

November 6, 2012

Food Standards Australia New Zealand
PO Box 7186
Canberra BC ACT 2610
Australia

Re: Submission on Application A1069, "Irradiation of Tomatoes & Capsicums"

To Whom It May Concern:

Food & Water Watch is a U.S.-based nonprofit consumer advocacy organization. We oppose the use of food irradiation for any purpose for any food, and therefore we urge Food Standards Australia New Zealand to adopt option two to reject application A1069 for irradiation of tomatoes and capsicums. We also support the comments submitted by Food Irradiation Watch.

We oppose this application because the safety and nutritional integrity of irradiated foods has not been established with long-term studies and the need for irradiation of these foods has not been proven. Asking consumers to make the false choice between a questionable technology such as irradiation or chemical treatments for fruit flies is unacceptable. The failure to adopt or develop alternatives to chemical treatments for fruit flies that are now being restricted is not an excuse to substitute another technology that poses serious threats to environmental and public health. Further, the application does not offer proof of any credible benefits to consumers in Australia or New Zealand. The promise of year-round supplies of tomatoes and capsicums is not well justified or explained, and ignores the possibility of other options for supplying consumers with fresh fruits and vegetables, including local growers, hothouse production and other possibilities explained in the Food Irradiation Watch comments.

U.S. Experience with Irradiation

Food & Water Watch has opposed food irradiation for years, leading efforts to educate U.S. consumers about this technology and to prevent attempts to roll back labeling requirements or expand its use. Because the application repeatedly refers to the use of irradiation in the United States, we offer some thoughts about the status and consumer preferences around irradiation in the United States for your consideration.

Repeated attempts to commercialize irradiated food in the United States have failed, even after significant advertising and promotional efforts not only by irradiation companies and food processors, but also by food safety regulators. U.S. consumers are justifiably wary of

irradiated food and we expect that this would also be the case in Australia, New Zealand, or other export markets where irradiated products would be sold.

Despite years of promotion from both industry and regulators, Americans have expressed their dislike and distrust of irradiated foods for more than 40 years, since the Food and Drug Administration legalized irradiated wheat in 1963. Numerous test-marketing efforts have failed, including irradiated ground beef from 2000 to 2004 and various irradiated fruits in the late 1980s and early 1990s.

At this point, most U.S. consumers are not eating much irradiated food. Some meat in the United States is irradiated, but not a large amount. Since 2004, when schools were first offered irradiated ground beef through the U.S. Department of Agriculture's National School Lunch Program, not a single school system has purchased irradiated ground beef from USDA. Some imported irradiated fruits and vegetables are now making it to store shelves after USDA approved the use of irradiation for pest control for imports. Some spices and seasonings also are irradiated, but many brands of spices available in grocery stores are not. While the application talks about U.S. consumers' "considerable experience with labelled, irradiated foods" and reports that "little, if any, consumer opposition to the sales has been reported," we would offer a different perspective. Most U.S. consumers are not seeing any irradiated food in their grocery stores, so there is no need for them to express their opposition. When there have been attempts to expand the use of irradiation in the last decade, U.S. consumers have been quite vocal – submitting thousands of comments to oppose the use of irradiated ground beef in the National School Lunch Program, objecting to attempts to weaken requirements for labeling irradiated food, and voting with their dollars by rejecting irradiated ground beef in cities across the U.S. in the early part of the decade when a company called SureBeam spent tens of millions of dollars promoting it in test markets.

More evidence of consumer opposition to irradiation comes from the dramatic growth of the U.S. organic sector. The use of irradiation is prohibited for foods that are USDA certified organic. The dramatic growth in the organic sector is due in large part to consumers' desire to find foods that have been produced without controversial technologies like irradiation and genetic engineering. In fact, in 1998, more than 275,000 people commented to the USDA to object to a proposal that would have allowed the use of irradiation, genetic engineering, and other controversial methods in organic production. This outpouring of public response shows the depth of public concern about controversial technologies such as irradiation.

The experience of most U.S. consumers does not include irradiated food and most consumers do not want any increase in the sale of irradiated food in the United States. For this application to say otherwise does a disservice to consumers in Australia and New Zealand.

Safety

The U.S. Food & Drug Administration and regulators around the world have approved food irradiation for many foods in spite of paltry and flawed data on safety and in the case of the United States, in violation of their own safety protocols. In some foods, irradiation forms chemical byproducts known or suspected to cause cancer and birth defects. Scientists have observed serious health problems in lab animals fed irradiated foods. Those include premature death, cancer, tumors, stillbirths, mutations, organ damage, immune system failure, and stunted growth. In one experiment, genetic damage was detected in young children who ate irradiated wheat.

