



International 58th Meat Industry Conference “Meat Safety and Quality: Where it goes?”

European food poisoning outbreaks involving meat and meat-based products

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Abstract

Foodborne illnesses are syndromes including nausea, vomiting, abdominal cramps and diarrhea caused by the ingestion of food contaminated by chemical substances or microorganisms and/or their toxins. Reporting of food poisoning has been mandatory for European Union member states since 2003. Data collected by the European Food Safety Authority (EFSA) include number of outbreaks per causative agent, number of human cases as well as hospitalization and death rates. This paper will focus on meat products as food vehicles for FBOs. Following the legal definition of meat and meat products and the European reporting scheme, the main pathogenic bacteria will be presented.

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1. Legislation and meat products

The definition of a “meat product” is laid down in Annex I to Regulation (EC) No 853/2004¹. Meat includes parts of domestic ungulates and solipeds, poultry, lagomorphs and wild game animals as well as blood, carcass and viscera. Following the bovine spongiform encephalopathy crisis, the European Union (EU) rearranged the hygiene legislation to enhance responsibility of food producers, and used scientific information coming from ad hoc expert

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groups to define a template for the future EC 2073/2005². This regulation on microbiological criteria for foodstuffs entered into force on January, 1st, 2006 in all EU Member States (EU MS). With this regulation, process hygiene criteria as well as food safety criteria were introduced. Process hygiene criteria have been defined for five food categories (meat and meat products, milk and milk products, egg products, fish products and vegetables, fruits) and food safety criteria were defined for six hazards (*Salmonella* spp., *Listeria monocytogenes*, staphylococcal enterotoxins, *Cronobacter sakazakii*, *Escherichia coli* and histamine). Other items are also covered in the regulation including sampling plan, test portion and the couple analyte/food stuff to be tested. Tables 1 and 2 present the food safety criteria and the process hygiene criteria to be tested in meat and meat-based products according to the EU regulation N2073/2005.

Table 1. Food safety criteria for meat and meat products according to the EC regulation N2073/2005.

Food category	Analyte	Sampling plan		Limits (ufc/g)	Analytical reference method	Stage where criteria applied
1.4 Minced meat and preparation intended to be eaten raw	<i>Salmonella</i>	5	0	Absence in 25 g	EN/ISO 6579	Products placed on, the market during their self-life
1.5 Minced meat and preparation made from poultry intended to be eaten cooked	<i>Salmonella</i>	5	0	Absence in 25 g	EN/ISO 6579	Products placed on, the market during their self-life
1.6 Minced meat and preparation made from other species than poultry intended to be eaten cooked	<i>Salmonella</i>	5	0	Absence in 10 g	EN/ISO 6579	Products placed on, the market during their self-life
1.7 Mechanically separated meat (MSM)	<i>Salmonella</i>	5	0	Absence in 10 g	EN/ISO 6579	Products placed on, the market during their self-life
1.8 Meat products intended to be eaten raw excluding products where <i>Salmonella</i> risk will eliminate	<i>Salmonella</i>	5	0	Absence in 25 g	EN/ISO 6579	Products placed on, the market during their self-life
1.9 Meat product made from poultry intended to be eaten cooked	<i>Salmonella</i>	5	0	Absence in 25 g	EN/ISO 6579	Products placed on, the market during their self-life

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