

# **PUBLIC OPINION RESEARCH INTO BIOTECHNOLOGY ISSUES**

**Presented to the Biotechnology Assistant Deputy  
Minister Coordinating Committee (BACC),  
Government of Canada**

## **Executive Summary**

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Prepared for the Biotechnology Assistant Deputy Minister Coordinating Committee, Government of Canada, by Pollara Research and Earncliffe Research and Communications.

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**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE NUMBER</u></b>
<b>A. INTRODUCTION .....</b>	<b>4</b>
<b>B. OVERALL NARRATIVE.....</b>	<b>6</b>
Current Awareness and Balance of Opinion.....	6
Risks and Benefits .....	7
Food.....	8
Role of Government.....	9
Public Engagement and Information.....	10
Conclusions .....	11



## A. INTRODUCTION

Pollara Research and Earnscliffe Research and Communications are pleased to present this report on a public opinion research program conducted in the fall of 1999 for the Biotechnology Assistant Deputy Minister Coordinating Committee, Government of Canada. The research was comprised of three separate instruments: a telephone survey, a set of focus groups and a secondary analysis of previous public opinion research. This report presents the findings of all three.

The research was designed to accomplish two major objectives:

- to benchmark sentiment on a range of biotechnology issues, forming a baseline of data for subsequent regular waves of research; and
- to assess the relative strength of key public opinion drivers in order to facilitate the development of potential communications strategies.

The research probed seven areas of investigation in order to develop a comprehensive analysis of current opinion on biotechnology. The areas included:

- overall awareness and familiarity;
- perceived risks, benefits and drawbacks;
- assessments of government performance in biotechnology, preferred roles for government and future priorities;
- the acceptability of various products and processes;
- the acceptability of patenting various products and processes;
- public demand for information and consultation; and
- the testing of communications issues like key messaging, intervenor credibility and appropriate spokesperson models.

The telephone survey work was undertaken from September 17, 1999, to October 2, 1999, and spanned the period of the launch of public protests by a coalition of interests in Canada against genetically modified foods. One set of focus groups (one night of two groups in Toronto) was conducted prior to the telephone survey in order to pre-test the survey questionnaire.

The final results report on the views of a random sample of 1515 Canadians and carry a margin of error for the national sample of +/- 2.4%, nineteen times out of twenty. Margins of error are larger for sub-samples, ranging up to +/-3.5% for smaller regional samples. Precise margins of error can be provided for the variety of aggregated sub-samples.

Four further nights of focus groups (eight groups in all) were conducted in Montreal, Toronto, Rosetown, Saskatchewan, and Vancouver between October 16, 1999, and October 25, 1999. The research followed a consistent agenda for discussion and was designed to probe in more detail opinion underlying the results of the telephone survey. Each night of the main focus group wave comprised a group of approximately ten participants drawn from the general population and a group of similar size of *Involved Canadians*, our proprietary population segmentation of Canadians who are significantly more interested and involved in public policy issues.

The secondary analysis involved a search of publicly available research findings in biotechnology. This work was critical to identifying informational gaps to be dealt with in the survey and, as well, to identifying potential tracking questions and variables.

This report consists of several sections designed to provide an overview of all segments of the research and detailed reports on each. The initial summary section and the following section outlining detailed findings integrate results from the telephone survey and the focus groups. Following those sections are a short resume of the secondary research, the questionnaire for the telephone survey with national results expressed in percentages and the moderator's guide used in the focus groups. We have provided detailed cross tabulations to the Canadian Biotechnology Secretariat of the questionnaire but have not included them in this report. They are available upon request.

For ease of communications, further information can be obtained from Earnscliffe Research and Communications. Please contact any of the following at our offices, (613) 233-8080, or via e-mail:

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## **B. OVERALL NARRATIVE**

There is an emerging international consensus that biotechnology may represent the world's next generation of transformative technologies, potentially rivalling information and communications technology in potential scope and economic impact. It promises not only substantial benefits through products and processes like improved medicines and diagnostics and environmental cleanup agents but also will serve as an enabling technology to improve the products and processes of a variety of traditional industries, including agriculture and forestry. Because biotechnology involves processes that affect the very building blocks of life, individual genes and gene structures, it has become a controversial technology in some quarters as people raise concerns about unintended future risks to the food supply, human and animal health and the environment. As a result of both the significant scientific breakthroughs and controversies and protests generated by a variety of groups, media coverage of biotechnology has been increasing exponentially over the past year.

