or ‘natural’. In the case of GM-free, for instance, the ACCC set a zero threshold for any GM contamination to prevent false or deceptive representations, which is an objective and checkable measure. In contrast, FSANZ labeling guidelines require food processors to know if a food or ingredient is genetically manipulated for monitoring purposes but exempts most from any labeling, applying the spurious concept substantially equivalent, which means different, not the same.
- Objective, monitored and enforceable criteria should be established for all claims, in all the categories of food labeling proposed by Labelling Logic.
- All foods made using GM techniques should be labeled without exception, on the same zero tolerance basis as for GM-free label claims. The exemptions in Standard 1.5.2 for refined GM vegetable oils, starches and sugars, for instance, are founded on the false assumption that processing removes all foreign DNA and protein. The assumption that foreign DNA and protein is all denatured in the alimentary tract, making whole GM foods safe to eat, is also refuted by evidence. Just one example is the recent peer reviewed paper by Canadian gynecologists Aris and Leblanc in *Reproductive Toxicology* which reports finding insect toxins from GM plants in pregnant women and their fetuses. Further research is needed, not FSANZ fatuous, unreferenced dismissal of these challenging research findings by credible scientists.
- The Panel reports that it has: “found it useful to distinguish between narrow consumer values issues linked explicitly to methods of food production, such as organic, free range, halal and kosher, and broader, more generic values, such as human rights, environmental sustainability and animal welfare.” They also claim that: “For most consumer values issues, the risks to

human health are minimal or non-existent.”

- We strongly reject this narrow view, as reliable and secure supplies of healthy, nutritious foods can only come from clean environments and healthy animals, produced by people who are not exploited. Setting benchmarks and standards for the making of truthful and honest claims about food that reflects our society’s humane and secular values are appropriate and in the public interest.
- Whether individual suppliers choose to apply such labels to their products may be a matter of discretion but it should be open to them to do so on an approved and objective basis. For instance, in the USA Monsanto successfully sued to prohibit the labelling of milk products as rBGH-free where they were made without using synthetic bovine growth hormone. Similarly, our Therapeutic Goods Administration recently prohibited sunscreens not containing nanomaterials from being labelled ‘nano-free’.
- Such restrictions on fair, honest and informative labeling should not prevail.

The Labelling Logic report needs much more public discussion and informed debate before its recommendations are adopted or rejected. This discussion should be out in the open and should welcome full public participation.

Until and unless this process of genuine public review happens, we reject the key recommendations of Labelling Logic.

We ask the Senate Inquiry to recommend that the Ministerial Council facilitate this open discussion before final decisions are made, to restore trust and confidence in food labeling and the food regulatory process more generally.

National Food Plan

In our submission to the National Food Plan, Gene Ethics recommended:

1. That government resources be allocated to ongoing processes and activities for community participation in shaping our food future. We all rely on food so access to a balanced, healthy diet is a basic human right.
2. That the processes to develop and implement ongoing National Food Planning processes be transferred out of the Department of Agriculture, Fisheries and Forestry and into Prime Minister and Cabinet. Food policy is a matter of such high priority that it needs a more expansive and less constrained advocacy than DAFF can bring to it.
3. That the federal government fulfil its commitment to openness and community participation to continuous food planning processes. The Minister has broken Gillard government promises of transparency, fairness and public participation in development of the National Food Plan and has made no commitment to a continuing process. The published discussion paper on the Plan said only: ‘The government ... intends drawing upon ideas and suggestions to develop policy options for a national food plan, but not formally responding to specific submissions or issues.’ This one-way process stifles debate, cherry-picks answers and will not deliver robust policies. CoxInall ran invitation-only roundtables for 350 participants of mainly food industry and infrastructure representatives. Few public interest advocates were included and requests to participate, from various public interest advocacy groups including Gene Ethics, were refused.
4. That the Senate Inquiry question the domination of the National Food Planning process by: “A National Food Policy Working Group (which) has been established as a forum for active communication between the food industry and government to foster a common understanding of the industry’s priorities, challenges and future outlook across the supply chain.” This group will not propose or support the necessary transition to more sustainable futures that food security and sovereignty require. Nor will they articulate the community’s visionary plans for the food supply and processing systems needed to feed our grandchildren and their children well. The public and public interest advocates are now marginalised and this will not produce a good

Plan nor win public allegiance for its implementation. With oil and phosphate reserves diminished, soil and water resources depleting and global climate changing, our government must now begin a transition from chemical and GM-based industrial agriculture to ecological farming and very efficient, sustainable food processing systems.

