Is the food supply safe from terrorist attacks?

Food terrorism is defined as the deliberate contamination of the food or water supply. According to the World Health Organization, the contamination of food for terrorist purposes is a real and current threat, and contamination of food at one location could have global public health implications. Food can be used to spread chemical, biological or radionuclear agents.

The safeguards and many points of inspection and monitoring already in place would likely prevent contaminated food from reaching and affecting large numbers of consumers. Canada has no recorded incidents of food terrorism and there was only one case in US history where in 1984, 751 people became sick after members of a religious sect infected Oregon salad bars with salmonella.

Terrorist attacks can be difficult to distinguish from natural events considering the number and variety of human foodborne illnesses coupled with crop and livestock diseases. Outbreaks of both unintentional and intentional foodborne disease can be managed by the same mechanisms usually contained in a crisis management plan. Emergencies, including food terrorism, can be efficiently and effectively countered with precautions, coupled with strong surveillance and response capacity. In order to be prepared for any incidents of food terrorism, it is essential to establish procedures, plan and train prior to actual events.

The greatest threat to the food industry is likely the economic impact of terrorism. The solution lies in developing a preventive strategy for a terrorist attack similar to the elements of a Hazard Analysis Critical Control Point (HACCP) plan. As its name implies, HACCP identifies critical points along the food production and processing chain where contamination is most likely to occur.

How might terrorists attack the food supply?

Large farms and food processing plants with widespread distribution networks are vulnerable targets for food terrorism. Potential weapons range from sophisticated bio-engineered pathogens to other agents that are part of the natural environment. The US Centers for Disease Control and Prevention has cited the following biological agents as potential weapons that could be used to deliberately poison the food supply: *Clostridium botulinum; Salmonella spp., E.coli O157:H7, Vibrio cholerae*.

An attack could occur at any point along the food supply chain from farm to fork. Terrorists could create harm through: (1) final product contamination using either chemical or biological agents with the intent to kill or cause illness among consumers, (2) disruption of food distribution systems, (3) damage to the agricultural economy by introducing devastating crop pathogens or exotic animal diseases such as foot-and-mouth disease, or (4) hoaxes, using the mass media or Internet, which create anxiety and fear.

Most experts state that water reservoirs are unlikely targets for bioterrorism. Methods already in place to filter and clean the drinking water supply are considered effective against most biological agents. Chlorine, for example, protects drinking water from water-borne bacteria and would neutralize most biological agents. The large volume of the water supply would significantly dilute a biological agent before it reaches the tap, limiting the potential to do harm.

What is being done to prevent food terrorism incidents in Canada?

Food safety is well regulated in Canada. The main government bodies responsible for food safety include the Pest Management Regulatory Agency, which reports to the Minister of Health, and the Canadian Food
Inspection Agency (CFIA), which reports to the Minister of Agriculture and Agri-Food. Laws and regulations which set out the Government of Canada’s role in food safety include the Food and Drugs Act; Canada Agricultural Products Act; Canadian Environmental Protection Act; Meat Inspection Act; Health of Animals Act and the Pest Control Products Act.

In collaboration with provincial Departments of Agriculture and other agri-food sector stakeholders (such as industry), Agriculture and Agri-Food Canada, and the Canadian Food Inspection Agency have jointly established the Food and Agriculture Emergency Response System (FAERS). The purpose of FAERS is to mobilize all agri-food sector resources to ease the effects of emergencies on the sector, and to ensure the continuity, adequacy and safety of Canada's agri-food system.

In the event of a terrorist incident, the Government of Canada and the Royal Canadian Mounted Police (RCMP) would be responsible for crisis management including law enforcement, intelligence gathering, surveillance, negotiation, and investigation. The RCMP is assisted by provincial/territorial and municipal police departments. These departments are responsible for maintaining public safety within their provincial/territorial borders. The Joint National Chemical/Biological Response Team (JNBCRT) is also available to respond to incidents involving the criminal use of biological and chemical agents. The JNBCRT would be deployed in support of the police agency that has jurisdiction for the incident.

**Information Sources:**


*For more information on food terrorism or other food safety topics, please call the Food Safety Network toll-free at 1-866-50-FSNET or visit our website at www.foodsafetynetwork.ca*

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