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GM FOOD LABELING AND THE ROLE OF THE CODEX

Nicholas Kalaitzandonakes & Peter Phillips[1]

In 1962, the Codex Alimentarius Commission (or Codex) was formed under the joint sponsorship of the World Health Organization (WHO) and the Food and Agriculture Organization (FAO). Its charge was to protect the health and safety of consumers and ensure fair practices in food trade through relevant standards (Lupien). Over its 40-year history, the Codex has fulfilled its mandate by establishing some 4,000 standards, recommendations, and guidelines for individual foods, food labels, pesticide residues, food contaminants, food additives, hygiene practices, and other issues relevant to traded foodstuffs (Lupien; Kimbrell; MacKenzie).

Codex members are governments representing their national interests. Standing and ad hoc committees and working groups, aided by consultations with experts from industry, scientific and civil society groups, advance the agenda of Codex. The work of these committees is slow and painstaking. It involves drafting and re-drafting proposals on food standards guided by the best science at hand and seeking to achieve consensus among members on the acceptability of such standards (Lupien; MacKenzie). Even non-controversial standards may take six or more years to develop and implement.

Codex And GM Food Labeling

In 1993, the Codex undertook the task of developing labeling standards for genetically modified (GM) foods. After eight years of deliberations, however, consensus among members on such standards remains elusive (MacKenzie). Even basic elements of what is to be labeled and when a label may be necessary remain unresolved (Einsiedel; Stull). As of May 2001, the Codex working group had only agreed on some very basic definitions; progress on the key elements of a standard remain under active discussion.

The two options currently being considered within the Codex discussions reflect the opposing "product vs. process" philosophies of biotechnology regulation that have evolved over the past 15 years. If the product option were adopted, GM foods would require labeling when they are not substantially equivalent to their conventional counterparts in composition, nutritional value or intended use. Labeling would also be necessary when GM foods contain allergens or ingredients from

[1] *Nicholas Kalaitzandonakes is an Associate Professor of Agribusiness at the University of Missouri-Columbia, and the Editor of AgBioForum. Peter Phillips is Professor and NSERC/SSHRC Chair in Managing Knowledge-based Agri-food Development at the University of Saskatchewan and an Advising Editor to AgBioForum.*

certain fats not present in their conventional counterparts. At least this level of labeling is currently required in all countries with active food safety systems. If the process option were pursued, all GM foods and food ingredients would require labeling, regardless of whether they are substantially equivalent or not. This is the approach that has been adopted and implemented by the European Union (EU), Japan, Australia, New Zealand, South Korea and, seemingly, China.

Proponents of labels for product attributes argue that most science and expert consultations agree that mandatory labeling of all GM foods and ingredients is unjustified as these products have been found to be as safe as their conventional counterparts (Lupien). Proponents of mandatory labels for all GM products reason that consumer rights to make choices on the basis of precaution and other considerations beyond safety (e.g., personal values) should also be safeguarded (Hathcock; Mackenzie).

The disagreement on these two opposing options within Codex has implications that go beyond the philosophical discussion. Codex standards for GM food labels could have significant practical implications. In the first instance, any labeling regime for GM foods has immediate practical impact on trade, as it will establish standards for thresholds, testing regimens, traceability protocols, documentation, and allowable claims on the label. Once these are set, trading countries and companies will need to decide how to implement them. Secondly, Codex standards for GM food labels could decide any related trade disputes as they are acknowledged in the Sanitary and Phytosanitary (SPS) and Technical Barriers to Trade (TBT) agreements of the World Trade Organization (WTO) (Buckingham; Mansour & Bennett). Generally, national measures that conform to international standards set by Codex are exempt from change while those that deviate from the standard may be challenged and required to change.

One can get a sense of the difficulties associated with setting and implementing labeling schemes for GM foods by looking at the various national labeling systems for GM foods that have been developing over the last decade in the European Union, Japan, and elsewhere. Development of relevant legislation has progressed with glacial speed, standards are often only partial, implementation remains spotty in most occasions and enforcement is weak if present at all (Phillips & McNeill). In practice, labeling systems have not provided the level of real consumer choice that policy makers had sought. Rather, these ineffective systems have often either driven GM or GM-free produce out of the local market, or have led to labeling claims that are less than credible.

