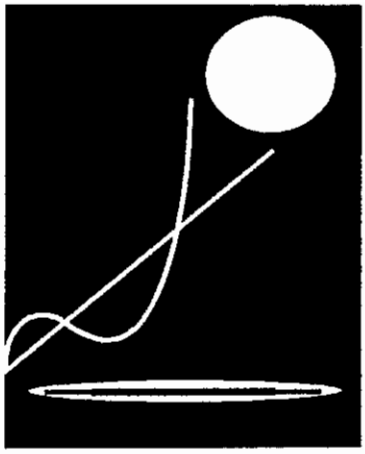

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What Labels Tell Us About *How* Foods are Produced

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WHAT LABELS TELL US ABOUT *HOW* FOODS ARE PRODUCED

Julie A. Caswell[*]

Consumers are increasingly considering information on how foods are produced in making their buying decisions. For example, in the United States sales of products labeled as organic were estimated at over $3 billion in 1996. Federal and state governments are facing tough choices in deciding how to regulate what product labels tell us about how foods are produced. Our research highlights the important market-based considerations in making these choices.

Many consumers are willing to pay more for products produced in specific ways, but it is often difficult or impossible for them to verify whether a product labeled as such was really produced in that way. Process attributes (e.g., pesticide or hormone use levels, environmental protection practices) usually cannot be judged by inspecting the product or even by consuming it. In this situation, unethical producers could label their products as being produced in a specific way when they are not, deceiving consumers and causing them to pay for product characteristics they do not get. Ethical producers who have produced the product in the labeled way may find their market undermined by the cheaters.

Avoiding these problems may require government or independent third-parties to provide verification for consumers. Someone outside the market may also be needed to set the process standards on which certification and labeling are based. This is often a complex process.

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Organic Labeling

Organic labeling is an excellent example of the points governments must consider in regulating labeling of process attributes. Organic standards and related labeling have been set on a state-by-state basis and by private certification groups. The 1990 Farm Bill instructed the U.S. Department of Agriculture to set national standards for organic products, due to concern about the effectiveness of current systems. But setting standards requires very specific guidelines on how food is produced, processed, and distributed, and issuing of the standards has been repeatedly delayed.

Proponents think national standards will be an important foundation on which the organic market will be built, while opponents view them as unnecessary or even stifling the market. Our research will track the impact of national organic standards, when they are issued, on development of the market for organic products. This impact includes how the standards affect transactions between producers, processors, and distributors (e.g., supermarkets, food service companies) and how they affect consumer demand. We expect this research to serve as a guide to analyzing how standards and labeling programs for other process attributes influence markets for food products.

An important background issue in our analysis is understanding what motivates consumers to buy products that are labeled as having specific process attributes. For example, consumers may be demanding organic products because they believe their production causes less environmental damage or risk to workers, or because they perceive them to be lower in pesticide residues and, as a result, safer. However, organic labeling standards do not specify performance attributes at the consumer level such as

food safety. The match between what labels mean and how consumers use them is an important measure of their success.

Biotechnology Labeling

Governments face a dilemma in designing labeling programs for process attributes such as use of biotechnology. On the one hand, voluntary labeling with certification is appropriate for process attributes that consumers care about and are willing to pay for. On the other hand, labeling of process attributes may be taken as an indicator of final, consumer-level safety in cases where regulators believe it is not. As a result, governments may be reluctant to allow labeling of process attributes that they have already judged to be safe in production and at the consumer level.

For example, labeling of the use of supplemental recombinant bovine somatotropin (rbST) for milk production was very controversial in the U.S. after rbST's commercial introduction in 1994. Options for labeling regulation included: allow no labeling regarding the use or nonuse of rbST; require mandatory labeling of products from treated cows; allow voluntary labeling of products from untreated cows; and allow voluntary labeling of products from untreated cows, with a note on any differences between products from treated and untreated cows. The U.S. Food and Drug Administration chose the last option issuing guidelines that said 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. Vermont chose a different policy, 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.

FDA's policy for rbST will serve as a template for U.S. policy on the labeling of biotechnology. As FDA adopted its policy, however, the European Union, Canada, and our other trading partners have been adopting their own policies. Differences in labeling policy can form a barrier to trade between countries, making export more expensive. Our research is working to quantify to what extent differences in labeling policy increase the production and trading costs of food companies.

Labeling's Future

Demands for labeling of process attributes by consumers and by producers and processors who wish to sell to them are likely to grow in the future. At a most basic level, federal and state governments will be called on to prevent deceptive practices regarding these types of claims, while not getting in the way of market development. They are also likely to be called on to influence more actively the use of these types of claims through labeling policy. Understanding how markets work is key to both of these goals.