



Endangered Family Farms: How Food Irradiation Threatens American Agriculture

Irradiating the world's food supply is on the agenda of governments and transnational corporations alike. Irradiation can significantly extend the shelf life of food, kill invasive insects, and mask the contamination of meat products. This facilitates international trade of food and leads to higher profits for large, industrialized food producers. Family farmers and small-scale producers, on the other hand, will be left out in the cold as irradiation tarnishes the image of their products and threatens their livelihood.

Giant agribusiness corporations want to grow more fruits and vegetables in the developing world, where labor is cheap and environmental regulations are weak or non-existent. Zapping this food with ionizing radiation would kill the invasive insects that are considered "barriers to trade" and allow food to be shipped over long distances because it increases food's shelf life.

This could devastate U.S. farmers as production is shifted overseas and cheap imports flood U.S. markets. U.S. Agriculture has suffered huge financial losses due to ostensibly reciprocal trade agreements, such as the North American Free Trade Agreement (NAFTA.) With imports on the rise, U.S. agriculture exports fell from a record of \$60 billion in 1996 to \$53 billion in 2001.

And, small farmers have been hurt worst of all. In the first seven years of NAFTA, 33,000 farms with an annual income under \$100,000 went under. This rate was six times higher than pre-NAFTA. The economic disasters for American agriculture caused by NAFTA pale in comparison to what could happen if the globalized agriculture system envisioned by the World Trade Organization

comes to pass.

The system the WTO is working to create cannot happen without irradiation. Arnold Foudin, a high-ranking U.S. Department of Agriculture official, said food irradiation is "absolutely necessary" in order for food trade to become truly global.

Food irradiation also advances the consolidation of the food system, and increases control of the world's food supply by large corporations. Legal in 33 countries, irradiation allows big agribusiness to ship food farther and mask the contamination of meat caused by large-scale animal operations and unsanitary processing plants. Family farmers and small producers cannot compete with overseas production and the large factory farms that drive prices below their cost of production. Irradiation is a vital tool for the corporate giants that depend on production in the developing world and on factory farms to make their profits.

Brazil, for example, has several irradiation facilities in operation with another 21 in the planning stages, as well as the most lenient food irradiation regulations in the world. Literally all foods can legally be irradiated in Brazil, from peas to

pork, from beef to bananas. The irradiation industry's goal is to irradiate tropical fruits grown in Brazil and other Latin American countries – and foods from many African, Asian and Middle Eastern countries – for export to the U.S. and Europe.

So What is Food Irradiation?

Irradiation blasts food with ionizing radiation the equivalent of up to 1 billion chest X-rays. These extremely high doses initiate a complex sequence of reactions that, in addition to killing bacteria, literally rip apart the molecular structure of the food. Chemicals known or suspected to cause cancer and birth defects are formed, as well as unidentified chemicals that have not been adequately studied for safety.

Some of the byproducts of irradiation are chemicals called 2-alkylcyclobutanones, or 2-ACBs, which were recently shown to promote cancer development in rats, and cause genetic damage to human cells. These chemicals have never been found naturally in any food. Ironically, 2-ACBs have a positive side: they are used as “markers” to determine whether a food has been irradiated, so that people will not unknowingly eat irradiated foods.

The nutritional content of irradiated food also suffers. For instance, according to the U.S. Food and Drug Administration, irradiation destroys up to 80 percent of the vitamin A in eggs and half of the beta-carotene in orange juice. If irradiated foods are stored longer and shipped further from the farm, these foods will arrive at the dinner table with significantly diminished nutritional value.

Low Sales and Labeling

Despite elaborate marketing campaigns by the food irradiation industry, the public has consistently rejected their products. Test-marketing of irradiated ground beef in New York, California, Florida, and Wisconsin have failed, with well over 100 grocery stores pulling the products off of their shelves in 2001.

Due to the massive ground beef recalls of 2002 and 2003, the food irradiation industry has succeeded in wedging more of their products onto supermarket shelves. The industry, however, refuses to release sales figures. Feedback from store employees and consumers indicate that initial marketing hype and discounts are usually followed by dropping sales. Gone unsold, some irradiated ground

beef has been thrown into the garbage.

Currently, federal rules require whole foods sold in stores – such as apples, potatoes, ground beef and pork chops – to be labeled “Treated by Irradiation” and carry the international symbol for irradiation, the radura. But there are numerous loopholes. Processed foods containing irradiated non-meat ingredients are exempt, as are irradiated foods served in restaurants, schools, nursing homes, day-care centers and hospitals.

Due to weak sales, the irradiation industry has been pressuring the federal government to change labeling rules to allow meaningless euphemisms such as “electronic pasteurization” and “cold pasteurization.” In numerous surveys – including those sponsored by the federal government – consumers have repeatedly stated that such phrases are misleading and deceptive, and that associating pasteurization with irradiation could result in public mistrust of pasteurized dairy products.

What Can We Do?

Family farmers and small producers should not have to compete with corporate giants that rely on cheap labor, environmentally damaging methods and irradiation to produce food. Without working together to support sustainable, local agricultural systems and fighting technologies that enable the globalization of our food supply, we will lose our family farmers.

The first thing we can do to stop the global spread of food irradiation is to not buy irradiated products here at home. Ask your local grocery store and restaurants if they sell irradiated food and tell them you don't want it. Also let your elected officials know that you want them to strengthen consumers' right to know by protecting the labeling requirements for irradiated food. Your voice is important!

Public Citizen has growing national and international campaigns to stop food irradiation. To get involved or learn more, please contact us.

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