

SUBMISSION RE: REVIEW OF LABELLING REQUIREMENT FOR IRRADIATED FOODS (Labelling Logic recommendation 34)

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MADGE Australia, Inc
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*A general submission to the Review of labelling requirements for irradiated food as per Recommendation 34
and responses to FSANZ's 24 question online survey*

Table of contents

Executive Summary.....	1
10 key points.....	2
Responses to 24 Questions in FSANZ's Online survey.....	9
Appendix A: supporting organisations.....	28
Appendix B: Submission on labelling to ACCC by FI Watch & Gene Ethics.....	30

Executive Summary

Ministers responsible for food regulation have asked Food Standards Australia New Zealand (FSANZ) to review Standard 1.5.3 – Irradiation of Food, specifically to:

- assess the need for the mandatory labelling requirement for all irradiated food to continue, and
- assess whether there is a more effective approach to communicate the safety and benefits of irradiation to shoppers.

Once prohibited in Australia and New Zealand, irradiation is now being promoted here. It is to be used primarily as a quarantine treatment and replacement for some post-harvest chemicals phased out because of their toxicity. However, irradiation brings its own set of risks and hazards to the table.

The irradiation of fruits and vegetables typically involves their exposure to the energy equivalent of between 1.5 and 10 million chest x-rays. When used as a fruit fly “treatment”, food irradiation also extends shelf life, sanitises, and alters the nutritional value of the treated foods. Changes made to fruits and vegetables as a result of processing with irradiation are substantial and significant - and cannot be discerned with our ordinary senses.

Shoppers cannot rely on taste, smell, texture or appearance to determine if a food has been irradiated. Labelling is the only mechanism that allows shoppers to exercise their preference for fresh produce. The removal of labelling from irradiated fruits and vegetables would, therefore, create a situation where the public is led to false, misleading and deceptive conclusions as to the nature of these foods – believing them to be fresh when they are, in fact, highly processed. Removal of labelling would negatively affect our right to make well-informed food buying decisions that send appropriate signals to the market.

With known nutritional impacts and possible health risks associated with irradiation, removal of labelling could also impact on our right to make well-informed food buying decisions that potentially impact on our diet and health. Labelling is the norm globally and people want irradiated food to be labelled.

It is unacceptable that our food regulator and governments are considering making the public less directly and well-informed about irradiation by removing the labelling requirement.

Recent approvals for fruits and vegetables that are central to the average Australian and New Zealand diet will significantly increase the proportion of irradiated foods eaten. This increases the need for strong labelling laws. The horticulture and food industries are keen to increase the amount of food irradiated and see labelling as standing in the way to shopper acceptance and purchasing.

We expect our governments and food regulator to act in the public interest. It is therefore unacceptable that they side with industry to keep us in the dark about irradiated or other novel foods, and their impacts. Mandatory labelling must remain and be improved as we propose.

Recommendation:

Australia and New Zealand must improve labelling to ensure that all irradiated products are clearly and accurately labelled. In accordance with global standards the labelling wording should be prescribed and limited to the following choices:

- irradiated (name of the food),
- treated with radiation,
- or treated by irradiation

Positive statements about irradiation should not be permitted without balancing references to potential detrimental impacts.

FSANZ should cease to act as a promoter of irradiation and work to ensure that the public has access to the necessary information to make informed decisions through the means they expect: labelling.

10 key points

1. Despite their appearance, irradiated fruits and vegetables are processed, not fresh.

Irradiated food is processed, not “fresh”: The irradiation of fruits and vegetables typically involves their exposure to the energy equivalent of between 1.5 and 10 million x-rays. When used as a fruit fly larvae treatment, food irradiation also extends shelf life, sanitises, and alters the nutritional value of the treated foods. The substantial and significant changes made to fruits and vegetables as a result of processing with irradiation cannot be discerned with our ordinary senses. Furthermore, irradiation is used in conjunction, not as a substitute for chemicals used in food production, cold storage, cooking and other processing of food.

2. As irradiation is invisible, without labelling, shoppers will have no way to discern whether or not a product has been irradiated. Shoppers will be misled into believing irradiated food is fresh or unprocessed.

Labelling is the only way to know: As irradiation is invisible, labelling is the only way to ensure that shopper rights are protected, producers of non-irradiated products are not disadvantaged by having their products indistinguishable from irradiated products (or are not forced to label “non-irradiated” or “fresh” to ensure the distinction) and that true market forces are allowed to prevail through shoppers being empowered to make fully-informed decisions about what they purchase.

Marketing irradiated fruits and vegetables as fresh would grossly mislead the public and be a failure of duty of care to Australian and New Zealand shoppers.

3. Shoppers have strong opinions on irradiated produce and expect it to be labelled.

‘In October 2001, FSANZ commissioned qualitative research to examine Australian and New Zealand consumer understanding and use of various label elements (NFO Donovan Research 2001)... The report also

noted that the general consensus was that even though the word was alarming and off-putting, that it should be used on packaging rather than a symbol, again because people had a right to know what has been done to their food...”

“Tomatoes NZ (the industry body that represents the fresh tomato sector) commissioned a telephone poll of 1000 New Zealand adults in April 2015 (Curia Market Research 2015). Poll participants were asked if they would like:

- the fruit and vegetables they buy that have been treated with irradiation to be clearly labelled as irradiated. (Eighty-five per cent of participants responded that they would).
- to know if a dish they ordered in a restaurant, café or takeaways includes irradiated food. (Seventy-eight per cent of participants responded that they would). “ (p 14-15)

The public wants irradiated food to be labelled.

Precedence and presumption of labelling: All irradiation approvals to date have been premised on the notion that all irradiated food will be labelled. It would be disingenuous to remove labelling so clearly identified as part of the approval process.

Labelling is correctly listed by Food Standards Australia New Zealand as the only method by which shoppers will know if food has been irradiated:

“How can I tell if food has been irradiated?”

A food that has been irradiated, or food that contains irradiated ingredients or components, must be labelled with a statement that the food, ingredients or components have been treated with ionising radiation.

If the food is not normally required to be labelled, then the mandatory labelling statement must be displayed close to the food. This would apply to foods such as:

- whole fruit and vegetables sold loose by supermarkets
- a take away pizza with an irradiated herb as an ingredient.

The radura symbol (below) may be used in addition to the mandatory labelling.”¹

Labelling is the status quo and expected. To remove labelling is to deny the public any access to informed choice and is unconscionable.

4 Irradiation is still a new technology with a limited history of safe use in the human food supply.

Australian and New Zealand shoppers have little experience with irradiated foods: Irradiated foods have not been in the Australian food chain for 30 years. In fact the first approval, for herbs and spices, was in 2001 and the list has only recently been extended to include commonly eaten foods such as tomatoes and grapes.

¹ <http://www.foodstandards.gov.au/consumer/foodtech/irradiation/Pages/default.aspx>

Outside of a few trials, very little irradiated food has been marketed in Australia. New Zealand has received some irradiated produce from Australia, though this is still in niche markets and has not been broadly experienced. The issue of irradiation and labelling, however, have been newsworthy in New Zealand as irradiated Australian produce has the potential to be competition for locally grown non-irradiated items.

Overall, Australians and New Zealanders are unaware of the process of irradiation, and when made aware express concern. It is also clear that Australians and New Zealanders expect products produced using “new” technologies to be labelled. Irradiation is new to most of the public.

It must be noted, however, that in the 1980s, Australian opposition to food irradiation was so strong and publicly acknowledged that a 10- year moratorium was placed on the process in 1989. In 1999, with little public awareness, the moratorium was lifted with plans to construct Australia’s first specifically food- related irradiation facility soon revealed. This facility, at Narangba/Deception Bay – 25 minutes north of Brisbane, is now operating, irradiating food and other commercial items.

Safety cannot be presumed: While our main objective here is to ensure that the public have access to information and choice via accurate information, we must point out that the notion of “safety” is a marketing tool, rather than as a fact.

“Safety” is unsubstantiated. Indeed, FSANZ’s own literature points to the lack of quantified research in to consumption patterns. In a 2014, report FSANZ stated:

"The USA is the second greatest user of food irradiation by volume after China. No consumption data are available, but the amounts sold into the retail trade are known approximately. As the foods have been retailed for several years in a few thousand retail outlets (Eustace & Bruhn 2006), it may be presumed that retailers are actually selling most of the product." (A1092 SD1 page3)

It is farcical to state that irradiation is safe – or has been proven safe – when no data of consumption patterns is available. Safety cannot be "presumed." With "no consumption data available" a scientific statement as to the safe consumption -let alone the safe consumption for over 30 years - is unprovable - and unacceptable. It is a marketing tool, not a scientific fact – and should not used as a premise for assessment of irradiation applications or as a rationale for removing labelling.

Cat food irradiation banned in Australia after cats developed neurological disorder:

The Animal Biosecurity Branch of the Commonwealth Department of Agriculture confirms that: “In 2008-9, 87 cats in Australia were reported to have developed severe neurological disease (chronic leucoencephalomyelopathy) associated with eating an imported, irradiated dry pet food. ... The department ... concluded that there was a reasonable body of evidence that gamma irradiation, applied as an adjunct quarantine treatment of pet food, was a contributing factor to the disease syndrome. A cause of great distress to the cat owners was the fact that laboratory research proving the potential for this impact existed but had been disregarded at the time by the parties involved. In its latest irradiation literature review, the European Food Safety Authority (ESFA) has not ruled out the potential significance to humans.

The irradiation of cat food is now prohibited in Australia and dog food requires irradiation labelling. To have less or no guidelines for labelling of foods for human consumption is incomprehensible and certainly deceptive to shoppers who are aware of the cat and dog food threat.

Recent science around allergenicity:

A recent study shows that smaller irradiation dosages (~1 Gy) can render protein more allergenic than either non-irradiated protein, or protein irradiated at a higher dosage. This is an ignored but potential emerging food safety risk associated with irradiation. Vaz, A.F., et al., *Low-dose gamma irradiation of food protein*

increases its allergenicity in a chronic oral challenge. Food Chem Toxicol., 2012. 51C: p. 46-52-doi: 10.1016/j.fct.2012.09.011.

With limited history in our diet, and no long-term studies conducted, the potential impact of consuming irradiated food cannot be accurately assessed. Ultimately, however, “safety” of the process does not extinguish the public’s right to know about it or necessarily negate public concern. The public expects to be informed when a food has undergone processing and FSANZ has a responsibility to administer that. The current rules on irradiated food labelling should, therefore, be maintained and strengthened.

5. Removal of labelling will disadvantage non-irradiating producers and people who choose to eat irradiation-free.

Producers of non-irradiated foods should not have to bear the potential costs of differentiating themselves from irradiated foods, nor should they be forced to face the potential loss of market due to shopper inability to distinguish irradiated food from non. Irradiation labelling should be improved to include the labelling of individual fruit and vegetables.

New Zealand has a substantial tomato industry – Australia primarily filling an off-season gap. New Zealand tomato growers are keen to ensure that New Zealand shoppers can differentiate between irradiated Australian and non-irradiated local tomatoes.

The Tomatoes NZ chairman Alasdair MacLeod stated "We are demanding compulsory labelling on all irradiated produce, loose or otherwise, be clear and enforced, so that Kiwi consumers can make an informed decision between Australian irradiated tomatoes and New Zealand tomatoes."²

Furthermore, labelling is correctly listed by Food Standards Australia New Zealand as the only method by which shoppers will know if food has been irradiated:

“How can I tell if food has been irradiated?”

