FOOD OF THE FUTURE?

A TWO-PART MULTIDISCIPLINARY WORKSHOP AND THINK TANK ON

GENETICALLY MODIFIED FOODS

Presented by Simon Fraser University at the Morris J. Wosk Centre for Dialogue, Simon Fraser University

Part I: May 2–4, 2001
Comparing conventional with genetically modified food crops: Understanding and managing the risks

The process of genetic modification (GM) of foods is relatively new, having been in place for only about 20 years. To date 'no fundamentally unusual, unpredicted, or unexpected results have emanated from the GM process' and 'so far there are no documented untoward results from the release of any GM product' (McHughen, 2000). However, some scientists claim that key experiments on both the environmental risks and benefits of GM food crops are lacking and a recent report from the Royal Society of Canada (RSC) expert panel recommends that "new technologies should not be presumed safe unless there is a reliable scientific basis for considering them to be."

At the same time, humans have been using conventional breeding methods over thousands of years to alter the genetic inheritance of all cultivated plant varieties and produce new products which may also generate health and environmental concerns.

How are crop foods regulated in Canada? How does the public decide on issues related to the safety of the food they eat?

Part II: November 15–17, 2001
A dialogue on the social and ethical issues of GM foods: Linking scientific and societal perspectives

Part II will build on the foundation of knowledge established in Part I as well as respond to social, economic and ethical concerns identified. Clearly the perspectives of the scientists and social scientists are interlinked.

“How should the public policy address uncertainties, whether real or perceived, about biotechnology? Should there be social control over biotechnology? How should government reconcile its role as a major promoter of biotechnology with its significant responsibilities as a regulator? Is it possible to have public policy discussions that are informed, allow meaningful participation on the part of all stakeholders, and build trust?”

— Michael McDonald, Biotechnology, Ethics and Government: A Synthesis (Report to the Canadian Biotechnology Advisory Committee, October 2000)

FOR national and international experts, government and industry scientists, and mangers, academics (scientists and social scientists), consumers, members of the farming and environmental communities, legal professionals and members of the media

Sponsored by
Faculty of Science and Faculty of Arts, Simon Fraser University

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Faculty of Business Administration, Simon Fraser University
Comparing conventional with genetically modified food crops: Understanding and managing the risks

This invitational workshop will include presentations by scientists and other experts and plenary and small break out group discussions. To facilitate discussions a briefing book of relevant literature will be provided in advance of the workshop. A think tank of presenters and invited leaders from industry, government, NGO, academic and other sectors will meet throughout the workshop and for a half-day at the end of the workshop to provide a list of concerns and recommendations for solutions following from the workshop and suggestions for discussion in Part II. An open public forum will be also be held on the evening of May 2.

Questions for discussion include:

### Comparing GM with conventional and organic food crops

- How does GM differ from conventional plant breeding?
- How does genetic transfer occur in nature?
- Is organic farming an alternative?
- How reliable is what we know?
- What do we not know?
- How objective is the research?
- What are the social, economic and ethical concerns?

### Understanding the risks and benefits

- What are the benefits of genetically modified foods?
- What are the human, animal and environmental health risks? How are these risks assessed and interpreted?
- Is substantial equivalence an appropriate measure of risk?
- Can the risks be applied broadly to all areas, all times, all uses?
- What are the cumulative long-term impacts of GM technology?
- Why is the public attitude toward GM processes and products so different in North America, compared with Europe?
- What are the social, economic and ethical risks?

### Managing the risks

- What is effective regulatory scrutiny?
- How are GM products identified?
- What are the differences between GM processes and products and is this important?
- Will GM labels provide consumers with an ‘informed choice’?
- How much risk should we be prepared to accept?
- How should we deal with uncertainties concerning the future of GM foods?
- What future research is needed? Who should conduct the research? Who should fund it?
- What are the social, economic and ethical concerns?

“\[Health Canada Study\] found, “a majority of Canadians see scientific evidence as more crucial than people’s concerns and perceptions.”
— Vancouver Sun editorial, January 3, 2001

Canadian regulatory agencies “should seek ways to increase the public transparency of the scientific data and ... rationales upon which their regulatory decisions are based”.
— From the RSC Expert Panel report, February 5, 2001

“The results of this [Health Canada Study] underscore one important thing—the need for solid scientific data on biotech to be shared with the public. ... Unfortunately, it is precisely in the area of public education where governments and the industry have failed.”
— Vancouver Sun editorial, January 3, 2001
Part II: November 15–17, 2001

A dialogue on the social and ethical issues of GM foods: Linking scientific and societal perspectives

Part I of the "Food of the Future?" conference will explore through in-depth workshops and dialogue, the societal and ethical issues surrounding GM foods raised in Part I. Members of the Think Tank will provide continuity between the two parts of the conference, and the public will again be given an opportunity to participate in an open forum. Participants will receive in advance of the workshop, the proceedings from Part I, as well as a briefing book of relevant literature on the social and ethical issues of GM foods.

Questions for discussion include:

<table>
<thead>
<tr>
<th>What do we know?</th>
<th>What are the risks?</th>
<th>Who decides?</th>
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<tbody>
<tr>
<td>• What are the current social and ethical perspectives on GM foods? In Canada? Elsewhere?</td>
<td>• Who is affected by GM foods? How?</td>
<td>• How much social risk are we prepared to accept? For what benefits?</td>
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<td>• What are the socio-economic drives behind GM foods for present and future generations?</td>
<td>• What are the short and long-term social risks? Benefits?</td>
<td>• What ethical guidelines need to be considered?</td>
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<td>• What are the current standards of safety for consumers and the environment?</td>
<td>• What are the ethical issues?</td>
<td>• How should society deal with uncertainties concerning the future of GM foods?</td>
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<td>• What ethical principles are available to guide the inquiry into GM foods?</td>
<td>• What further scientific or society issues does this raise for future inquiry?</td>
<td>• How can trust be built between science, industry and society?</td>
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"Proponents claim that GM foods... in short, are safe for humans, animals and the environment, will improve human health and will help maintain the family farm in both developed and developing countries. ... Critics claim that GM crops will in fact hurt farmers in the developing world, as large multinational corporations come to control the international seed market, and poor farmers can no longer save seed to use in the next growing season. Some Canadian farmers have expressed concern that they will not be able to find international markets for their genetically modified crops due to the current controversy. Some people also question the ethics of manipulating plant life in this way. There is also concern that the long-term effects of these foods on human health have not been properly examined, and that problems may emerge in the future. Environmental concerns include fear that transgenes from modified crops will 'drift' into neighboring environments and affect other plant life, that biodiversity will decrease and that animals and insects who eat these plants will be negatively affected. Underlying these concerns is an expressed lack of public confidence in the regulatory capacity of governments to deal effectively with this new technology. Some have expressed concern that regulatory capacity may be compromised in countries where governments also promote GM foods and crops as part of their economic growth agenda."

— Canadian Biotechnology Advisory Committee—Special Projects Project P1:

"People are not so much divided as they are conflicted about a number of aspects of biotechnology. This is most profoundly evident when it comes to the question of risk. People accept on one level that the benefits of biotechnology are so considerable that they are willing to put up with some risk of longer-term unintended, and unfortunate consequences. At the same time, they are far from certain that enough is being done to assess risks right now and are hesitant about whether enough could ever be known about long-term risks in advance... Generally, Canadians hear a polarized cacophony about biotechnology, particularly about GM foods. They generally distrust most stakeholders to provide accurate information, including industry, GO..."
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Please send me more information about the workshops and think tank

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