

You say Potato, I say Potato: an Ethical Perspective on the "Right to Know"

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Wandering the isle of a local Vancouver grocery store, a customer pauses at the tomato stand. She realizes January is not tomato season in British Columbia, but continues to fill her basket with the bright red fruit. She audibly voices her concerns about hoping she won't be eating raw fish when she consumes her tomato, because she read somewhere that that was what scientists were doing.

Near-by another consumer, who happens to be a geneticist, overhears the woman's concerns and is troubled. He pauses in the grain section, and ponders "I wonder if any of these grains are genetically modified?" Although he has a specialized knowledge of genetically modified foods, he knows there is no easy way to determine which items on the shelf are genetically modified.

Introduction

In Canada, most genetically modified (GM) foods currently require no special labels or markings. The absence of GM food labelling in Canada compromises the rights of consumers by eliminating their ability to choose foods they wish to put into their bodies.

Genetically Modified Organisms (GMOs) are organisms in which the genetic material has been altered in a way that does not occur naturally by natural processes. Typically modifications consist of the addition of a gene into the host genome that produces a protein with beneficial traits, such as herbicide tolerance (Round Up Ready) or insect protection (Bt).¹

A *novel food* is a food that is derived from a plant, animal or micro-organism that has been genetically modified such that the organisms exhibits a novel characteristic, or ceases to exhibit a natural characteristic, or one or more characteristics no longer fall within the anticipated range for the plant, animal or

micro-organism.²² For the complete definition of a novel food see Health Canada's Product and Food Branch Web Site at: http://www.hc-sc.gc.ca/food-aliment/mh-dm/ofb-bba/nfi-ani/e_novel_foods_and_ingredients.html

In Canada over 50 GM foods have been approved for sale since the early 1990's. Current accepted GM products are potatoes, tomatoes, squash, corn, soybeans, canola, cotton, wheat, flax, and sugar beets. Not all of the above products are grown in Canada, but over 4.0 million hectares – about 10 percent of agricultural crops in Canada – are GM.³

Food Labelling

Labelling is mandatory if the safety of a product has been altered; and this is decided by Health Canada. Both voluntary positive and negative labelling are permitted as long as the claim is true, and not misleading.⁴ For example, a voluntary positive label could read "sugar-free" if sugar would be a regular ingredient in the product of interest, and your product differs from the regular product by the true absence of sugar.

The safety of a novel food is based on "substantial equivalence" to the regular product. The composition, nutritional information, and method of crop development are factors to be compared between the novel and non-novel food to assess substantial equivalence. The potential for new toxins and possible allergens are also factors that contribute to the safety assessment of a novel food.⁵ It is important to note that the industry responsible for the novel product is responsible to prove substantial equivalence, and it is not the responsibility of Health Canada. Canada's agri-food industry made \$91 billion in 1997, making it one of Canada's top-five industries, and accounting for 8.5% of the GDP.⁶

Consumer Concerns

Besides the formation of multiple anti-GMO lobby groups like the Consumers International, Council of Canadians and Greenpeace, there is ample proof that there is customer concern about GMOs as proven weekly, if not daily in the news, tabloids and marketplace. Some of the key elements of concern are the unknown potential toxic and allergenic effects of GMOs, the consumption of antibiotic resistance genes, possible decreased nutritional value, unnatural manipulation of nature, eating 'chemically derived food'.⁷ There are also concerns about the environmental impact of the novel crop, and the financial impact of big farm domination over crop production which also causes purchasing concerns. Specifically to Canadian consumers, the fact that other countries enforce labelling raises caution. The governmental uncertainty as to the long-term effects of GMOs also adds to Canadians' concern. Some feel that basic denial of freedom of choice is a main point of contention, and that choice acknowledges a diversity of views.

It is also important to note that the consumer concerns vary from country to country. Mandatory labelling is enforced in the European Union, Australia, and New Zealand for products with more than 1% total content GMO, and Japan with more than 5% total content GMO.⁸

Perceptions of GM foods vary in different countries. In the Austrian agricultural community, genetic modification is seen as being completely unnecessary, where-as in North America, it is seen as a factor that increases productivity. Finland is very pro-biotech and the perception of risk in relation to genetic modification is low. Media portrayal of GMOs is an opportunity, rather than a risk. Germany is very pro-biotech in medicinal circles, but not in agriculture where tradition rules.⁹

It has been mentioned that the industry is responsible for the safety assessment of their products. Product safety criteria stems from science based criteria. Public interests are usually not paralleled by the interests of transnational mega-corporations such as Monsanto and Novartis. Consumers are led to believe they are to trust scientists associated with large corporations. It has been suggested that the public believe there are limitations to how much science the experts actually know.¹⁰ The belief that there are unknown effects of technology contributes to the public's sense of perceived risk.¹¹ The perceived risk potentially stems from the lack of trust. As access to information such as labels decreases, it can be presumed that the level of trust might decrease.

