Creating awareness

Irradiation-free food guide wants help from producers

By ROBIN TAUBENFELD

Are you a certified organic food producer? Is it your policy to be irradiation-free? List your products in the *Australian Irradiation- Free Food Guide*.

Food Irradiation Watch, a consumer action group, is compiling the first guide, scheduled for release in December. If your products are certified organic and/or it is your policy to be irradiation-free, your products can be listed in the guide by simply filling out an online survey at the Food Irradiation Watch website, www.foodirradiationinfo.org. You will also find advice on how to develop an irradiation-free policy.

Listings are free and all organic and sustainable producers are encouraged to be involved.

Be quick to be included in the first printed guide! If you are too late, you won't miss out altogether. You will appear on the website and be included in the next printed guide.

WHAT'S IT ALL ABOUT?

Irradiation is the process of exposing a product to radiation, generally for sterilisation purposes. Australia's irradiation plants currently all use a nuclear by-product, Cobalt-60, to produce the gamma radiation they use.

In Australia, herbs, spices, herbal infusions (teas) and nine tropical fruits (mango, paw paw, lychee, longan, mangosteen, rambutan, carambola, breadfruit and custard apple) have so far been approved for irradiation. In the United States many products – including beef, vegetables, oysters and fruit – may be irradiated. Free trade agreements make it likely that more approvals will be pursued in Australia.

Irradiated products are difficult for consumers to identify because labelling requirements are inadequate. Non-packaged products are not individually labelled. Cereal grains fed to animals, bee hives, and pet food may be irradiated without labelling because they are not classified as food.

Under current organic standards, certified organic products may not be irradiated or use irradiated ingredients. However, with organic standards being challenged in some parts of the world, it is important to reinforce that Australian organic products are, and will remain, irradiation-free.

Because irradiation poses a threat to Australian horticulture and agriculture and Australian consumers do not want to eat irradiated food, non-organic producers will also benefit from making sure that irradiation does not take a stronghold on food production in Australia.

There are many reasons to be irradiation-free. These include the health risks associated with irradiation, the social and environmental impact of the irradiation industry, the fact that many alternatives exist, and the ethics of supporting the irradiation industry.

HEATH RISKS ASSOCIATED WITH IRRADIATION

Many scientific reports have highlighted health risks associated with irradiation. Irradiation changes the molecular structure of food, forming toxic chemicals linked to genetic mutations, vitamin deficiency, immune system disorders, tumors, stunted growth and reproduction problems.

Ionising radiation creates new chemicals called radiolytic products, some of which do not occur naturally in food. These have not been adequately studied. One of them, 2-ACBs, has recently be found to promote the cancer-development process in rats, cause genetic damage in rats and cause genetic and cellular damage in human and rat cells.[1]

Irradiation destroys and disrupts vitamins, proteins, essential fatty acids and other nutrients in food – sometimes significantly. It can destroy up to 80% of vitamin A in eggs and 48% of beta-carotene in orange juice.[2]

Irradiation masks poor production practices. Irradiation can kill most bacteria in food but it does not remove the faeces,

Young Finn Strodl likes non-irradiated paw paw. Don't you?

Mangos are among the fruit currently irradiated.

urine etc that often contaminate meat, or the pests, faeces or other matter that may contaminate herbs, spices, fruit and vegetables.

Free radical overload in irradiated foods can lead to lowered immune resistance, an upsurge in abnormal lymph cells, decreased fertility, damage to kidneys, depressed growth rates and deficiencies in vitamins A, B, C, E and K.[3]

SOCIAL AND ENVIRONMENTAL IMPACT

Food irradiation facilitates corporate control of the world's food supply, the expansion of cash crops, and chemical-dependent mass production. It does this by allowing corporations to sterilise cheaply produced products rather than investing in equitable and hygienic working conditions in food production.

Irradiation brings the hazards associated with the nuclear industry. It threatens the viability of Australian horticulture and agriculture and Australia's 'clean, green' image. Its acceptance as a dominant trade protocol would foreshadow the end of trade in certified organic products and may lead to the importation of cheaply and poorly produced products.

ALTERNATIVES EXIST

While treatments may vary according to the type of food and desired outcome, some of the alternative technologies currently in use include:

- Cold storage
- Heat/steam, vapour treatment
- Atmospheric control with oxygen, carbon dioxide or nitrogen
- Physical disinfestation, ie cleaning, washing
- Pest exclusion zones
- Early harvesting
- Organic production

THE ETHICS OF IRRADIATION

All existing commercial irradiation facilities in Australia are nuclear facilities using gamma radiation from Cobalt-60 rods made in Canadian nuclear reactors.

The nuclear cycle is neither sustainable nor clean. It creates waste that is radioactive for thousands of years and leaves a legacy of environmental destruction, cancer, leukemia and birth defects. Mines, reactors and irradiation facilities are often pushed on unwilling communities, violating democratic principles and indigenous land rights.

Radiation from non-nuclear irradiation, such as electron beams or x-rays, can be equally, or in some cases potentially more, harmful to food.

THE NEED FOR A GUIDE

The general community has long opposed food irradiation. In the final round of public consultation on the irradiation of tropical fruit in 2002, there were 675 submissions opposed and 16 in favour.[4] Yet current labelling regulations make it difficult for consumers to make an informed choice.

The *Irradiation-Free Food Guide* will provide that choice, giving consumers the option to say no to irradiated products. It will be based on company policy, not simply current practice, allowing consumers to know which companies are really committed to being irradiation-free. The guide will help producers and consumers alike send out a clear message that Australians will not stomach irradiated food on their tables.

Contact: Food Irradiation Watch, phone: 0411 118 737; email: foodirradiationwatch@yahoo.com.au; web: www.foodirradiationinfo.org.

REFERENCES

1 Public Citizen, The Top Ten Problems with Irradiated Food and Questioning Food Irradiation. Available on www. citizen.org/documents/Top10.pdf and www.citizen.org/documents/questioningirradiation.pdf.

2 ibid

3 Julius, Heiman, Friends of the Earth fact sheet, *Is Daily use of Irradiated Food Safe?*1999. Available at www.foodirradiationinfo.org.

4 FSANZ - www.foodstandards.gov.au/_srcfiles/ A443%20FAR%20-%20Irradiation%20Tropical%20Fruit.pdf, p85.