



To ensure food safety of products of animal origin, action is needed at all stages of the food chain from production at the farm through to human consumption. Many food safety risks arise at the pre-slaughter or pre-processing stage, and these can be reduced or prevented using disease standards and good practices recommended by the World Organisation for Animal Health (OIE). Since 2002, a permanent Working Group of the OIE has gathered, among others, *Codex Alimentarius*, WHO<sup>1</sup> and FAO<sup>2</sup> representatives, and has been preparing science-based standards and guidelines on animal production food safety.

### KEY FACTS

- Controlling pathogens at their source in animals on farm is the best approach to protect human health.
- OIE's international standards on food safety focus on eliminating potential hazards for consumers arising prior to the slaughter of animals or the primary processing of their products (meat, milk, eggs, etc.).

### FOOD-BORNE HAZARDS

Biological hazards that must be controlled to ensure food safety are varied and in particular include bacteria such as *Salmonella spp.*, *Escherichia coli*, *Listeria monocytogenes*, *Campylobacter spp.* and *Mycobacterium tuberculosis* complex. Numerous parasites, viruses and toxins are other important biological hazards. Chemical hazards include veterinary drug residues and chemical (PCP, dioxins) or environmental pollutants (heavy metals).

### 'FROM FARM TO FORK'

In this age of globalisation, ensuring healthy, hazard-free food is a key issue for all countries. Since 2002, the OIE develops, adopts and publishes standards and guidelines on 'animal production food safety', with a focus on establishing linkages between the food production phase, the food processing phase and the distribution phase, often described as a 'from farm to fork' approach.

The national Focal Points for "Animal Production Food Safety" appointed by the OIE national Delegates of each 180 OIE Member Country are in charge of reviewing proposals for new or revised OIE standards related to animal production food safety, as well as their implementation in their countries.

The Veterinary Services help to reduce risks to animal health and public health by conducting checks on-farm and in places of processing, such as slaughterhouses, where they carry out ante-mortem and post-mortem inspections, to verify the health of the animals and the wholesomeness of their products, in accordance with OIE standards. In several countries, the Veterinary Services are responsible for food safety throughout the entire food chain (farm, slaughterhouse, transport, distribution retail and catering).

The education and training of veterinarians, which includes both animal health (including zoonoses) and food hygiene components, makes them uniquely equipped to play a central role in ensuring food safety, especially the safety of foods of animal origin.

### Role and responsibilities of Veterinary Services in food safety

The OIE provides guidance to Member Countries to assist them in meeting the food safety objectives based on OIE and *Codex Alimentarius* standards laid down in national legislations and in the requirements of importing countries as well as providing guidance on the key role played by Veterinary Services for preserving food safety.

Relevant chapters of the *OIE Terrestrial Code*:

- The role of the Veterinary Services in food safety ([Chapter 6.1.](#))
- Control of biological hazards of animal health and public health importance through ante- and post-mortem meat inspection ([Chapter 6.2.](#))

### AN INTERNATIONAL NETWORK OF EXPERTISE

#### Permanent OIE Working Group on Animal Production Food Safety

This Group is working in coordination with, among others, *Codex Alimentarius*, FAO and WHO high level representatives in order to prepare standards avoiding overlap and gaps between OIE and *Codex Alimentarius standards*.

#### Reference Centres

Several [Reference Laboratories](#) and [Collaborating Centres](#), spread across the globe make up part of the OIE global scientific expertise in food safety. [Cartography.](#)

<sup>1</sup> World Health Organization

<sup>2</sup> Food and Agriculture Organization of the United Nations



## EXAMPLES OF IMPLEMENTATION OF OIE STANDARDS TO GUARANTEE SAFETY OF FOOD

### Zoonotic parasites

*Trichinella* infection, echinococcosis/hydatidosis, and porcine cysticercosis are, for instance, three OIE listed diseases of public health significance, for which the application of prevention and control measures at the 'animal and farm level' can help to prevent illness in humans. In May 2013 the revised chapters of standards on Infection with *Trichinella* spp. and infection with *Echinococcus granulosus*, as well as a new chapter on Infection with *Echinococcus multilocularis* were adopted.

