# Food Safety Regulatory System of Developed Countries and the Implication for China[1]

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**Abstract:** The problem of food safety has become a focus in the world. In recent years, because of high frequency of food safety accidents, the problems of food safety have appealed much concern in China. This article introduces the features of the food safety regulation of the developed countries and then offers suggestions and the successful experiences that we should learn from when China is establishing our own food safety regulatory system.

**Key words**: food safety; regulatory system; regulatory mode

In recent years, accidents concerning food safety occur frequently in China. The problem of food safety has become a focus in society and people pay more attention to the food safety supervision system. On the other hand, food safety regulation systems of the developed countries have had a long history and we should learn from the experience of the developed countries for reference.

# 1. OVERVIEW OF FOOD SAFETY REGULATION SYSTEMS OF DEVELOPED COUNTRIES

## 1.1 Food safety regulation system of USA

U.S. food safety regulatory agencies mainly include: FDA (Food and Drug Administration), USDA

(United States Department of Agriculture) and EPA (Environmental Protective Agency). FDA is responsible for most of the food safety supervision under the authority of FFDCA and other laws; USDA is responsible for inspecting the safety of meat and eggs, as well as animal and plant pests control, including inspecting pest and animal and plant quarantine. FDA and FSIS are also responsible for food labeling. EPA is responsible for pesticide management, including pesticide registration and the corresponding use of standard-setting. These institutions play a very important role on the food safety of different types and in different stages. In addition, the Agricultural Marketing Service (AMS), Animal and Plant Health Inspection Service (APHIS), Centers for Disease Control and Prevention (CDC) --- a subsidiary of the Department of Health and Human Services (DHHS), and so on are all playing an important role in the U.S. food safety management. These food inspection agencies have a large number of specialized experts, such as chemists, toxicologists, pharmacologists, food technology scientists, microbiologists, molecular biologists, nutritionists, pathologists, mathematicians and so on. Their work includes inspecting of food companies, collecting and analyzing samples, monitoring the safety of imported products, checking the pre-sale behavior, collecting and processing the food safety-related data, conducting consumer research and educating consumer.

The United States has a number of laws and regulations relating to food safety which consist of the "Federal Food, Drug and Cosmetic Act", "Federal Meat Inspection Act", "Poultry Products Inspection Act", "Egg Products Inspection Act", "Food Quality Protection Act" and "Public Health Service Act" and so on. The United States Code (US Code) which is developed and published by the United States House of Representatives includes 50 volumes, among which are volume 7 (Agriculture) and 21 volumes (food and medicine) concerning food, and Chapter 9 in Volume 21 is the "Federal Food, Drug and Cosmetic Act (FDCA)" which is the essence of most American food law. Based on relevant laws and regulations, FDA (U.S. Food and Drug Administration) and USDA (U.S. Department of Agriculture) are responsible for developing "food code" scientifically and practically so as to guide the food regulatory agencies to monitor food quality and safety conditions of the food service sector, and guide institutions such as retail and nursing home to prevent food disease. At present, about 1 million retail food Manufacturers apply "food code" in their operation. The features of U.S. Food quality and safety system are: President (Government), Congress, the court, these three parts are separated but constrained in power; laws and regulations are transparent; development of the resolution is scientific and public participation is welcomed. This system follows the following principles: only the healthy and safe food can be sold in the market; decisions on food quality and safety are made on a scientific basis; the government has a mandatory duty to require manufacturers, distributors, importers and others to comply with food laws and regulations; the coordination process is transparent and the public can participate.