The previous approvals of irradiation for other foods should not be confused with proof of safety. The assurances offered by the application that prior approvals of irradiation for other foods offer some solid basis for assuming the safety of irradiation of tomatoes or capsicums is unacceptable, especially without a meaningful post-market study program that could collect information about potential ill health effects caused by these other irradiated foods. Despite the repeated attempts of the irradiation industry to claim otherwise, there is no evidence of the long-term safety of eating irradiated food.

Relatively little irradiated food is being consumed in the United States and there is no systematic data collection effort to track any negative health impacts in those who are eating irradiated food. Even less information is available about effects of eating irradiated vegetables such as tomatoes and capsicums, because so few places are irradiating these foods. But this lack of direct evidence on irradiated tomatoes or capsicums should not be confused with proof that there are no health impacts from these foods. Lack of data about harm is not proof of safety.

Recent experience in Australia offers dramatic examples of potential health impacts, which should combine with the lack of evidence of safety to recommend a precautionary approach to the use of irradiation on human food. Between 2008 and 2009, approximately 100 Australian cats developed neurological disorders that led to their paralysis and, in some cases, death and were linked to consumption of irradiated cat food. Right now, the U.S. Food and Drug Administration is investigating illnesses and deaths in thousands of dogs that have been linked to irradiated chicken jerky treats. The ongoing toll of illness and death in animals fed irradiated food, should give enough reason for a pause before expanding the use of irradiation for more human foods.

Despite the argument by proponents that the safety of irradiation has been studied for over fifty years, many questions still remain about the long-term health effects of consuming a steady diet of irradiated foods. There are no studies to show that, over the long-term, eating irradiated foods is safe. That is the standard that should be reached before any new foods are approved for irradiation.

Nutrition

There is extensive evidence that irradiation causes material change to food. There is scientific consensus that irradiation depletes or alters all major nutritional components of food, including vitamins, protein, carbohydrates and lipids. These nutritional changes have been associated with organoleptic, functional, compositional, and health-related changes.

The free radicals created by irradiation interact with vitamins in ways that can alter and degrade their structure or activity. The destruction of vitamins continues beyond the time of irradiation. Therefore, when irradiated food is stored, it will experience greater vitamin loss than food that has not been irradiated. Cooking can further accelerate vitamin destruction in irradiated food more than in non-irradiated food. Vitamin C, vitamin B1, and vitamin E are reduced in foods exposed to commercial levels of irradiation.

The application was too quick to dismiss the potential impacts irradiation could have on the nutritional content of tomatoes and capsicums. This is especially important given consumers' justifiable expectation that fresh vegetables are a good source of vitamins and other nutrients important to good health. The application focused on differentiating tomatoes and capsicums from meat and foods containing fat, as a way to dismiss concerns about byproducts of irradiation created from fat. But lipids are not the only issue when it comes to chemical changes in irradiated food and any consideration of the health impacts of irradiating more types of food should be based on a much more thorough assessment of the nutrition and quality changes in irradiated food.

The application attempted to minimize the effects of irradiation on food chemistry and quality by characterizing the changes as less severe than those caused by other food handling. This is inappropriate. Just because irradiated tomatoes and capsicums are sold fresh, there is no guarantee that they will not be cooked, frozen, canned or handled in some other way that could compound the vitamin loss already experienced due to irradiation. And while the application did discuss the effects of storage on irradiated tomatoes and capsicums, it failed to adequately consider the impact these storage-induced losses could have on consumers, given the fact that irradiated products tend to have longer shelf life. So dismissing the negative quality and nutrition impacts due to storage time is not appropriate, when it is likely that these foods will be stored for longer before being consumed.

Finally, the application relies on the long-held assumption that any one irradiated food is not likely to make up a significant portion of consumers' diets, therefore decreased nutrient levels or exposure to chemical byproducts from that irradiated food are not of concern. But this is not a valid assumption for several reasons. It ignores the possibility that some people may consume far more than average amounts of the irradiated food, which could be likely for some populations with tomatoes and capsicums, or be disproportionately dependent on a specific food as a source of vitamins. It is also not acceptable to work from this assumption as the number of foods allowed to be treated by irradiation continues to go up. Evaluating the nutrition impact of irradiated foods in isolation is not fully assessing the impact on irradiation if the list of irradiated foods continues to grow.

Technological Need

The application fails to establish why irradiation is needed for tomatoes and capsicums. Other alternatives to the use of chemical treatment of pests by dimethoate and fenthion exist. And the phase out of these two chemicals is not a surprise. The failure of the industry and regulators to implement alternatives cannot be used as an excuse to substitute a different technology that comes with its own public health and sustainability challenges. A thorough process to review all fruit fly control options should precede any approvals of food irradiation.