Gene Ethics responded to some National Food Plan Questions for consultation, as follows:

Chapter 1 Overarching questions

The terms 'food supply' and 'food industry' should refer to all parts of the food supply chain, including everything **from seed to spoon** rather than 'paddock to plate'. The increasing monopoly ownership and control of all parts of our food supply chain are not in the public interest, especially the supply of patented productive organisms - seeds, animals and micro-organisms - that are the basis of our food supply and all life on earth. Concentrations of ownership and control negatively impact all part of the food chain, including processing, especially when these are foreign owned and not committed to Australia's secure food future.

The consultation asked us:

1. What is the most important thing you think a national food plan should try to achieve?

A smooth transition from industrial agriculture to viable, secure, sustainable and sovereign food production, processing and supply systems based on agro-ecological principles that can permanently guarantee every Australian a nutritious, balanced diet of fresh and minimally processed foods.

2. What do you think the vision and objectives for a national food plan should be?

Vision:

Secure, sustainable and sovereign food production, processing and supply systems based on agro-ecological principles (nurturant; equitable; humane; ecologically, socially and economically sustainable) that permanently guarantee every Australian food producer and processor a fair income and a nutritious, balanced diet of fresh and minimally processed foods for all.

Objectives:

- enable the community to fully participate in setting the priorities for future food systems;
- engage every sector of society in some local aspect of food production (school kitchen and community gardens; farmers markets; land management; food swaps; etc.);
- nurture, populate and upskill communities, especially rural and regional areas;
- add real value to all primary products to support the Australian food processing industry;
- end the distorting, destructive emphasis on raw commodity production, mainly for export;
- reduce food waste and ensure that everyone has access to an affordable, healthy, adequate and culturally appropriate diet to meet their right to be fed;
- adapt to global climate change and reduce the effects of other environmental degradation;
- reverse soil and water depletion and the loss of arable land to urban, mining and other adverse impacts;
- end our dependence on scarce, limited and depleting inputs such as oil and phosphates;
- repair the damage that industrial agriculture has already done to land and water;
- reality test the success or failure of government and industry-backed novel food production methods such as genetic manipulation which have not delivered on their inflated and unrealistic promises, yet deny Research and Development resources to more promising options;
- create a sovereign food system that in times of crisis could feed all Australians without dependence on imports.

3. What do you see as major risks to Australia's food supply in coming years and decades?

Gene Ethics replied:

Failure to develop policy and action plans on:-

- foreign and corporate monopoly ownership and control of seed, land, water, minerals and other productive and infrastructure resources;
- loss of food processing facilities and capacity to overseas owners and locations;
- adding real value to primary production, not exporting raw commodities and live animals;
- the depletion and dissolution of soil and water resources;
- dependence on increasingly scarce and expensive inputs such as oil and phosphates;
- failure to adapt quickly to global climate and other negative environmental changes;
- nurturing, populating and upskilling rural communities;
- engaging every sector of society in local aspects of food production;
- adjusting R&D priorities to a systems focus, by reality testing the technology focus and not trying to pick technological winners as the Productivity Commission recommends.

How could they be avoided or managed more effectively?

Continuously engage the public with food issues as the top priority. Encourage government intervention and regulation to solve obvious market failures. End our engagement with the DOHA round of trade negotiations and stop selling out local interests in so-called 'free trade agreements' that disadvantage Australians, in exchange for limited and delayed access to export markets. Apply the precautionary principle to biosecurity hazards such as NZ apple imports and Asian bees.

4. What does food security mean to you?

Food security is Australia having adaptable, sustainable and sovereign food production, processing and supply systems based on agro-ecological principles that can fairly, justly and equitably provide everyone with an affordable, nutritious, balanced diet of fresh and minimally processed foods, permanently. This must be regardless of gender, age, ethnicity, religion, income, profession or station in life. Australian food producers and processors must also be guaranteed a fair income which allows them to continue operating.

