

FOOD LAWS AND REGULATION

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Summary

Every nation needs an effective food legislation and food control service to promote a safe, honestly presented food supply, and to protect consumers from contaminated, adulterated, and spoiled foods. Generally the food law is divided into two parts: a basic food act and regulations. The Act itself sets out broad principles, while regulations contain detailed provisions. The principles or general provisions to be included in food law are primarily: basic purposes and scope, definitions of basic concepts, inspection, enforcement, biological and chemical contaminants, packaging and labeling, and procedures for the preparation and amendment of the regulations for implementation of the law. Food law is based on scientific studies. Harmonization of Food Law on the international level is a worldwide trend from the late twentieth century.

1. Introduction

Every country needs laws to encourage the production of safe and wholesome foods, and to prohibit the sale of foods that are unsafe or fraudulent. The growing population has placed demands on agriculture for increased production. However, the increase of agricultural production is connected with the wider use of chemicals. Protection of food during transport and storage may require the use of chemicals, too.

The centralized processing of foods in large quantities increases the chances of contamination. There is an increasing demand for convenience foods, foods ready-to-serve or which can be quickly prepared for serving. Because food additives are commonly used in these foods, and because convenience foods are especially susceptible to contamination, strict hygienic and safety precautions are needed.

Expansion of the food trade, both within countries and with other nations, needs regulation not only at the national but also at the international level. In past centuries, international trading in food took place with little, if any, government intervention, and it was accepted that the food producers set their own standards and determined the quality of food products offered to consumers. Many businesses were responsible and took great care to protect the health of consumers. However, some dishonest traders misused the unregulated markets to sell adulterated food. Such abuses led to government involvement and over time to the enactment of food laws and regulations. These laws and regulations, together with food control organizations, ensure the safety of domestically produced, imported, and exported food products (see *System of Food Quality Standards*).

In the framework of this chapter, the principal requirements of food law and regulations will be treated.

2. The Structure of Food Law

Generally, Food Law may be divided in two parts: (1) a basic food act, and (2) regulations. The Act itself sets out broad principles, while regulations contain detailed provisions governing the different categories of products coming under the jurisdiction of each set of regulations.

Sometimes food standards, hygienic provisions, lists of food additives, chemical tolerances, and so on are included in basic food control law.

For effective administration of and enlightened compliance with the basic food law, detailed provisions are needed. In governments where there is a division between the responsibilities of the legislative and executive branches, the legislative branch enacts the basic law, while detailed regulations are elaborated and promulgated by the executive agency or agencies responsible for administering the law.

Inclusion in the law of detailed specifications about food processing, food standards, hygienic practices, packaging and labeling, food additives, and pesticides may make for difficulties. Prompt revisions of regulations may become necessary because of new scientific knowledge, changes in food processing technology, or emergencies requiring quick action to protect public health. Such revisions can be made much more expeditiously by executive agencies than by legislative bodies.

In some countries food standards are part of the regulations; in other countries they are separate enactments. Regardless of whether they are included in regulations or are separate, they become part of the enforcement structure, and are intended to implement basic food law.

Concerning the principles or general provisions to be included in basic food law, the following points should be stressed:

- basic purposes and scope of the law
- definitions of basic concepts
- competence for implementation of the law
- inspection and analytical procedures and facilities
- enforcement, procedures for enforcement, penalties
- regulations for additives, pesticides, contaminants
- packaging and labeling
- procedures for the preparation and amendment of the regulations for implementation of the law

The basic food law is intended to assure consumers that foods are pure and wholesome, safe to eat, and produced under sanitary conditions. Generally, food law prohibits importation and distribution of food products that are adulterated, or have labels that are false or misleading in any context.

The proper implementing of such a law encourages fair trade practices through compliance with the basic provisions of the food law. This protects the honest manufacturer and dealer against unfair competition. It also stimulates development of the food industry, because quality control along sound scientific lines tends to promote better consumer acceptance of foods.

An important part of the food law is the definition of terms such as food, natural food, imitation food, food additives, adulteration, and food fraud, pesticide residues, food contaminant, and so on.

According to the US Food, Drug, and Cosmetic Act, a food is illegal (adulterated) if:

- It contains added poisonous or deleterious (harmful) substances that may render it injurious to health.
- It contains a natural, poisonous, or deleterious substance which ordinarily renders it injurious to health.
- A raw agricultural product contains residues of pesticides not authorized by the US Environmental Protection Agency (EPA), or in excess of tolerances established by regulations of the US EPA.
- Any part of the food is putrid or decomposed.

