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Editorial

THE ROLE OF FOOD CONTROL SYSTEM IN ASSURANCE OF FOOD SAFETY – DIFFICULTIES AND RISKS

In the previous issues of this journal different aspects of food safety were discussed by known Hungarian specialists. Due to long term activity of food experts and due to major outbreaks of foodborne illness and substantial financial and social costs caused e.g. by dioxin contamination, today the governments and several international organizations accepted the view that supply of population with safe food plays and important role in maintenance of public health. The question of "Is it safe" is probably the one most frequently put to food producers or distributors from side of consumer, particularly in developed countries.

The production of safe food needs integrated efforts both in plant growing and animal husbandry and in processing and distribution. At present, application of quality assurance systems based on GAP (good agricultural practice), GVP (good veterinary practice), GMP (good manufacturing practice) is commonly used in many countries. Whether the efforts of all participants of food production and distribution chain were successful, whether the food to be purchased by consumer fills all requirements included in food regulations and is really safe, this should be controlled and declared by an expert in food control named food analyst, food inspector or public analyst.

What are the factors which make the statement that a food is safe, difficult? Among them first the expansion and diversification of the food trade may be mentioned. This trend can be attributed to many factors. First, the disciplines of food microbiology, food chemistry and food technology are continuously providing a broader range of foods by developing new and more sophisticated preservation, processing and packaging techniques which make food less perishable. Second, rapid transporting and improved handling methods have reduced the length of time and difficulties associated with moving food for long distances, thus allowing traders access to new far-away markets. Finally, consumer's food habits, particularly those with higher income, become more varied stimulating the demand for traditional and new foods from other regions. An increasing number of countries are becoming both significant importers and exporters of food. Parallelly with this development the number of potential biological and chemical contaminants which may occur in foods consumed in a country increased dramatically due to different conditions of production and regulations in different countries. This situation makes the food control more complicated, despite international efforts to harmonize food regulations and standards and agreements made in the framework of World Trade Organization (WTO). Among them two binding agreements relevant to food regulations may be mentioned. First the Agreement on the Application of Sanitary

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and Phytosanitary Measures (SPS Agreement) and the Agreement on Technical Barriers to Trade (TBT Agreement). The SPS Agreement calls for a programme of harmonization of national requirements based on international standards. With regard to food safety measures, WTO members should base their national standards on international standards, guidelines and other recommendations adopted by Codex Alimentarius Commission where exist.

A second question is connected with food additives. Even by permitted additives the maximal applicable levels are regulated. Only the EEC has listed over 600 permitted additives that may be mixed with food products. It is understandable that the concentration of permitted additives should be controlled, but the question arises for which other compounds potentially presenting danger for human health should be the food tested? Taking in mind that every test needs time and money, it is resonable to test only for substances which is presumed to be there. However the practice of last years shows that presumable testing presents a given risk. The Austrian wine tester did not think that the wine contained anti-freeze (added to adulterate wine) or nobody in Belgium expected that transformator oil would be added to broiler feed resulting in dioxin contamination of eggs and broiler meat. Taking in mind also the potential risk connected with terrorist action it is clear how complex and responsible is the activity of food control.

Another problem is connected with the fact that overwhelming part of control methods needs destruction of the sample. It means that in every case only a limited number of samples could be controlled. Carefully drawn in the long run to present accurately the population from which they are drawn. There is always unfortunately a small probability that the sample may be unrepresentative. Thus there does not exist an absolute safety.

Finally it may also be mentioned that after evaluation of analytical data generally there is a need to explain both the data and decisions to non-analytical personnel and to the public at large.

The growing complexicity of the area of food control resulted in that the requirements for experts in food control increased dramatically. When in the 19th century food control laboratories were set by governments (or other institutions) these functioned with one expert. Today the official food control establishments in many cases are big institutions with a staff of up to a few hundred scientists and laboratory employees. Today the expertise in food safety evaluation lies not in one person, but in a cleverly composed and expertly managed group of specialists. Such a group should include specialists in food chemistry, food technology, nutrition, microbiology, toxicology and food law. The expertise in this field lies in the judicious combination of the skills of specialists rather than in attempting to concentrate all necessary knowledge in one person. Nevertheless the head of the institution should have an ability to integrate various facets of information from different disciplines into a concerted view.

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