## 1.2 EU's food safety regulatory system

European Union has gradually developed a "General Food Law", "Food Sanitation Law" and more than 20 other food safety regulations to coordinate the food safety regulatory system in European Union so that it has created a strong legal system. European Union has also developed a series of food safety regulatory requirements, including animal and plant disease control, control of drug residues, food production hygienic practices, good laboratory testing, access to imported food control, the exporting country's official veterinary certificate requirement, the official monitoring of food and so on. European Union released "The EU White Paper on Food Safety" in 2000. Furthermore, it formally established the "European Food Quality and Safety Authority" (EFSA) in January 28, 2002, issued Directive No. 178/2002, which provides the basic principles and requirements concerning food safety regulations and procedures. European Food Safety Authority consists of the Management Committee, Executive Officer, the Advisory Forum, Scientific Committee and eight specialized scientific panels. Based on the principles of independence, being scientific and transparency, EFSA has the following characteristics: guided by the most advanced science, free from the industrial and political interests, and with rigorous assessment known to public.

At present the EU food quality and safety control policy is based primarily on "EU Food Law". "The EU White Paper on Food Safety" points out that the main objective of the EU food law is food quality

safety. EU food law is based on controlling the whole process "from farm to table", including the general animal husbandry methods, animal health and health care, contaminants and pesticide residues, new food, additives, flavor, packaging, radiation, feed production, responsibility of farmers and food producer, as well as various agricultural measures.

### 1.3 Japan's food safety regulatory system

Japan's food quality and safety legislation focuses on five areas: food quality and hygiene, the quality of agricultural products, the quality of inputs (pesticides, veterinary drugs, feed additives, etc.), animal quarantine, and plant protection Tun. Japanese law explicitly stipulates that the management of food safety is in line with the MAFF (Ministry of Agriculture Forestry and Fisheries) and the Ministry of Health, Labor and Welfare. MAFF is mainly responsible for the safety of fresh agricultural products and semi-finished products, focusing on agricultural production and processing. Ministry of Health, Labor and Welfare is responsible for other food and imported food safety focusing on food imports and distribution. MAFF sets up a Consumer Safety Bureau, consisting of consumption security policy, agro-security management, health management, plant quarantine, labeling specifications and overall service as well as a consumer information officer. Under the new amendments to the Food Sanitation Law: The Japanese Ministry of Health, Labor and Welfare, in May 2006, officially took effect "food residues positive list system for agricultural chemicals" which prohibits the distribution of food that contains agricultural chemicals without standards for maximum residue limits and those whose level of agricultural chemicals exceed a uniform standard. Ministry of Health, Labor and Welfare carries out food quality and safety management according to "Food Sanitation Law" while MAFF is under "Agriculture, Forestry and Material Standardization and Quality Identity Management Act".

Japan's food quality and safety standards can be divided into two categories: First, food quality standards, and second, safety and health standards including animal and plant diseases, toxic and harmful residues and other substances. Japan's Ministry of Health, Labor and Welfare issued more than 2,000 agricultural product quality standards and more than 1000 MRL standards. MAFF promulgated 351 agricultural product quality specifications. In Japan, food quality and safety certification and HACCP (Hazard Analysis and Critical Control Point) certification of food quality and safety have become important means of management, and are generally accepted by consumers. Japan applies the registration and inspection and quarantine system for imported food to its food business. The costs of Japan's food quality and safety management are included in the government budget, and funding for the inspection and quarantine will be fully addressed in any given year. Therefore, the Japanese food quality and safety testing organizations are armed with high precision equipment, suitable for mass, multi-project, high-precision, and fast testing. Its inspectors are professionals, and the expenses of testing and technical personnel are also standardized into the government budget. In 2001, the Japanese government has allocated to the Consumption Technology Center of Agriculture, Forestry and Fisheries 49 billion yen (animal and plant quarantine and plant disease control have had other grants).

In summary, the developed countries have a relatively sound legal system of food safety in that it involves the whole process of every aspect "from farm to table".