Another example of strict definitions is that basic food law should determine the exact content of offenses, which can give rise to penal action. Such offenses may be:

- deliberate adulteration of food products
- production or marketing of foods containing prohibited or unauthorized substances
- fraudulent use of labels and trademarks
- failure of foods to satisfy standards laid down by law
- violation of hygienic requirements, and so on

3. Food Regulations—What Should be Regulated?

As mentioned earlier in this chapter, regulations implement basic food law. Food regulations generally cover the following:

- general regulations
- food standards
- food hygiene
- food additives
- pesticides
- veterinary drug residues
- food packaging and labeling
- food advertising

The general regulations include detailed regulations for guidance of those who enforce food law, regulations concerning official actions, such as making inspections, collecting samples, making decisions about serious infractions, and the disposition of seized lots of food. To this group of general regulations also belong regulations concerning licenses (permits); if firms and/or specific foods must be registered, the regulations should specify conditions and requirements. Regulations concerning imported foods should cover all aspects of the handling of imported foods. It is impossible to make an overview of all the types of regulations; the above example hopefully will give readers an idea about fields covered by general regulations.

3.1. Food Standards

In every country, standards are an important part of the regulation of food production and food trade. Food standards and standardization are treated in other contributions to this series (see *System of Food Quality Standards; History of Food Quality Standards; Basic Concepts of Food Standards; National Standards; Regional Standards; and International Systems of Food Quality Standards*).

3.2. Laws and Regulations to Prevent Gross Adulteration and Contamination

Laws and regulations are still needed to prevent gross adulteration and contamination. Although the forms of gross adulteration and contamination of foods (e.g., diluting milk with water, adding foreign matters to spices, use of harmful dyes or chemicals to mask defects of quality, and so on) are rare, in developed countries in particular, the adulteration of fruit juices with lower value fruit varieties, or of instant coffees with cereal and malt-based ingredients have occurred in the late twentieth century.

3.3. Microbial Contamination, Hygienic Practice

As mentioned elsewhere (see *Food Safety*), it is estimated that 80% to 90% of the outbreaks of foodborne illnesses during the 1990s may be attributed to contamination of food by pathogenic bacteria, primarily Salmonella and Staphylococci. Proper hygienic practices should be utilized to prevent microbiological contamination and to minimize spoilage of perishable foods, which are most often the vehicles for these contaminants. An adequate supply of safe water is essential for processing food and maintaining sanitary conditions. Codes of hygienic practice have been elaborated by many countries

and international organizations (e.g., the Codex Alimentarius Commission of FAO/WHO). Hygienic practices deal with raw materials requirements, processing plant facilities, hygienic operating requirements and practices, health requirements for food handlers, and so on.

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Biographical Sketch

Radomir Lásztity, D.Sc., Professor of the Department of Biochemistry and Food Technology at Budapest University of Technology and Economics, was born 1929 in Deszk, Hungary, and completed his studies in 1951 at the Faculty of Chemical Engineering of the Technical University of Budapest. Dr. Lásztity received his M.Sc. degree in Chemical Engineering in 1951 and his D.Sc. degree in Chemical Science in 1968.

Dr. Lásztity is honorary president of ICC (International Association for Cereal Science and Technology). He was Chairman of the Codex Committee on Methods of Analysis and Sampling of the FAO/WHO Food Standard Program in the period 1975–1988. Dr. Lásztity is a member of the Food Division of the Federation of European Chemical Societies, and a member of the editorial boards of several international scientific journals. He was Vice-Rector of the Technical University from 1970 to 1976.

Among other awards, he has received the Bailey and Schweitzer Medal of the ICC, the State Prize of the Hungarian Republic, and the Golden Medal of the Czech Academy of Sciences.

Dr. Lásztity's main research activities are chemistry and biochemistry of food proteins, food analysis, and food control. The results of his research work were published in more than 700 papers in foreign and Hungarian journals. He is the author of more than 20 books and textbooks (among them: *Chemistry of Cereal Proteins* First and Second Editions in 1984 and 1996, respectively; *Amino Acid Composition and Biological Value of Cereal Proteins*, 1985; *Use of Yeast Biomass in Food Production*, 1991; *Gluten Proteins*, 1987; *Cereal Chemistry*, 1999.)