How would this be achieved?

Public policy should refocus away from the mantras of so-called free markets, free trade and technological innovation, which enable corporations and institutions to minimise their responsibility to serve the public good.

How would we know if/when we are food secure?

It would be measurable as improvements in:

- good responses to acute and chronic food crises resulting from disaster, social inequity, price rises, and other perturbations;
- good nutrition, improved health and reductions in acute and chronic disease, and obesity;
- reduced rates of acute and chronic dental hygiene and related health problems;
- happiness and general community wellbeing;
- successful locally-owned and managed food processing and supply businesses and food institutions;
- less food waste and lower volumes of food going to landfill;
- composting and recycling of organic material back to agriculture.

5. What are the most important benefits that Australian citizens get or should get from our food supply?

- recognition that we are not merely passive consumers to be manipulated into purchasing inferior foods but are active and empowered citizens with inalienable rights to quality food;
- affordable and available, fresh and minimally processed food options;
- excellent nutrition, improved health and reductions in acute and chronic disease;

- reduced rates of acute and chronic dental hygiene and health problems;
- happiness and general community wellbeing;
- successful locally-owned and managed food businesses and food institutions;
- less food waste and lower volumes of food going to landfill;
- more composting and recycling surplus nutrients back into agriculture.

Why?

Food is not merely fuel. Food should be processed minimally to optimise its nutritional and health benefits for those who eat it. Over-refining and processing, adding multiple synthetic ingredients and over-packaging all diminish the quality of our food supply.

6. What two or three actions:

- by the government sector would most benefit food citizens?

- children to be well-educated about good food and food habits;
- stop junk food advertising, especially to children, and discourage junk food availability;
- resource the engagement of all children in local food production and preparation.

- by the non-government sector would most benefit food citizens?

- educate children about good food and food habits and empower them to acquire the skills needed to make these a priority in their lives;
- create local opportunities for all children to be positively engaged in some aspect of food production and preparation;
- create a local culture of healthy food availability and support those choices.

7. What do you see as the major opportunities for Australia's food industry in the coming years and decades?

Feeding all Australians well by providing affordable diets of fresh or minimally processed high quality foods. Fostering a culture of acceptance for affordable nutritious foods to replace energy-dense but low nutrition inferior junk foods, especially those loaded with high risk fat, salt and sugar.

How could they be realised?

Introduce public policies that penalise junk and fast foods and food advertising, and favour healthy food choices. Allocate increased public and private R&D funding to organic and other sustainable systems, rather than disproportionately funding technical innovations that merely prop up the existing industrial system of food production, processing and supply.

8. What two or three actions:

- **by the government sector would most benefit businesses that make, distribute and sell food?**

Educate children to seek out and buy quality fresh and minimally processed, local, organic and healthy foods. This is fully justified by savings to the health system which is increasingly unable to meet the needs of those with chronic disease as a result of poor food and lifestyle choices. Facilitate children to engage in food production, processing and preparation so they appreciate the benefits of good balanced diets.

- **by the non-government sectors would most benefit businesses that make, distribute and sell food?**

Also facilitate the engagement of children in creating a quality food culture to support personal and community health.

10. Which regulation or regulatory regime poses the greatest burden on the food industry along the food supply chain (production, processing/manufacturing, transport and logistics, wholesale, retail)?

Industry should think of regulation not as a burden but as a benefit, to themselves and society, as compliance with regulations earns the trust and confidence of customers. Concentration of ownership and control, at all levels but especially in seed, grain handling, marketing and retail are a burden to us all. Monopoly profits benefit only those who unfairly take them.

What could be done to reduce this burden?

Public communication that emphasises the importance of regulation and the social contract between the food industry and its customers would benefit, not burden, all. Trust and confidence are essential and are enhanced by good regulation.

11. What two or three actions:

- **by the government sector would most benefit communities that are highly dependent on food production, processing, distribution or sale?**

Encourage migration of local and overseas people with key food skills permanently into rural communities. Provide excellent community services in regional areas. Level the cost of living and disincentives for regional living. Promote multiculturalism in regional Australia.

- **by the non-government sector would most benefit communities that are highly dependent on food production, processing, distribution or sale?**

Support and encourage government measures and utilise resources provided.

