

**SUBMISSION TO: Food Standards Australia New Zealand –
Standards Management Officer**

From: The Sustainable Agriculture & Communities Alliance Inc.

**Submission: Application A1069 – Irradiation of Tomatoes &
Capsicums**

The members of the Sustainable Agriculture and Communities Alliance Inc are opposed to the irradiation of tomatoes, capsicums, or any other foods, on the grounds of loss of nutrition and formation of toxins from the irradiation process.

Toxins in Irradiated Foods:

Studies on food irradiation have shown that a chemical generated by irradiation 2-dodecylcyclobutanone (2DCB) causes significant DNA damage. 2-DCB is a unique irradiated product of palmitic acid, an acid that is found in large quantities in most fruits and vegetables. Studies have found 2-DCB in irradiated mangoes , papayas and other foods. (1) (2) (3) No fruit, vegetables or other foods should be irradiated.

Other treatments are effective, cheaper and safer:

For quarantine purposes, cold treatment is a positive alternative to irradiation. It is safer and cheaper and does not cause noticeable changes to the produce. Cold treatment also meets quarantine requirements of other countries such as New Zealand. If Application A1069 is approved, the irradiation of other fruit, vegetables and various other foods will follow.

A further matter of toxicity is that if the irradiation of fruit and vegetables is approved, this may create a precedent for the irradiation of other foods. Irradiation kills the bacteria that make food smell bad; however, food irradiation does not kill harmful micro-organisms and the toxins created by such bacteria. For example, Clostridium botulinum has been found on a wide range of foods, such as fruit, vegetables, meat, fish and dairy products. This organism can cause fatal food poisoning, and killing off the bad smells of food that is not fresh may result in people having no means of knowing that foods are not safe to eat. (1) (2) (3)

Loss of Nutrients and Formation of Carcinogens in Irradiated Foods:

Scientific studies have shown that irradiation destroys up to 96% of vitamins A, B, C, E and K along with other essential nutrients. George L. Tritsch Ph.D, Roswell Park Cancer Institute, Buffalo, New York has publicly stated: 'I am opposed to food irradiation because it is clear that this process increases the levels of mutagens and carcinogens in the food. The inevitable

consequence of this is that in two to five decades in the future, the incidence of cancer will increase from what we see now, in direct proportions to the amounts of irradiated food consumed...'

Ineffectiveness of Irradiation in killing insects:

Scientific tests have shown irradiation is ineffective in killing insects and extending the shelf life of fruit. The dosages of ionising radiation needed to kill insects such as fruit fly are too high for most fruits to tolerate. With low dosages, insects are still alive after irradiation. Irradiated fruit are damaged from water loss and softened tissues, and are more sensitive to refrigeration and bruising in transport.

SACA members are greatly concerned about the cumulative effect of eating an irradiated diet.

Our members are also concerned that the health of people seems to have been given less consideration than that of pet cats: The irradiation of cat food is now banned in Australia because between 2008 and 2009, approximately 90 Australian cats died or were paralysed because they had eaten irradiated food. These cases are clear evidence that irradiation can have harmful, and possibly not yet understood, impacts on the quality of food and on consumer's health. The irradiation of cat food is now banned in Australia, however, we are asked to consider irradiating food for human consumption.

We believe that irradiating Australian produce for export or the domestic market could seriously damage Australia's reputation as a producer of clean, healthy, and pure foods. As there are numerous options and practices already in place for pest control, and no requirement from our trading partners to use irradiation, there is no justification to use irradiation for quarantine controls.

SACA members are also extremely concerned that both the current and proposed labelling regulations deny people the right to choose whether or not to consume irradiated food. There is no legislated requirement for individual labelling/stickering of irradiated fruit. We ask that you amend Food Standards to ensure that, if a food is irradiated, it will be labelled as such and that non-packaged irradiated products, such as fruit, will be individually labelled. Labelling must include the words "irradiated" or "treated with radiation."

It is outrageous that the nutrition of foods is to be destroyed and that unique radiolitic toxins will be formed in foods that people eat in the belief that they are eating something healthy.

As there is a range of safer options to treat fruit and foods for any bacterial or insect infestation, SACA members call on you to decline approval for the irradiation of tomatoes, capsicums or any

other foods, and to refuse any further irradiation approvals and cancel all previous irradiation approvals.

To summarise:

SACA members are opposed to food irradiation in general because:

Irradiation is a dangerous technology looking for a use.

There are healthier technologies such as steam treatment, cold treatment, etc, to clean these food products.

Numerous scientific studies have exposed the potential harmful effects of food irradiation.

Years of scientific research have shown that "radiolytic products" -chemicals created when food is exposed to radiation – can be harmful to our health.

Last but not least, Food Standards Australia New Zealand has itself acknowledged that irradiation depletes the nutritional value of food.

Yours truly,

Gillian Blair
Secretary, SACA Inc.

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[Redacted contact information]

6th November, 2012.

References:

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