Food Irradiation: Making an Informed Choice

Food irradiation is a new food safety technology which involves treating food with ionizing radiation to kill bacteria and parasites. No evidence exists to indicate that irradiated foods are poisonous or radioactive. Still, a great deal of controversy exists on its use.

Making a good decision about a new technology requires society to fully consider its costs and benefits as well as the costs and benefits of alternative courses of action. Good decisions are also open and transparent to the public and provide the opportunity for meaningful participation.

For food irradiation, a full accounting of costs and benefits includes consideration of its benefits on illness and disease rates in specific settings, effects on nutritional content, taste, or food quality, effects on food choices by consumers, costs due to perceived hazards, and costs associated with regulation and product labeling. As irradiated foods could still become contaminated with germs during processing after irradiation, an accounting might also consider the effect of this technology on safe food manufacturing and preparation practices.

In addition, all new technologies have the potential to have indirect health and environmental consequences both locally and globally. For food irradiation, these indirect impacts also merit consideration. For example, because irradiation extends the shelf life of food, it facilitates shipping food longer distances with resulting increases in transportation related air quality and energy costs. Irradiation may also encourage food production in countries with less stringent occupational and environmental and safety regulations. Because of its capital costs, irradiation may contribute to more centralized production in agriculture affecting the livelihoods of small or local farmers.

The Department believes that the public needs to thoughtfully explore all potential impacts, direct and indirect, before adopting any new technology. Irradiation of certain foods may have a net value to health, but it will be necessary to show the benefits of specific applications and gain broader public acceptance prior to its effective use. As with any new technology, it is important for the public to ask the question: Is food irradiation necessary and, if so, in which settings and under what circumstances.