A food that has been irradiated, or food that contains irradiated ingredients or components, must be labelled with a statement that the food, ingredients or components have been treated with ionising radiation.

If the food is not normally required to be labelled, then the mandatory labelling statement must be displayed close to the food. This would apply to foods such as:

- whole fruit and vegetables sold loose by supermarkets
- a take away pizza with an irradiated herb as an ingredient.

The radura symbol (below) may be used in addition to the mandatory labelling.”³

² <http://www.stuff.co.nz/business/farming/cropping/8618860/Fears-over-treated-Aussie-tomatoes> Fears over treated Aussie tomatoes, Pryor, Nicole 01/05/2013

³ <http://www.foodstandards.gov.au/consumer/foodtech/irradiation/Pages/default.aspx>

So far, all irradiation approvals in Australia and New Zealand have been made with the premise and promise that irradiated food will be labelled. Labelling is the status quo and expected. To remove labelling is to deny the public any access to informed choice and is unconscionable.

6. FSANZ and food producers are aware of shopper resistance to irradiated food.

At a 2012 Horticulture Australia Limited (HAL) Forum in Sydney, Paul Harker, head of produce, Woolworths, said the industry needed a united voice on the subject before it proceeds...

"It's going to be an extremely emotional product and we are not going to stand alone trying to convince Australian consumers that there is nothing wrong with irradiation," Mr. Harker said.

"We've communicated that back to industry and we said unless there is a concerted campaign that is led not only by the people peddling irradiation as an alternative, but unless the government and everyone else is involved in actually talking to the customer about it, the last thing I am going to do is plonk it on my shelf because I can tell you that fresh produce sales will die. People won't shop there." (our emphasis) ⁴

In its review document, FSANZ and the Ministerial Council clearly link labelling to the low "uptake" of irradiation foods. (Labelling Review consultation document, p5). They also know that people want irradiation food to be labelled – see #3 above.

Labelling should not be removed in order to mislead people into buying irradiated food

7. Removing labelling to boost sales of irradiated food would be deceitful.

In its review document, FSANZ and the Ministerial Council clearly link labelling to the low "uptake" of irradiation foods. (p5). They also know that people want irradiation food to be labelled – see #3 above.

Removing labelling would be misleading: Labelling is vital and the removal of labels and signage from irradiated fruits and vegetables would create circumstances in which Australian and New Zealand shoppers would be led to the false, misleading and deceptive conclusion that irradiated fruits and vegetables are fresh produce.

Labelling should not be removed in order to mislead people into buying irradiated food.

8. Australian & New Zealand labelling requirements already fall short of global standards.

Global standards – such as the CODEX guidelines - require irradiated food to be labelled. In fact, removing labelling would make Australia the odd-ball amongst its trading partners – and likely increase costs for food producers who would need to ensure that their export products are labelled appropriately for overseas markets.

In its consultation paper, FSANZ states:

⁴ <http://www.theland.com.au/news/agriculture/horticulture/general-news/irradiation-pros-and-cons/2665981.aspx?storypage=0>

“FSANZ has reviewed the requirements for food irradiation label information in a number of countries. Most of the countries reviewed appear to have based their requirements on the Codex Standard, although some variations occur.

For irradiated whole foods that are packaged, it is common for a mandatory statement to indicate that the food has been irradiated...

For packaged foods that contain an irradiated ingredient(s), most countries require that the ingredient(s) be identified on the label, usually in the list of ingredients...

Most countries require specific signage for unpackaged foods that have been irradiated (e.g. whole produce) and are sold in bulk...”

Furthermore, “FSANZ does not know whether other countries have previously considered, or are considering, changing or removing their food irradiation information requirements.” (All Public Consultation Paper p10)

Labelling is the norm globally and no other country is considering removal, so Australia and New Zealand should also retain their labelling requirements.

9. Labelling requirements should be strengthened to meet global standards & address community concern. At a minimum, labelling should include prescribed words: “irradiated” or “treated with irradiation”

Australia and New Zealand’s failure to meet global labelling standards:

Labelling of irradiated food is the norm with our English speaking trading partners and clearly called for in global standards as set by the international Codex Alimentarius. Non-conformity with international standards would betray Australian and New Zealand shoppers’ belief that their regulatory system is world class and reflects their needs and concerns. As it is, FSANZ’s lack of a precise, mandatory labelling regime for irradiated foods fails the public and is unprecedented amongst other English-speaking nations, USA, UK and Canada, and our trading partners.

The current labelling regulations do not:

- prescribe mandatory labelling statements,
- ensure individual labelling of irradiated products;
- or require products such as pet food and animal feed to be labelled.

If FSANZ is to live up to its mandate to provide accurate information to ensure public choice, Australia and New Zealand must improve labelling in accordance with global standards requiring at a minimum, the prescribed words:

- irradiated (name of the food),
- treated with radiation,
- or treated by irradiation

Without these improvements, there is still potential for producers to put forward misleading and deceptive claims.

10. FSANZ should not be considering regulatory changes to intentionally decrease public awareness about an issue.

The recently released FSANZ policy guideline “recognises that labelling on foods produced or processed using a new technology can be an issue of consumer interest” though not necessarily a health or safety issue. Australians and New Zealanders have clearly demonstrated concern about irradiation.

Without labels on irradiated foods, the public would be led to conclude that such foods were fresh and not irradiated. The removal of the mandatory labelling and signage requirements from irradiated fruits and vegetables would create a set of false, misleading and deceptive circumstances for shoppers in Australia and New Zealand.

Labelling is the only way to ensure that shopper rights are protected, producers of non-irradiated products are not disadvantaged by having their products indistinguishable from irradiated products (or are not forced to label “non-irradiated” or “fresh” to ensure the distinction.)

Australian and New Zealand labelling standards are already weaker than our trading counterparts and world standards. Rather than being removed, labelling should be improved to prescribe clear and accurate statements such as: “Irradiated---” or “Treated with irradiation.”

In a free market economy, the demand for irradiated products should be driven by shoppers making informed and intentional decisions to purchase such products. Irradiators who are confident that their products are wholesome, healthy and desirable should be proud to label their products irradiated and let the market play out.

With Australia and New Zealand set to dramatically increase the amount of irradiated foods available on the market and in peoples’ diets, the push to remove mandatory labelling and signage requirements is unacceptable and must be stopped.

Recommendation:

Australia and New Zealand must improve labelling in accordance with global standards. For these reasons we are calling for labelling to be improved, not removed. FSANZ must:

- Mandate prescribed wording: For accuracy purposes labelling must include the words:
 - irradiated(food name),
 - treated with radiation,
 - or
 - treated by irradiation
- Prohibit the use of the wording “Treated with Ionising Electrons”
- Mandate individual labelling of irradiated products, including fruit and the containers holding products irradiated in bulk
- Remove positive statements re the irradiation process and
- Prohibit the Radura symbol

ON LINE SURVEY RESPONSES

Food Irradiation Watch is an advocacy network that has been monitoring food irradiation in Australia and New Zealand since 2003. We work with both shoppers and food producers who choose their food to be irradiation-free. We have responded to all questions in this survey as we – and our constituents – are stakeholders or members of all identified sectors: All submitters, produce growers, food manufacturers, food service providers and general food industry.

All submitters (Q1-Q8)

1: What information (for example, studies, data or shopper feedback) can you provide on shopper awareness, understanding and behaviour, in response to labelling about food irradiation?

The Australian and New Zealand public have demonstrable, known and legitimate concerns about irradiation. In recent polling in New Zealand -where irradiated Australian produce is being marketed – 72% of respondents expressed concern.⁵

Furthermore it is clear that the public wants irradiated food to be labelled:

‘In October 2001, FSANZ commissioned qualitative research to examine Australian and New Zealand shopper understanding and use of various label elements (NFO Donovan Research 2001)... the general consensus was that even though the word was alarming and off-putting, that it should be used on packaging rather than a symbol, again because people had a right to know what has been done to their food...’

“Tomatoes NZ (the industry body that represents the fresh tomato sector) commissioned a telephone poll of 1000 New Zealand adults in April 2015 (Curia Market Research 2015). Poll participants were asked if they would like:

- the fruit and vegetables they buy that have been treated with irradiation to be clearly labelled as irradiated. (Eighty-five per cent of participants responded that they would).*
- to know if a dish they ordered in a restaurant, café or takeaways includes irradiated food. (Seventy-eight per cent of participants responded that they would). “ (Labelling Review document p14-15)*

In 1999, a broad community campaign about irradiation saw a moratorium put in place. Ten years later, that moratorium was lifted with little public awareness. Australian shoppers and their counterparts overseas – have, however, shown ongoing resistance to irradiated food which has been expressed by opposition to food irradiation applications, rejection by informed shoppers of irradiated foods on the market, community campaigns to close irradiation plants and community campaigns to support local and organic agriculture.

Recent surveys, industry reports and even media from irradiation supporters acknowledge shopper opposition or concern about the technology and point to a need for marketing strategies to gain public acceptance if the irradiated food industry is to grow. Unfortunately for the shopper, the industry sees clear and accurate labelling as a threat to, rather than a marketing strategy for, irradiated food.

⁵ http://www.nzherald.co.nz/opinion/news/article.cfm?c_id=466&objectid=10892295

Research commissioned by irradiation supporters themselves reveals little public awareness about irradiation and shopper hesitation to support it. An overview of some of the issues brought up by recent tomato and capsicum approvals appeared in The Land. It clearly articulates retailers concerns about shopper perception of irradiation- Woolworth's basically states that identifying products as irradiated will be a death-knell to their purchase.

The article reveals market research into inaccurate or deceptive statements such as "cold sterilisation" which would make irradiation more palatable to the shopper. Ultimately, "The survey results showed that even when informed, irradiation was not the preferred treatment method among shoppers. Some of the key points follow:

"In the eyes of the public

- Perhaps the biggest battle facing the further implementation of fresh produce irradiation is public awareness.
- Retailers have expressed concern over public resistance to the very term 'irradiation' and a shopper backlash against them.
- When questioned about the company's position at the Horticulture Australia Limited (HAL) November 2012 Forum in Sydney, Paul Harker, head of produce, Woolworths said the industry needed a united voice on the subject before it proceeds.
- "It's going to be an extremely emotional product and we are not going to stand alone trying to convince Australian shoppers that there is nothing wrong with irradiation," Mr. Harker said.
- **"We've communicated that back to industry and we said unless there is a concerted campaign that is led not only by the people peddling irradiation as an alternative, but unless the government and everyone else is involved in actually talking to the customer about it, the last thing I am going to do is plonk it on my shelf because I can tell you that fresh produce sales will die. People won't shop there."**⁶ (our emphasis)

The industry is aware that people have an aversion to irradiated food. We know that our members and would not knowingly purchase irradiated food. We therefore support mandatory labelling of irradiated food.

Our understanding from decades of anecdotal evidence is that older people in our community – who are aware of irradiation – believe that food irradiation was stopped in the late 1980s and that irradiated food should not be on the Australian market. There is no evidence that community sentiment has changed. We expect that most people still choose not to eat irradiated foods if given the choice. The fact that irradiation was previously banned in Australia – and that in 2003 the Senate passed a motion for no further irradiation approvals, is testament to community opposition.