Chapter 2 Current approach to food policy

12. Do you think that the development and implementation of government policies related to food are adequately coordinated?

No.

If not, please explain why and provide examples.

The three tiers of government need a unified plan for food, from seed to spoon. Federal government food regulation – FSANZ; APVMA; OGTR – are delinked from powers to implement and enforce at the state and local government levels. States and local government are grossly under-resourced to implement good food plans.

What mechanisms could the government consider that might address your concerns?

Facilitate full public participation and openness at all levels. Mechanisms and processes for continuous and genuine public participation in food policy and planning at every level of government. Fund and promote regular food forums and activities within communities – on the Landcare model.

Chapter 3 Food security

13. Have all the possible risks to Australia's food security been identified in the Food Plan discussion paper?

Applying the precautionary principle to all the risks and opportunities would see us planning in a measured way to transition out of a position of vulnerability to scarcity and alienation to one of

invulnerability and strength.

The paper mentions most of the obvious risks but these are not explored in any depth nor with precision. The paper's problem focus and negative preoccupations makes it insufficiently solutions-oriented.

The paper should also explore opportunities that accompany risks. For instance, the general decline in agricultural research and development (R&D) mentioned should be reversed by public policy, with a new focus on sustainable systems rather than more technologies.

And reliance on phosphates should be phased out as a precautionary measure. The upbeat claims of 100 years of global reserves (when we are already in a synthetic fertilizer price and supply crunch) should be met with a transition strategy rather than complacency.

The same goes for the end of oil and other depleting resources, coming soon or not.

If not, what other risks are you aware of?

Also needed are flexible contingency plans for as yet unforeseen risks and hazards, since we can't foresee events in the long term. Likewise, we should be ready to benefit from unforeseen opportunities as they arise.

14. What specific additional actions by:

- **the government sector would most benefit our food security status?**

Adopt educational policies in primary schools to assist a youthful interest in and commitment to sustainable farming and the top quality food supply, as an adjunct to heightened awareness of environmental, health and lifestyle issues.

- **the non-government sector would assist in maintaining our food security status?**

Implement government-backed educational policies in primary schools and other institutions to assist a youthful interest in and commitment to sustainable farming and the top quality food supply, as an adjunct to heightened awareness of environmental, health and lifestyle issues.

16. What specific actions would help improve food security in remote Indigenous and low socio-economic populations?

Start with the children and elders to develop programs of self-reliance and pride for the local production of fresh fruits and vegetables to augment the foods available from the natural environment. Rebalance the diets to favour minimally processed and less energy dense foods, with minimal added fats, salt and sugar.

Chapter 4 Diet, nutrition, food safety and the consumer

17. Do you see a role for the food industry in supporting population health and nutrition outcomes?

Yes, through the provision of fresh and minimally processed foods and good labelling so informed citizens can make better food decisions. Food promotions should be genuinely congruent with public health messages.

Junk and fast foods high in sugar, salt, fat and highly refined and processed ingredients should never qualify for any preventative health labeling, or promotion in a broader health context.

Truthful, transparent and accurate information must be on all food labels. Food labels must not include promotional or advertising material, such as questionable high-level health claims, claims of enhanced functionality for specific diseases, or claims of nutrient enhancement to synthetically redress the negative impacts of processing on food quality and nutritional value.

If so, what do you believe that role is and what support might industry need in fulfilling this role?

Incentives might be provided for junk food producers and vendors to improve the nutritional profiles of their products, to minimum standards set by government, community advocates and the community working together. The good health of future generations depends on it.

18. Some food industry sectors have developed tools to demonstrate desirable product attributes to consumers, for example through organic or environmental certification.

These positive initiatives deserve further encouragement. For instance, they should be supported with a fairer allocation of R&D, promotional and marketing resources than they now receive.

Do you know of any examples of food supply markets that are not adjusting to evolving consumer demands (that is, potential market failures)?

Junk food is a public health hazard and its vendors provide only a gloss of meeting community aspirations for fresher, more nutritious and balanced diets when they move to one 'healthier' ingredient while all else remains the same.

What are they and how could they be encouraged to adjust (that is, not fail)?

