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Understanding Process Labels and Certification for Foods

Over the years, Congress has taken an active role on issues related to the labeling and certification of food products. The Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA) are responsible for administering and enforcing such claims. FDA and USDA are the primary federal authorities responsible for assuring that foods sold in the United States—both domestic and foreign—are safe, wholesome and properly labeled (neither false nor misleading). Other agencies also play a role. Under current law, mandatory food labeling authorities cover nutrition content in foods (21 U.S.C. 343), inspection labels and pack dates on meat and poultry products (21 U.S.C. §601 et seq., 21 U.S.C. §451 et seq., and 21 U.S.C. § 1031, et seq.), and country of origin labeling for certain agricultural products (19 U.S.C. §1304). Food treated with irradiation must also be labeled (21 C.F.R. 179).

In addition to mandatory food labels, voluntary labeling programs for foods are also subject to federal oversight. USDA's National Organic Program covers foods produced according to established federal organic standards, subject to USDA oversight and regulation (7 U.S.C. §6501 et seq.). Similarly, in 2016, Congress enacted the National Bioengineered Food Disclosure Standard (P.L. 114-216), requiring USDA to establish a "national mandatory bioengineered food disclosure standard." Bioengineered foods bearing such a disclosure will need to be labeled in accordance with forthcoming USDA regulations and established federal standards. The National Oceanic and Atmospheric Administration oversees a voluntary seafood and fisheries inspection program. Any product labeling referencing this program requires agency approval (50 C.F.R. 260). Advocacy groups are now working to integrate this program with broader seafood safety initiatives.

The Federal Trade Commission maintains "Green Guides" to help marketers avoid making deceptive claims across a range of consumer products (including foods) and across a range of marketing strategies (e.g., labeling, advertising, promotional materials, wording, symbols, emblems, and logos). These guides focus on environmental claims and were first introduced in the 1990s to address concerns about the proliferation of process label claims and certifications. Separately, environmental claims often follow standards set by the International Organization for Standardization, an independent, non-governmental organization (NGO).

State governments also have their own food labeling laws. Most states require certain food date labeling: A calendar date is displayed on a food label, accompanied by an explanatory phrase such as "sell by," "use by" or "best by." Federal law does not require standardized date labels. Instead, date labels often vary widely across state and local jurisdictions. In addition, nearly all U.S. states have "state grown" or "locally grown" branding programs that advertise agricultural products grown within a state (e.g., Florida citrus, Washington apples, Maine potatoes, or California peaches). Most states also enforce their own "cottage food laws" for local and small-scale food production, which often include labeling requirements. Several states also have laws regarding the use of biotechnology and added growth hormones in foods, which may affect food labeling.

Table 1. Selected Voluntary Food Product Label Categories and Selected Examples

Environment/ Sustainability (environmental protection in production)	**Animal Welfare (humane** treatment of animals to produce animal-based products)	**Health/Nutrition** (ingredients, dietary restrictions, handling, processing, and inspection)	**Human Rights/ Ethics** (labor conditions, treatment, and worker pay)	**Religious** (production and preparation as defined in religious texts)	**Local Business Promotion** (local/regional or geographically distinct production)
					

Source: CRS. Other labels and certifications can be found at the Ecolabel Index, global directory of ecolabels (www.ecolabelindex.com).

Voluntary Labeling Programs

The vast majority of food labeling and certification schemes are voluntary, often initiated by private industry, food retailers, NGOs and advocacy groups, and partnerships between NGOs and businesses. Compliance with voluntary labeling claims or certification standards is either self-enforced by the producer, verified by an organization to which the producer belongs, or verified by an independent third party. Such labels and certifications are generally not subject to direct federal or state regulation or oversight unless a product is found to violate food safety laws or other general container/packaging requirements intended to facilitate interstate or international commerce.