The fact that 87-100 Australian cats developed neurological disorders attributed to consuming irradiated pet food shows that irradiation has a chequered history in Australia. The irradiation of cat food is banned – and dog food must be labelled that it is "not fit for consumption by cats." AQIS Industry Notice 33/2009: Changes to Import Conditions for Pet Foods – Updates to Notices 33/2008-09 and 7/2009'(see Enclosure 11).

All food irradiation approvals to date have been premised on the assertion that all irradiated foods will be labelled. FSANZ and state health department publications inform the public that the way to tell if food is irradiated is through its mandatory labelling. Some examples follow:

⁶ <http://www.theland.com.au/news/agriculture/horticulture/general-news/irradiation-pros-and-cons/2665981.aspx?storypage=0>

FSANZ: “How can I tell if food has been irradiated?

A food that has been irradiated, or food that contains irradiated ingredients or components, must be labelled with a statement that the food, ingredients or components have been treated with ionising radiation.”⁷

Victoria: “It is mandatory for irradiated foods to be labelled in accordance with regulations by FSANZ.”⁸

Queensland Health: “How will I know if the food I eat is irradiated?

The labelling on a package of irradiated food must include a statement to the effect that the irradiated food has been treated with ionising radiation...”⁹

Labelling is the public’s expectation and, to date, the government’s undertaking. It would be disingenuous to remove labelling that has been so clearly identified as part of the approval and commercialisation process.

2. Do you purchase, or would you consider purchasing, irradiated food?

The people in our networks choose to eat non-irradiated food – or at a minimum want to be able to make the choice as to whether or not they purchase irradiated food. It is not FSANZ’s role to assess a market for a certain commodity – such as irradiated food - but to ensure that that commodity is safe and that the public has access to necessary information to make informed choices about it. It is of great concern that the regulator appears in this process to be unjustifiably concerned with facilitating the marketing of irradiated food, knowing that the public has reservations about the process. It is clear that labelling is seen as an impediment to the “uptake” of the technology, that FSANZ shares this analysis with the pro-irradiation food industry, and that removal of labelling is seen as a way to increase the market for irradiated food. It is also clear that both FSANZ and pro-irradiation industry are aware that the public has reservations about irradiation food and wants it to be labelled. It is duplicitous – and inappropriate for the regulator to work with industry to deny the public information that they clearly demand, in particular when labelling is the norm globally and called for by international food standards.

3. Does the current labelling requirement for irradiated food (see box below) provide enough information for you to make an informed choice about the food you buy?

Labelling requirement: If the food, ingredient or component of a food has, been irradiated, a statement to the effect that the food, ingredient or, component has been treated with ionising radiation is required.

Precise mandatory labelling is necessary – AND the wording of that labelling needs to be prescribed to include: either the words: “irradiated” or “treated with radiation/irradiation”.

Current labelling requirements are inadequate, leaving the shopper guessing. Though there is "mandatory" labelling, it remains hard to tell if something has been irradiated. These reasons for this are:

- 1) The laws allow "labelling" to be a SIGN placed near point of sale - rather than actual individual stickers or labels. So one needs to look up and around to see if there are any "statements" "to the effect of" the product having been irradiated NEAR the product as it may not be ON the product.

⁷ <http://www.foodstandards.gov.au/shopper/foodtech/irradiation/Pages/default.aspx>

⁸ <https://www.betterhealth.vic.gov.au/health/healthyliving/food-irradiation>

⁹ <https://www.health.qld.gov.au/publications/portal/food-safety-hazardous/food-irradiation.doc>

While this practice is legal, it is our understanding that people understand “Labelling” to mean something that is affixed to a product or written on the package.

Indeed, according to the Cambridge English Dictionary, 1990, a “label” is *“a slip of paper, &c., affixed to something stating name, contents &c.”*

A sign nearby is not what would commonly be understood as a label. Communicating to the public that irradiated food is labelled and then only requiring a sign nearby is misleading.

In 2006, Australian irradiated mangoes imported into New Zealand, were removed from a labelled carton and sold without any labelling or signage. This case was exposed simply because a person who saw the mangoes for sale was an environmental and shopper advocate who knew that Australian mangoes sold in New Zealand were irradiated. This coincidental discovery of an infraction of labelling regulations begs the question “how many other such cases are there that are not being monitored?”

In fact, in 2011, Senator Scott Ludlam (WA) brought the issue to the attention of the Australian Senate with an unlabelled packet of spice mix purchased in an Australian store. Disciplinary action was then followed up by the Victorian Health Department.

While the EU conducts regular checks into irradiation and labelling, we are not aware of any checks being conducted by FSANZ. In light of the lack of regulatory follow-up, a regulation that allows products to go unlabelled is begging to be breached! Comprehensive and mandatory individual labelling would alleviate this problem and would provide the public with the assurance that when FSANZ says a product is labelled, it is actually labelled and that an unlabelled product is, in fact, not irradiated.

We would, therefore, like to see all irradiated produce individually labelled and products with irradiated ingredients labelled accordingly.

- 2) The current labelling requirements in Australia and New Zealand do not require prescribed wording. A labelling statement to the ***“effect that the food, ingredient or, component has been treated with ionising radiation”*** may not even include the words radiation or irradiation.

The phrase “Treated with ionising electrons” has been removed as an example in the Code, however it is still permissible as a labelling statement as these are left to the industry’s discretion. FSANZ has agreed that the term “ionising electrons” is difficult to understand in its use of unfamiliar terms, does not indicate to the general public the use of radiation, and depending on the type of radiation used is technically inaccurate. Australian irradiation facilities use gamma radiation. Gamma radiation bombards the exposed product with high energy electromagnetic radiation and does not consist of electrons. X-ray irradiation, which is also permitted in Australia, is also high energy electromagnetic radiation.

For these reasons we are calling for labelling to be improved, not removed. To ensure that the public has the right to choose, we also call on FSANZ to:

- Mandate prescribed wording: For accuracy purposes labelling must include the words: irradiation or treated with ionising radiation. (as above)
- Prohibit the use of the wording “Treated with Ionising Electrons”
- Mandate individual labelling of irradiated products, including fruit and the containers holding products irradiated in bulk
- Remove positive statements re the irradiation process and
- Prohibit the Radura symbol

4. What are your views about the wording of the statement not being prescribed?

It is imperative that the words be prescribed to state either: “irradiated” “treated with radiation/irradiation”. We are aware that irradiation proponents have used misleading or unfamiliar terms on their labelling – such as “radurised” or “treated with ionising electrons” which confuse the public. We are also aware that proponents frequently attempt to use the terms “cold pasteurisation” or suggest that irradiation is similar to pasteurisation, which is also both scientifically inaccurate and misleading. The Radura mark should not be used as it is deceptive. It suggests a budding flower when in fact irradiation stops flowers/plants from sprouting. Furthermore, “positive” statements should not be permitted on irradiation labelling unless statements about potential allergenicity or nutritional compromise be included.

5. What are your views about the voluntary use of the Radura symbol?

The Radura symbol should be prohibited as it is misleading and unfamiliar to most people.

The Radura symbol permitted, but not required, on irradiated products in Australia, has clearly been designed to lead the public to believe that the process is “clean and green”. The design consists of a plant inside a circle, which is dashed on the top, reported to represent radiation. The form suggests a budding flower when in fact irradiation stops flowers/plants from sprouting. There are two commonly used versions of this symbol, (below) the international version and the version required on irradiated food in the US. The Radura symbol is strikingly similar to the US Environmental Protection Agency logo and bears no resemblance to the commonly used and easily recognizable symbol for radiation. (also below)



The international Radura mark



US FDA Radura mark



US Environmental Protection Agency logo



Radiation symbol



New Int'l Atomic Energy Agency sign warning re ionizing radiation

The original intention of the Radura mark is reported to have been to represent a high quality product that had a long shelf life. “The word “Radura” is derived from radurization, in itself an artificial word combining the initial letters of the word “radiation” with the stem of “durus”, the Latin word for hard, lasting. (http://en.wikipedia.org/wiki/File:Radura_international.svg)

The Radura was originally used in the 1960s exclusively by a pilot plant for food irradiation in Wageningen, Netherlands that owned the copyright. Jan Leemhorst, then president of Gammaster, untiringly propagated the use of this logo internationally. The use of the logo was permitted to everybody adhering to the same rules of quality. The symbol was also widely used by Atomic Energy of South Africa, including the labelling by

the term 'radurized' instead of irradiated. By his intervention, the new logo was also included in the Codex Alimentarius Standard on irradiated food as an option to label irradiated food. Today it is found in the Codex Alimentarius Standard on Labelling of Prepacked Food.

It is clear that irradiation proponents developed, designed and promoted this logo with the intention of making irradiation seem attractive to shoppers and removing any recognizable reference to radiation in the process.

Recent research shows that shoppers are inclined to accept products irradiated with the Radura symbol, despite having little knowledge of the irradiation process.

"In Chile the "Radura" symbol is not frequently present on food labels. The irradiation treatment is normally identified by the statement "tratado por energía ionizante" (treated by ionizing energy); 95.8% of the responders in the present study were not familiar with this symbol for irradiated food. However, 55.8% said that they would buy irradiated food because of the symbol, affirming that the "Radura" transmits the sensation of confidence and safety.

*The association of the symbol "Radura" with the statement "treated by ionizing energy" might facilitate the shopper's acceptance of irradiated food in Chile since most of the interviewed persons affirmed that the symbol means confidence and safety. A similar situation exists probably in many other countries."*¹⁰

While the logo denotes a plant, and is usually green in colour suggesting life or freshness, the purpose of irradiation is to use radiation to extend the shelf life – allowing irradiated products to appear fresh though they are not. Irradiation does not clean a product or remove contaminants, such as animal faeces in poorly produced herbs or on hastily slaughtered beef, it simply acts to neutralize or mask these contaminants.

The reality of the process is far removed from the image suggested by the logo.

The logo is suggested by irradiation proponents as a means to encourage consumption of irradiated products – in this sense it is a marketing tool. We call on the FSANZ to actively ban its use and ensure that this logo will not be permitted on packaging or products in Australia or NZ.

6. Do you think the current labelling requirement for all foods permitted to be irradiated should be removed?

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The current labelling requirements have been put in place to inform the Australian and New Zealand public about the unfamiliar and food-altering process of irradiation.

All irradiation approvals in Australia and New Zealand have been made with the premise and promise that irradiated food will be labelled. Labelling is the status quo and expected. To remove labelling would be a breach of faith and misleading to the public.

To remove labelling is to deny the public any access to informed choice and is unconscionable.

¹⁰ (Junqueira-Gonçalves, Maria P., Galottoa, Maria J., Valenzuelaa, Ximena, Dintenb, Carolina M, Aguirrec, Paulina, Miltzd, Joseph, "Perception and view of shoppers on food irradiation and the Radura symbol" Radiation Physics and Chemistry, Volume 80, Issue 1, January 2011, Pages 119–122 4 June 2010)

It is clear that industry would like to have labelling removed in order to increase shopper acceptance of irradiated food – by keeping public unaware that a product has been irradiated.

Without labelling, Irradiated fruits would be marketed as “fresh” despite being exposed to 150Gy - 1kGy of ionising radiation, which is equivalent to approximately: 1.5 million – 10 million chest x-rays per exposure. Irradiation decreases the vitamin and nutritional content of food and disrupts its molecular structure, producing free radicals and potentially harmful chemicals such as benzene, formaldehyde and cyclobutanones.