### **CURRENT AWARENESS AND BALANCE OF OPINION**

Perhaps counter-intuitively, Canadian public opinion is still largely unformed and tentative at this stage of the biotechnology debate. Awareness and understanding remain comparatively low as does the general level of interest. It is fair to say that, as of the end of October 1999, opinion had not been crystalized in any substantial way, let alone galvanized in any particular direction. Even the genetically modified (GM) food debate has not penetrated the public consciousness very deeply.

Biotechnology seems to fit, at least on first impression, within the positively regarded constellation of high technology. General levels of entrenched negative attitudes towards biotechnology are quite low on a wide variety of dimensions. At the moment at least, the public opinion ground is not very fertile for a coalescing of strong negative attitudes.

Most people presume there are many potential benefits (initially economic), that they have been increasing and that Canada should seek to take advantage of them. In fact, a large majority think Canada should lead the world in the development of biotechnology. It is clear that a hierarchy of benefits emerges as people focus on the technology and its applications. Health and medical benefits are the strongest positive drivers of attitude, followed by environmental and then economic outcomes. Canadians generally seem to be approaching

biotechnology issues on a quite pragmatic level. As has been found before, the closer an application is to them personally, and the more potentially positive an impact it might have, the more they are willing to accept it.

The generally positive attitudes, however, mask a fair amount of internal tension. People harbour mixed and sometimes contradictory impressions and opinions as they grapple to understand and come to conclusions about biotechnology.

For instance, as awareness of the technology and its applications grows (at least in the surrogate environment of a survey and focus groups), concern grows as well, as does the determined conviction to seek out information. In general terms, when people focus on the means (processes), rather than the ends (products and outcomes), they can have more hesitation. In particular, the higher the order of life form, the larger the hesitation about genetic manipulation. Similarly, crossing the boundaries between life forms (plants, animals and humans) causes hesitation, and in some cases, strong opposition.

## ***RISKS AND BENEFITS***

People are not so much divided (one against another) as they are conflicted (personally torn) 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.

For most applications, Canadians tend to believe that scientific assessment of the risk to health and the environment is the paramount criterion for acceptability. Large majorities say that if most scientific evidence says that a particular use of biotechnology is safe, it should be allowed. There is little support for the notion that the technology interferes with the natural order of things or concern that biotechnology changes things that nature or God created. A large majority reject the proposition that scientists have no business meddling with nature.

Most people want to assess biotechnology – its products and processes – on a case-by-case basis. And they base their conclusions on the assessment of potential benefit versus potential risk. There is, as well, an implicit “marginal personal benefit” calculation they tend to make. The internal calculation of the risk/benefit equation includes variables like the benefits accruing to large numbers of people rather than subsets, and the benefits tending towards systemic alleviation of significant problems rather than being more cosmetic or primarily profit-driven.

On the core question of risk, most people understand that it is endemic in modern society and impossible to eliminate. People tend, as a result, to believe that science should be the guide to approving new products. On the whole, science trumps ethical or moral concerns even if the conclusion is not altogether certain. For instance, “most available scientific evidence” is an acceptable standard for product approval.

## FOOD

On the specific issue of food safety, there is a large level of confidence among Canadians. Large majorities agree that they assume products on store shelves are safe and must have been tested for safety by government. Generally, these attitudes are driven by what people want food safety to be, rather than by any specific understanding of current regulatory practises. In fact, many confuse food inspection with testing food for long-term risk. Nevertheless, there is a presumption that someone, somewhere, is in charge and making appropriate decisions.

On GM foods, most Canadians are very surprised to find out how pervasive GM ingredients are in processed foods, and wonder about how that could have happened without their knowledge or consent. They don't know why those ingredients have been added and presume the potential risks are larger than the potential benefits. However, that does not lead to a determination among most to stop consuming GM food. Rather it leads to a demand for more information in order to facilitate “informed choice.” Not surprisingly, this translates into a high level of support for the idea of labelling. At the same time, it is clear that the bottom line for people is safe food, implying that labelling would not be a panacea for easing concerns.



As of the end of October, it was clear that critics of GM foods had not yet galvanized opposition. However, the research indicates that of all the biotechnology areas, this is the one most capable of being redefined negatively. There are substantial uncertainties in the food area and a major event of some sort (even of the indirect kind that occurred in Britain and parts of Europe) could catalyze widespread opposition to GM foods.

### **ROLE OF GOVERNMENT**

Most people seem less than pleased with, but short of critical of, the way in which the federal government has managed biotechnology issues. Only one in five say that the government is doing a good or excellent job of handling its responsibilities in this field, while one in four say it's doing a poor job and the rest say "fair." The highest levels of satisfaction are for securing the economic benefits, while the greatest dissatisfaction is around the effort to inform the public. This kind of pattern normally implies that many people don't really know much about what government is doing in this area but can't indicate that they feel entirely sanguine about the issues.

