

SHOULD USE OF GENETICALLY MODIFIED ORGANISMS BE LABELED?

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Consumers are increasingly considering information on how foods are produced in making their buying decisions leading producers, processors, and retailers to do the same. Federal and state governments, as well as international standards organizations, face a dilemma in designing labeling programs for process attributes such as use of biotechnology. On the one hand, labeling is appropriate for process attributes that consumers care about and may be willing to pay more to get or avoid. On the other hand, regulators may be reluctant to label these attributes because they believe the labeling will be taken as an indicator of final, consumer-level safety in cases where it is not. In addition, labeling of process attributes may impose significant costs on an industry's supply chain related to segregating products and verification.

Policy Options

The choice of labeling policy will be important in the development of markets for foods produced with the use of biotechnology, and specifically, with the use of genetically modified organisms (GMOs). To address the question of whether use of GMOs should be labeled we must first define what we mean by labeling. The main policy options for government are:

- Allow no labeling regarding the use or nonuse of GMOs.
- Require mandatory labeling of products that use GMOs.
- Allow voluntary labeling of products that do or do not use GMOs.
- Allow voluntary labeling of products that do not use GMOs, with an accompanying disclaimer noting the government's judgement about any differences (e.g., safety) between products that use and do not use GMOs.

The options have markedly different implications for market development. Under the first option, no differentiation is possible based on use or nonuse of GMOs. This approach may be viewed as desirable by proponents of the new technology because under it use of GMOs is treated as no

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different from use of existing technologies. However, this approach has the drawback of suggesting that regulators and producers who use the technology are afraid of consumer sovereignty and want to suppress other producers' ability to differentiate products based on nonuse of the technology.

From a regulator's point of view, the second option of mandatory labeling of use of GMOs has the advantage of giving consumers full information. On the other hand, if there are no real differences between products that use or do not use the technology, the label may not be useful to consumers or could actually be deceptive and may unnecessarily impede adoption of the technology. Further, labeling is not costless since it requires segregation of product and verification. Users of GMOs also tend to oppose mandatory labeling because they believe it will hurt market acceptance. Whether this is the case depends on the market; companies have not really explored the possibility of marketing use of GMOs as a positive attribute (e.g., promoting a product's advantages due to use of new technology).

The third option of voluntary labeling has the advantage of allowing producers to communicate the absence or presence of the technology to consumers making it possible for them to choose products that align with their preferences. This is an attractive alternative because it relies on market forces to determine the acceptance of new technologies. Under the fourth option, regulators may seek to place restrictions on the form of voluntary labeling to prevent what they view as possible consumer deception. An example would be requiring a disclaimer that there is no safety difference between products that use or do not use a GMO technology on a label that says the technology has not been used.

Examples Of Current Policies

Labeling policy for GMOs is controversial. In the United States (U.S.), the favored approach was developed in the mid-1990s in response to the marketing of dairy products from cows treated with supplemental recombinant bovine somatotrophin (rbST). The U.S. Food and Drug Administration (FDA) chose the last of the four policy options, issuing guidelines that labels may not claim milk products are "bST free" because the hormone occurs naturally in milk, nor may they claim to be "rbST free" because that implies the milk is different. Products may state that they come "from cows not treated with rbST" but should also provide a proper context, for example, stating that "No significant difference has been shown between milk derived from rbST-treated and non-rbST-treated cows." The FDA's approach allows voluntary labeling but also requires a disclaimer that it views as necessary to prevent consumers from being misled about safety differences. The state of Vermont chose the second policy option, passing a law to require the labeling of milk and milk products from rbST-treated cows, but implementation has been blocked in the federal courts. The FDA approach is a middle ground under which consumers can use labels to find products from untreated cows, and companies can market based on the absence of rbST treatment, although the scope of companies' claims is limited by the disclaimer.

The FDA policy is representative of the U.S. government's overall position on the labeling of GMOs use. It believes its position is consistent with guidance on labeling of GMOs being developed by the Codex Alimentarius Commission's Committee on Food Labeling, the international standards setting body. The Codex position assumes that safety is already established and then recommends mandatory labeling of a food or food ingredient produced with use of a GMO when it is no longer substantially equivalent to the corresponding existing food or food ingredient as regards composition, nutritional value, or intended use. The U.S. government

supports applying this labeling standard equally to use of all technologies. Beyond this, it supports the use of voluntary labeling to the extent the information provided is truthful and not misleading.

The European Commission has been considering requiring mandatory labeling of foods obtained through use of GMOs based on consumers' desire and right to know about this process attribute. The United States opposes this policy and argues it would cause a nontariff barrier to trade in violation of recent trade agreements. Thus, whether labeling is voluntary or mandatory is the key point of contention between the trading partners' preferred approaches.

Which Labeling Policy Should Be Used?

Labeling allows markets to work more effectively as producers that prefer to use or not use a particular technology are more easily matched to consumers who want to buy products with specific process attributes. Voluntary labeling of the use or nonuse of GMOs allows companies to choose a production process and related marketing and labeling that maximizes their own returns, while allowing consumers to make choices based on a range of price and process attribute combinations offered in the market. This allows the market to decide on the degree of acceptance of a new technology. Mandatory labeling of the use or nonuse of GMOs serves the same purpose but does so at a higher cost in that the entire market must be segregated and labeled even though only a portion of producers or consumers care about the attribute. Governments are likely to prefer voluntary or mandatory approaches based on their perceptions of what proportion of their citizens want information about the technology. In either case, labeling of process attributes is likely to become more prevalent in the future. Food companies will need to view labeling as an opportunity, not a threat, and devise marketing strategies that work with labeling policies.