



What would be the costs of enacting mandatory GMO labelling regulations in Quebec?

Prepared for Vigilance OGM

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Background

Twenty years ago, Canada approved the commercialization of genetically modified organisms (GMOs). Since then, there have been persistent concerns over the lack of certainty about its long-term effects, the lack of information about where the food on store shelves comes from, and the lack of transparency from the GMO industry in terms of both ethics and safety.¹

Today, five countries produce 90% of the world's GMOs: the U.S., Brazil, Argentina, India and Canada. Canada ranks fifth, accounting for 6.4% of global production, with three of the four main crops (see Figure 1): corn, canola, and soybean, as well as sugar beets.² The vast majority (85%) of these genetically modified (GM) crops were created to be herbicide resistant.³

Of the world's top five GMO producers, two already have legislation regulating GMO labelling: Brazil and India. Mandatory GMO labelling is already in place in 64 countries. Vermont recently passed labelling legislation. While Canada and Quebec lag in this area, in most countries this technology is limited by regulation when not refused outright.

The labelling of genetically engineered (GE) food for human or animal consumption is the recognition of a fundamental right to information, as well as an important issue with respect to transparency and food traceability, mainly in what goes into processed and animal-based food (dairy, eggs, meat, etc.). Consideration must be given to the costs of potential Quebec or Canadian legislation, an issue that this research is attempting to shed light on, given the literature currently available.

Figure 1: GM crops as percent of total GM area worldwide

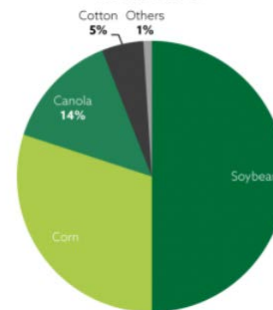
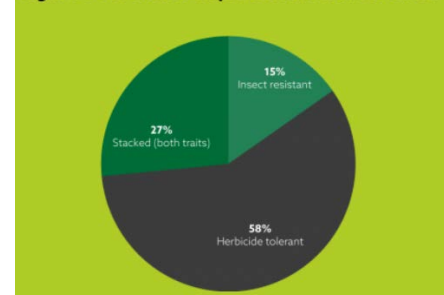


Figure 1 : GM traits as percent of total GM area



Growing number of countries requiring GE food labelling

Some studies into mandatory GE food labelling suggest that the impact on retail prices was as “harmful” for retailers as for consumers. So why are a growing number of countries enacting such legislation?

¹ April-Lalonde, G. (2013). L'état de la question sur : Les Organismes Génétiquement Modifiés (OGM). Extenso.

² James, Clive. 2015. Global Status of Commercialized Biotech/GM Crops: 2014. ISAAA brief No. 49. International Service for the Acquisition of Agri-biotech Applications (ISAAA): Ithaca, NY.

³ Ibid.

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When governments consider such legislation, the economic argument is not the only consideration. Another important consideration is the desire for access to information and the need for transparency. Still, if the costs of mandatory labelling were truly excessive, there would not be such a large and growing number of countries enacting GMO labelling legislation.

Figure 1: GMO labelling legislation around the world



■ GMOs banned ■ Mandatory labelling of nearly all GMOs ■ Mandatory labelling of many GMOs
■ Mandatory labelling of some GMOs ■ No GMO labelling legislation

Source: Genetically Engineered Food Labeling Laws, Center for Food Safety, 2014
<http://www.centerforfoodsafety.org/ge-map/>

20 years of consumer calls for mandatory GMO labelling

Mandatory GMO labelling in Quebec would make it the first province in Canada and the second jurisdiction in North America (after Vermont) to pass such legislation. This would be in response to 20 years of public pressure. Since 1994, many polls about GMOs and mandatory labelling have shown that support in Canada and Quebec has been consistently over 75%, meaning that most Quebec and Canadian consumers are in favour of mandatory GMO labelling. The latest Ipsos Reid poll commissioned by the Canadian Biotechnology Action Network (CBAN) shows that 88% of Canadians support mandatory

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GE food labelling.⁴ Polling conducted since the introduction of GMO agriculture tends to show that Quebecers and Canadians want greater transparency about what goes into the food they eat.



