

Backgrounder

Improving the Regulation of Genetically Modified Foods and Other Novel Foods in Canada

Interim Report of the Canadian Biotechnology Advisory Committee to the Government of Canada's Biotechnology Ministerial Coordinating Committee

Introduction

Few things matter more to us than the safety of the foods we eat. And while we understand and accept that some foods are healthier and more nutritious than others, we expect all of them to be grown, processed, transported, packaged and sold in ways that ensure they are safe to eat.

That is how we have always thought of the products on our grocery shelves, and it is a reality that gives us comfort. But how are we to deal with a new reality, the notion that some foods have been genetically modified ?

Genetic modification of plants is used to improve pest resistance, improve tolerance to herbicides, or improve shelf life. In genetically modified (GM) foods, these traits are not bred into the crops through traditional agricultural techniques. Instead, since the early 1980s, we have had the ability to engineer foods using technologies such as cloning, gene splicing or the insertion of a gene from another plant, a microorganism or an animal.

Concerns are being raised about the potential impacts of GM foods, including possible long term effects of consuming them. Other concerns include safety for the environment, social and ethical issues and economic impacts. These concerns are expressed not only among Canadians, but are also being heard globally as GM foods are being produced in or traded to many parts of the world.

GM foods, most commonly produced from GM crops such as soybean, corn, cotton, canola, potatoes and tomatoes, are no longer fringe curiosities. In some product areas such as vegetable oils, they are becoming mainstream. As of July 2001, 43 plants with novel traits have been authorized for environmental release and 50 novel foods have been approved for commercialization in Canada. Around the world, an area almost twice the size of the UK is being cultivated with GM crops. Seven percent of that land mass is in Canada.

GM foods available today were produced using a relatively simple modification, involving at most one or two genes. These products were designed to be similar in appearance, taste and nutritional quality to their traditional counterparts. They have been intensively scrutinized by scientists and regulatory authorities and are generally considered safe for people, animals and the environment.

The next generation of GM foods

Researchers will soon be able to develop plants with increased tolerance to drought and salty soil, enhanced yields and modified nutritional content. They are also on the brink of developing plant factories that will be able to mass-produce medicines and synthetic materials.

Because the genetic modifications needed to achieve these purposes will be more complex, their effects will be more difficult to measure. It will be necessary for industry and government regulators to be able to anticipate, identify and handle any associated risks to people, animals and the environment, and to identify and handle any social, ethical and economic issues that arise.

The regulatory system

In order to protect the health of Canadians and our environment, the Government of Canada regulates the safety of foods. This is done primarily through Health Canada and the Canadian Food Inspection Agency. While the Government is charged with ensuring the safety of all foods, including those produced through GM techniques, many of the regulatory structures in place today were not originally designed to accommodate GM food and other new technologies. However, they have already undergone significant changes to address these foods. It is widely thought, nonetheless, that the regulatory structures and processes must be updated once again, and that it is important to do so before the Government starts to receive applications for approval of the next generation of GM foods.

CBAC's role

The Canadian Biotechnology Advisory Committee (CBAC) is an independent body of experts in the fields of science, business, nutrition, law, the environment, philosophy, ethics and public advocacy, established by the Government to provide public policy advice on a range of biotechnology issues. CBAC reports to the ministers of Health, Agriculture and Agri-Food, Environment, Natural Resources, Fisheries and Oceans, Industry and International Trade.

Since the summer of 2000, CBAC has been conducting research and seeking expert and stakeholder input on GM foods. In particular, CBAC issued a consultation document in March 2001 in order to collect input from all interested Canadians. CBAC also put forward for discussion a series of principles that could provide a foundation for regulatory and policy decisions.

One important principle is the public interest, as it relates to health and safety, care for the environment and sustainable food production. The public interest, moreover, is best served by a government that regulates GM foods and other novel foods in an open, inclusive, independent, transparent and responsive way.

Guided by those principles, and the input received from Canadians and international sources, CBAC has begun to develop some new ideas for changes that can be made to better equip our regulatory system to handle current and future genetically modified foods and other novel foods.

These ideas have emerged as five main and 24 specific draft recommendations organized under three themes: Good governance, information and choice, and the social and ethical dimensions of GM food. The draft recommendations have now been published in CBAC's interim report. Based on the additional feedback received from Canadians prior to January 31, 2002, the recommendations will be finalized. CBAC's final report is due in early 2002.

A complete list of CBAC's draft recommendations is contained in the Executive Summary of the interim report.