



Collaborative Campaigning for Food Sovereignty and Environmental Justice

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February 19, 2009

RE: Issues of concern relating to genetically modified sugar beet

Dear Mr. Makin,

We are writing to express our deepest concerns about the introduction of genetically modified (GM) sugar beet and to share our various research on, and analysis of, the associated environmental risks, potential health hazards, and consumer concerns.

The Canadian Biotechnology Action Network (CBAN) is an association of 18 organizations<sup>1</sup> with diverse expertise and experience relating to the health, environmental, economic and social issues raised by the application of genetic modification in agriculture and food. CBAN membership includes provincial coalitions of community groups, environmental and international development organizations, and farmer associations. We work in partnership with organizations across Canada and the world. As such, we are privy to the latest research and analysis on the many serious issues raised by genetic modification.

### **Environmental Risks of GM Sugar Beet**

Genetic contamination of non-GM plants is a known consequence of the introduction of GM crops and is an incredibly serious problem now affecting farmers and food companies across the world. Table beets and Swiss chard are both closely related to, and can cross-pollinate with, sugar beets - all of these crops are wind pollinated and the sugar beet industry recommends an isolation distance of six miles to prevent contamination between transgenic and conventional or organic crops. Contamination is a concern in relation to GM sugar beet

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<sup>1</sup> ACT for the Earth (Toronto), Biofreedom (Edmonton), Canadian Organic Growers, Check Your Head, Coalition for Safe Food (B.C.), Council of Canadians, Ecological Farmers Association of Ontario, Food Action Committee of Ecology Action Centre Halifax, GE Free Yukon, GeneAction (Toronto), Greenpeace Canada, Inter Pares, National Farmers Union, P.E.I. Coalition for a GMO-Free Province, Saskatchewan Organic Directorate, Society for a G.E. Free B.C., Union Paysanne, USC Canada.

though the contamination possibilities can generally be mitigated in Alberta since biennial sugar beets rarely survive the Canadian winter to flower in the spring.

Virtually all of North America's sugar beet seed is grown in the Willamette Valley in Oregon, an area with a climate particularly suited to the production of sugar beet, table beet and Swiss chard seed. The production of sugar beet seed in Oregon for the North American sugar beet crop has the potential to wipe out the table beet and Swiss chard seed industry in Oregon, a seed industry that is also a major source of table beet and Swiss chard seed for organic and conventional vegetable growers across Canada. It is these concerns that prompted the U.S. organic vegetable seed company High Mowing, with the Center for Food Safety, the Sierra Club US and the Organic Seed Alliance, to file a lawsuit challenging the United States Department of Agriculture's approval of Monsanto's GM sugar beet.

As the GM sugar beet is genetically engineered to be resistant to Monsanto's Roundup herbicide, the aforementioned U.S. lawsuit also refers to concerns over the development of herbicide-resistant weeds, now a major problem in the US and, to a lesser degree, in Canada. As weeds adapt to herbicides and develop resistance, they require the use of more and different herbicides, often older and more toxic herbicides. Increased use of GM herbicide-tolerant crops will speed the development of herbicide-resistant weeds leading to serious chemical management issues. The use of pesticides is a major public health and consumer issue.

The GM sugar beet in question was developed, and the technology is licensed, by the highly controversial seed and biotechnology company Monsanto. Monsanto has an extremely difficult environmental and health safety record as a chemical company and is now the largest seed company in the world, owning approximately 90% of all GM seed sown across the world. Any association with Monsanto will be controversial with consumers in Canada and globally.

### **Potential Health Risks of GM Foods**

GM foods have not been adequately tested for human health safety. Across the world, there are shockingly few peer-reviewed published, peer-reviewed animal-feeding studies on the health effects of GM foods (there are around two dozen). The lack of a robust body of scientific study is cause for great concern.

The only feeding study done with humans showed that DNA survived inside the stomach but no follow-up studies were done. Various feeding studies in animals have resulted in potentially pre-cancerous cell growth, damaged immune systems, smaller brains, livers, and testicles, partial atrophy or increased density of the liver, odd shaped cell nuclei and other unexplained anomalies, false pregnancies and higher death rates.