Canada: How much would mandatory labelling cost?

How much would it cost to enact regulations requiring GE food labelling in Canada? Not all studies agree.

In 2006, the Quebec Department of Agriculture, Fisheries and Food (MAPAQ) commissioned a study to estimate the costs of mandatory GMO labelling. This economic study, conducted by Professor Martin Cloutier, estimated the cost of instituting mandatory labelling at about \$161.75 million, with recurring annual costs of \$28.37 million. The MAPAQ study estimate is well below the figures provided by consulting firm KPMG, which in 2000 was asked by the agri-food industry to estimate the cost of mandatory GE food labelling. On the study steering committee was the Director of Regulatory Affairs for Monsanto Canada Inc. and the Director of Scientific Relations for Kraft Canada Inc.⁵ According to the KPMG study, mandatory labelling in Canada would increase retail prices by 9% to 10%, or about \$700 million to \$950 million.

The KPMG cost estimate is six times higher than the MAPAQ study estimate.

⁴ Ipsos Reid (2015). Consumer Poll, Canadian Biotechnology Action Network (CBAN). <http://cban.ca/GMO-Inquiry-2015/2015-Consumer-Poll>.

⁵ KPMG. (2000). Phase 1 Report. Economic Impact Study: Potential Costs of Mandatory Labeling of Food Products Derived from Biotechnology in Canada. Appendix A. p. A-1.

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As for the actual costs that would be directly passed on to consumers, it is difficult to come up with specific figures. According to KPMG estimates, the annual increase would be between US\$35 and US\$48 per Canadian.⁶ Of course, this figure would be much smaller if the data from the MAPAQ study are used.

United States: debate over divergent cost estimates

There are also widely diverging cost estimates in the U.S., revealing the economic and political interests of the key players involved in GE food production. According to a February 2016 U.S. study by John Dunham Associates on behalf of the Corn Refiners Association, labelling would end up costing over US\$1,050 per family.⁷

Another study, this one by William Lesser of Cornell University, found that labelling in New York State would cost US\$500 per family.⁸ This study, funded by the Council for Biotechnology Information,⁹ came under criticism by the Consumer Union, which reviewed the assumptions and found that the costs were overestimated. In 2014, the Consumer Union commissioned ECONorthwest to study the impact of labelling on consumers. It was found that the average annual impact of labelling per person in the United States would be about US\$2.30.¹⁰ This can be multiplied by 4 to estimate how much it would cost the average family.

Table 1: Various studies on the cost of mandatory labelling in the U.S.

| Cost per Family of 4 | Location | Study | On Behalf Of |
|----------------------|----------------|------------------------|---------------------------------------|
| US\$1,050 | United States | John Dunham Associates | Corn Refiners Association |
| US\$500 | New York State | Cornell University | Council for Biotechnology Information |
| US\$9.20 | United States | ECONorthwest | Consumer Union |

⁶ Gruère, P. G. Rao, S. R. (2007) A Review of International Labeling Policies of Genetically Modified Food to Evaluate India's Proposed Rule, AgBioForum.

⁷ Dunham, John. John Dunham Associates (2016). Cost Impact of Vermont's GMO Labeling Law on Consumers Nationwide. Corn Refiners Association. <http://corn.org/wp-content/uploads/2016/02/Cost-Impact-of-Vermont%E2%80%99s-GMO-Labeling-Law-on-Consumers-Nationwide.pdf>.

⁸ Lesser, William. Cornell University. (2014). Cost of Labeling Genetically Modified Food Products in New York. Council for Biotechnology Information. <http://publications.dyson.cornell.edu/docs/LabelingNY.pdf>.

⁹ The Council for Biotechnology Information is funded in part by DowAgroScience, DuPont and Monsanto. For more information, see <https://gmoanswers.com/about>.

¹⁰ Dyke, Andrew. Whelan, Robert. ECONorthwest. (September 2014). GE Food Labeling Cost Study Findings. Consumer Union. http://consumersunion.org/wp-content/uploads/2014/09/GMO_labeling_cost_findings_Exe_Summ.pdf.

