

Review of Food Labelling Laws and Policy

My first comment is to agree that labelling incurs costs but what has to be borne in mind is that the costs are passed onto the consumer so if we are prepared to wear that cost then our needs must be met. It can also be said that raising the cost of labelling as a way of avoiding labelling the producers do not want to see is a diversion because what consumers want to see is a very small portion of the total label.

General Products

Notice of Country of Origin

The source country of the contents should be displayed with percentage content of Australian sourced and percentage content of foreign sourced. If it is all foreign the country of origin should be displayed.

Notice of Place of Production

Australian Made to indicate that the product was substantially transformed here and more than 50% of the total cost was here.

Ownership of the Company

It is important to ensure that if the company is more than 50% owned by Australians that **Australian Owned** is on the label to encourage purchase of the product. This ensures that the profits stay in Australia and do not increase the current account deficit as in the case of foreign owned companies.

Foreign Owned Companies

Labels of products from foreign owned companies must not carry any indication that it is an Australian company. Items such as a map of Australia, Australian flag, and anything uniquely Australian should be prohibited on labels.

Genetically Modified Products

I have been involved in the movement which seeks to ensure that genetically modified products are safe for the health of all who eat them, and for the environment, since the late 1980's and the size of my database on the subject runs to over 1,000 items. These include reports from the public services of the US and Canada as well as independent researchers and nowhere have I found any credible evidence that information provided by the biotechnology companies indicates the safety of their products. In fact, as those companies will not allow independent research on their GM seeds, one is entitled to believe that their research would not stand up to peer review.

These comments are relevant to that so-called safety of GM foods: -
Doctors specialising in environmental medicine say there is a link between GM foods and illness. They state **"several animal studies indicate serious health risks associated with GM food consumption"**. They include: allergy; gastrointestinal, liver and kidney changes; immune dysregulation; dysregulation of insulin and cholesterol response; accelerated ageing and reduced fertility. GM food is not independently tested – Our food regulators, FSANZ, do not test the food. They say **"It is the responsibility of companies that have developed GM foods to demonstrate the safety of that food and to supply FSANZ with the raw data from scientific studies to prove this."**

FSANZ also expect **"the developer to monitor for existing and emerging risks that may be associated with its product and notify regulatory authorities whenever new information is uncovered."** This is like asking tobacco companies to check that smoking is safe.

There aren't any GM crops with health benefits, high yields, salt or drought tolerance. Most crops are genetically modified either to create their own poisons to kill insects or to survive when sprayed with weedkiller.

With that in mind all products containing GM sourced ingredients, including those foods that were processed using GM material but which companies claim (incorrectly?) are not harmful, must be prominently labelled so that the majority of consumers who do not want GM in any shape or form can have their right to know what they are buying, acknowledged. The highly processed products such as GE canola oil and GM animal feed are a sample of these.

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My first submission on 6 November was acknowledged by you on the 9 November.

This second submission relates specifically to nanoparticles in food.

With my regards

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On TUESDAY 5 MAY 2009 a select committee of the House of Lords investigated the subject of nanotechnology and foods. Some of that evidence is provided as a basis for stating that it is extremely important that all foods containing any nanoparticles be clearly labelled as such, but see the further comments in this regard. It is all very well for the Australian Government to shy away from regulating nanotechnology but FSANZ is supposed to safeguard our health and whether that fact is a moot point.

After reading the following, and bearing in mind that here is a new technology that is in its infancy and has not yet been full researched to the extent necessary for something which can form part of our food supply it is incumbent on FSANZ to take appropriate action. The Precautionary principle is definitely applicable in this case and as the science of the technology is still far from complete, a complete ban on nanoparticles in food would be appropriate. Industry may well apply its muscle, as is its wont, in the face of which FSANZ may wilt and in that case full and complete labelling of all foods which contain nanoparticles is a necessity.

Here are some extracts from the hearing and it should be noted that any errors in the record have not been noted.

***Dr Powell:* I think we know quite a lot about the uptake of particles in the gut, in terms of the route of entry; and we know a reasonable amount about the likely cellular targets. We know very, very little about what happens once those particles meet those cells. We would certainly consider persistence to be important, so that were you to ingest a particle that was broken down in the gut lumen prior to meeting its cellular target, it would in our eyes have a toxicology related to its chemistry, the component, rather than to its nanoparticulate sizing. We do believe that more work needs to be done in terms of both nanoparticles and the larger nanoparticles or microparticles, those larger than 100 nm in diameter, in terms what happens inside the gut.**

***Dr Chaudhry:* In our view there are two fundamental concerns about the health and safety of nanomaterials, and both relate to oral intake of food products that contain free nanoparticles that are insoluble, indigestible and that can translocate from the gut in particulate form to other parts of the body. Essentially that category of particles is of most concern. The first concern is the**

ability to cross cellular barriers, and there is scientific evidence for that. Cellular barriers prevent entry of larger insoluble particulate material; but nanoparticles, because of their very small size, can override that principle and potentially reach new targets in the body, for example the brain. The second concern is the potential effects of nanoparticles, and they will depend on the chemical nature of nanoparticles, as Dr Powell mentioned. If the chemicals that constitute nanoparticles are toxic then it can be perceived that they deliver toxic chemicals to new targets in the body where those chemicals would otherwise have not gone, had they not been in nanoparticle form. The other concern is that many nanoparticles have a reactive surface and they can interfere with cellular processes, for example oxygen metabolism, and this can lead to the emission of oxyradicals. This has been shown in a number of studies. This can lead to inflammatory reactions and oxidative damage. There are other concerns: for example, some nanoparticles or nanodelivery systems can carry harmful substances out of the gut into the blood circulation from where they can lead to other parts of the body. Another concern is about antimicrobial effects of some metallic nanoparticles; when ingested they can have a harmful effect on gut natural microflora, which can ultimately harm consumers' health.

Professor Depledge: Just to add I think it is worth emphasising the diversity of nanotechnologies and the diverse nature of nanomaterials. It is very difficult, I think, to make general statements about nanomaterials: some are very reactive; some are not; some are very persistent; some are not. I think we need to focus on that. The second point would be that nanomaterials in food, some of them are put there intentionally, and some are unintentional occupants of food, as it were. I certainly agree with the idea that the amount of evidence available with regard to the effects of nanomaterials, delivered through food or in food, is very, very small indeed and there is an urgent need to conduct many more studies. I also think that we ought to consider plausibility. We know that some of these nanomaterials are designed to be highly reactive. We know that some of them have very highly reactive surface properties; and there are little bits of evidence which show that they can convert chemicals from one form into another: so it may not be the nanomaterial itself that is toxic but the role it plays in converting substances that are non-toxic to be toxic. There is a lot of plausibility that needs explaining.

Professor Donaldson: I think there is maybe one case where the lung data might come to hand here. Certainly in the human lung the adverse susceptibility to particles is greatly enhanced in those people who have inflammatory conditions of the lung, asthma and COPD especially. If you have inflammation already in your airways then the effect of the particles are worse. That is very strong data to support that. One would imagine that the gut would be exactly the same. The effect of particles in the gut may be much worse in someone who has got some inflammation in their gut.

NOTE:

Information regarding the persons mentioned above is provided for your information:

Professor Ken Donaldson, (University of Edinburgh),
Dr Jonathan Powell, (MRC Centre for Human Nutrition Research)
Professor Michael Depledge, (Peninsula College of Medicine and Dentistry),
***Dr Chaudhry:* I am Qasim Chaudhry. I work for the Food and Environment
Research Agency of Defra.**
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Arguments only confirm people in their own opinions

Booth Tarkington