The uncertainty and lack of science pertaining to human health impacts of consuming GM food has been acknowledged by many expert bodies including the following:

- In 2001, among the 58 recommendations for change in the regulatory system, the Royal Society of Canada's Expert Panel on the Future of Food Biotechnology

- rejected the Canadian Government's primary decision threshold for human safety (use of "substantial equivalence") as "scientifically unjustifiable".
- A 2002 report by the UK's Royal Society said that genetic modification "could lead to unpredicted harmful changes in the nutritional state of foods," and recommended that potential health effects of GM foods be rigorously researched before being fed to pregnant or breast-feeding women, elderly people, those suffering from chronic disease, and babies.
  - A 2004 report from the British Medical Association (BMA) has called for more long term research into the potential of GM food to cause allergies and more research on the impact of GM foods in vulnerable groups, such as babies, elderly people, and people with chronic diseases. The BMA recommended that the health effects generally of GM foods should be closely monitored.

Amplifying the concerns raised by the lack of scientific study, Health Canada continues to rely on corporate generated data for its evaluation of health safety. This data is privately owned and classified as "Confidential Business Information", meaning that it is not publicly available and cannot be made available to independent scientists for review and assessment. Unfortunately, experience (in the case over recombinant Bovine Growth Hormone in particular) shows that Health Canada scientists themselves can face tremendous pressure not to challenge inadequacies or faults in corporate data. For your information I have enclosed the new book by Dr. Shiv Chopra "Corrupt to the Core: Memoirs of a Health Canada Whistleblower" which details his account of this industry pressure and the problem of relying on private corporate data in government safety assessments.

As there is no mandatory labeling or post-market surveillance of GM foods, long-term health impacts cannot be monitored in the human population. Consequently, if there are any negative health impacts, these may go undetected for some time.

We refer you to the enclosed report which details the lack of response on the part of the Canadian Government to these and other serious concerns that were pointed out in 58 recommendations from the Royal Society of Canada Expert Panel on the Future of Food Biotechnology in their 2001 government-commissioned study.

The risks of GM foods are not limited to the DNA or the protein produced by the inserted gene(s) but relate also to the process of creating a GM plant which causes massive collateral damage in the DNA compared to its parent, with unpredictable and unstudied effects that could involve, for example, the creation of new toxins and allergens. Such health concerns are therefore relevant in relation to highly processed sugar that may not contain GM DNA or proteins. These safety concerns are further complicated where sugar beet by-products are used for animal feed or otherwise enter the food chain. Though processing may result in sugar products that do not contain GM DNA or protein, uncertainties over health risks and associated consumer concerns remain unchanged.

### **Consumer Demand for Non-GM Foods**

9 polls since 1999 show that over 80% of Canadian consumers want GM products and ingredients labeled. Despite this consistent demand for labeling and choice, there is no mandatory labeling in Canada. This lack of transparency has led to a widespread consumer

mistrust of GM foods. Over 40 countries across the world have established labeling legislation including all the countries of the European Union, Japan, China, Australia and New Zealand.

You may be interested to know that in October of this year, a new voluntary industry initiative to address the consumer demand for labeling of GM foods will be launched. The Non-GMO Project is a North-American wide verification system that will enable companies to certify and label their products as “Non-GMO Verified.” ([www.nongmoproject.org](http://www.nongmoproject.org)) This initiative will increase consumer awareness of GMOs and offer a new choice to Canadian and US consumers in avoiding GM foods. More immediately, 73 food companies have now signed on to a US-based registry whereby they are pledging to “seek wherever possible to avoid using GM sugar beet” in their products.

You may be aware that there is currently great momentum in Canada behind the local food movement whereby consumers are seeking locally grown produce and “Made in Canada” products. This movement is intimately tied with the wave of consumer demand for organic foods (organic certification prohibits the use of GM seeds and feed) and fair trade products (which seek fair payment for labour and safe working practices). In seeking domestic products, this movement would value Canadian-grown sugar beets and Canadian processed sugar. But this local food movement largely rejects GM crops and is increasingly incompatible with GM food.

We would be pleased to discuss these and other issues associated with the urgent problem of genetically modified sugar beet. A delegation from the Canadian Biotechnology Action Network is available to meet with you at your Montreal offices and we look forward to this opportunity.

Thank you for your consideration.

Sincerely,



Lucy Sharratt  
Coordinator

**Enclosures:**

1. “Corrupt to the Core: Memoirs of a Health Canada Whistleblower” Dr. Shiv Chopra, 2008.
2. “Genetically Modified Organisms: Is the Canadian Government Implementing the Royal Society of Canada’s Recommendations?” Peter Andree and Lucy Sharratt, 2004.

CC. Doug Emek, General Manager