We are outraged that the food regulator and government Health Departments would remove the public’s right to know about a process which chemically alters our food – and is not discernible to the senses. Governments would make people LESS aware about processes of food production to give unfair advantage to just one of the many methods of fruit fly worm management.

The government has a duty of care to ensure the public is informed about the products of processes about which:

- people have well-founded and genuine concerns
- scientists and nutritionists are divided
- there is no means of sensory identification, except for labelling.

Global standards – such as the CODEX guidelines - require irradiated food to be labelled. In fact, removing labelling would make Australia the odd-ball amongst its trading partners – and likely increase costs for food producers who would need to ensure that their export products are labelled appropriately for overseas markets.

Labelling is the global norm. Australia and New Zealand should be strengthening labelling, not removing it. In the consultation paper, FSANZ states:

- “FSANZ has reviewed the requirements for food irradiation label information in a number of countries. Most of the countries reviewed appear to have based their requirements on the Codex Standard, although some variations occur.
- For irradiated whole foods that are packaged, it is common for a mandatory statement to indicate that the food has been irradiated...
- For packaged foods that contain an irradiated ingredient(s), most countries require that the ingredient(s) be identified on the label, usually in the list of ingredients...
- Most countries require specific signage for unpackaged foods that have been irradiated (e.g. whole produce) and are sold in bulk....”
- Furthermore, “FSANZ does not know whether other countries have previously considered, or are considering, changing or removing their food irradiation information requirements.”
(All from FSANZ Public Consultation Paper p10)

6. If labelling was to continue for irradiated whole foods, do you think restaurant meals containing irradiated ingredients should still be labelled?

Yes, all irradiated foods should be labelled. The public should be informed of any and all irradiated components.

7. If labelling was to continue for packaged foods containing irradiated ingredients, do you think the irradiated ingredients should still be labelled?

All irradiated foods should be labelled. The public should be informed of any and all irradiated components. All of Australia's irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be a breach of faith and misleading to the public

Produce growers:

9. Does the mandatory labelling requirement prevent you from using irradiation as a treatment for your produce? Please provide reasons for your answers.

We work with both shoppers and food producers who choose their food to be irradiation-free.

From a shopper's perspective, if producers are not using a process because they have to label it, it is clear that they are concerned about shopper resistance to irradiation – or they are wrongly claiming that labelling costs are prohibitive. We choose to support growers who choose to not irradiate. These growers and producers would be disadvantaged by the removal of labelling. To distinguish their products from irradiated products they would be forced to bear the costs of identifying their fresh produce as "fresh" or non-irradiated, while irradiated, and therefore technically processed foods, go unlabelled.

We have great concerns about any process that food producers feel they need to hide from shoppers. It is trickery to remove labelling to get people to purchase irradiated food. If the process is positive, useful and healthy, producers should be proud to label their irradiated products – and let the market decide.

Furthermore, resistance to labelling ascribed to "costs" must be discounted as 1) Labelling is the status quo and expected 2) current labelling regulations require only signage nearby the product at point of sale meaning the producer bears little or no cost this messaging. 3) As labelling is the norm, removing labelling for the Australia/New Zealand market would require food manufacturers to produce separate labels for their export products – in fact increasing costs. Most countries require labelling – Australian food producers should be falling in line with global standards.

Producers of non-irradiated foods should not have to bear the potential costs of differentiating themselves from irradiated foods. New Zealand has a substantial tomato industry – Australia primarily filling an off-season gap. New Zealand tomato growers are keen to ensure that New Zealand shoppers can differentiate between irradiated Australian and non-irradiated local tomatoes.

The Tomatoes NZ chairman Alasdair MacLeod stated "We are demanding compulsory labelling on all irradiated produce, loose or otherwise, be clear and enforced, so that Kiwi shoppers can make an informed decision between Australian irradiated tomatoes and New Zealand tomatoes."¹¹

Finally, it is not FSANZ's role to support the growth of the irradiated food industry. FSANZ is mandated to protect the public through ensuring a safe food supply. Supporting industry to develop the irradiated food market is beyond FSANZ's scope – and inappropriate.

Food manufacturers:

10. Do you use irradiated ingredients in your products? (For example, tomato paste, herbs & spices).

¹¹ <http://www.stuff.co.nz/business/farming/cropping/8618860/Fears-over-treated-Aussie-tomatoes>
Fears over treated Aussie tomatoes, Pryor, Nicole 01/05/2013

Our associates prefer to avoid irradiated ingredients. We are aware from our research that in some cases, due to inadequate testing by the government, it is difficult for food producers to monitor the entire supply chain. We call on the government to carry out regular testing/monitoring to support food producers who wish to provide irradiation-free food. This testing/monitoring should be supported by irradiation proponents who should wish the public to be informed about irradiated products.

11. Does the fact that irradiated foods have to be labelled impact on your decision to use them?

Our associates prefer to avoid irradiation. They also label within the framework of the law – though some have already begun to label their products “irradiation-free.”

From a shopper’s perspective, if producers are not using a process because they have to label it, it is clear that they are concerned about shopper resistance to irradiation – or they are wrongly claiming that labelling costs are prohibitive.

We are great concerns about any process that food producers feel they need to hide from shoppers. It is trickery to remove labelling to get people to purchase irradiated food. If the process is positive, useful and healthy producers should be proud to label their irradiated products – and let the market decide.

Furthermore, resistance to labelling ascribed to “costs” must be discounted as 1) Labelling is the status quo and expected 2) for bulk products current labelling regulations require only signage nearby the product at point of sale meaning the producer bears little or no cost this messaging. 3) As labelling is the norm, removing labelling for the Australia/New Zealand market would require food manufacturers to produce separate labels for their export products – in fact increasing costs. Most countries require labelling – Australian food producers should be falling in line with global standards.

Some producers already choose to label their products “irradiation-free”. However, producers of non-irradiated foods should not have to bear the potential costs of differentiating themselves from irradiated foods. As mentioned above: New Zealand has a substantial tomato industry – Australia primarily filling an off-season gap. New Zealand tomato growers are keen to ensure that New Zealand shoppers can differentiate between irradiated Australian and non-irradiated local tomatoes.

The Tomatoes NZ chairman Alasdair MacLeod stated "We are demanding compulsory labelling on all irradiated produce, loose or otherwise, be clear and enforced, so that Kiwi shoppers can make an informed decision between Australian irradiated tomatoes and New Zealand tomatoes." ¹²

Finally, it is not FSANZ’s role to support the growth of the irradiated food industry. FSANZ is mandated to protect the public through ensuring a safe food supply. Supporting industry to develop the irradiated food market is beyond FSANZ’s scope – and inappropriate.

12. How important is the labelling factor alongside other factors? (For example, price, availability of ingredients, quality of produce, reputation of supplier).

We understand the need to label irradiated products from both a shopper and producer point of view. Our associates prefer to avoid irradiated ingredients and wish to see mandatory labelling continue. Labelling is the status quo and food producers using irradiation should see labelling as an opportunity to inform the public about their products. We are concerned that irradiated foods remain labelled because our industry constituents choose NOT to irradiate or sell irradiated foods. Removing the labelling requirement would

¹² <http://www.stuff.co.nz/business/farming/cropping/8618860/Fears-over-treated-Aussie-tomatoes>
Fears over treated Aussie tomatoes, Pryor, Nicole 01/05/2013

mean that our associates' non-irradiated products are not distinguishable from irradiated products. This would disadvantage them, would make the market place less competitive and unfairly place the cost and onus upon them to distinguish themselves from irradiated products.

13. If the mandatory labelling requirement was removed for irradiated ingredients used in processed foods, would your company be more likely to use irradiated ingredients?

Both the shoppers and food producers in our networks choose their food to be irradiation-free. Our associates prefer to avoid irradiated ingredients and wish to see mandatory labelling continue to ensure their products are to the standard they expect.

Our industry associates choose not to irradiate due to their concerns about irradiation and/or their understanding that shoppers do not want to eat irradiated foods. They would not like to be perceived as so unscrupulous that they would trick the public in to purchasing an irradiated product by not labelling it.

Food service providers:

14. Do you use irradiated whole foods in your products? (For example, irradiated tomatoes in sandwiches).

The food service providers and others in our networks choose their food products to be irradiation-free. Our associates prefer to avoid irradiated ingredients and wish to see mandatory labelling continue.

15. If the mandatory labelling requirement was removed for irradiated whole foods, would you still ask suppliers to label the food?

Our stakeholders in this matter choose their food to be irradiation-free. We expect food companies to have the integrity to honour the public's real and legitimate concerns about irradiation and therefore expect them to inform all levels of food manufacturing and marketing to use labelling to keep the public and supply chain informed. We understand that companies generally choose to label in accordance with the law and that it would, therefore, be hard to compel them to label without mandatory labelling. Non-labelling could severely disadvantage food producers that choose to avoid irradiated ingredients and fail to let the real market play out.

All of Australia's irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would cause us to play a part in a gross deception of the public and damage our reputation and reliability.

All industry submitters

16. Have you conducted any shopper research or received shopper enquiries about irradiated food? If so, are you able to provide the research to FSANZ?

Food Irradiation Watch has conducted both industry and shopper research on irradiated food. In 2005, after surveying 1000 Australian food producers, we published Irradiation-Free Food Guide, which was slightly updated in 2007. With virtually no budget, by word of mouth promotion through individual and on-line orders, over 25,000 copies of this Guide were distributed. FI Watch continues to receive enquiries from concerned shoppers of both human and pet food – as well as shoppers and distributors of therapeutic goods.

Public consultation on food irradiation applications has also shown the responding public to be overwhelmingly opposed. For example, in the final round of public consultation on the irradiation of tropical fruit, 675 submissions were made against the proposal. There were only 16 in favour. The application was still approved.

The fact that irradiation was banned in Australia – and that in 2003 the Senate passed a motion for no further irradiation approvals is testament to community opposition.

Furthermore, the fact that 87-100 Australian cats developed neurological disorders attributed to consuming irradiated food, which led to the banning of the irradiation of cat food is banned – and the labelling of irradiated dog food - suggests that irradiation has a chequered history in Australia.

Research commissioned by irradiation reveals little public awareness about irradiation and shopper's desire to be informed through labelling. FSANZ's consultation papers confirm this.

In recent polling in New Zealand - where irradiated Australian produce is being marketed – 72% of respondents expressed concern.¹³

‘In October 2001, FSANZ commissioned qualitative research to examine Australian and New Zealand shopper understanding and use of various label elements (NFO Donovan Research 2001)... the general consensus was that even though the word was alarming and off-putting, that it should be used on packaging rather than a symbol, again because people had a right to know what has been done to their food...’

“Tomatoes NZ (the industry body that represents the fresh tomato sector) commissioned a telephone poll of 1000 New Zealand adults in April 2015 (Curia Market Research 2015). Poll participants were asked if they would like:

- the fruit and vegetables they buy that have been treated with irradiation to be clearly labelled as irradiated. (Eighty-five per cent of participants responded that they would).*
- to know if a dish they ordered in a restaurant, café or takeaways includes irradiated food. (Seventy-eight per cent of participants responded that they would).” (FSANZ Review document p14-15)*

It is also clear that industry is wary of selling irradiated food:

At a 2012 Horticulture Australia Limited (HAL) Forum in Sydney, Paul Harker, head of produce, Woolworths said the industry needed a united voice on the subject before it proceeds...

