its new food research centre in St. Hyacinthe, Quebec. The centre was established to carry out research and development projects. In addition, an industrial food irradiation facility, to be called the Canadian Irradiation Centre, is being built at Laval, Quebec. This centre is a joint project between AECL and the University of Quebec, and is intended to demonstrate Canada's radiation processing technology.

Among the problems to be studied at the Agriculture Canada centre is the control of salmonella bacteria in poultry. In Canada, about 10 to 12 000 cases of salmonellosis food poisoning are reported annually, with 25 per cent directly associated with poultry. In the poultry industry, eliminating salmonella would require spending tremendous amounts of money, according to Agriculture Canada's Food Research Centre. The irradiation of poultry is expected to solve that problem, and researchers will be studying the dose needed to eliminate salmonella without affecting poultry flavour and nutritional value.

Agriculture Canada researchers will also be looking at hybrid preservation methods (which combine, for example, irradiation with canning), and at ways to extend the shelf life of various foods. Strawberries could stay in good condition for three to four weeks if irradiated, compared to about one week if left untreated. And potatoes, which normally sprout after just a few days on the shelf, will last for up to four months after treatment.

No danger to consumer

Despite irradiation's many benefits, the food industry is concerned about how consumers will perceive the safety of irradiated food products. However, Agriculture Canada's researchers emphasize that the food does not become radioactive and that at the low dosage levels being proposed for the commercial irradiation of foods, there is no danger to the consumer.

Numerous scientific studies have proven that irradiated food is safe. In 1980, for example, a joint committee of the Food and Agricultural Organization, the International Atomic Energy Agency, and the World Health Organization concluded that irradiation of food up to an overall average dose of 10 kGy presents no toxicological hazards. Moreover, the committee found that irradiation induces no nutritional or microbiological problems. The Consumers' Association of Canada generally accepts food irradiation as a safe process, although it does want irradiated products to be clearly and prominently identified.

When irradiated products begin to appear on Canadian grocery shelves, possibly by 1990, consumer reaction will ultimately decide the fate of food irradiation. Two major Canadian surveys have already shown that, although most consumers don't know enough about irradiation to make an informed judgement, they would prefer it to chemical treatment as a food preservation technique. And if that attitude holds, irradiation may soon be as common a food industry practice as canning.

Note: Once irradiation is accepted, there will be a regulation that all foods treated by ionizing radiation or some such process be properly labelled before distribution in Canada. Foods exported to other countries have to be in accord with the regulations of the importing country.

Higher doses of irradiation extend the shelf life of foods. At 200 krads, shelf life is extended seven to ten days.