Canadians feel that the federal government should have a number of important priorities when it comes to biotechnology, but the most important ones are: protecting against health or environmental risk, and ensuring the ethical use of biotechnology. In fact, Canadians seem to be asking that government operate on a dual track; they seem to want to know that government is taking the lead in extracting the benefits while understanding and actively managing the risks of biotechnology. It is unclear that they want to know much more about how government goes about doing that but they seem to want to know that it is doing what is necessary, and doing it well. They are currently unconvinced that is the case.

While most people want government to increase its regulation of biotechnology, this is clearly not a view that stems from a desire for an adversarial relationship, or even a concern that there are major gaps right now. There is very strong support for the idea of working in partnership with the private sector on new inventions and applications, and strong endorsement of the idea of encouraging private sector voluntary efforts to provide information about products.

## **PUBLIC ENGAGEMENT AND INFORMATION**

Generally, Canadians hear a polarized cacophony about biotechnology, particularly about GM foods, and don't want much to do with it. They generally distrust most stakeholders to provide accurate information, including industry, NGOs, government and even many scientists, whom they believe are influenced by corporate funding of research.

They want neutral independent information to help them through the rhetoric and politics. They tend to trust only regulators, independent or academic researchers, and health professionals to be sufficiently disinterested to provide information worth consuming. To most, trustworthiness in this area equates to independence and a lack of stake in outcome.

People would generally like the government to provide more information (providing it is balanced and multi-sourced) about biotechnology and most would take some comfort from the fact that the government is willing to make the information available. Fewer would actually access it. Similarly, most would welcome the offer of consultation because it demonstrated openness but very few would participate. In general, they would prefer to delegate further inquiry and decision making to experts.

Most people think that decisions about biotechnology are too complicated for them and should be based mainly on the views of experts rather than those of ordinary citizens, and on science rather than ethics. Generally, they would like the public interest to be the main criterion for that decision making. They want public opinion to *influence*, but science and experts to decide.

More informed, educated and involved Canadians seem somewhat more positive about biotechnology and more likely to believe in scientific inquiry. However, they are less persuaded about all of the claims of potential benefits, more likely to be concerned about potential risks and more resistant to the notion that the risks can be resolved. They are also less trusting that government is managing and regulating properly. As is normal, they say they are paying much closer attention than others and want more information and involvement.

If government is to successfully communicate with Canadians about its management of biotechnology, there may currently be some underlying policy issues to be addressed. Government will have to demonstrate that it has an integrated and forward-looking plan to understand and manage the risks of biotechnology. Among the elements of such a plan would be: a strong, independent regulatory system; a comprehensive science effort to fully understand the potential risks to health and environment; a comprehensive long-term testing capability to assess products and processes; independent, arm's-length advice on difficult issues; and a co-ordinated and centralized locus for information seekers.

## CONCLUSIONS

Most Canadians are disengaged on biotechnology and many indicate that won't change much, though that may not be the case for GM food. Of all GM applications, food raises the most concerns and its potential benefits are the least understood or accepted. However, there is a general presumption that someone, somewhere, is in charge of monitoring and regulating food safety and that appropriate decisions are being made. That presumption leads most to watch the GM food debate with a bit of wariness, in large part because of what people *want* to believe. Despite its growing intensity, the debate has not crystallized opinion as yet. However, it is reasonable to infer that a major catalyzing event might do so.

By and large, the issue of understanding and managing the risks of biotechnology is seen as a technical science issue that should be resolved in that arena. Most people believe as well that, while secondary, ethical issues are important and expect deliberations, however difficult, to occur on them. Most people would like their opinions to influence decisions, but they believe the public interest should guide decisions and that, in the main, those decisions should be made by experts.

Currently, most Canadians have heard very little about government involvement in biotechnology but presume it focuses more on measures to enhance the industry than to regulate its products and processes. They would re-balance government activity to provide a dual focus for government: to limit or regulate practices in order to minimize risks and to promote development so as to maximize benefits. To meet that test, credibility for the federal government would

likely rest on perceived competent management, implying a persuasive, communicable, integrated “plan” to deal with the benefits and risks of biotechnology.

As debate intensifies, it seems clear that concern about biotechnology will grow. Initially, at least, that concern is more likely to manifest itself in uncertainty and a desire for more information than in a demand to curtail biotechnology efforts. Participants in the research wanted to feel they had the option to become more informed and that government would provide venues for them to seek out neutral, balanced information. The same was true for efforts at consultation. Most would take comfort from the fact that government was mounting consultations because that would symbolize transparency and inclusiveness. However, the vast majority would choose not to participate, delegating their involvement to the more expert.