

own presidential election within its own dynamics and with its own final Electoral College score (varying from 55 for California to three for the least populated states). A half dozen of the battleground states are now poised to decide the final outcome. The Obama campaign also has an enormous financial advantage and has better local, on-the-ground organization. So far this year, the Electoral College vote distribution also favours Obama as he leads in states which, when combined, have more Electoral College votes than the states where McCain leads (Real Clear Politics, 2008). On the other hand, any major foreign crisis between now and the election is likely to favour McCain. Finally, even if McCain wins the White House, Congress appears set to elect stronger Democratic majorities, thus enhancing the Democratic influence on whatever policies emanate from the next resident of the White House.

References

- Barro, Robert J. (2008, February 22). Reagan vs. Clinton: Who's the Economic Giant? *Business Week*.
- Cook, Charlie (2008, September 9). With Two Months Left, Time to Reassess. *National Journal*.
- Feldstein, Martin, and John B. Taylor. (2008, September 2). John McCain Has a Tax Plan to Create Jobs. *Wall Street Journal*.
- Marsden, Keith (2008, September 3). Bush Has a Good Economic Record. *Wall Street Journal*. <http://online.wsj.com/article/SB122039890722392873.html?mod=most_emailled_day>.
- Polling Report.com (2008). *President Bush: Job Ratings: CBS News/New York Times Poll. Sept. 12-16, 2008*. <<http://www.pollingreport.com/BushJob1.htm>>.
- Real Clear Politics (2008). *Real Clear Politics Electoral College Count*. <http://www.realclearpolitics.com/epolls/maps/obama_vs_mccain/>, as of September 10, 2008. ■

Science and safety

Listeriosis crisis demonstrates need for greater use of biotech

Diane Katz

CANADIANS' confidence in government food inspection plummeted recently after a number of deaths related to tainted meat products occurred across Canada. In predictable fashion, officials promised to resolve the crisis by increasing their budgets. But matters won't improve in any meaningful way until food safety policy is shaped by science rather than politics.

The 18 deaths associated with the outbreak of Listeriosis in processed meats from Maple Leaf Foods in Toronto would be tragic under any circumstances. But they are all the more so given the ready availability of safe biotechnology that can destroy a great deal of the microbial contamination that sickens millions of Canadians each year and costs the economy more than \$14 billion (Canadian Partnership for Consumer Food Safety Education, 2006).

There's no guarantee of risk-free eating, of course. More than 250 diseases (Ontario, Ministry of Agriculture Food and Rural Affairs, no date) are transmitted through food by biological hazards—a vast number of which are invited by consumers' mishandling of perishables. But the use of irradiation can significantly reduce incidences of food-borne illness.

Exposing food to radiant energy such as microwaves and gamma rays kills bacteria or halts their proliferation. The process has undergone decades of research and has been deemed safe and effective by more than 50 countries. Ac-

cording to the Canadian Institute of Food Science Technology (1999), "From a toxicological, microbiological, or nutritional point of view, the process of food irradiation is at least as safe as other, more conventional, well-accepted food processes such as pasteurization and canning."

Yet Health Canada has not finalized any petition for food irradiation since 1984, when permission was granted to irradiate wheat and flour against insect infestations. Only three other applications have been approved in the past 25 years: for potatoes, to control sprouting and extend shelf-life, in 1960; for onions, to inhibit sprouting, in 1965; and to decontaminate herbs, in 1984.

Dr. Jeff Farber, director of Health Canada's Bureau of Microbial Hazards, insists that the government has not received a petition from the private sector for permission to irradiate processed meats. But it is patently obvious why no one has applied: the agency has yet to finalize a petition initiated back in 1998 from the Canadian Cattlemen's Association for irradiation of red meat (a practice approved eight years ago by the US Food and Drug Administration). Also languishing in Health Canada's petition purgatory are requests to irradiate raw poultry, shrimp, and mangoes.

This recalcitrance is all too reminiscent of government foot-dragging on milk pasteurization in the 1930s. Despite overwhelming evidence of the benefits, provincial officials resisted life-saving pasteurization requirements for more than two decades.

