

Critical and Emerging issues in Food Safety and Quality-Netherlands

Critical issues are those that are the most pressing ones, and as such need to be addressed and considered as priorities. They can be known issues that are actually present/already occurring or even recurring. They can also be completely new or emerging. With the word “issues” is meant either hazards/challenges or opportunities or even trends that might have an impact on food safety and quality.

Emerging issues are those that are new, unexpected, or can cause change in the status quo. Many factors inside and outside the food production system(s) could directly and/or indirectly lead to emerging issues in food safety and quality.

Examples of “drivers of change” that could lead to emerging issues

- **Globalization of trade:** Food safety must be considered within a global context that is dynamic and evolving as part of the globalization process: increased international trade, more integrated markets, more rapid adoption of new technologies, increased market concentration, and information transfer, can all have important implications (both positive and negative) in food safety.
- **New distribution channels**
Increase in online retailers will eventually get to the food retail market; are there any food safety risks that might arise from such a change of the retail market, where the local store might be replaced with automated warehouses and logistics in distributing it to the end consumer?
- **Economic factors:** budgetary pressures on national governments to improve efficiencies and reduce spending on national food safety systems; the ability/ willingness of food enterprises to implement adequate food safety measures; trends in food adulteration and food fraud; fluctuation of food prices. All these, and many other economic factors can impact on food safety at different levels.
- **Climate change:** Climate change, perhaps the most compelling environmental issue of our time, can affect patterns of occurrence of food safety hazards. Indeed international commitment to address environmental issues has a significant impact on agricultural development strategies and on food safety
- **New technologies:** The increasing role of new and emerging technologies in food production, post-harvest treatment, processing, packaging and sanitary treatment is also significant in the context of food safety and more globalised food trade.
- **Scientific progress:** Technical and scientific innovation has multiple impacts on food safety and its management. More sensitive detection methods are providing new tools for investigating and indeed discovering new food safety hazards. Recent advances in food safety related sciences give us a better understanding of food-borne disease, and the role played by some food contaminants in the etiology of some pathologies and disorders.
- **Urbanization:** With the global population growing there is a sustained trend of migration from rural to urban areas. Cities (and surrounding areas) are increasingly becoming places where food is produced (i.e. urban and peri-urban agriculture). This plays an important role in how people procure food, what people eat, the nature of food traded and the interactions among food systems, people and the environment.
- **Regulatory landscape**
The regulatory landscape is changing with an increased importance on bilateral or multilateral treaties, emergence of private standards etc that can affect the food supply chain.
- **Public attention to food safety:** Increasing public awareness of food safety hazards, concern over hazards to health attributable to food hazards and reduced confidence in the ability of current food supply systems to manage food safety risks are additional factors to be considered in the food safety evolving context. At the same time food insecurity – an extreme manifestation of a large and growing wealth disparity within countries and among countries – remains a pressing global concern with important implications for decision-making on food safety at all levels.

Please note that the above are just some examples of drivers and the list is not complete. In responding to question #1 please consider these and any other broad drivers that you think could lead to emerging issues in food safety and quality.

1 - Identification of critical and emerging issues – COMMENTS OF THE NETHERLANDS

Please identify what you believe to be the 3-5 most **critical issues** related to Food Safety and Quality, from **present to the next 2 - 5 years**.

- 1) Antimicrobial resistance AMR on food
- 2) Avoiding faecal (intestinal flora) contamination during the slaughter process
- 3) Campylobacter in poultry
- 4) Allergens
- 5) Heavy metals

Please identify what you believe to be the 3-5 most important **emerging issues** related to Food Safety and Quality **in the next 2 to 5 years**.

- 1) *On site or in line* real time detection techniques of zoonotic agents or residues on food
- 2) Hormone disrupting chemicals
- 3) Mycotoxins

2 - For each issue you have identified above please provide a short explanation¹ (1 or 2 paragraphs)

Ad 1) Antimicrobial resistance AMR on food

Antibiotic resistant bacteria can be multiplied in animal husbandry systems resulting in significant reservoirs for infection of the human population through the food chain. The spread of AMR among the human population can be amplified through the food chain. AMR is considered a health threat of increasing importance and the battle against it largely depends on international and one-health co-operation.

Ad 2) Avoiding faecal (intestinal flora) contamination during the slaughter process.

Many of the most important food safety hazards originate from faecal or intestinal bacteria, i.e. salmonella, campylobacter, STEC E.coli, AMR-bacteria. This concentration of many causal agents around this single theme, allows for faecal contamination as a priority subject for food safety. Faecal contamination including standards, should be regarded a food safety issue as such.

¹ In providing a **short explanation** of 1 -2 paragraphs please briefly explain: 1) why you selected that issue (i.e. on what basis - information/data, knowledge or assumption - you made that choice) and 2) the expected and/or actual impacts of the issue (whether the impact would be sector-specific, affect only some sub-populations or countries/regions, whether it would be related to public health or trade etc)

Ad 3) Campylobacter in poultry.

Campylobacter in poultry is one of the largest food safety hazards. Many human infections are caused by poultry meat but a large proportion of infections also occurs through other, still unknown pathways. The disease burden for the human population is large due to the numerous infections as well as the Guillain Barré syndrome associated with it.

Ad 4) Allergens

In Regulation (EU) No 1169/2011 *on the provision of food information to consumers* provisions are laid down related to the indication of the presence of certain substances or products causing allergies or intolerances as described in Article 9.1(c) and listed in Annex II of the Regulation. Food business operators also label allergens because of unintentionally caused contamination. Food business operators apply different safety levels in their decisions to label.

This causes uncertain information for the allergic consumer.

It should be good to agree upon the level above which a Food Business Operator has to label the presence of an allergenic substance. In order to be able to measure the levels in a harmonized way, harmonized detection methods are needed.

Ad 5) Heavy metals

Contamination of food with heavy metals, requires attention for health protection against potential harm by consumption of contaminated food.

When establishing standards for these substances, international trade and consumption habits in different countries are factors in addition to health protection. Furthermore a riskbenefit analysis is performed for certain foods, which complicates setting international standards further. This results in long discussions in Codex, as for example in the discussion on methylmercury in fish. The possible difference between outcomes of riskanalysis by different international scientific bodies is also an issue to take into account.

Ad 1) *On site* or *in line* real time detection techniques of zoonotic agents or residues on food.

It is increasingly difficult for competent authorities to meet the expectations regarding their inspection and control efforts for food safety. It is inevitable that retailers should take more responsibility for food safety. Until now, retailers need to rely on inspections by the authorities but as soon as *on site* or *in line* detection techniques become available, retailers become more independent from the inspection systems by the authorities for implementing their responsibility. It will also improve and strengthen the food chain system since retailers are more able to lay back the consequence of insufficient quality to their suppliers, due to the instant character of the *on site* or *in line* real time detection.

Ad 2) Hormone disrupting chemicals

The notion is increasing that food contaminating substances can have hormone disrupting activity. With increasing knowledge, public concerns about this kind of effects are on the rise as well. It is important to get a complete picture of the presence of hormone disrupting chemical in food. And, when necessary, standards are established.

Ad 3) Mycotoxins

Despite the current attention for contamination with mycotoxins, changes in contamination pattern could be expected by climate change, which might lead to a different future approach to control contamination.