

## Editorial

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After publishing 8 issues of QAS, the relatively young journal has reached wide acknowledgement for providing peer-reviewed information and research results in the area of food safety and quality assessment. Over 50 articles have been published, with about 55% in food safety, 27% in food quality and 18% in social sciences, economic impacts, standards and regulatory issues associated with food safety and quality. Of all food safety related papers in QAS, the share between microbiological and chemical contaminants related articles is about 50% each.

While a lot of research is going into achieving more reliable and more sensitive analysis of food contaminants, it is important not to lose oneself in abstract figures of parts per million and parts per billion, but to be reminded of the reason of our work and the impact this research has on society. This editorial should serve as a reminder of the global significance of the work that is published in QAS, taking the example of chemical contaminants.

Since the end of the 19<sup>th</sup> century, incidents of chemical contamination in foods and the environment, which affected the lives of people in various parts of the globe, have been documented and reported. In contrast to microbiological outbreaks, the evaluation of cause and effect of many chemical contaminants is complicated by the delayed onset of symptoms. Organic compounds for instance are often fat soluble and accumulate in the body before they show an effect in the individual or in the breast-fed infant.

In a recent review of incidences of chemical contamination in food carried out at ESR—the Institute of Environmental Science and Research— in Christchurch, New Zealand, some 40 major events were cited between 1888 to date, with significant impacts on consumers' health and remedial costs. This review of incidents of chemical contamination in food (to be published in QAS in one of the next issues) highlights the extent of impacts on society concerning economic, environmental, social, and political costs associated with the various events. An evolution is apparent from the collection of evidence of human health effects/toxicity data, igniting legal action and legislative changes, and finally the implementation of monitoring and surveillance alerts to insure that risks are identified and managed – if possible – before they reach the consumer. The

cost of chemical contaminants in food and feeds may range from a few thousand Euros, to meet the direct cost of compliance or monitoring analysis, to many millions of Euros for court prosecutions, bankruptcy, product disposal, monitoring and surveillance, damage to brand or reputation of the product or country, decline in tourist income or loss of life. Very descriptive examples of such impacts are evidenced from events of mercury poisoning of fish in Japan in the 1950s, where human tragedy (cannot be numbered), and legal compensation (currently about 15,000 affected individuals) are not yet settled (in 2010!), or the recent cases of melamine in Chinese milk powder in 2008 and dioxin in Irish pork, where directly associated costs exceed the two digit million Euro mark.

Any crisis offers the opportunity for change and improved identification and management of risks. New food safety regulations and improved monitoring and surveillance programmes are often the result of lessons learned in crises. Admittedly, the assurance of food safety comes at a price, considering the necessary research to develop methods to identify and quantify chemical contaminants, socio-economic costs to draft and implement new or better regulations, and finally systems and tools to monitor and alert for potential risks. However, the investment is considerably less than costs associated with an incidence and more so of human life.

MoniQA, the EU funded and ICC coordinated Network of Excellence, with participation of some 150 institutions from over 35 countries, has committed its knowledge, international relations, and communication resources to providing reliable information, globally agreed standards and tools to ensure safe foods, to support regulatory bodies in drafting better future regulations, food manufacturers in achieving legal compliance and producing high quality foods, and finally avoiding remedial, legal or re-call costs, and improving the quality of life for consumers. In the end, we all need to eat, and we all depend on safe foods.

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