

AUSTRALIA'S GLOWING FUTURE - FOOD IRRADIATION



A rural commentary on food irradiation and "trade" issues provided by Bonny Bauer Advisory Service, a member of The Creative Solutions for Agriculture Alumni and Rebecca Duffy, Food Irradiation Project Worker, Friends of the Earth, Brisbane

GLOBAL INTERESTS REDUCE NEIGHBORS TO NUMBERS – WHAT ARE THE LOCAL IMPACTS

The first Australian massive scale nuclear food irradiation plant is under construction in the Caboolture Shire and is due to be operational sometime after July 2003. This plant being built by Steritech Pty Ltd has been aided by the Department of State Development, and is not subject to risk and environmental impact assessments or community consultation. Ultimately, the major problem is this specifically excludes proper assessment of the safety of, and the justification for food irradiation.

The Australian Government's latest assessment is an example of the way harmonisation under the World Trade Organisation and free trade implications compromises meaningful assessment. Additionally, the State Government has overridden the level of assessment required. This becomes more damning especially since the Beattie Government stood for election on an ALP platform of a 'nuclear free Queensland' whilst various stakeholders remain unaware of the potential impacts.

The second Australian massive scale accelerated e-beam food irradiation plant

is proposed to be constructed at Liberty Street, in the Cairns City Portsmith area at a cost of over \$15 million by Surebeam Australia Pty Ltd (a subsidiary of American defence contractor Titan), the proponent of the ill-fated StarWars program. Surebeam is working towards building one of the largest irradiation networks in the world, with plants proposed for Brazil, Japan, Saudi Arabia, and Asia and plans are well advance for tropical fruit competitor, Thailand. Surebeam has been aided financially by the Department of State Development. Surebeam has been the United States leading proponents of misleading labeling of irradiated foods as "electronically pasteurised" or "cold pasteurisation".

In America, President Bush has directed the United States Department of Agriculture that they cannot prevent food irradiation for bulk services such as the 50 million school children eating at canteens and the National Health supply of hospitals and aged homes. President Bush also directed the Food and Drug Administration through the Farm Bill that labeling such as 'treated by radiation or irradiation' is not required to be any larger than

the ingredients label. Unless significant community opposition is encountered, it is expected that the local, state and federal governments will make the same narrow assessments.

The Australia New Zealand Food Authority (now Food Standards Australia New Zealand, FSANZ) approved Australia's first application to irradiate foods for domestic sale. A second application, to allow the sale of irradiated tropical fruits, was approved in December 2002. The approvals process for food irradiation within Australia is moving too quickly and many consumers and producer groups are guilty of sleepwalking through history on this issue.

A microscope on the global picture shows it was no isolated event when Australian Health Ministers lifted the Australian ban on food irradiation in 1999. It was the first step in a process of international 'harmonisation' of regulatory standards for the promotion of free trade through uniform standards and regulations. Harmonisation is a process being stridently pursued by the Australian

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Federal and State Governments in many sectors, and in this case relates to standards for food irradiation. Ultimately, harmonisation of regulatory standards results in these standards becoming less stringent, in line with removing 'barriers' to trade.

THE KEY INTERNATIONAL DRIVERS

The food irradiation industry has another powerful and sympathetic institution as an ally. The GATT (General Agreement on Tariffs and Trade) Uruguay Round of 1993 produced an Agreement on the Application of **Sanitary and Phytosanitary Measures (SPS)**.

The World Trade Organisation (WTO) is pushing for a global standard on food sanitation and sterilization that includes food irradiation. Under the WTO's SPS measures, the choice that each country presently has over whether or not to allow the import of irradiated foods will be removed. Under the terms of the SPS agreement, governments will have to justify on 'scientific grounds' why a product should be exempted. The SPS agreement accepts international Codex Alimentarius Commission standards as the benchmark for the determination of trade disputes. Another agreement under the WTO, the **Technical Barriers to Trade (TBT) Agreement**, also promotes 'conformity' with Codex standards, and can impact on Australian regulatory decisions and their enforcement.

By now, it is understandable if you are wondering where all of our food has gone, and you are totally confused as to what will happen to our farmers as our fearless leaders demonstrate they really have gone bananas.

AUSTRALIA'S ROLE

Australia and New Zealand are members of the WTO and signatories to SPS and TBT agreements. Australia has a memo-

randum of understanding binding all States and Territories to the agreements put in place by the COAG (Council of All Governments). In December 1995, Australia and New Zealand Governments entered into agreements to establish a system for the development of joint food standards which demanded that food standards are consistent with the WTO obligations.

