

CFIC Synopsis

Food irradiation

Irradiating food can help reduce the risk of foodborne illnesses.

Health Canada is proposing regulatory changes for food irradiation, which would add beef, poultry, shrimp, prawns and mangoes to the list of foods permitted to undergo irradiation. Released in Part I of Canada Gazette, November 23, 2002.

In December 2002, Health Canada launched a series of seven public information sessions, which began December 9th and concluded January 16, 2003, to discuss proposed amendments to the food irradiation regulations, to invite comments, and to distribute educational material.

Currently in Canada food irradiation is approved for limited use. In 1989 the government passed food irradiation regulations to permit irradiating potatoes, onions, flour and spices. Details are in Division 26, Food and Drug Regulations. http://www.hc-sc.gc.ca/food-aliment/friia-raaii/food_drugs-aliments_drogués/act-loi/pdf/e_d-text-2.pdf Pages 44–45.

As recently as 1999 the US amended their regulations to include meat and poultry products. Internationally, food irradiation is used in about 50 countries.

The irradiation technology has been around for about 50 years. Irradiated products are not new to the marketplace. For years the technology has been applied to specific products e.g medical devices, consumer hygiene products, and certain foods such as those given to people with compromised immune systems and those eaten by astronauts in space.

Below are brief descriptions of four informative publications on food irradiation. Details are included on how you can access copies.

The *Scientific Status Summary: Irradiation of Food* is a very technical, yet well-written analysis of food irradiation, with a particular emphasis on its use to destroy pathogens in meat and poultry. This 1998 publication provides strong scientific support for irradiating food to improve its microbial safety. It reviews the history of food irradiation with reference to its application in the US, traces US regulatory changes, and describes in detail how the technology destroys bacteria. It examines the data on nutritional value, quality changes in the irradiated food, and safety for human health. Packaging issues, such as the role package material plays in ensuring a high quality irradiated product, are discussed. As well, the author acknowledges that informing the consumer about the technology and its advantages enhances public acceptance about irradiated food.

Scientific Status Summary: Irradiation of Food

By the Institute of Food Technologists' Expert Panel on Food Safety and Nutrition
Foodtechnology. 1998; 52 (1): 56-62.

Select S-038 at the link below

<http://www.ift.org/publications/sss/>

The Centers for Disease Control and Prevention have a highly readable resource, *Frequently Asked Questions about Food Irradiation*. The easy-to-follow Q & A format covers everything from what food irradiation is, through to how irradiation facilities are monitored for safety. Facts are presented in an uncomplicated manner, with enough detail and practical examples to increase understanding about food irradiation. The publication's information on the irradiation technology and the science around its use, is universal. However, their information on approved foods and regulations applies only to the US situation. CDC supports this technology to fight foodborne illnesses and describes it as "a promising new application of an existing technology." The publication ends with a list of resources and websites for more information.

Frequently Asked Questions about Food Irradiation

By the Centers for Disease Control and Prevention, Division of Bacterial and Mycotic Diseases, 1999

9 pages

<http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodirradiation.htm>

Food Irradiation: A Global Food Safety Tool, jointly developed by the International Consultative Group on Food Irradiation and the International Food Information Council Foundation, provides an up-to-date, global perspective. Three prominent international agencies reviewed and approved this May 2002 publication—Food and Agriculture Organization of the United Nations (FAO), International Atomic Energy Agency (IAEA) and World Health Organization (WHO). The food irradiation technology is described in a straightforward way, the benefits to public health are

clearly delineated, and examples of consumer reactions to irradiated food are discussed. The publication lists resources for further reading. Only available on-line, you can find and print the pdf version of the publication by using the search feature of IFIC (web link below) where you can access other food irradiation resources.

Food Irradiation: A Global Food Safety Tool

By International Consultative Group on Food Irradiation (ICGFI) and the International Food Information Council Foundation (IFIC), May 2002

9 pages

<http://search.ific.org/cgi-bin/ts.pl>

The American Dietetic Association (ADA) published *Food Irradiation—Position of ADA* in 2000. The position paper is a well-referenced, comprehensive analysis of the food irradiation process. It documents the history, the benefits, and includes an extensive discussion on nutritive value of irradiated food. Environmental safety of food irradiation is discussed, with attention to regulations regarding the transport and handling of radioactive material. The section on consumer/producer issues offers valuable insight into both consumer attitudes and behaviour towards irradiated food. ADA voices strong commitment to consumer education around food irradiation and supports continued research on the safety and efficacy of food irradiation.

Food Irradiation—Position of ADA

By the American Dietetic Association (ADA)

J Am Diet Assoc. 2000; 100:246-253

<http://www.eatright.org/adap0200.html>

Posted January 2003