“It’s going to be an extremely emotional product and we are not going to stand alone trying to convince Australian shoppers that there is nothing wrong with irradiation,” Mr. Harker said.

“We’ve communicated that back to industry and we said unless there is a concerted campaign that is led not only by the people peddling irradiation as an alternative, but unless the government and everyone else is involved in actually talking to the customer about it, the last thing I am going to do is plonk it on my shelf because I can tell you that fresh produce sales will die. People won’t shop there.”

¹³ http://www.nzherald.co.nz/opinion/news/article.cfm?c_id=466&objectid=10892295

(our emphasis)¹⁴

Australian and New Zealand shoppers' knowledge of and attitudes towards irradiation:

Over the past 30 years, Australians have shown considerable opposition to food irradiation. In the 1980s there was a huge movement against food irradiation in Australia and worldwide. International shoppers' conventions in Europe and Australia called for a moratorium on food irradiation. Politicians came on board the campaign and in Australia; a Public Inquiry into irradiation saw the participation of all major environmental organizations, including Australian Conservation Foundation, Greenpeace, Friends of the Earth Australia as well as shoppers' organisations and women's organisations.

"In 1987, the Australian Shopper's Association joined with all the major national and international shopper bodies in voting for a worldwide moratorium..." Records show that thousands of Australians signed petitions opposing food – making it a stand-out issue during its time.

A moratorium was put on the practice in 1989. This moratorium was lifted without much public awareness in 1999, coincidentally within weeks the Caboolture Shire Council gave approval for the building of a nuclear irradiation plant at Deception Bay.

It is our understanding that most young Australians are unaware of food irradiation and that older Australians who were aware of the issue believe that the practice was finally stopped in 1989.

Between 1999 and 2003, a campaign was waged against a nuclear irradiation facility in Queensland and the first-ever application to irradiate food in Australia – Application A413 by the irradiation company Steritech for herbs. Again, thousands of petitioners petitioned both the state and federal governments on these issues and many made submissions against the application. In 2003, a further application, A443 for the Irradiation of tropical fruits, saw an overwhelming majority of submissions opposing the application 675 in against, 16 in favour- the application was nonetheless approved.

As a testament to the political understanding that the broader community does not support food irradiation in August 2003, the Australian Senate passed a motion calling for the Australian government to commission further research and disallowing further irradiation approvals until such research had been done. (chamber/journals/2003-08-14/0010). The motion passed with the support of the Labor Party, the Greens and the Democrats.

There is no evidence that Australians' attitudes towards irradiation have changed since the strong demonstrations of public opposition in the 1980's and early 2000s.

Food Irradiation Watch speaks with people from all walks of life who are alarmed by the prospects of food irradiation. In 2005, FI Watch surveyed 1000 Australian food companies on their food irradiation policies, attitudes and practices. The research enabled us to produce the Irradiation-free Food Guide, which was reprinted with slight changes in 2007. Though FI Watch has been fairly inactive since 2008, the Food Irradiation Watch website and Irradiation-Free Food Guide continue to be popular. To date, approximately 25,000 hard copies of the Guide have been distributed.

We continue to receive requests for information and/or our Irradiation-free Food Guide. Since the Guide's original publication, several major food producers have developed irradiation-free policies, which we understand is due to shoppers concern about this issue expressed through their contacting the companies.

¹⁴ <http://www.theland.com.au/news/agriculture/horticulture/general-news/irradiation-pros-and-cons/2665981.aspx?storypage=0>

The research that has been done in Australia and overseas consistently indicates shopper resistance to the technology.

In December 2001 the report: Qualitative Research with Shoppers – Food Labelling Issues, produced for FSANZ (then ANZFA) found that:

“There was even less awareness and more misunderstanding about irradiated foods [than Genetically Modified foods.] The word ‘irradiation’ is almost synonymous with ‘radiation’ [also connoting ‘nuclear’] (their brackets) and is consequently suspected to be unsafe or bad for you.

Much would need to be done by ANZFA to educate people about exactly what irradiation means, how irradiated foods compare safety-wise and nutritionally to similar products preserved in other ways, and what the potential benefits are before it would be acceptable to shoppers at large.” (Donovan Research for ANZFA, Qualitative Research with Consumers – Food Labelling Issues 2001, p 15)

Despite the apparent research bias towards promoting irradiation, the researchers found that there is little shopper acceptance of the technology.

The same research found that Australian shoppers believe that:

- they have the right to access to information about their food and
- that the government will facilitate that right.

This was demonstrated by the fact that:

“Consumers expressed an absolute right to know about any GMOs included in any products...”

Consumers, also, expected all genetically modified food to be labelled as such. (Donovan Research for ANZFA, Qualitative Research with Consumers – Food Labelling Issues 2001, p 15)

“It was generally thought by most people that even if a product was not specifically labelled as 'GMO-free' it would not be genetically modified. That is, they would expect any product that contained genetically modified organisms to be clearly labelled that this was the case.” (Donovan Research for ANZFA, Qualitative Research with Consumers – Food Labelling Issues 2001, p 15)

Overall, shoppers expressed general concern about the food supply and regulation and suggested that they trust their government to inform them about products and to label products clearly.

“The concern over the use of GM illustrates the level of general apprehension about the food supply and the perceived importance of maintaining stringent control over it...” (Donovan Research for ANZFA, Qualitative Research with Consumers – Food Labelling Issues 2001, p 60)

However, “There is an over-riding belief that the food system in Australia and New Zealand is safe, and this sense of trust is extended to food labels. People generally have faith that the labels will be fairly accurate and reliable - as long as the governing body continues to check the products to ensure compliance. In this way there is a belief in 'good' governance.” (Donovan Research for ANZFA, Qualitative Research with Consumers – Food Labelling Issues 2001, p 16)

This research has great significance for FSANZ when considering labelling regulations and, in particular, proposals to remove or lessen labelling requirements.

Shoppers' reported concerns over irradiation must be met with access to comprehensive and accurate information about the process to ensure that FSANZ lives up to its mandate to enable shoppers' rights to choose. We can extrapolate from this research that if a product is not labelled as irradiated then the public will assume that it is not.

Incidences such as the illness of Australian cats after eating irradiated food has highlighted an area of ongoing concern for FI Watch and the public: the lack of understanding that many products consumed by Australians and New Zealanders are not labelled as they are not legally "food" under Australian and New Zealand law.

It is the case in Australia that one company's irradiated herbal teas and irradiated "therapeutic quality" herbal teas are similarly packaged, and sit side by side or near each other, on shelves in stores. The packaging of the tea regulated as food contains a statement re irradiation, the packaging of the tea regulated as therapeutic goods does not. The average shopper has no way to ascertain that the "therapeutic quality" teas may also be irradiated – nor can they be expected to.

As a result of ten years work culminating in the distribution of 25,000 shopper guides on the issue, is our opinion that shoppers are not aware that products they consume may fall under different regulatory regimes and therefore have different labelling requirements.

Shoppers are unaware of the "food-drug interface", and have no obvious means by which to assess that products which may be marketed in one store may fall under differing regulatory bodies and therefore have no labelling requirement. The average shopper has no way of knowing that some fall under the "food" regulatory regime – while others fall under the therapeutic or veterinary regulatory systems and consequently do not require labelling. This is a grave failure of the regulatory system.

When conducting its Review of Food Labelling Law and Policy Review, the government acknowledged an "optimism bias whereby shoppers assume that unmentioned factors are favourable."

Coupled with "optimism bias" felt by Australian shoppers, the current flawed labelling regimen leads shoppers to believe that products which are not labelled "irradiated", are not irradiated.

Australian cat owners whose cats were disabled by eating irradiated food were shocked to find that the food they bought for their cats was not "food" by law. Indeed, it may be that the majority of irradiated and genetically modified products are not labelled as they either fall into the category of foods that don't require individual labelling – such as fruit – or are classified as animal feed, pet food or therapeutic goods. Without labelling we are unable to assess the scope of irradiation on these products. Unfortunately, this failure to regulate has led to tragedy for some Australian cats, the banning of irradiated cat food and the labelling for Australian dog food. While the labelling of therapeutic goods and animal feed falls outside the scope of this review, informed consent from the public will only be achieved when all irradiated products consumed by people and animals are labelled.

Australian shoppers – and their counterparts overseas - have shown ongoing resistance to irradiated food – which has been expressed by campaigning over 30 years, opposition to food irradiation applications, rejection by informed shoppers of irradiated foods on the market, community campaigns to close irradiation plants and community campaigns to support local and organic agriculture.

Pushes by industry to remove labelling and/or to use labelling that does not include the words "radiation" or "irradiation" and/or to use euphemistic terms such as cold-pasteurisation", or "pasteurization", "ionizing electrons" suggest that industry also acknowledges shopper rejection of the technology.

Shoppers do not want to eat irradiated food. In light of this, Australia should move towards banning irradiated foods – or at a minimum ensuring that comprehensive, non-biased labelling is guaranteed for all irradiated products so that the public can make an informed choice and the real market for irradiated food can be discerned.

17. Do you think the current mandatory labelling requirement is an impediment to developing existing / new markets? What reasons do you have for this?

Food Irradiation Watch is an advocacy network that has been monitoring food irradiation in Australia and New Zealand since 2003. We work with both shoppers and food producers who choose their food to be irradiation-free.

Global food standards, CODEX and most of our trading partners – and all of the countries listed in the discussion paper – require more stringent labelling than Australia as it is. Removing labelling from irradiated products for the domestic market would see Australian companies incurring the added cost of labelling their products for the overseas markets - which generally require labelling as well as often prescribing the wording to include “irradiated” or “treated with irradiation”.

Not labelling irradiate products would also call in to question Australia’s transparency and reliability as a global trading partner and would be bad for our reputation.

Australia’s regulations should be improved to fall in line with global mandatory labelling requirements. In fact, all of Australia’s irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be a gross deception to the public – who though perhaps divided on novel technologies, demand and expect them to be labelled.

18. What do you perceive to be the costs associated with the mandatory labelling requirement? (For example, costs of segregating irradiated produce from non-irradiated produce, specific packaging and/or labelling costs, traceability costs).

Irradiation is the status quo and is the status quo in our trading partners. Therefore, labelling should be considered a pre-requisite to all irradiation approvals. The costs are, therefore, no greater than the labelling already required.

As the current regulations state that individual labelling of irradiated produce is not required and that a sign nearby will suffice, there is virtually no cost associated with labelling of irradiated bulk foods. For packaged irradiated products or in the case that individual labelling of produce is prescribed, the cost would be a minimal – one off - design fee cost associated with placing the labelling statement on the sticker or package.

For new products, labelling costs will be no more than those attributable to general package design – in particular as labelling is already the norm and is expected. In fact, all of Australia’s irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be a gross deception to the public – who though perhaps divided on novel technologies demand and expect them to be labelled.

Mandatory labelling helps the public make informed choices about what they eat. It is important that our food industry appears to be honest, reliable and forthright with the public so that they can maintain long-term trust in our system and that both overseas and domestic shoppers can maintain trust in Australian and New Zealand products.

19. What do you perceive the costs associated with the removal of mandatory labelling to be? (For example, potential for loss of shopper confidence in your products, amending product segregation, handling and display processes).

Mandatory labelling allows businesses to help the public make informed choices about what they eat. Removing the labelling requirement would mean that non-irradiated products are not distinguishable from irradiated products. This would disadvantage producers and would make the market place less competitive. It would unfairly place the cost and onus upon non-irradiators to distinguish themselves from irradiated products.

