Study on the Prohibition Problems of Food Nutrition Enhancers

Jufen Yang

Food and Drug Inspection and Testing Center of Dunhuang, Dunhuang, Gansu, China

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Abstract: In the hot issues of global concern such as food nutrition fortifiers and health food safety, how to quickly and accurately detect food hygiene has become a top priority, but the analysis of food is much more difficult. This experiment combined with liquid chromatography-mass spectrometry has the advantages of good sensitivity, specificity, reliability, and simple sample preparation. It provides reliable qualitative analysis and high-sensitivity quantitative analysis results for food nutrition and health food safety analysis.

1. Introduction

The food industry is the pillar industry of China's national economy and a basic industry to protect people's livelihood. In 2011, the total output value of the food industry above designated size in China reached 7.8 trillion yuan, a year-on-year increase of 31.6%, accounting for 9.1% of the total industrial output value of the country. Food additives As an important part of the modern food industry, it is necessary to improve the color, aroma, taste and shape of food, adjust the nutritional structure, improve the processing conditions, improve the quality and grade of food, prevent spoilage and deterioration and extend the shelf life of food, and maintain the safety of food. It plays an important role. Without food additives, there will be no food manufacturing and modern food industry. Food additive technology not only provides reliable technical support and guarantee for the development of China's food industry and catering industry, but also has become a driving force and source for its rapid development. However, in recent years, from the “lean condensed pork”, “red duck eggs”, “melamine milk powder” incidents, to “stained steamed buns” incidents, food safety issues have been frequently exposed, and people’s sense of food safety is getting worse and worse, food safety The problem caused serious public panic, and it has reached the cup When it comes to food safety, many people think of food additives and mistakenly believe that food safety problems are caused by food additives. Consumer surveys show that more than 80% of consumers believe that food safety problems are caused by food additives. Facts So far, none of the major food safety incidents in China has been caused by the legal and reasonable use of food additives, but food additives have become the scapegoats of many food safety incidents. This has led to public misunderstandings about food additives. The main reason is the lack of accurate, scientific and systematic understanding of food additives by the public, and the misrepresentation of individual media, which makes the public's misunderstanding of food additives deeper and deeper. This article starts from the importance of food additives and the development of food additives the current situation and prospects, the main problems in the use of food additives are discussed, and the causes of misunderstandings about food additives are analyzed. The purpose is to guide people to correctly understand the relationship between food additives and food safety, and to promote the food additives and food industry. Healthy development.

2. Development Status and Problems of Food Nutrition Fortification

China is the largest developing country in the world, and the fortification of food nutrition started late. In the 1950s, China began to add trace elements such as bone meal and vitamins to milk substitutes. Beginning in the 1990s, with the rapid development of China's economy, China's commercialized nutrient industry has also begun to grow significantly. Among them, breakthroughs have been made in the production of various vitamins and intermediates. Achieved excellent results.
However, at present, although food nutrients in China can basically meet the needs of people's living and development at this stage, and some products are in a leading position in the world, the lack of nutrients is still a prominent problem at this stage, and some regions have begun to lack nutrition. Disease. China attaches greater importance to the role of improving the nutritional value of food, and has started to use nutrition fortifiers. With the approval of the State Council, 31 fortified nutrients have been approved in China by the end of 2003. The main components include amino acids, chitosan and chitin. However, due to the irregularity of the current market development, there are still some problems, which are concentrated in the following aspects.

The company's production lacks clear goals, and there are fewer types of nutritional supplements, low quality, and low popularity. Only some people choose to purchase corresponding nutritional supplements. Although some nutrients are fortified foods, due to the imbalance in the distribution of various nutrients, quantitative conflicts between different nutrients will occur, which will affect the absorption and utilization of other nutrients. The body's metabolism can have adverse effects, and it cannot guarantee a sufficient level of quality.