As purveyors of fast, junk foods are price and competition-driven enterprises, they have little incentive to improve the quality of their menus by removing salt, fat and sugar, using higher quality ingredients and treating their workforces better. Blanket advertising distorts the public perception of, and attitudes to, these addictive products. Like plain package cigarette advertising, messages should be more strongly government regulated to ameliorate the worst excesses of this part of the food processing and supply industry.

19. How do citizen perceptions of food production (across the food supply chain) affect food-related businesses and regional communities?

Childhood education and family practical exposure to food production and processing is an antidote to the fast food nation and the culture it breeds. A national program of home and school-based food-related activities should be part of the plan.

20. Are you confident in the food you eat?

Generally, yes, as we buy fresh and minimally processed organic foods almost exclusively. As low-income earners this is a measured choice based on acquired values and not a sign of affluence.

If not, what aspects concern you?

I am concerned about the products of novel food processes and technologies, approved under Food Standard 1.5. Many experts dispute the so-called science behind these decisions. We know that some novel foods are unsafe for experimental animals to eat, which leads us to conclude they may also harm humans. Industry's response, to try to discredit the messengers rather than replicating their experiments, is a tactic of the powerful and unscrupulous.

Do you believe food in Australia is safe?

In the narrowest of phyto-sanitary senses most are probably safe to eat. However, the burden of acute and chronic disease in this society suggests that some broader official assumptions about food safety – eg: synthetic chemical residues in food pose acceptable hazards – are not justified.

If not, please outline which aspects of food in Australia you believe are not safe and what needs to be done to ensure all food in Australia is safe?

Novel foods with limited or zero history of safe use in the human food supply (those requiring pre-market assessment under the provisions of Food Standard 1.5) are inadequately assessed and regulated. They may have long-term health impacts. Though some may be individually assessed for safety, the synergistic impacts on human health of a cocktail of synthetic chemical residues, chemical food additives, colourings, flavours, preservatives and processing aids in processed foods have been inadequately explored or assessed.

30. What are the top citizen priorities in product innovation over the next 5, 10 or 20 years?

Though they are difficult to strictly prioritise, Gene Ethics suggests key values will be: fresh, minimal processing and additives, organic and eco-friendly, sustainable, affordable, local, environment and health-friendly, profitable for farmers and suppliers, nutritious, part of a balanced diet, secure food supply, Australian owned and operated.

31. What could government do, consistent with a market-based policy approach, to help the Australian food industry take a long-term strategic view to exploit growth opportunities?

First get off your 'market-based' mantra and start acting in the public interest. As nothing else can, the global financial and rural economic crises expose the flaws in purely self-regulated, market-based approaches. It's long past time that the government reviewed and modified its commitment to so-called 'free-market' economics which do not serve community interests. In fact, markets are not 'free' at all with much of the international traffic in goods being within transnational companies, made for tax minimisation and profit maximisation. Also, really free markets would embrace honest, factual labelling so all parties to transactions had access to good information. Only then could the public good be optimised.

32. How could the food industry make the most of emerging market opportunities, including niche markets such as food tourism?

Gene Ethics wants a government/industry/citizen partnership to focus first and foremost on the abundant opportunities to make Australia more food secure and sovereign within its own borders. Mining Australia's resources for the export commodity market, whether in food or mining, is not in our national interest.

33. How could the food industry research and development agenda be improved to ensure more involvement from industry and more effective identification of its needs and the needs of consumers?

Engage with its customers and other constituents, including food, health professionals and public interest advocates, in a participatory, collaborative and continuous program of dialogues.

34. What should a successful, innovative Australian processed food industry look like in the short, medium and longer term?

The processed food industry should be as flexible as possible, to readily adapt to emerging resource and environmental constraints.

The industry should aim to supply products that prioritise the use of ingredients that are sustainably and locally produced.

Its products should be nutritious and healthy, by using ingredients that are minimally processed, organic and that minimise the range and quantity of preservatives, colourings, flavours, processing aids and additives. It should also aim to reduce and eliminate all synthetic chemical and GM contamination.

Michael Pollan's rule of thumb is that if a processed food contains more than 6 ingredients, it is probably over-processed and not conducive to good health. We agree.