While the current national systems offer few guideposts to Codex as it attempts to develop a credible labeling standard, they pose a very real threat to the Codex process. If these national systems, with all their imperfections, became entrenched, the task of reconciling these multiple national standards and interests would become increasingly complex.

The Costs Of GM Food Labeling

Choosing one set of GM labeling standards over another is not only challenging, it also results in significantly different levels and allocations of costs and benefits. Mandatory labeling of all GM foods (i.e., the process option) is helpful to consumers who wish to avoid them yet may impose significant costs on society. Such a system, as currently operates in the EU, would likely require a positive label alerting the consumer to the presence of a GM element in the food. Under such a labeling regime, all produce entering the market would need to be assessed and labeled appropriately. As a result, the costs of testing, segregating, certifying, and labeling would be imposed on all the foods in the supply chain, from producers to food retailers. As a result, all consumers would pay for the labeling system, including those who are indifferent to such labels (Caswell). While the full costs of such systems are not known, there are indications that they may not be trivial even for relatively high tolerances and loose standards (Maltsbarger & Kalaitzandonakes; Kalaitzandonakes & Maltsbarger, *in press*).

Voluntary labeling of GM foods satisfies the consumer segment that is interested in such information (Stull). Because such labels only apply to products targeted to these consumers they could reduce the overall cost of the system and possibly lead to more appropriate labels. Some consumers seek, or seek to avoid, only some of the GM foods and for only selected reasons (e.g., environmental concerns, ethical considerations) and hence a one-size-fits-all label might not satisfy their needs. Furthermore, voluntary labeling imposes the costs of labeling only on consumers with specific expressed demand, and not on all consumers. Examples of successful market-driven voluntary labeling schemes for GM foods exist in the US for non-rBGH milk and in the EU food retailing industry (Runge and Jackson, Nunn).

Can Codex Arrive At A Standard?

Under existing circumstances, it is questionable whether the Codex can produce a standard on GM food labels. The history of Codex deliberations is instructive.

There are few occasions where the Codex arrived at a standard that was inconsistent with the best available science at hand, as in the case of irradiated foods (Einsiedel). Yet, consensus was achieved in that case, as consumer perceptions of the new technology were similar on both sides of the Atlantic and the costs and benefits were distributed fairly consistently across all products and all markets.

There are also a few occasions where the Codex arrived at a standard through a majority vote rather than through consensus– as in the case of residue limits for growth-promoting hormones (Kimbrell). Even though the best available science supported allowing limited residues, consensus at Codex could not be reached in this case. The deliberations were complicated because the differing views on proper residue limits translated into a different distribution of the costs and benefits. In the hormones case, lower tolerances for residues would impose higher costs on exporters than on importers. Ultimately, this led to a stalemate that was broken with a majority vote in Codex, which adopted a standard allowing greater tolerances for residues than were acceptable to some of the member states. Even though the standard was adopted, the EU has not adhered to it and has banned imports of hormone-treated animals. When the US and Canada took the EU to the WTO to resolve this dispute, they won their case but the EU has so far refused to change their measure. As a result, the US and Canada have introduced sanctioned retaliatory measures and the dispute remains unresolved.

GM food labeling within the framework of Codex has the makings of a stalemate. Consumer perceptions of the new science and its products are radically different in different parts of the world. Furthermore, the costs and benefits of the different labeling options being discussed are unevenly distributed among innovators and agricultural exporters on the one hand and importers on the other. These conditions do not bode well for achieving consensus. While all sides seem to agree on the principle of protecting consumer interests, agreeing on how that might be achieved is proving difficult.

Whither To Now?

While some might conclude from this assessment that the Codex effort to develop a GM labeling standard is futile, we would argue that it is worth the trouble. The alternative is not very palatable. Both economic theory and modeling exercises suggest that some common standard might impose lower costs on the economy and society than increasingly segmented markets with heterogeneous standards and outright bans on production and trade (Hobbs, Kerr, & Phillips, 2001; Anderson *et al.* 2000). So the challenge might increasingly be not to find the perfect solution, but to find the best possible set of national or international standards that still allow fair trade, consumer choice, and innovation.

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