All of Australia's irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be misleading to the public and lead to the questioning of the food system's integrity.

Global food standards, CODEX and most of our trading partners – and all of the countries listed in the discussion paper – require more stringent labelling than Australia as it is. NOT labelling irradiated products for our domestic market would see Australian and New Zealand food producers incur the added cost of labelling their products for the overseas markets which require labelling – generally prescribing the words to include “irradiated” or “treated with irradiation”.

Mandatory labelling allows helps the public make informed choices about what they eat. It is important to us that Australian and New Zealand food producers and retailers company appear to be honest, reliable and forthright with the public so that they can maintain long-term trust in their products.

20. What are the opportunity costs for your business associated with the mandatory labelling requirement? (That is, does the requirement to label irradiated produce cause you to compromise in your business practices? For example, does the time delay involved in labelling your produce prevent you from accessing certain market opportunities?).

Irradiation is the status quo and is the status quo in our trading partners. Therefore, labelling should be considered a pre-requisite to all irradiation approvals. The costs are no greater than the labelling already required.

As the current regulations state that individual labelling is not required and that a sign nearby will suffice, there is virtually no cost associated with labelling of irradiated foods. As with packaged irradiated foods, if individual labelling of produce was to be prescribed, the cost would be a minimal – one off - design fee cost associated with placing the labelling statement on the sticker or package.

For new products, labelling costs will be no more than those attributable to general package design – in particular as labelling is already the norm and is expected. In fact, all of Australia's irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be a gross deception to the public – who, though perhaps divided on novel technologies, demand and expect them to be labelled.

21. What are the relative costs and benefits of irradiation and other treatments in terms of cost, efficacy, post-treatment product quality, convenience and timeliness?

This question is not relevant to the review of mandatory labelling requirements. Whether or not industry reaps benefits or accrues cost from irradiation does not negate the fact that labelling is the global standard and desired by the public.

Furthermore, benefit and relative safety of a process do not negate the validity and importance of labelling novel foods – or foods using technologies unfamiliar to most people – in particular those about which the public have expressed concern.

Irradiation is one of numerous post-harvest and food treatments available to food producers. Food manufacturers can choose to not irradiate as numerous alternatives exist and it is well understood that people generally do knowingly want to eat irradiated food.

Irradiation is known to deplete vitamin and nutrient content as well as potentially produce harmful substances in food. While this may be the case for many food processes, irradiation is not done in isolation. Irradiation is done in conjunction with pre-harvest chemicals, cold storage, possible heat treatment and cooking of food. Irradiation is often seen to be expensive and, due to lack of facilities, may itself increase the transport time for products.

Not labelling irradiate products would call in to question Australia's and New Zealand's transparency and reliability as a global trading partner and would be bad for our food reputations. Australia and New Zealand regulations should, therefore, be improved to fall in line with global mandatory prescribed wording requirements.

In fact, all Australian and New Zealand irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be a gross deception to the public – who, though perhaps divided on novel technologies, demand and expect them to be labelled.

All submitters

22. What are your views about information on the safety and benefits of food irradiation being on food labels?

Unqualified “positive” statements should not be permitted on irradiation labelling unless statements about potential allergenicity or nutritional compromise are included.

FSANZ currently allows the inclusion of positive statements alongside irradiation labelling. Examples that have been used in Australia or New Zealand are: treated with irradiation – “to protect New Zealand's environment” or “to destroy harmful micro-organisms”. Irradiation is known to change the molecular structure of a product and to deplete vitamin and nutritional value. Permitting the use of a positive statement about the process without any requirement for mention of the negative impacts of the process is biased and inappropriate for honest and fair shopper education.

23. What other practical approaches other than labelling can be used to communicate the safety and benefits of food irradiation? (Please describe).

FSANZ has no legitimate role in “communicating the safety and benefits of food irradiation” - which is primarily a marketing program. The safety and benefits of irradiation are not qualified.

It is inappropriate to attempt to equate irradiation with pasteurisation, to promote positive statements and euphemisms (such as “treated with ionising electrons”) about the process, and to use the Radura mark (which looks like a budding flower) to make irradiation seem innocuous.

Some FSANZ material promotes irradiation, which is inappropriate. For example: FSANZ’s website exaggerates the use of irradiation (it is approved in many countries, yes, but it is not widely used.) FSANZ also dumbs down the science of irradiation – likening ionising radiation to microwaves and failing to discuss the source or strength of gamma radiation used. “The rays pass through the food just like microwaves in a microwave oven, but the food does not heat up to any significant extent.” This is misleading and inappropriate role for the regulator which should be a neutral referee on the food supply.

Scientific opinion is divided on the safety of irradiated food. While in some cases overseas, irradiation has been promoted as a response to food-borne illnesses, irradiation is not an alternative to good, clean, well-managed food production systems and practices.

The Therapeutic Goods Administration permits irradiation as a decontamination treatment while acknowledging its potential adverse impacts.

“Substances may be sterilised using ionising radiation. You should consider what radiolytic products may be formed in the substance and what constituents of the substance may be affected by such treatment, for example: vitamin A. You should have documentation about substances that have been irradiated, monitor levels of radiolytic products or constituents and, if necessary, establish and document limits.”¹⁵

Biosecurity Australia permits irradiation for quarantine purposes yet also notes:

“It is now well established that irradiation does affect certain vitamins and other nutrients and does produce peroxides and other radiolytic by-products, some of which may be toxic and/or carcinogenic, and that these effects are dose related.”

“The available scientific evidence supports the use of irradiation as a biosecurity treatment for pet food only in exceptional circumstances. It is not supported for those products likely to be consumed as a significant proportion of an animal’s diet (e.g. kibble).”¹⁶

Federal government information from the Therapeutic Goods Administration and Biosecurity Australia highlight and acknowledge problems with irradiation as a production practice for non-food products we consume. Rather than looking for ways to communicate the “safety and benefits” of irradiation, Food Standards Australia New Zealand should demonstrate the same candour in representing the issues around irradiation in food.

FSANZ’s exploration of other ways to communicate the “safety and benefits” demonstrates its bias towards promoting or marketing irradiation, rather than providing neutral information to the public. The “safety and benefits” are unclear and they are unspecified.

¹⁵ <https://www.tga.gov.au/book/information-required-demonstrate-quality-new-complementary-medicine-substance>

¹⁶ <http://www.agriculture.gov.au/biosecurity/risk-analysis/reviews/final-animal/gamma-irradiation/questions-and-answers>

- “Safety” may refer to the “safety” of the industry – which in Australia is a nuclear industry carrying its associated risks around the transportation, use and storage of radioactive materials.
- Or “Safety” may refer to the inferred “wholesomeness” of irradiated foods – which is at best questionable.
- Or “Safety” may refer to the “decontamination” aspects of some irradiation – which can neutralise but not remove some pathogens from food. The fact is, that for the most part, irradiation in Australia and New Zealand has not been authorised for food “safety” reasons – which could call for higher doses of radiation exposure– but for trade/quarantine purposes which – while possibly beneficial to local environments - are ultimately aimed at increasing profit for food producers, not at benefitting the shopper.

Ultimately, however, “safety” of the process does not extinguish the public’s right to know about it or necessarily negate public concern. The public expects to be informed when a food has undergone processing and FSANZ has a responsibility to administer that. The current rules on irradiated food labelling should, therefore, be maintained and strengthened.

24. Do you have any information on the effectiveness of any of these approaches? (If so, please provide).

We are aware that people expect the regulator to keep them accurately informed and for products using novel or structurally altering production practices to be labelled. We are also aware that the industry, knowing that people have an aversion to irradiated food, see labelling as an impediment to their market.

We call on the regulator to accept that peoples’ rejection of labelled irradiated food is a sign of a healthy free market in action. To remove labelling to trick people into purchasing something they would not normally buy is unacceptable.

Food producers and processors that support irradiation should loudly promote their irradiated products through mandatory labelling. All Australian and New Zealand irradiation approvals have been premised on the assurance that irradiated products would be labelled. To remove labelling would be a gross deception and betrayal of the public’s trust – who all the products of novel technologies to be labelled.

Food producers who want to hide food processes they use are not acting with the good of the community in mind and the food regulator and our governments must not support this evasion.

Appendix A: Supporting Organisations

Food Irradiation Watch

PO Box 5829

West End QLD 4101

www.foodirradiationwatch.org



Food Irradiation Watch is a not-for-profit consumer advocacy organization aimed at raising awareness about food irradiation. We are an affiliate of Friends of the Earth Australia. We oppose the irradiation of food and work to ensure the consumer's right to choose to avoid irradiated foods, pet foods and therapeutic goods.

Food Irradiation Watch works with, educates and advocates for the community on the issue of food irradiation, alternatives to food irradiation, and related food, environment and social justice issues. As a community organization, we play a role in supporting the rights of citizens where government and corporations have failed them. We act in response to a need in the community that should not exist – or we feel would not exist if governments and corporations acted along principals of ecological and social justice in relation to food – its production and distribution.

While we act in a necessary role as a watchdog, we believe that it is in fact the role of the government to inform the community about food and food processes, and to create legislation and regulations that protect the consumer's "right to know" about what they consume.

Food Irradiation Watch (FI Watch) formed in 2003 from a partnership of Friends of the Earth Brisbane and several community networks opposed to the development of the food irradiation industry in Australia. FI Watch works closely with U.S. advocacy organization Food and Water Watch and international campaigns around food irradiation awareness in the E.U. and Japan. It is our understanding that Australians do not wish to consume irradiated foods or feed them to their pets and that at a minimum Australians expect their food to be accurately and comprehensively labelled when "novel" technologies such as irradiation and GMOs are used.

Gene Ethics Network

Gene Ethics is a non-profit educational network of citizens and kindred groups. We want the precautionary principle, scientific evidence and the law rigorously applied to all proposed uses of genetic manipulation (GM) technologies and their products.



Gene Ethics generates and distributes accurate information and analysis on the ethical, environmental, social and economic impacts of GM. Our education programs critically assess GM for the public, policy-makers and interest groups.

Friends of the Earth Australia

Friends of the Earth (FoE) Australia is a federation of independent local groups working for a socially equitable and environmentally sustainable future. Friends of the Earth Australia is part the world's largest grassroots environmental network, uniting 76 national member groups and some 5,000 local activist groups on every continent. Friends of the Earth aims to support local communities in gaining environmental and social justice through mobilising resources, and resisting destruction of global eco-systems. Friends of the Earth opposes all forms of the commercial and military nuclear industry and supports sustainable agriculture as the viable alternative to food irradiation.



MADGE Australia Inc

We are a group concerned about new technologies in our food. We are concerned that poorly tested and potentially hazardous technologies are being used to increase the profits of the food industry while remaining unlabelled and therefore hidden from the knowledge of the public. We consider this to be deceptive and misleading conduct and therefore contrary to FSANZ's brief. This is an issue of human rights as we have a right to safe food.