### Salmonellosis

Salmonellosis is a food-borne disease caused by certain bacteria of the *Salmonella* species, which are normally present in the intestine of animals. Human infection can occur via consumption of uncooked contaminated food. Reducing the prevalence of *Salmonella* species in animals and good hygienic practices in food handling help to prevent disease in humans. The OIE has developed standards on biosecurity procedures in poultry production and the prevention, detection and control of *Salmonella* in poultry and has initiated new work on the control of *Salmonella* in pigs and cattle.

### Tuberculosis

Tuberculosis, caused by *Mycobacterium bovis*, is a disease of cattle and other animal species that can also cause tuberculosis in humans, usually via the ingestion of milk from infected animals. The reduction of the infection in herds and the pasteurisation of milk have contributed significantly to the control of bovine tuberculosis in humans. However, *M. bovis* still remains a relatively common cause of tuberculosis in humans in numerous countries

### Animal feed

Food safety also involves controlling the quality and wholesomeness of animal feed. Animal feed is a critical component of the food chain that has a direct impact on animal health and also on food safety and public health. The OIE has adopted standards for terrestrial and aquatic animal feed aimed at ensuring the control of hazards of animal health and public health importance in animal feed.

### Traceability

The OIE, through its Working Group on Animal Production Food Safety with representatives from the CAC, the FAO and WHO, amongst others, has coordinated work on important 'cross-cutting' standards for terrestrial and aquatic animals, including those on animal identification and traceability.

### Antimicrobial resistance

Misuse of antimicrobials in human and veterinary medicine can lead to the development of antimicrobial resistance and reduced treatment efficacy in both humans and animals. Maintaining antimicrobial agent efficacy is crucial to protect animal health and welfare and help ensure that animal production keeps pace with the growing global demand for high-quality protein.

The OIE has developed standards on the responsible and prudent use of antimicrobial agents in terrestrial and aquatic animals. The OIE also published a [list of Antimicrobials of Veterinary importance](#). Both the standards and the list have been adopted by all OIE Member Countries. Several bacteria resistant to antimicrobials can be transmitted by food.

## REFERENCE INTERNATIONAL STANDARD-SETTING ORGANISATIONS

### World Trade Organization (WTO): agreement on the application of sanitary and phytosanitary measures (SPS agreement)

For WTO Members, the SPS Agreement provides the rules by which governments can elaborate sanitary and phytosanitary safety measures for use in international trade.

The OIE is one of the international standard-setting organisations recognised in the SPS Agreement, alongside the CAC and the International Plant Protection Convention (IPPC). The Agreement recognises the OIE as the reference international standard setting organisation for animal health, including zoonoses.

### The Codex Alimentarius Commission (CAC)

Similarly, the CAC, which was established in 1963 by the FAO and the WHO, is recognised as the reference international standard-setting organisation for food safety under the WTO SPS Agreement (particularly after production step). The objectives of the CAC are to develop harmonised international food standards, guidelines and codes of practice to protect the health of the consumers and ensure fair trade practices in the food trade.

## For more information

- OIE's [Animal Production Food safety portal](#)
- Scientific and Technical review: [Coordinating surveillance policies in animal health and food safety 'from farm to fork', Vol. 32\(2\), August 2013](#)
- Handbook on Import Risk Analysis for Animals and Animals Products (Volume 1 & 2)
- [Recommendations of the 1st OIE International Conference on Animal Identification and Traceability 'From Farm to Fork' \(2009\)](#)
- [Recommendations of the OIE Global Conference on the Responsible and Prudent Use of Antimicrobial Agents for Animals \(2013\)](#)

### OIE Terrestrial Code:

- The role of the Veterinary Services in food safety ([Chapter 6.1.](#))
- Control of biological hazards of animal health and public health importance, through ante- and post-mortem meat inspection ([Chapter 6.2.](#))