35. What are the key areas for research and development investment that would produce the necessary productivity gains for the food industry?

Productivity is not the only measure or value that should be pursued. For instance, bringing a more diverse range of well-adapted food plants into Australian agriculture from around the world may open new opportunities for expansion. These innovations could also spin on to innovation in the food processing industry, to develop new products for Australia's diverse communities.

36. How could the tension between new technology adoption (such as biotechnology or nanotechnology) and public concerns about possible associated risks best be managed?

The assumptions embedded in this question first need critical analysis.

1. The tension 'between new technology adoption and public concerns' is based on substantial scientific evidence and does not need to be managed. The public are entitled to be sceptical.
2. Public concern is not only 'about possible associated risks', but also concerns broader values issues such as the ownership and control of patented seed, weak regulation, corporate disinformation and the distortion of R&D budgets, etc.
3. 'Management' is not a suitable government antidote to well-informed and critical public aversion to new technologies and their products. Gene Ethics advocates systems solutions to food supply issues to replace uncritical official commitment to new technologies and their products.

Government is spending \$38.2 million of taxpayer funds on the National Enabling Technologies Strategy (NETS) to promote the products of genetic manipulation and nanotechnology, including public acceptance. State governments and CSIRO are also committed to public private partnerships, which amount to public funding and expertise for private gain.

The problem is that government picks what it thinks will be technological winners, backs them with substantial resources and keeps doing so. No mechanisms, such as critical public participation in priority setting and review are built into the system. So there is little reality testing of the success of the science and technology-based products that government supports.

Governments can't see that their own commitments and conflicts of interest jaundice their objectivity. It is up to them to change, not to change adverse public opinion and rejection of their favoured technologies. For instance, the West Australian Government recently allowed Monsanto to acquire 19.9% of WA public plant breeder, InterGrain, for \$10.5 million. InterGrain produces 40% of Australia's wheat seed, bred over decades by Australian farmers and governments. This deal would allow Monsanto insert its GM traits into the best Australian wheat and claim ownership of those GM varieties. The Office of the Victorian Premier and the Queensland Governments are both members of the Biotechnology Industry Organisation, a US-based organisation that promotes its corporate members' GM products around the world. The Victorian Government aspires to be the largest hub of GM research and development in the Asia Pacific region and signed a public private partnership (PPP) with Dow AgroSciences at the BIO trade show in Atlanta Georgia, in 2009. The Queensland trade commissioner to the USA makes a priority of biotechnology promotion.

Again, the discussion paper asserts that: 'While technological innovation in its many forms is critical for improving productivity from paddock to plate,' (this is a very big assumption that is not supported by most evidence) 'there is some consumer concern about use of some new technologies (such as genetic modification and nanotechnology) in food production and food products.' While industry may want to spend its resources modifying this negative public perception of GM and nanotechnology products and promoting public acceptance, government has no legitimate role in public relations activities that seek to assuage public concern in the face of disquieting evidence that these technologies have negative impacts. Governments should desist from funding promotional activities, as the Productivity Commission recommended in its inquiry into Rural Research and Development. The Commission's discussion paper argued that government funding for R&D Corporations should be conditional on their using such funds solely for R&D and related extension purposes. The Commission said that marketing, industry representation and agripolitical activities should not be permitted. Yet the Grains Research and Development Corporation funds Agrifood Awareness, an advocacy group established by GRDC,

Croplife and NFF in 1999, exclusively to promote the use of genetic manipulation techniques in agriculture and food production. GRDC appears to give Agrifood at least \$100,000 a year to publish briefings, policies, media releases and other materials. Agrifood's director also represents the GM industry in various forums to advocate acceptance of GM crops and food products. GRDC also promotes other GM advocacy groups such as the Producer's Forum. For instance see: WA GM SEMINARS where agronomist Bill Crabtree, assisted by Producers Forum WA, hosted a series of **GRDC-supported GM seminars** in Mingenew <http://lists.asc.asn.au/pipermail/asc-media/2006-June/002081.html> The GRDC paper, Ground Cover, promoted the Forum's pro-GM views, without balance, here: http://grdc.com.au/director/events/groundcover?item_id=publication-issue58&article_id=482BB93A01CE0A1A9F9AE91A1EE918EE.