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The debate in the U.S. on the cost of labelling clearly shows how difficult it is to make a direct link between legislation and the price structure. There are a wide range of factors that influence product prices. The Food and Drug Administration stated that it is difficult to come up with any accurate estimate of food price variations due to the many factors at play in pricing mechanisms and the fact that costs “depend on marketing decisions and are impossible to predict.”¹¹ On that note, a study by Just Label It shows that prices are influenced by a considerable number of factors such as competition and the type of retail business. Consumer behaviour is also an important factor that is difficult to predict.

Food companies regularly make labelling changes, whether it be in terms of packaging or the information available. About 36% of the changes to labelling involve voluntary redesign by the companies themselves for marketing purposes.¹²

What can we learn from these conflicting numbers?

The relevant studies acknowledge that GMO labelling would not be cost-neutral. Nevertheless, they do show that the extra costs of mandatory labelling would be borne throughout the agri-food chain (producers, processors, distributors and consumers). According to the 2006 MAPAQ study, the available data are unable to put a direct, specific figure on the cost for the consumer. What these studies do show is that pricing decisions are complex and difficult to estimate using studies. It is false to claim that the cost will be passed on entirely to consumers.

U.S. legislation

In the U.S., many states are seriously considering the possibility of passing GMO labelling legislation. About 30 states have introduced legislation either on specific products or on future legislation in the event that a minimum threshold of states come out in support of labelling. This is the case in Maine and Connecticut, which are waiting for other states to follow suit.¹³ Vermont is the first state to pass a labelling law, which will come into force on July 1, 2016.¹⁴

¹¹ Dyke Andrew, Whelan Robert, ECONorthwest, GE Food Labeling Cost Study Findings, Consumer Union, September 2014, p.1 http://consumersunion.org/wp-content/uploads/2014/09/GMO_labeling_cost_findings_Exe_Summ.pdf.

¹² Robertson Kai, Why Label Changes Don't Affect Food Prices, Just Label It, September 2013 <http://www.justlabelit.org/wp-content/uploads/2013/09/Kai-Roberston-Food-Labeling-Study-2013.pdf>.

¹³ Chow, Lorraine (January 29, 2016), “8 Battleground States in the GMO Food Labeling Fight,” EcoWatch, <http://ecowatch.com/2016/01/29/gmo-food-labeling-fight/>.