Illegal use of illegal additives refers to the use of chemical raw materials or drugs that are strictly prohibited in food as food additives. The well-known melamine “poisoned milk powder” incident is a typical case of illegal use of illegal additives as food additives; pepper sauce and Sudan red is found in its products, KFC, red heart duck eggs and other foods; industrial fire base, hydrogen peroxide and formaldehyde are used to treat water-based foods; industrial white blocks are used for flour bleaching; Shuanghui “clenbuterol” incident; made in steamed bread Abuse of sulfur fumigated steamed buns during the process caused damage to the vitamin B2 in the steamed buns; incorporated fluorescent whitening agents into noodles and vermicelli for whitening; immersed fruits in water with pesticides such as carbendazim to preserve fruit preservation; formaldehyde was used for fish preservation The use of illegal additives in food is prohibited. National regulations require the use of food-grade food additives, and some food manufacturers use industrial-grade additives to reduce costs, such as industrial-grade ammonium bicarbonate as a food loosener. Also There are cases where food additives are used to cover up food quality issues, such as in stale stewed vegetables Agent, adding spices, pigments, etc. to spoiled meat products. The safety of food additives is based on a reasonable amount of use, and food additives must not exceed the maximum allowable amount, which may exceed the range of use. Causes harm to human body. When using food additives, it is necessary to accurately measure according to the amount of use, and in a considerable number of enterprises, due to the lack of accurate measuring equipment, overuse of food additives has been caused. Food processing companies have added a single food additives combined with compound food additives will also cause excess food additives. In addition, the use of food additives in multiple stages will cause the food additives in the final product to exceed the standards. In China's “Food Additives Use Standards", each Food additives have a clear scope of use. Out-of-scope use of food additives refers to the types and scope of food additives that can be used in a certain food specified in the standard. In April 2011, CCTV exposed many supermarkets in Shanghai Corn flour buns are sold without corn flour, they are stained with lemon noodles in white flour Made of. Lemon yellow is a permitted food additive, which can be used in puffed foods, ice cream, fruit drinks and other foods, but not allowed to be used in steamed bread. This is a typical illegal use of food additives beyond the scope For example, fans add artificial blue, sunset yellow, lemon yellow, and carmine artificial pigments, and serve as sweet potato noodles and mung bean fans in different proportions, all of which are beyond the scope of using food additives.

3. Food Additives and Food Safety Recommendations

Improving the standard construction and management system of food additives is a prerequisite and guarantee for increasing the public's trust in food additives. Gradually formulate and improve food additive product quality standards and inspection method standards, strictly implement the food additive production licensing system, and establish a food enterprise integrity file. Strengthen the filing of food companies, establish a food additive safety labeling and traceability system, and implement a food additive use reporting system for food production and processing enterprises.
Continuously improve the level of food additive testing, focusing on special sampling and testing of food additives and non-edible substances in food. Strictly crack down on illegal and criminal acts of food additives and abuse of food additives, create a good atmosphere for the rational use of food additives, ensure food safety, and increase public trust in food additives.

The “Food Safety Law” and the implementation regulations of the administrative license for new varieties of food additives, risk assessment of food additives, food additive safety standards, food additive production, operation, use, management of labeling and other aspects have made systems. Food practitioners and food safety supervisors should be classified and trained in food additives and food safety knowledge at different levels, so that food additive producers, users, and consumers can understand the laws and regulations of food additive management in China. Regulations, the correct production and use of food additives in accordance with regulations, and the improvement of self-discipline and legal awareness of relevant personnel, this is an important guarantee for the safe use of food additives. In the process of food additive production, food additive companies must ensure the quality of food additives and safety, and strengthen the management of food additive product identification and use instructions. In the process of using food additives, food production and operation enterprises must process food in accordance with food additive use standards and use instructions, to eliminate non-edible substances and use in excess of the limit. In addition, food production enterprises should also be in accordance with the “Food Safety Law” and the relevant regulatory requirements, proper identification tags, which enable consumers to use food additives by food labels understanding purchased.

Through a variety of forms, angles and channels, increase the publicity and education of consumer food additives science knowledge, so that they understand what food additives, the role and use of food additives, food additive industry standards and regulatory systems, from a scientific level understand the true meaning of food additives, eliminate misunderstandings about food additives, and guide consumers to correctly understand and rationally treat food additives and food safety issues.

Establish a professional risk communication agency, organize risk assessment and risk communication of food additives, establish a multi-party interactive food safety risk communication mechanism, and ensure that information about food additives and food safety risks can be accurately and continuously transmitted to industry and consumers. Among them, timely release of scientific explanations of hot food safety issues, answer consumer questions in the first time, and avoid public panic in a timely manner. Through risk communication, help consumers to scientifically understand food additives and food safety issues, and enhance confidence in food additives and food safety.

4. Conclusion

China and the world’s food safety incidents are not caused by reasonable and legal use of food additives. Food additives play an irreplaceable role in promoting innovation and development of the food industry and maintaining food safety. Various forms of science popularization activities should be adopted. Publicity and education guide the public to correctly understand and rationally treat food additives and food safety issues, and promote the healthy development of the food additive industry and the food industry. With the economic and social development, scientific and technological progress, and the improvement of food additive related laws, regulations and standards the variety of food additives in China will become more and more abundant, and the food safety situation will become better and better.

References