South Australian Genetic Food Information Network



Friends of the Earth New Zealand

Appendix B: Submission to ACCC by Food Irradiation Watch and Gene Ethics



Food Irradiation

A: PO Box 5829 West End QLD 4101

M: 0411 118 737

E:

foodirradiationwatch@yahoo.com.au

W: foodirradiationwatch.org

gene  ethics
working for a GM-free future

ABN 67 104 140 918

A: 60 Leicester St, Carlton Vic 3053

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June 24, 2014

Australian Competition and Shopper Commission
GPO Box 3131
Canberra ACT 2601

Dear Sir/Ms:

Re: Unlabelled Irradiated 'fresh' fruits and vegetables: False, Misleading and Deceptive

Executive Summary

The Legislative and Governance Forum on Food Regulation has instructed Food Standard Australia New Zealand (FSANZ) to review the mandatory labelling requirements for irradiated food. Indications from officials and Ministerial letters suggest that the outcome of this process will likely be cessation of the present requirement to label irradiated fruits and vegetables, and other irradiated foods.

We submit for ACCC assessment our case, that removal of labels and signage from irradiated fruits and vegetables would create circumstances in which Australian and New Zealand shoppers would be led to the false, misleading and deceptive conclusion that irradiated fruits and vegetables are fresh produce.

We therefore ask the ACCC to consider the following:

- 1. Despite their appearance, irradiated fruits and vegetables are processed, not fresh.**
- 2. Without Labelling, irradiated fruit and vegetables would be implicitly misrepresented as fresh -products of the irradiation process are undetectable to shoppers without labelling and consumers naturally expect such products to be labelled**
- 3. Consumers have strong opinions on irradiated produce as it is a new technology with a limited history of safe use in the human food supply**
- 4. Food producers have raised their own queries about the removal of labelling, as it will disadvantage non-irradiating producers**

The irradiation of fruits and vegetables typically involves their exposure to the energy equivalent of between 1.5 and 10 million x-rays. When used as a fruit fly larvae treatment, food irradiation also extends shelf life, sanitises, and alters the nutritional value of the treated foods. The substantial and significant changes made to fruits and vegetables as a result of processing with irradiation cannot be

discerned with our ordinary senses. Thus, consumers could no longer rely on taste, smell, texture or appearance to exercise their preference for fresh produce, if irradiation labelling were removed. We therefore assert that the removal of labelling from irradiated fruits and vegetables will create a situation where the public will be led to false, misleading and deceptive conclusions as to the nature of these foods, also impacting on their right to make well-informed food buying decisions that potentially impact on their diet and health.

Another matter for the ACCC to resolve in advance of irradiated fruits and vegetables coming to market unlabelled are the terms and conditions for a claim that a fruit or vegetable is “fresh”, “Irradiation-free” or “non-Irradiated”. The ACCC developed a policy for such claims on genetically manipulated foods and should do so for irradiated products before they come to market.

So far, FSANZ has approved herbs, herbal infusions, spices, tomatoes, capsicums, mangoes, pawpaws, mangosteens, carambolas, breadfruit, litchis, rambutans, longans, custard apples and persimmons for irradiation treatment. However, few irradiated products have been marketed in Australia and New Zealand as chemical treatments (now banned) were used as post-harvest treatments for fruit fly. FSANZ is now processing application A1092 from the Queensland Government which would extend irradiation approvals to include 11 more fruits and vegetables: apples, apricots, cherries, nectarines, peaches, plums, honey dews, rockmelons, strawberries, table grapes and zucchini/squash. These approvals would significantly increase the proportion of irradiated foods in the average Australian and New Zealand diet, increasing the need for strong labelling laws.

Labelling is the only way to ensure that consumer rights are protected, producers of non-irradiated products are not disadvantaged by having their products indistinguishable from irradiated products (or are not forced to label “non-irradiated” or “fresh” to ensure the distinction) and that true market forces are allowed to prevail through consumers being empowered to make fully-informed decisions about what they purchase.

Marketing irradiated fruits and vegetables as fresh would grossly mislead the public and be a failure of duty of care to Australian and New Zealand consumers.

We therefore ask the ACCC to expedite development of a policy on food irradiation and the labelling of all its products.

1. Irradiated food is processed, not fresh.

Irradiation involves zapping food with ionising irradiation to intentionally alter some characteristics of the produce to achieve extended shelf life and/or pest destruction. Approved irradiation exposures for the processing of ‘fresh’ fruits and vegetables (tomatoes, capsicums, persimmons, mangoes, pawpaw, lychees, longan, rambutan, mangosteen, carambola, breadfruit, custard apples) is a minimum of 150Gy (equivalent to 1.5 million x-rays) and a maximum of 1KGy (equivalent to 10 million x-rays). These doses are delivered by exposure to fuel rods containing Cobalt 60 from Canadian nuclear reactors. FSANZ acknowledges that irradiation changes the vitamin and nutritional content of food with the potential to create new chemical compounds within the food, which may not be naturally found. Ionising radiation by its nature changes the molecular structure of that which is exposed to it.

While acknowledging the existence of radiation-induced chemicals in irradiated food in its Executive Assessment of the current irradiation application (A1092 Application for the Irradiation of Specific Fruits), FSANZ suggests that chemical changes also occur in “more conventional processes such as cooking.” Even if this was true, it is misleading and deceptive to present a cooked food as unprocessed and fresh.

The test for irradiation is the presence of radiolytic products and free radicals. This shows that there are compositional changes of the kind that require labelling under Standard 1.5. FSANZ also confirms: “Irradiation potentially causes both macro and micronutrient changes in foods, depending on the irradiation dose, the food’s composition and environmental conditions.”

There are ample examples of governing bodies referring to Food Irradiation as ‘Processed’ both locally and overseas. In recognition that irradiation alters the nature of food, irradiation is regulated as a food additive in the US and irradiated food is labelled accordingly. The 1958 Food Additives Amendment describes irradiated food as “adulterated.”

<http://www.fda.gov/Food/IngredientsPackagingLabeling/IrradiatedFoodPackaging/default.htm>

In Australia Irradiation approvals are given under Food Standard 1.5.3; irradiation is regulated as a food processing technique.

“Even where this Standard permits irradiation, food should only be processed by irradiation where such processing fulfils a technological need or is necessary for a purpose associated with food safety. Food should not be processed by irradiation as a substituted procedure for good manufacturing practices.” <http://www.comlaw.gov.au/Details/F2009C00895>

Both the Queensland and Victorian government’s use phrases such as a “food preservation method” and a “processing and preservation” technique in explaining food irradiation.

<http://www.health.qld.gov.au/foodsafety/documents/fs-39-irradiation.pdf>

http://www.betterhealth.vic.gov.au/bhcv2/bhcarticles.nsf/pages/Food_irradiation

According to the ACCC, Food and beverage industry Food descriptors guideline to the Trade Practices Act NOVEMBER 2006, “‘Fresh’ generally refers to food that is put on sale at the earliest possible time and close to the state it would be in at the time of ‘picking’, ‘catching’, producing etc. The term fresh generally implies that food has not been frozen or preserved.” The ACCC Food Descriptor guidelines also make it clear that “silence” or “omission” of information is also potentially misleading. *Australian Competition and Consumer Commission, Food and beverage industry Food descriptors guideline to the Trade Practices Act NOVEMBER 2006, p 8.*

It is clear Irradiated food is not fresh – it is intentionally and significantly altered. Marketing fresh-looking irradiated produce without labelling is clearly deceptive. This is also the case when irradiated foods are used as ingredients; irradiated components will appear to have been fresh or unadulterated prior to their use. Without labelling, consumers will be fed the false and misleading impression that irradiated fruits, vegetables and other foods in the market are “fresh” when they are actually processed.

Labelling is the only means by which a consumer can ascertain if a product is irradiated or not.

2. The removal of labelling is deceptive to consumers

2. a. The irradiation process is undetectable to the average consumer, without labelling

Generally the irradiation process is invisible to consumers; testing for it requiring analysis of changed molecular components in the product. In this light, the only way for a consumer to make an informed choice about purchasing an irradiated product is through the provision of information relating to irradiation – labelling.

Accordingly, labelling is correctly listed by Food Standards Australia New Zealand as the only method by which consumers will know if food has been irradiated:

“How can I tell if food has been irradiated?”

A food that has been irradiated, or food that contains irradiated ingredients or components, must be labelled with a statement that the food, ingredients or components have been treated with ionising radiation.

If the food is not normally required to be labelled, then the mandatory labelling statement must be displayed close to the food. This would apply to foods such as:

- whole fruit and vegetables sold loose by supermarkets
- a take away pizza with an irradiated herb as an ingredient.

The radura symbol (below) may be used in addition to the mandatory labelling.”

<http://www.foodstandards.gov.au/consumer/foodtech/irradiation/Pages/default.aspx>

So far, all irradiation approvals in Australia and New Zealand have been made with the premise and promise that irradiated food will be labelled. Labelling is the status quo and expected. To remove labelling is to deny the public any access to informed choice and is unconscionable.

2. b. Consumers expect irradiated food to be labelled.

Research conducted for Food Standards Australia New Zealand (FSANZ) in 2001 found that Australian consumers believe that:

- they have the right to access to information about their food and
- that the government will facilitate that right.

This was demonstrated by the fact that: *“Consumers expressed an absolute right to know about any GMOs included in any products...”* (5) Consumers, also, expected all genetically modified food to be labelled as such.

“It was generally thought by most people that even if a product was not specifically labelled as ‘GMO-free’ it would not be genetically modified. That is, they would expect any product that contained genetically modified organisms to be clearly labelled that this was the case.” (6)

The same research also found that people were concerned and confused about irradiated foods.

“There was even less awareness and more misunderstanding about irradiated foods [than GMOs]. The word 'irradiation' is almost synonymous with 'radiation' [also connoting 'nuclear'] (their brackets) and is consequently suspected to be unsafe or bad for you.” (7)

Overall, consumers expressed general concern about the food supply and regulation and suggested that they trust their government to inform them about products and to label products clearly.

“The concern over the use of GM illustrates the level of general apprehension about the food supply and the perceived importance of maintaining stringent control over it...” (8)

“There is [also] an over-riding belief that the food system in Australia and New Zealand is safe, and this sense of trust is extended to food labels. People generally have faith that the labels will be fairly accurate and reliable - as long as the governing body continues to check the products to ensure compliance. In this way there is a belief in 'good' governance.” (9)

When conducting its Review of Food Labelling Law and Policy Review, the Australian government acknowledged an “optimism bias whereby consumers assume that unmentioned factors are favourable” (Review Panel, Issues Consultation Paper: Food Labelling and Policy Review March 5, 2010 p8)

When the public has concerns or apprehension about an aspect of their food, they expect it to be labelled. The breadth of concerns includes – but is not limited to – issues of health and safety aspects of food; COOL labelling is a prime example of principle/issues-based labelling.

Australians and New Zealanders expect a food that is not labelled to contain a characteristic of concern, to not contain that characteristic. Therefore, they would assume that a non-labelled product is not irradiated.

FSANZ’s new “Ministerial Policy Guideline: labelling of food processed using new technologies” also states the labelling should promote consistency with international standards. Labelling of irradiated food is the norm with our English speaking trading partners and clearly called for in global standards as set by the international Codex Alimentarius. Non-conformity with international standards would betray Australian and New Zealand consumers belief that their regulatory system is world class and reflects their needs and concerns. In fact, Australia and New Zealand are already failing their citizens with their unprecedented lack of prescribed mandatory statements for irradiation labelling.

It is our belief that labelling must be improved. The mandatory individual labelling of individual products is the only mechanism that observes our right to make fully-informed choices about whether or not we, our families, pets and livestock will eat irradiated foods.