Government is also backing winners when it claims: "New 'plant varieties for high inputs' - geared toward more efficient use of water, herbicides, fungicides, pesticides and land surface area are also being developed within Australia." It's overdue to reality test the successes and failures of these expensive and time-consuming endeavours, and defund those that have not produced any discernibly useful results in the past decade. Most of these and other promised innovations are multi-genic traits whereas the two commercial crop plant traits – herbicide tolerance and Bt insect toxins – involve the cutting and pasting of single genes. It is likely that GM techniques will never be able to transform organisms with traits that depend on multiple gene interactions.

It is foolish and patronising when government narrowly defines and mischaracterizes important problems without consulting its critics. For example, the paper claims: "Consumers are concerned about use of technologies... for example, possible allergens and whether the use of antibiotic resistance marker genes in genetically modified foods may lead to microbial resistance to antibiotics, with potential human health implications. They are also fearful that as a result of genetic engineering accidental toxins or other harmful compounds may be introduced into food products." These are part of the picture but as mentioned before community concerns about the safety of novel foods is only a part of public rejection of the products of genetic manipulation and nanotechnology. They have limited history of safe use in the food supply.

While: "FSANZ considers the scientific evidence in assessing the safety of foods made with technologies such as genetic modification. FSANZ also provides information on these issues on its website." But FSANZ says its assessments are 'science-based' and 'case-by-case'. It does not use the scientific method and since there are no objective criteria set down in its regulations, FSANZ accepts a grab bag of ad hoc evidence in support of the applications it approves. The range of values that FSANZ assessors consider acceptable when determining the 'substantial equivalence' of novel and traditional foods are also made on a case-by-case basis.

The food production and processing industry, and the community, will benefit from keeping genetically manipulated (GM) crops and nanotechnology out of production processes, at least until their proponents show they are safe. Our regulators do not require technology owners to accept this burden of proof.

The demand for Australia's GM-free canola is so strong in Europe that Co-operative Bulk Handlers (CBH) says Europeans will buy 90% of WA's non-GM canola production at a 5% premium over GM canola this year. "When you're growing GM, at the moment you need to compete against Canada, but when you've got non-GM you get a free kick into Europe and some markets in Japan. There's a massive advantage to be growing non-GM this year, because Europe has been so aggressively buying up all the non-GM tonnage."

The GM canola market is so weak now that several grain buyers will not buy GM canola at all while others will accept it only at a discount of up to \$50/tonne less than non-GM canola prices. CBH says the discount is likely to persist for at least five years and the 49,000 tonnes of GM canola produced in WA in 2010 remained in silos for months, unsold.

In stark contrast, in GM-free South Australia Kangaroo Island Pure Grain is just one company benefiting from strong local and international demand for its non-GM canola and non-GM canola honey for which its growers are also earning substantial premiums.

Farmer protection laws are needed to automatically compensate farmers or supply chain managers contaminated by GM, instead of them having to go to court. A fund collected from the sale of GM seed should be established so that the owners and licensees of GM crops pay for any GM contamination and damage. Farmer protection laws would ensure that growers like Steve Marsh, a WA organic grower decertified after GM canola blew onto his land, were automatically compensated from an independently administered pool of funds.

GM crops are not a global industry. The industry-backed service ISAAA (www.isaaa.org) reports that last year 50% of all GM crops were grown in the USA alone and over 90% in North and South America. 170 countries and 60 dependent territories have said 'no' to GM and remain GM-free.

GM crops have stalled too. The same four crops launched in 1996 - soy, corn, canola and cotton - are still the only broad-acre GM plants grown commercially (with the exception of GM herbicide tolerant sugarbeet, now entering US agriculture). The two traits launched in 1996 are still those available - Roundup tolerance so GM crops can still grow when sprayed with the potent weed-killer; and plants that make their own Bt insect toxins, to kill the caterpillars of some insects when they eat the plant. North American growers are now experiencing the impacts of herbicide resistant weeds and pesticide resistant insects. Yet they are locked into GM varieties because the monopolised seed companies have not retained or developed new conventional crop options.

GM seed patent owners have the burden of proof to convincingly show the safety and efficacy of their products. Scientific American and Nature Biotechnology report that GM companies withhold seed from independent research and adverse findings are censored. Even so, published papers show that some GM soybean, corn and canola harm experimental animals and may pose health risks to people.