If irradiation standards are less restrictive in another country or higher dose limits are allowed, then Australia's present prohibition of irradiation on additional classes of foods like vegetables, cereals/grains, meat and seafood, can and will become a target of trade dispute. Japan has for years been a leader of non-chemical disinfestation research and protocol adoption. The World Trade Organisation has plans to target Japan as having technical barriers to trade by preventing irradiation.

So far, Australian regulatory decisions have used an assessment method based on low initial radiation dose limits, beginning with the least controversial foods (herbs, spices, herbal teas/infusions). **Nevertheless, given these international pressures, and the content of FSANZ's assessment reports to date, it is unlikely for the Australian Government to argue that additional classes of foods should continue to be exempt from import/domestic sale restrictions on 'scientific grounds'.**

Rather, it is more likely that FSANZ will begin to consider additional applications for the inclusion of more classes of irradiated foods in our Food Standards Code. Harmonised regulations for food irradiation are likely to apply to irradiate the following 'classes' of food:

1. Bulbs, roots and tubers
2. Fresh fruits and vegetables
3. Cereals and their milled products, nuts, oil seeds, pulses, fried fruits
4. Fish, seafood and their products (fresh or frozen)

5. Dry vegetables, spices, condiments, fry herbs and herbal teas

6. Dried food of animal origin

Assessment and acceptance of irradiation of these classes of foods will be achieved through the use of "Chemiclearance" - a World Health Organisation derived tool for circumventing the need for thorough toxicological and nutritional studies on each food item being considered.

WHAT NOW FOR PRODUCERS

Surebeam's application to Food Standards Australian New Zealand (formerly ANZFA) to irradiate tropical fruits was aimed at opening up New Zealand markets to irradiated Australian produce. Markets in the US, China, Taiwan and Korea will also be targeted.

Approval has already been granted for irradiation of Teas, Herbs and Spices, Tropical Fruits Breadfruit, Carambola, Custard Apple, Lychee, Longan, Mango, Mangosteen, Papaya and Rambutan.

Although FSANZ's approvals are pitched at the food industry, claiming that overseas markets for Australian irradiated produce are desirable, potential effects on Australian farmers, of irradiated imports that cannot be opposed under WTO rules, look less promising.

Australia is one of the western markets targeted by the food irradiation industry to prompt commercialisation of irradiation facilities in Asian countries. Foods that may be produced more cheaply in these less industrialised countries will compete with Australian produce. The Malaysian Institute for Nuclear Technology Research claims "the unit cost of irradiating local products are cheaper compared to that in developed countries". In countries like Malaysia and the Philippines, this is the line of reasoning that nuclear institutes and commercial irradiation companies use to encourage the food industry to irradiate local produce.

DUTY OF CARE

ALTERNATIVES

Good hygiene practices in food production, processing, handling and storage can alleviate problems of causes of food contamination. It is clear that as farmers institute enforced food safety measures such as HACCAP and ISO management systems, governments pursue trades that ignore similar *'duty of care'* measures. Physical disinfestation methods should be used wherever possible and other alternatives such as temperature control, oxygen deprivation/controlled atmosphere, steam treatment and steam sterilisation/encapsulation are known ways of killing insect pests. This is not rocket science and methods vary according to the type of fruit, due to different tolerances for different treatments.

Clearly a combination of methods incorporated into a full environmental management system could involve a range of options as in-transit cold storage, heat/steam, hot water dips, and atmospheric control such as with oxygen, carbon dioxide and nitrogen. Physical disinfesta-

tion methods and inspection and culling of infected fruits provides Australian farmers with better marketing tools that growing glow foods.

IN THE FINAL ANALYSIS

The concept is that foods in similar classes will react to irradiation in similar ways, and therefore **clearance is given for a whole class of foods on the basis of a selected study on one food**. For example, mango is the only fruit studied, in the studies listed by FSANZ justifying their approval of the irradiation of eight other types of fruit. No further studies would be required. FSANZ has relied entirely on WHO/IAEA/FAO documents in their assessment of the safety and wholesomeness of irradiated foods. They have not attempted to undertake independent assessment, seek the results of alternative studies, or request further studies to determine the safety of the consumption of these foods. Public concern that arose during the initial phase of public consultation around the irradiation of tropical fruits was addressed through these (WHO/IAEA/FAO) documents.

TAKE HOME POINTS

- Significant concern exists within the international scientific community regarding the safety of irradiated foods.
- The promotion of food irradiation stems from the irradiation industry itself, by facilitating international trade in food in order to commercialise irradiation facilities – the impacts of which are not necessarily in favour of domestic producers.
- The food irradiation process is open to abuse from companies wanting to use illegal doses, and/or avoid labeling – therefore competing unfairly with non-irradiated foods.
- Food irradiation prevents us from tackling the root problems of poor hygiene.

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