Some food companies and manufacturers may choose to include private process labels and certifications. Examples of the types of product attributes claimed are food safety, quality, freshness dates, nutrition, cleanliness, natural, healthy, "free-of" claims, organic, GMO-free, fair trade, cage-free, free-range, humane animal treatment, dolphin free, sustainable, kosher, halal, bee- or bird-safe, local, and carbon offsetting (**Table 1**). These and others may address either a single, specific attribute or a range of attributes that describe a range of impacts or production processes (**Table 2**). Consumer trends behind these labels, according to the United Nations, reflect diverse concerns: food safety and health benefits, corporate social responsibility, production systems and innovations, sustainability, and food origin.

Table 2. Examples of Food Process Labels

Single-Attribute	Multi-Attribute/Practices
Antibiotic Free	Animal Welfare Approved
Cage-Free Eggs	American Humane Certified
Contain/Free of GE Product	Bird Friendly
Dolphin-Safe Tuna	Rainforest Alliance Certified
Pasture-Raised Eggs	Fair Trade
Radura (Irradiated)	Free Range, Humanely Raised
Hormone (rbST)-Free Milk	Religious (Halal, Kosher)
Vine-Ripened Tomatoes	"Clean and Simple," Smart Label
Shade-Grown Coffee	Organic, Sustainably Produced

Source: CRS derived from CAST Issue Paper #56 (October 2015).

There is no comprehensive estimate of the number of food labeling schemes, but indications are that hundreds of private label/certification programs exist, claiming a wide range of product attributes and characteristics. The Ecolabel Index reports that in the United States alone there are more than 200 "ecolabels" broadly defined across a range of attributes and industry sectors, extending beyond food products. Globally, the Ecolabel Index reports there are nearly 150 labels for food and beverages. This list is based on self-reporting and is not comprehensive. In actuality, the number of food-related standards, certifications, and labels is likely much greater. For example, the United Nations estimates that there are more than 400 standards, certifications, and labels related to seafood products alone. Also, most new food product introductions include health- and nutrition-related claims (e.g., low-salt, low-sugar, low-fat, low-carbohydrates, high-fiber, gluten-free).

Labeling and certification are intended to inform consumers of a product's specific qualities through expressed or implied claims. Food producers and marketers often seek to advertise such product information, as such qualities often

command a higher price and gain a market advantage compared to comparable products without such labels. Data on the value of these product markets are limited. Euromonitor, a global market research company, estimates that the U.S. market for these types of packaged food and beverages exceeded $200 billion in 2015. USDA-certified organic foods accounted for a large share of this estimate, with retail sales exceeding $40 billion (or about 20%).

Pros and Cons of Labeling/Certification

A 2015 Duke University study attributes the increase in the number of private food labels and certification schemes to increased consumer awareness of the implications of food production (e.g., environmental impacts, human rights, animal welfare), coupled with consumer demand and willingness to pay a premium for products that address attributes important to consumers. Other researchers attribute this increase also to the lack of responsiveness and flexibility of government agencies to address production issues beyond food quality and safety—a void filled by private process labels that provide additional product differentiation and consumer choice. However, lack of centralized regulation in private programs may allow for inconsistent standards, lack of transparency, and inaccurate, misleading, and fraudulent claims, resulting in consumer confusion and mistrust of labels and certification claims.

Label and certification claims are difficult to verify as they describe specific production methods (e.g., organic, naturally grown) or the implications of such processes (e.g., animal treatment, environmental impact, labor conditions).

As the use of product process labels and certification has proliferated, so too have reports of fraud and deceptive use of these labels. According to a 2016 Tufts University study, some label claims—including organic, bird-friendly, salmon safe, and certified humane—were "consistently reliable," whereas other label claims—including vegetarian, cage-free, free-range, natural, and "no chemicals added"—were "not reliable/consistent."

To address such issues, some groups are calling for an increased federal regulatory role in food labeling. Recommendations include using mandatory labels as a baseline, improving third-party certification standards, creating stronger standards in consumer protection law, and basing requirements on environmental life-cycle analysis. Suggested options include modeling programs after the USDA-Organic label, with its federal standards and enforcement, and encouraging partnerships among government, industry, and stakeholder groups. USDA asserts that labeling schemes work best if supported by clear, achievable policy standards; independent testing, certification and auditing services that measure and substantiate the validity of the product claims; and mechanisms to enforce labeling requirements.

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