Health Canada researchers acknowledge the benefits of irradiation—on paper, at least. In a review of proposed uses, officials concluded,

The proposed new uses of food irradiation could contribute to a reduction in disease incidence and consequently result in an associated reduction in public and personal health costs ... Treatment with ionizing radiation can also improve the quality of foods by controlling insect infestations and microbial contamination after harvesting ... Therefore, irradiation has the potential to assist industry in enhancing the safety and quality of food products. (Health Canada, 2002)

Canada also is a signatory to the United Nation's Codex Alimentarius Commission, which promulgates in-

ternational food standards, including endorsement of irradiation “when it fulfils a technological requirement and/or is beneficial for the protection of consumer health.”

United States have been reluctant to adopt irradiation for fear of alienating their customers. In fact, market research now shows that when given a choice between irradiated and non-irradiated foods, at least half of consumers will opt for the safer choice, i.e., the irradiated product (Osterholm and Potter, 1997). Consequently, groups such as the Grocery Manufacturers Association, which represents the food and beverage industry, are petitioning the US Food and Drug Administration to expand the use of irradiation.

Regulators in Canada, however, are robbing grocers and consumers of that choice.

Instead, government officials are promising to hire 58 food inspectors this year—adding to the 200 new hires in the past two years. They also are vowing to increase funding for food safety programs by more than \$100 million

annually (Campion-Smith et al., 2008, Aug. 28).

Of course, the agency could dramatically improve manpower efficiency if the system were not designed for inspectors to spend 50 percent of their time on paperwork, as acknowledged by Minister of Agriculture and Agri-Food Gerry Ritz (Campion-Smith et al., 2008, Aug. 28). And, the current budget might prove adequate if Health Canada focused its resources on priority risks. For example, is it really necessary for the federal government to issue warnings—five years running—about the potential hazards of garage sale items? Must it monitor our intake of trans fats and indulge in seemingly endless spec-

ulation about the possible impacts of hypothetical climate change on public health?

Beefing up food inspections is a bureaucratic band-aid, at best. Inspectors can only check a fraction of the food products moving through the vast supply chain. But many more lives would be saved—and immeasurable grief prevented—if only Health Canada would stop paying lip service to life-saving biotechnologies and actually permit their utilization.

References

- Campion-Smith, Bruce, Robyn Doolittle, and Joanna Smith (2008, August 28). *Listeria Outbreak Spurs Food Safety Overhaul*. *Toronto Star*. <<http://www.thestar.com/article/486857>>.
- Canadian Institute of Food Safety and Technology (1999). *CIFST Food Irradiation Background Paper*. Last updated October 7, 2004. <<http://secure.cifst.ca/default.asp?ID=879>>.
- Canadian Partnership for Consumer Food Safety Education (2006). *Food Safety Tips Fact Sheet*. <http://www.canfight-bac.org/cpcfse/en/safety/safety_fact_sheets/foodborne_illness/>.
- Health Canada (2002). *Food And Drugs Amendments - Proposal Project N° 1094 (Food Irradiation) Regulatory Impact Analysis Statement*. Last updated October 24, 2002. <<http://www.hc-sc.gc.ca/fn-an/securit/irridation/109401-eng.php>>.
- Ontario, Ministry of Agriculture Food and Rural Affairs (no date). *Background: Food Safety is Everyone's Business*. <http://www.omafra.gov.on.ca/english/food/inspection/fruitveg/min_process/mpo2_background.pdf>.
- Osterholm, M.T., and M.E. Potter (1997). *Irradiation Pasteurization of Solid Foods: Taking Food Safety to the Next Level*. *Emerging Infectious Diseases* 3, 4 (October–December): 575–77. <<http://www.cdc.gov/ncidod/eid/vol3no4/adobe/osterhol.pdf>>. ■

Officials of Health Canada evidently lack the fortitude to take on the food alarmists who demonize all things biotech.

But officials of Health Canada evidently lack the fortitude to take on the food alarmists who demonize all things biotech. The agency actually has conducted focus groups in Toronto, Montreal, Halifax, and Red Deer to gauge the potential for public backlash in the event a petition should somehow be finalized. But courting public opinion should be wholly irrelevant to a “science-based” agency.

Public opinion is obviously important to grocers, many of whom in the