No other country in the world requires the irradiation of tomatoes and capsicums and neither is specifically mentioned on the International Atomic Energy Agency's irradiation list of foods approved for irradiation. The application also ignores the numerous alternatives to irradiation that exist for achieving the stated phytosanitary goals of A1069, including a whole systems approach.

The justification given in the application that irradiation is needed to facilitate trade in tomatoes within Australia and to New Zealand ignores the existence of regions of Australia which are still free of infestation that can service these markets, as described in comments submitted by Food Irradiation Watch.

Regulatory Impact

The cost benefit analysis used in the application was faulty and ignored anything except the wishes of large-scale growers and shippers. The phase out of toxic chemicals used in the production and shipping of tomatoes and capsicums is progress and should be noted as such. But it should not be an occasion to force consumers into a false choice between one harmful technology for another.

The consumers who are most aware of and motivated by the need to reduce the use of hazardous agrichemicals are very likely to be the same consumers who do not want to eat irradiated food. Linking progress on reducing chemical use by requiring the use of irradiation is not something these consumers will view as a benefit. Further, facilitating more long distance trade in tomatoes and capsicums may not actually be a benefit to the growing number of consumers who are interested in more regional food systems and the improvements in local economic vitality and energy use they create.

Further, we disagree with the application's assertion that consumers would benefit from approval of irradiated tomatoes and capsicums if there are quality impacts as described in the application. The kinds of quality impact on the produce, especially capsicums, could not only wipe out any potential benefit, but could also become a liability for the industry if consumer perceptions of this product's quality are affected. We were disturbed to see the application acknowledge that data on the effect of irradiation on capsicums was limited, but not seek to generate more than a minimal amount of new data. And in light of the disclosure that the data presented did not come from tests of irradiation on overripe or unripe products, the assessment of quality impacts seems incomplete at best. It is

unrealistic to expect that, if approved and used on a commercial scale, irradiation would only be used on products at their peak level of ripeness. To assure consumers that quality of tomatoes and capsicums will not be impacted negatively, much more research should be done.

And listing the fact that consumers could avoid irradiated because they will be labeled is not a benefit – it is the bare minimum level of protection consumers should be afforded if this approval is granted. A real benefit for consumers would be a decision that allows them not to need to seek out this information via a label, because irradiation is not allowed.

Finally, we repeat an objection we have often made to U.S. food safety regulators that seems appropriate given the mention of the potential role for FSANZ to “educate” consumers about irradiation. It is not the job of food safety regulators to convince consumers to accept a technology that is controversial or to increase the use of any one technology. Rather, the role of food safety regulators should be to conduct independent, comprehensive analysis of the safety and efficacy of food safety or treatment technologies. Whether consumers accept them and companies use them should not be the mission of agencies like FSANZ.

Labeling

Though labeling is not the subject of the application, it repeatedly claims that labeling will ensure that consumers will have the option of avoiding irradiated food if they so choose. However, the current labeling regime is inadequate, as irradiated tomatoes and capsicums will not require individual labeling and there are many ambiguous terms besides “irradiated” that can be used on labels. Further, because the rules for labeling are due to be evaluated and possibly changed in the near future, it is not appropriate to assume current labeling coverage as a part of the justification for approving more uses of irradiation.

If more irradiated food is approved, it is absolutely critical that it be labeled. This has been a major issue for consumers in the United States, with massive public outcry at various attempts to weaken labeling requirements of irradiated food. If more food is irradiated in Australia and New Zealand, we would urge that it be subject to mandatory labeling requirements that require individual labeling that must include the words “irradiated” or “treated with radiation” or “treated with irradiation.” Mandatory labeling of all irradiated foods with clear and accurate labels offers the only option for consumers to avoid irradiated foods if they wish to do so. To live up to the objectives listed as the charge of FSANZ in the consideration this application, increasing the stringency of labeling requirements is the only option, not weakening them. One specific way this could be achieved is to require labeling of pieces of fruit, as opposed to relying on signage.

Conclusion

Irradiation is not the food safety or pest management panacea that proponents make it out to be. Irradiation is not used extensively in the United States because consumers have not accepted it. It has failed miserably in the marketplace. Consumers have been able to make

informed choices about whether or not to buy irradiated food because these products must be accurately labeled under current regulations.

We recommend that FSANZ adopt option two and reject proposal A1069.

Thank you for your consideration of these comments.

Sincerely,

A solid black rectangular box used to redact the signature of Wenonah Hauter.

Wenonah Hauter
Executive Director
Food & Water Watch