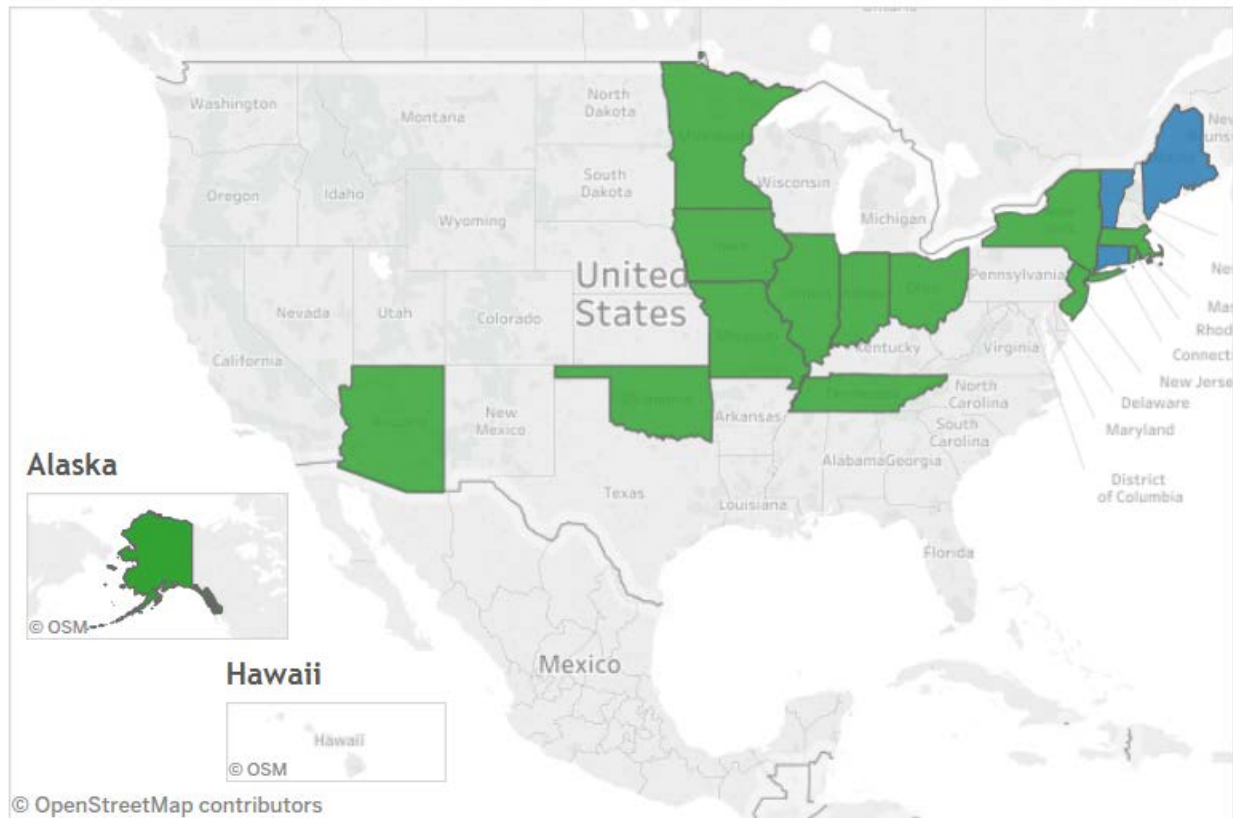
¹⁴ Règlementation; Étiquetage. Government of Quebec. Accessed April 2016: <http://www.ogm.gouv.qc.ca/reglementation/etiquetage.html>.

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Figure 2: 2016 state labelling legislation map

GE Labeling Map 2016



■ Passed ■ Proposed

Source: 2016 State Labeling Legislation Map, Center for Food Safety

http://salsa3.salsalabs.com/o/1881/p/salsa/web/common/public/content?content_item_KEY=14210.

Reactions from large food corporations and voluntary labelling in the U.S.

The ongoing debate among lawmakers in various American states, particularly in the wake of the Vermont decision, has clearly had an impact on the food processing and distribution industry. While it is difficult to come up with a clear picture of the additional costs that such regulations would entail, the action taken by some large corporations such as General Mills in March 2016 confirm that food pricing is primarily a business and marketing decision.

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Agri-food giant General Mills (which has a 22.49%¹⁵ share of the U.S. market for all food products combined, second only to Kellogg's) has now come out in support of federal regulations requiring GMO labelling in the U.S. Like Campbell Soup, General Mills will label all products distributed across the U.S. that contain GE ingredients. These companies have confirmed that GMO labelling would not be limited to Vermont, but would apply to all states in order to avoid increased costs for consumers.¹⁶ They believe that in order to avoid having different retail prices in different states, the preferred option would be for the U.S. to adopt a national labelling solution.

Given their substantial influence on agri-food markets, General Mills is indirectly forcing the agri-food industry to follow their lead. A couple of days following their announcement, Kellogg's and Mars also announced that selected products will be labelled as containing genetically modified ingredients.¹⁷

CAMPBELL'S, GENERAL MILLS AND ONLINE INFORMATION

[Campbell's](#), the multinational that owns the Chunky, Everyday Gourmet, Pepperidge Farm, Goldfish, V8, Prego and Habitant brands, now provides access to the list of all GM ingredients in its products on its [website](#). The same is true for [General Mills](#). Its [website](#) lists the GM ingredients by product, such as its Cheerios and Lucky Charms cereals, Pillsbury cookies, Old El Paso Taco products and many more.