For instance, ANU toxicologists found CSIRO's GM field peas, containing a gene from a bean, provoked immune and inflammatory responses in mice. French researchers found rats fed GM maize showed significant liver and kidney damage. And scientists at the Rowett Institute, Scotland, found intestinal and immune system damage to rats fed GM potatoes. Now Canadian gynaecologists have also found Bt insect toxins from GM plants in the blood of pregnant women and their fetuses (Aris and Lablanc, *Reproductive Toxicology*, 2011), which require further investigation.

Despite the expenditure of \$45 billion of public and private money over the past 30 years, GM crops can't deliver on their promises of plentiful food and fibre, drought and salt tolerant crops, and more nutritious and longer shelf life foods. But their empty claims take research away from sustainable farming and food production systems based on healthy soils. These are needed to feed, house and clothe everyone well, in perpetuity. With oil and phosphate reserves diminished and global climate changing, we must begin the transition from GM and chemical-based industrial agriculture to ecological farming systems.

37. What could government do to accelerate food and nutrition research and development to successful commercialisation outcomes?

We don't need the latest finding or fad introduced into the food supply quickly. Plenty is already known, for example, about the negative health impacts of excess refined sugars, salt and fat in the diet, yet government has done little to ameliorate their impacts. Let's work with what we already know and can be sure of before moving on to claimed evidence that food processors may want to use without good justification that can be validated long-term.

43. What could be done to use growing student interest in environmental issues to meet the skills needs of the food industry? (For example, the decline in supply of agricultural science graduates has corresponded with growth in environmental science graduates-there are crossovers and shared interests for these study pathways).

Broaden the scope of the environmental science courses to include modified environments such as farms, in addition to the natural environment. Recast farm management as soil, land, water, and living organism management and provide incentives, rewards and gender neutral career paths. Provide assurances of liveable farm incomes that will not necessitate working off farm to remain economically viable.

44. What could food businesses do that would enable them to function effectively with a less abundant supply of labour? Are there any barriers to making these changes?

Smarter systems, not more technology and inputs! One remedy to the shortage of labour may be provided by enhancing the social infrastructure context for migration into rural communities, on the model of the Southern European migrations of the '50s and '60s.

Chapter 6 Sustainable food industry

45. What else could governments or non-government groups do to promote economic and social sustainability of food production, processing, or distribution (including resilience to economic or other shocks)?

Don't rely exclusively on market mechanisms. Public policy, rewards and incentives, need to be embraced as legitimate mechanisms where the basic viability of the nation's food supply is at stake. This is a top priority strategic issue.

48. What (if any) contribution could action on food waste make to improving the sustainability of Australian food supply chains?

Gene Ethics recommends further support and expansion of Food Bank type of operations such as Second Bite and Fair Share, organisations that recover both cooked and fresh foods about to be disposed of due to oversupply and/or with minor blemishes. These organisations divert tonnes of food from landfill each year and distribute to hundreds of charities. There are positive benefits for both the environmental (reduced landfill & greenhouse gas generation) and social (feeding people who may not be able to afford to feed themselves and their families) systems.

What are the best opportunities to reduce Australia's generation and landfill disposal of food?

Distribute compost bins and worms free to all households through local councils. Provide local training and advice to all citizens in compost and vermiculture management. As appropriate, provide equipment and training to institutions: high-rise and apartment buildings, schools, etc. Especially engage children in recycling food waste.

Where food is beyond human consumption then it should be diverted from landfill to compost facilities, where the food organics are mixed with garden organics, mulch and other organics and composted for use in market and landscape gardens. Need to ensure that the composter is operating to EPA standards and the end product is pasteurised but in Australia to date this has primarily been aerobic composting. Advanced organic recycling facilities able to recycle food organics using predominantly a slow compost anaerobic process that can also generate electricity, popular in Europe and the USA, are technologies being promoted within Australia.

Are these subject to market failures (that is, the private sector does not have commercial incentives to better manage food waste)?

The compost options have commercial incentive issues as they are run as a business and need to charge a per-tonne gate-fee and charge for the compost end product.