Current point of sale signage is ineffective, as it does not fully inform shoppers. Even Country of Origin point of sale labels, which have been required for 8 years, are ineffective. The states have not enforced the signage requirements which fail to inform shoppers, even when they are highly motivated to select local produce. <http://www.weeklytimesnow.com.au/commodities/horticulture/countryoforigin-labelling-laws-under-scrutiny/story-fnker6g8-1226949775628>

It is our opinion that to justice to our community and in due respect to their concerns about irradiated food, irradiated food must continue to be labelled and the labelling regime must be improved to ensure that consumers can make informed choices. To do so, Australia and New Zealand must uphold

international standards and require mandatory, individual labelling of all irradiated food with the words:

- irradiated (name of the food)
- treated with radiation
- or treated by irradiation

Without these improvements, there is still potential for consumers to put forward misleading and deceptive claims.

The recently released FSANZ policy guideline “recognises that labelling on foods produced or processed using a new technology can be an issue of consumer interest” though not necessarily a health or safety issue. Australians and New Zealanders have clearly demonstrated concern about irradiation.

3. Consumers Stance on Irradiated Produce

3. a. The Public’s Opinion

The Australian and New Zealand public have demonstrable, known and legitimate concerns about irradiation. In recent polling in New Zealand -where irradiated Australian produce is being marketed – 72% of respondents expressed concern.

http://www.nzherald.co.nz/opinion/news/article.cfm?c_id=466&objectid=10892295

In 1999, a broad community campaign about irradiation saw a moratorium put in place. Ten years later, that moratorium was lifted with little public awareness. Australian consumers and their counterparts overseas – have, however, shown ongoing resistance to irradiated food which has been expressed by opposition to food irradiation applications, rejection by informed consumers of irradiated foods on the market, community campaigns to close irradiation plants and community campaigns to support local and organic agriculture.

Recent surveys, industry reports and even media from irradiation supporters acknowledge consumer opposition or concern about the technology and point to a need for marketing strategies to gain public acceptance if the irradiated food industry is to grow. Unfortunately for the consumer, the industry sees clear and accurate labelling as a threat to, rather than a marketing strategy for, irradiated food.

Research commissioned by irradiation supporters themselves reveals little public awareness about irradiation and consumer hesitation to support it. An overview of some of the issues brought up by recent tomato and capsicum approvals appeared in The Land. It clearly articulates retailers concerns about consumer perception of irradiation- Woolworth’s basically states that identifying products as irradiated will be a death-knell to their purchase.

The article reveals market research into inaccurate or deceptive statements such as “cold sterilisation” which would make irradiation more palatable to the consumer. Ultimately, “The survey results showed that even when informed, irradiation was not the preferred treatment method among consumers. Some of the key points follow:

“In the eyes of the public;

- Perhaps the biggest battle facing the further implementation of fresh produce irradiation is public awareness.

- Retailers have expressed concern over public resistance to the very term ‘irradiation’ and a shopper backlash against them.
- When questioned about the company’s position at the Horticulture Australia Limited (HAL) November 2012 Forum in Sydney, Paul Harker, head of produce, Woolworths said the industry needed a united voice on the subject before it proceeds.
- “It’s going to be an extremely emotional product and we are not going to stand alone trying to convince Australian shoppers that there is nothing wrong with irradiation,” Mr. Harker said.
- **“We’ve communicated that back to industry and we said unless there is a concerted campaign that is led not only by the people peddling irradiation as an alternative, but unless the government and everyone else is involved in actually talking to the customer about it, the last thing I am going to do is plonk it on my shelf because I can tell you that fresh produce sales will die. People won’t shop there.”** (our emphasis)
- <http://www.theland.com.au/news/agriculture/horticulture/general-news/irradiation-pros-and-cons/2665981.aspx?storypage=0>

3. b. Lack of history of safe use

Despite FSANZ’s support of irradiation, there are significant unresolved issues around irradiation that lead to public concern. Irradiated foods have not been visibly in the human food supply in Australia and New Zealand for the 30 years that the Blewett Review recommended or even 10 years as new “Ministerial Policy Guideline: labelling of food processed using new technologies” suggest. Foods regulated under Food Standard 1.5 have a small or zero history of safe use in the human food supply. Thus, they must undergo pre-market assessment and must be labelled to meet shoppers’ right to know under Standard 1.5.3. We support the Standard.

The previously mentioned reduction of vitamin and nutritional content aside, consumer concerns appear to have legitimate substance behind them with several studies confirming health risks involved in consuming irradiated produce. The Animal Biosecurity Branch of the Commonwealth Department of Agriculture confirms that: “In 2008-9, 87 cats in Australia were reported to have developed severe neurological disease (chronic leucoencephalomyelopathy) associated with eating an imported, irradiated dry pet food. ... The department ... concluded that there was a reasonable body of evidence that gamma irradiation, applied as an adjunct quarantine treatment of pet food, was a contributing factor to the disease syndrome. A cause of great distress to the cat owners was the fact that laboratory research proving the potential for this impact existed but had been disregarded at the time by the parties involved. In its latest irradiation literature review, the European Food Safety Authority (ESFA) has not ruled out the potential significance to humans. The irradiation of cat food is now prohibited in Australia and dog food requires irradiation labelling. To have lessor or no guidelines for labelling of foods for human consumption is incomprehensible and certainly deceptive to consumers who are aware of the cat and dog food situation.

A recent study shows that smaller irradiation dosages (~1 Gy) can render protein more allergenic than either non-irradiated protein, or protein irradiated at a higher dosage. This is an ignored but potential emerging food safety risk associated with irradiation. Vaz, A.F., et al., *Low-dose gamma irradiation of food protein increases its allergenicity in a chronic oral challenge. Food Chem Toxicol*, 2012. 51C: p. 46-52-
doi: 10.1016/j.fct.2012.09.011.

With limited history in our diet, and no long-term studies conducted, the potential impact of consuming irradiated food cannot be accurately assessed. Ultimately, however, “safety” of the process does not extinguish the public’s right to know about it or necessarily negate public concern. The public expects to be informed when a food has undergone processing and FSANZ has a responsibility to administer that. The current rules on irradiated food labelling should, therefore, be maintained and strengthened.

4. Removal of labelling would disadvantage non-irradiating producers

Consumer resistance or concern about irradiated food is clear and acknowledged by industry and government. Removal of labelling in this climate would be to intentionally deny Australians and New Zealanders access to information that it is known they demand.

In correspondence with Food Irradiation Watch, Victorian Minister for Agriculture and Food Safety Peter Walsh stated

"The review [of mandatory labelling requirements] has been requested to assess whether this is a more effective approach to communicate the safety and benefits of irradiation to consumers. The FoFR noted that improving consumer confidence in irradiation will reduce disincentives for increased uptake and broader application of the technology by industry." (Dec 18, 2013)

It is important to note both the assumption that labelling is seen as a disincentive to acceptance of the technology and the potential for deception in the slant of this argument. To date all FSANZ fruit and vegetable irradiation approvals have been for phytosanitary control = that is quarantine purposes - not for the safety of the food. Only herbs/spice/herbal infusions have been approved from microbial contamination. Food can only be legally irradiated for the purpose for which it has been approved, meaning that - even if there was safety scare with produce that irradiation may be able to address, the food could not be irradiated for that purpose without another approval process. Food in Australia and New Zealand is not being irradiated for food safety purposes, it is irradiated to enhance trade – which may benefit consumers but is not a health and safety concern for them. It would be deceptive to remove labelling using the rationale of promoting the uptake of a food safety technique when, in fact, not only is food safety not the reason for the irradiation, food cannot be irradiated for food safety reasons under the framework for which it has been approved.-

The push to remove labelling can itself be only seen as a disingenuous process to force irradiated products on a public that clearly wishes the freedom to reject them – in effect government and business aligning themselves to deceive the public. This is not acceptable behaviour in democratic free-market economies and it disadvantages food producers to choose to meet consumer demand for non-irradiated products.

In 2013, FSANZ approved the irradiation of tomatoes and capsicum. The application for approval came from Queensland Department of Primary Industries; a key rationale was to expand Queensland/Australia tomato exports markets to New Zealand. While the New Zealand government – and even the conventional tomato industry – supported the irradiation approval as a quarantine measure, the issue of labelling was seen as a key area of concern.

The ensuing debate provides some of the most recent – and local - information about awareness and attitudes towards irradiation. In 2006, media attention was drawn to the fact that unlabelled irradiated Australian mangoes were being marketed in New Zealand. The retailer simply removed the mangoes

from an export case and sold them without any labelling or signage. In New Zealand, mangoes are an exotic, normally imported, product and the offense was noticed and exposed by aware consumers. As current labelling regulations require only a sign at point of sale, rather than individual labelling, it is easy to imagine this scenario re-occurring. If labelling regulations are completely removed, it is easy to imagine that irradiated and non-irradiated produce will either inadvertently or intentionally be mixed together.

New Zealand has a substantial tomato industry – Australia primarily filling an off-season gap. New Zealand tomato growers are keen to ensure that New Zealand consumers can differentiate between irradiated Australian and non-irradiated local tomatoes.

The Tomatoes NZ chairman Alasdair MacLeod stated "We are demanding compulsory labelling on all irradiated produce, loose or otherwise, be clear and enforced, so that Kiwi consumers can make an informed decision between Australian irradiated tomatoes and New Zealand tomatoes."

<http://www.stuff.co.nz/business/farming/cropping/8618860/Fears-over-treated-Aussie-tomatoes> Fears over treated Aussie tomatoes NICOLE PRYOR 01/05/2013

Producers of non-irradiated foods should not have to bear the potential costs of differentiating themselves from irradiated foods, or the potential loss of market due to consumer inability to distinguish irradiated food from non. Irradiation labelling should be improved to include the labelling of individual fruit and vegetables.

Conclusion:

Without labels on irradiated foods, the public would be led to conclude that such foods were fresh and not irradiated. Within a free market economy, the demand for irradiated products should be driven by consumers making informed and intentional decisions to purchase such products. When Australia and New Zealand are set to dramatically increase the amount of irradiated foods available on the market and in people's diets, the removal of the mandatory labelling and signage requirements from irradiated fruits and vegetables would create a set of false, misleading and deceptive circumstances for consumers in Australia and New Zealand.

A false and misleading circumstance would be created if the labelling requirement on irradiated foods were revoked, as consumers would have no way to identify such processed foods and would naturally assume the produce to be fresh. Irradiation is not comparable to freezing, for instance, as the permanent changes wrought by irradiation processing cannot be thawed out of the product.

With labelling and signage removed, consumers would be unable to rely on the appearance of products to determine that they were irradiated and not fresh.

FSANZ has promoted to Australian and New Zealand consumers that irradiated foods are, and will continue to be, labelled.

We call on the ACCC to make a ruling on behalf of consumers to ensure that our ability to make fully-informed decisions about whether or not to purchase irradiated food is protected through clear, comprehensive and truthful labelling of all irradiated foods and food ingredients.

Yours sincerely,

A handwritten signature in black ink that reads "Robin Taubenfeld". The signature is fluid and cursive, with the first name "Robin" and last name "Taubenfeld" clearly legible.

Robin Taubenfeld
Coordinator
Food Irradiation Watch

A handwritten signature in black ink that reads "Bob Phelps". The signature is bold and cursive, with a prominent horizontal stroke at the end.

Bob Phelps
Executive Director
Gene Ethics