



Irradiation – An idea whose time has come

Well, it's been quite a summer. Who would have thought just a few months ago that food safety would be front and centre as a federal election issue or that obscure people who work for universities would suddenly emerge as "food safety experts" to proclaim that the tragic deaths and the many other recalls were primarily the result of lax regulation? Or that instant experts on meat inspection who have never been near a meat processing plant or ever heard of the *Manual of Procedure* would make completely inaccurate remarks, comparing favourably the American system to Health Canada's 2004 Listeria Policy for RTE? Misinformation was everywhere. The unions stirred the pot and the media ate it up. The government responded by announcing that we would have an inquiry looking into all this. Predictably, the Opposition responded with cynicism as such inquiries have been used in Canada in the past to punt an issue off the front pages. But these independent inquiries can also make significant contributions to public policy. I helped set up the Haines Commission on Meat Inspection in Ontario and served as the co-chair of its Expert Advisory Panel. I can confidently say that the *Haines Report* led directly to the proclamation of the *Ontario Food Safety and Quality Act* and that both the process and the report were widely praised for their contribution to the modernization of meat inspection in Ontario. What follows is one modest proposal for consideration by the inquiry.

In November 2002, Health Canada announced its intention to amend the table to division 25 of the *Food and Drug Regulations* to allow additional irradiated foods to be sold in Canada: fresh, frozen, prepared and dried shrimp and prawns, fresh and frozen poultry, and fresh and frozen ground beef to control pathogens, reduce microbial load and extend durable life; and to mangoes, to control insect infestation during storage and to extend durable life. Currently, food irradiation is only permitted on potatoes and onions to inhibit sprouting during storage; on wheat, flour and whole wheat flour to control insect infestation during storage; and on whole or ground spices and dehydrated seasoning preparations to reduce microbial load. So far, the main use of irradiation has been on spices.

Before publishing the proposed regulations, Health Canada carried out a thorough technical review and concluded that the irradiated foods were safe, did not destroy nutrients and had many benefits. With those conclusions, why is it taking so long? The World Health Organization endorsed food irradiation more than 20 years ago, and the U.S. approved irradiation of poultry in 1990 and red meat in 1997. This year the FDA announced its intention to approve the use of irradiation on fresh iceberg lettuce and fresh spinach in light of the recent large produce recalls. In September, responding to a petition from the American Meat Institute, the USDA announced its decision to review expeditiously the possibility of allowing low-dose irradiation of beef carcasses to kill pathogenic bacteria on the surface. The FDA has tentatively said that it would not object to treating low-dose, low-penetration irradiation of beef carcasses as a processing aid. A U.S. Department of Agriculture study has shown that pieces of a carcass inoculated with high doses of *E. coli* 0157:H7 and then treated with low-dose irradiation had no detectable *E. coli* 48 hours later. Another USDA study found the low-dose irradiation had no effects on the aroma, tenderness or flavour of the product.

Meanwhile, nothing is happening in Canada. I have been arguing for years that Canadians should have this sensible option to enhance food safety available to them. I have never been able to determine why Health Canada has refused to move on this. Food irradiation has been intensely studied and scrutinized for safety. It is not a magic bullet, but it is an important additional tool that should be available to food processors. It cannot be used to replace good manufacturing practices but it can be an important step in the right direction. Properly used, it could be very helpful in combating a range of difficult pathogens such as salmonella and *Listeria monocytogenes*.

The inquiry will have its plate full, but this is one positive reform that should be pursued. Irradiation is an idea whose time has come.

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