Many common consumables have potential risks. Cigarette consumption shows that public is willing to take risks. Our fruit and vegetables have pesticides,

conversely organic foods are generally not treated with fungicides or pesticides, and some fungal by-products are toxic to humans. Like the aforementioned, genetically modified foods pose a potential risk.

Without a convenient label you deny the consumer the right to straightforward choice making. By belabouring the consumer to research the origins of a product of interest you complicate their decisions: another thread is pulled from the fabric that is the consumer control over her or his own diet.

The use of a label for a GMO food is not as simple as the issue might seem. GMO-free often isn't, as seen from the Taco Bell tortilla shell scandal found to have traces of transgenic animal feed, and Yves GMO-free Veggie Cuisine frozen dinners found to have traces of GM corn and soy.¹² If labelling cannot be false or misleading, than regulations for labelling GMO-free must be put in place. If the consumer is presented with the choice of buying a definite GMO by its labelling, or a possible GMO due to lack of confidence in the origin of the product parts, is that really a choice? Does this boost consumer confidence? Most likely not. Does all food need to be tested for the possible presence of GMOs in order for labelling to be truthful? What about imported foods?

Food irradiation is a process that has long required labelling in Canada. For reasons such as sprouting inhibition during storage, controlling insect infestation and reducing microbial load, approved foods may be irradiated following specified procedures. Irradiated foods include potatoes, onions, wheat, flour, whole-wheat flour, spices and seasonings. Canadian regulations on food irradiation apply equally to all imported and domestic foods. Wholly irradiated foods must bear a written statement such as "irradiated" in both official languages with the international irradiated food symbol.¹³

It is important to remember that there is a difference between whole foods and trace foods. In the case of irradiated foods, only whole foods that were exposed to irradiation needed to have a direct label, and when trace ingredients were used the label appeared in the ingredient list as "irradiated". In Canada, the two most abundant whole GM food products are sweet corn and table potatoes. It could be argued that there aren't enough whole GM food products to warrant the expense of labelling. It could also be argued that since potatoes and corn are two major staples in many Canadian homes that labelling should be mandatory. Perception of risk is diluted when food is thought of as being eaten in moderation, or harm in moderation. If potatoes and corn are a major consumable in a home, perhaps one's sense of risk might be altered to thinking there is more risk involved. The right to control one's risk intake is not aided in the absence of labelling.

The Right to Know

A “right” is simply an entitlement to something. It is an ethical obligation based on some notion of individual rights. If the public has a right to GM food labelling, it must be understood what is meant by consumer and consumer rights. A consumer is one who utilizes economic good and engages in the public marketplace. Globally recognized consumer rights have been identified as safety, information, choice, representation, redress, education, satisfaction of basic needs and a clean environment.¹⁴ Understanding consumer rights brings about the issue of autonomy. Autonomy is the self-asserting capacity of a person to maintain their identity through selecting and deciding within the limits of their own behaviour. Autonomy conflicts with paternalism, where one is in a place of authority to act for the good of another person without that person’s consent.¹⁵ The Canadian government, therefore, makes paternalistic decisions by deciding what is safe for the Canadian consumer to consume. Do consumers hold the decision-making capacity to defend their right for a labelled GMO?

Conclusions

Although GM food labelling remains controversial today, there may soon be a day when the technology itself brings labels into effect. DuPont is leading the initiative with a high-oleic soybean, which produces oil that is lower in saturated fats.¹⁶

Much research still needs to be done on the long-term effects of GM foods. Easy access to unbiased truthful information and proper consumer education concerning GMOs would be a valuable tool to decrease consumer mistrust. The technology behind genetically modified foods is extremely useful. Public opinion of this technology drives research grants for further research. It is essential for progress in technology that public concerns are acknowledged and addressed.

As it stands now, consumer rights are compromised in the absence of GM food labelling. With something as personal and cultural as the food we eat, it’s a choice the public deserves to have.

References

¹ Many sources for this definition exist. For example: (<http://www.identigen.com/html2/MainBgL.htm>)

² For the complete definition of a novel food see Health Canada’s Product and Food Branch Web Site at: http://www.hc-sc.gc.ca/food-aliment/mh-dm/ofb-bba/nfi-ani/e_novel_foods_and_ingredients.html

³ Many sources for this definition exist. For example: (<http://www.identigen.com/html2/MainBgL.htm>)

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