Changes in major food distributors

In terms of the major food distributors, Whole Foods Market adopted a GMO labelling standard in 2013, thereby demonstrating transparency, and according to executive coordinator Errol Schweizer, the company is on track to achieving full GMO transparency for food products by 2018.¹⁸

If the additional costs of mandatory labelling were as high as the critics claim, those companies voluntarily informing consumers run the risk of losing out to less expensive products. However, Campbell's Soup does not hide the fact that 75% of their products contain GMO ingredients.¹⁹ While many of their ingredients contain GMOs, certain companies do not hesitate to display this information, which would suggest that this has no negative impact on the bottom line.

¹⁵ General Mills Inc., CSIMarket.com. Accessed March 2016:

<http://csimarket.com/stocks/competitionSEG2.php?code=GIS>.

¹⁶ Harmening, Jeff. (March 18, 2016). "We need a national solution for GMO labeling," General Mills Blog.

<http://www.blog.generalmills.com/2016/03/we-need-a-national-solution-for-gmo-labeling/>.

¹⁷ Watrous, Monica (March 22, 2016). "Kellogg, Mars to label product with G.M.O.s," *Food Business News*.

http://www.foodbusinessnews.net/articles/news_home/Business_News/2016/03/Kellogg_Mars_to_label_products.aspx?ID=%7B3C15F386-611C-4242-86C7-8E0940EA1C27%7D&cck=1.

¹⁸ Schweizer, Errol (2015). Organic and Non GMO Market Growth in 2015, Whole Foods Market.

<https://www.aphis.usda.gov/stakeholders/downloads/2015/coexistence/Errorl-Schweizer.pdf>.

¹⁹ (February 2014). Campbell's Soup, the first major U.S. company to voluntarily introduce GMO labelling, PRISME: L'Analyse de la conjoncture agricole et agroalimentaire, Crédit agricole S.A., 4. <http://www.ania.net/wp-content/uploads/2016/02/Prisme12-fevrier2016-V6.pdf> [IN FRENCH ONLY].



The benefit of going beyond voluntarily labelling

Without federal legislation, approval and supervision, voluntarily labelling may end up undermining consumer confidence. A lack of standards may cause consumers to continue to have doubts about the source and reliability of the information available. Mandatory, rather than voluntary, regulations build confidence, which is needed to support the steady growth in demand for GMO-free products. As a result, there is an excellent chance that increased demand will spur increased supply, easing the pressure to increase prices for niche products.

The Campbell's Soup Company has said that the weakness of the Vermont legislation on GMO labelling is that the lack of consistency can be confusing for consumers. Campbell's Soup and General Mills have decided to support federal legislation to make GMO labelling mandatory.

The cost of transparency

Labelling costs mainly come from the measures to segregate and preserve identity, providing consumers with a distinction between GM and non-GM products. In other words, the direct source of rising food prices is not the labelling per se, but rather the measures to prevent contamination. This leads to the question of who should pay for these higher costs. Marketers or consumers? In 2014, food retailers generated \$25 billion in sales.²⁰ Those profits are more than able to absorb part of the estimated \$28 million²¹ it would cost to introduce labelling in the agri-food industry.

Conclusion

Studies into the extra costs for labelling show that it is difficult to make sound and accurate estimates since prices depend on factors that are difficult to anticipate. The business decisions of large corporations, together with consumer behaviour, are highly unpredictable factors. If the extra costs were as high as claimed by certain studies, there would certainly have been negative reactions from one of the 64 countries that already require GMO labelling.

The consumer's right to know is a fundamental right recognized by the UN, and the Government of Quebec needs to work actively to promote it, especially in the agri-food sector.

²⁰ Commerce de détail alimentaire. Quebec Department of Agriculture, Fisheries and Food (MAPAQ). Accessed in April 2016: <http://www.mapaq.gouv.qc.ca/fr/md/statistiques/Pages/distribution.aspx> [IN FRENCH ONLY].

²¹ Cloutier, Martin. (2006). Études économiques sur les coûts relatifs à l'étiquetage des filières génétiquement modifiées (GM) versus non-GM au niveau québécois, Quebec Department of Agriculture, Fisheries and Food (MAPAQ). <https://www.mapaq.gouv.qc.ca/fr/Publications/EtudeOGMMAPAQoct2006.pdf> [IN FRENCH ONLY].