EDITORIAL ALERT

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Contact:
Michel Baumgartner: 32 (0)2 534 9036

Food Irradiation: A Human Health Hazard, Not A Solution

On 17 December, the European Parliament's Plenary will decide whether in the future the list of foods approved for treatment with ionising radiation should be extended.

Food irradiation is the treatment of food with high doses of radioactive cobalt-60 or cesium-137 or near speed of light electrons fired by linear accelerators. It sets off a chain reaction within food, changing its molecular structure and nutritional content. Proponents claim that irradiation makes food safer, but it also creates unidentified chemical compounds that have *never* been proven safe for human consumption.

Currently, **all but five EU countries only permit the irradiation of spices, herbs and vegetable seasonings**. The United Kingdom, The Netherlands, Italy, France and Belgium allow the irradiation of more food categories, but do not pursue the process. In a Communication published in 2001, the European Commission has asked the European Parliament to take position on three scenarios that outline possible future developments of European food irradiation policy. The European Commission proposes to i) setting up a list in which a real technological need has been identified ii) include frozen aromatic herbs, dried fruit, cereal flakes peeled shrimps, frog legs and several other products into the list iii) regard the current legislation as complete.

On 5 November the European Parliament's Committee on the Environment, Public Health and Consumers adopted a report preparing the Parliament's opinion on food irradiation. The Members of the Committee notably supported better controls of irradiated food, stricter fight against illegal irradiation, more research into the risks to workers and increased research on the health impacts linked to consuming irradiated foods.

The report they adopted however shows an important contradiction that will need to be addressed by the Parliament's Plenary. Whereas the report's third recommendation states that "the current list should be regarded as complete", the fourth recommendation considers "with interest the second option [an extension of the list]". Given today's uncertainties on long-term effects of irradiation, the Precautionary Principle would advise responsible lawmakers to vote in favour of a deletion of the fourth recommendation. A loophole inserted in the third recommendation might furthermore open the door to large-scale abuses. The recommendation indeed states that "any addition to herbs, spices and vegetable seasonings only be permitted in the EU *when scientific knowledge suggests it is safe and efficacious to do so"*. There are currently dozens of scientific studies contradicting each other regarding irradiation. The scientific blessing of an extension of the list should therefore be regarded with suspicion.

Some History

Food Irradiation was born in the 1950s, when US government officials were searching for everyday uses for radioactive waste. In 1953, President Dwight Eisenhower unveiled the "Atoms for Peace Program" to the United Nations General Assembly. He offered the plan as a peaceful alternative to the horrors of Hiroshima and Nagasaki. Although irradiation has existed for several decades, consumers have been wary of this technology.

Health

There are numerous suspected health concerns associated with irradiated foods. Nutritional content declines, as does the amount of protein. Depending on the food and the shelf life, vitamin content can decline up to 90% after it has been irradiated. In addition, for the past 40 years scientists in Europe have found serious health conditions in lab animals that ate irradiated foods - including mutations, fatal internal bleeding, suppressed immune systems, organ damage, tumours, stunted growth and nutritional deficiencies. Recent evidence links chemical by-products formed in irradiated foods to cancer development and tumours in rats, and genetic damage in human cells. **No long-term studies have been conducted on the health effects of eating irradiated food for Humans**.

The European Scientific Committee on Food recently dismissed scientific research conducted by an independent panel of experts. The research found that irradiation has potential harmful hazards to humans and needs to be further researched before widespread consumption. The World Health Organisation (WHO) is no different. Public Citizen recently released a report, *Bad Taste: The Disturbing Truth About the World Health Organisation's Endorsement of Food Irradiation* (available to download: www.citizen.org/cmep), that outlines the World Health Organisation's misrepresentation of over 40 years of scientific evidence that indicates serious health impacts associated with eating irradiated foods. Despite this evidence, the WHO and other international agencies are working to expand the legalisation, commercialisation and consumer acceptance of irradiated foods throughout the world.

Deceptive Labelling

A June 2002 UK Food Standards Agency survey revealed that illegally irradiated, unlabelled herbal supplements, seafood and spices were being sold to British consumers. Despite the availability of tests for detecting irradiated foods, enforcement of food irradiation regulations remains difficult. When illegally irradiated foods are sold, consumers are exposed to potential health risks. Consumers are misled and completely lose their already shattered confidence in food products. They are furthermore not helped by efforts of the pro-irradiation lobby to call the process 'electronic pasteurisation' or 'cold pasteurisation,' innocuous terms for a dangerous process.

Affecting the Global Food System

In addition to considering the potentially harmful effects of irradiation on people's health, it is crucial to examine how the technology affects our food system. Because it extends the shelf life of food by killing the bacteria that makes fruits and vegetables rot, irradiation allows food to be shipped long distances. Consequently, it encourages the environmental, health and social justice problems that are inherent to the globalisation of our food supply, in which food is grown wherever it is cheapest and most often where environmental regulations and workers rights are lax or non existent.

Food irradiation furthermore requires the cultivation of single species cash crops controlled by companies that are large enough to efficiently irradiate the harvests and cheaply ship this produce overseas. Such industrialised agribusiness harms the environment, ecological diversity and local economies and introduces the threat of nuclear incidents at local level.

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