## 2. HOW TO BETTER CHINA'S FOOD REGULATORY SYSTEM

### 2.1 To strengthen law-making and improve the legal system concerning China's food safety

China's food safety laws, before the year 2009, was led by the "Food Sanitation Law" and accompanied by "Food Sanitation Law on Administrative Punishment", "Procedures for food hygiene supervision" and other relevant food safety laws. In June 2009, "The People's Republic of China Food Safety Law"

was in effect, and the implementation of this law on food safety in China filled the legal gaps in the food safety risk assessment, giving detailed provisions on food recall system and the punishment involved in food safety. However, laws related to food safety form a system. We should actively study the Codex and other international legal standards, so as to establish China's multi-layered legal system including food safety laws, administrative regulations, local laws, administrative regulations and normative documents. We need a set of theories, methods and systems which are in line with international standards as well as our national conditions.

## 2.2 To establish a unified, efficient and accountable regulatory model

Referring to the advanced experience of the European Union and other countries, we can build a unified and efficient food safety supervision and management system which consists the establishment of food safety supervision and management departments (National Food Safety Supervision Authority) and a "sector-led and departments-assisted" system that will cooperate with the Ministry of Agriculture. Thus, the system will re-rationalize the same functions repeatedly executed by various regulators, and law enforcement departments. Such as Shanghai, the health department is responsible for the supervision of food circulation, which was formerly taken care of by SAIC and the Food and Drug department. SAIC is now only responsible for registration, trademark, advertising and investigating non-regulatory work such as license management. Meanwhile, it increases the functions and roles of the health department. This approach is worth noting. (Financial Network)

## 2.3 To implement the overall "from farm to table" control of food safety

From production to consumption, food involved a wide range of links, but China has traditionally focused only on the final products' inspection and monitoring; this practice appears to be far from enough in today's food safety control. EU first proposed food safety control – "from farm to table", and from then on the practice has been widespread in the developed world. Therefore, our nation should learn from other countries' useful experience in food safety supervision, and pay great attention to the key links such as: purifying the environment of the place of production, ensuring the quality of inputs, standardizing production, and strengthening monitoring and early warning and tightening market access. In so doing, we can monitor food production, processing, packaging, transportation, storage, sale, import and export and all other food-related links by establishing a unified, comprehensive system of food safety standards and a food safety testing and monitoring system in line with the international conventions, as well as by establishing and improving the food safety market access system, the retrospective system of food marketing chain, the food safety and quality commitment and recall system, and the social credit system for food safety, which cover all aspects of the food chain from the "farm to table". In short, to ensure food safety through perfection of the whole control system of "from farm to table"

## 2.4 To establish in line with international standards food safety standard system

The formulation and revision of China's food standards are relatively lagging behind. It is reported that Britain, France, Germany and other countries have adopted 80% of the international standards, and more than 90% of Japan's new national standards have adopted international standards, while only 40% of China's national standards adopted international standards, but a considerable number of which are inconsistent with international standards. Therefore, we must accelerate our country's standardization so as to meet the requirements of the international food safety standards. HACCP and ISO22000 food safety management system are, in most time, applied in food safety. HACCP, short for "Food Hazard Analysis Critical Control Point System", is to identify critical control points and use effective preventive measures and control means to minimize the extent of risk factors through hazard analysis of the entire process of food production, hence, take the necessary verification measures so that the products can reach the expectations. HACCP, the earliest and most mature certification system in the U.S., is now

widely used internationally on food safety.

There is also ISO22000 system, "ISO22000-Food Safety Management System Requirements" is a voluntary international standard, the standard proposes a uniform standard for global food safety management system, and the implementation of this standard will enable the production and processing enterprises to avoid many of the embarrassments arising from the different requirements of the different countries. The system will be internationally accepted since it may be used by an increasing number of food production and processing enterprises from different countries. Faced with this situation, China's food production and processing enterprises should take precautions to familiarize themselves with and master the standards, and establish sound food safety management system.

# 3. CONCLUSION

When food safety is becoming a great concern in today's world, China should actively learn from the developed countries in food safety supervision and improve China's food safety regulatory system with respect to laws, regulations, regulatory models and standards.

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