# [F1ANNEX I

## Microbiological criteria for foodstuffs

**Textual Amendments**

**F1** Substituted by Commission Regulation (EC) No 1441/2007 of 5 December 2007 amending Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs (Text with EEA relevance).

## Chapter 3.

### Rules for sampling and preparation of test samples

3.1 *General rules for sampling and preparation of test samples*

In the absence of more specific rules on sampling and preparation of test samples, the relevant standards of the ISO (International Organisation for Standardisation) and the guidelines of the Codex Alimentarius shall be used as reference methods.

[F2[F3]3.2 *Bacteriological sampling in slaughterhouses and at premises producing minced meat, meat preparations, mechanically separated meat and fresh meat*

*Sampling rules for carcases of cattle, pigs, sheep, goats and horses*

The destructive and non-destructive sampling methods, the selection of the sampling sites and the rules for storage and transport of samples to be used are set out in standard ISO 17604.

Five carcases shall be sampled at random during each sampling session. Sample sites must be selected taking into account the slaughter technology used in each plant.

When sampling for analyses of *Enterobacteriaceae* and aerobic colony counts, four sites of each carcase shall be sampled. Four tissue samples representing a total of 20 $cm^2$ shall be obtained by the destructive method. When using the non-destructive method for this purpose, the sampling area shall cover a minimum of 100 $cm^2$ (50 $cm^2$ for small ruminant carcases) per sampling site.

When sampling for *Salmonella* analyses, an abrasive sponge sampling method shall be used. Areas most likely to be contaminated shall be selected. The total sampling area shall cover a minimum of 400 $cm^2$.

When samples are taken from the different sampling sites on the carcase, they shall be pooled before examination.

*Sampling rules for poultry carcases and fresh poultry meat*

Slaughterhouses shall sample whole poultry carcases with neck skin for *Salmonella* and *Campylobacter* analyses. Cutting and processing establishments other than those adjacent to a slaughterhouse cutting and processing meat received only from this slaughterhouse, shall also take samples for *Salmonella* analysis. When doing so, they shall give priority to whole poultry carcases with neck skin, if available, but ensuring that also poultry portions with skin and/or poultry portions without skin or with only a small amount of skin are covered, and that choice shall be risk-based.

Slaughterhouses shall include in their sampling plans poultry carcases from flocks with an unknown *Salmonella* status or with a status known to be positive for *Salmonella Enteritidis* or *Salmonella Typhimurium*.

When testing against the process hygiene criteria set out in Row 2.1.5 and Row 2.1.9 of Chapter 2 for *Salmonella* and *Campylobacter* in poultry carcases in slaughterhouses and the tests for *Salmonella* and *Campylobacter* are carried out in the same laboratory, neck skins from a minimum of 15 poultry carcases shall be sampled at random after chilling during each sampling session. Before examination, the neck skin samples from at least three poultry carcases from the same flock of origin shall be pooled into one sample of 26 g. Thus, the neck skin samples form 5 × 26 g final samples (26 g are needed to perform analyses for*Salmonella* and *Campylobacter* from one sample in parallel). The samples shall be kept after sampling and transported to the laboratory at a temperature not lower than 1 °C and not higher than 8 °C and the time between the sampling and the testing for *Campylobacter* shall be of less than 48 hours in order to ensure maintenance of sample integrity. Samples that have reached a temperature of 0 °C shall not be used to verify compliance with the *Campylobacter* criterion. The 5 × 26 g samples shall be used to verify the compliance with process hygiene criteria set out in Row 2.1.5 and Row 2.1.9 of Chapter 2 and the food safety criterion set out in Row 1.28 of Chapter 1. In order to prepare the initial suspension at the laboratory, the 26 g test portion shall be transferred to nine volumes (234 ml) buffered peptone water (BPW). The BPW shall be brought to room temperature before adding. The mixture shall be treated in a stomacher or pulsifier for approximately one minute. Foaming shall be avoided by removing the air from the stomacher bag as much as possible. 10 ml (~ 1 g) of this initial suspension shall be transferred to an empty sterile tube and 1 ml of the 10 ml shall be used for the enumeration of *Campylobacter* on selective plates. The rest of the initial suspension (250 ml ~ 25 g) shall be used for the detection of *Salmonella*.

When testing against the process hygiene criteria set out in Row 2.1.5 and Row 2.1.9 of Chapter 2 for *Salmonella* and *Campylobacter* in poultry carcases in slaughterhouses and the tests for *Salmonella* and *Campylobacter* are carried out in two different laboratories, neck skins from a minimum of 20 poultry carcases shall be sampled at random after chilling during each sampling session. Before examination, the neck skin samples from at least four poultry carcases from the same flock of origin shall be pooled into one sample of 35 g. Thus, the neck skin samples form 5 × 35 g samples, which in turn shall be split in order to obtain 5 × 25 g final samples (to be tested for *Salmonella*) and 5 × 10 g final samples (to be tested for *Campylobacter*). The samples shall be kept after sampling and transported to the laboratory at a temperature not lower than 1 °C and not higher than 8 °C and the time between the sampling and the testing for *Campylobacter* shall be of less than 48 hours in order to ensure maintenance of sample integrity. Samples that have reached a temperature of 0 °C shall not be used to verify compliance with the *Campylobacter* criterion. The 5 × 25 g samples shall be used to verify the compliance with process hygiene criteria set out in Row 2.1.5 of Chapter 2 and the food safety criterion set out in Row 1.28 of Chapter 1. The 5 × 10 g final samples shall be used to verify the compliance with the process hygiene criterion set out in Row 2.1.9 of Chapter 2.

For the *Salmonella* analyses for fresh poultry meat other than poultry carcases, five samples of at least 25 g of the same batch shall be collected. The sample taken from poultry portions with skin shall contain skin and a thin surface muscle slice in case the amount of skin is not sufficient to form a sample unit. The sample taken from poultry portions without skin or with only a small amount of skin shall contain a thin surface muscle slice or slices added to any skin present to make a sufficient sample unit. The slices of meat shall be taken in a way that includes as much as possible of the surface of the meat.

*Guidelines for sampling*

More detailed guidelines on the sampling of carcases, in particular concerning the sampling sites, may be included in the guides to good practice referred to in Article 7 of Regulation (EC) No 852/2004.

*Sampling frequencies for carcases, minced meat, meat preparations, mechanically separated meat and fresh poultry meat*

The food business operators of slaughterhouses or establishments producing minced meat, meat preparations, mechanically separated meat or fresh poultry meat shall take samples for microbiological analysis at least once a week. The day of sampling shall be changed each week to ensure that each day of the week is covered.

As regards the sampling of minced meat and meat preparations for *E. coli* and aerobic colony count analyses and the sampling of carcases for *Enterobacteriaceae* and aerobic colony count analyses, the frequency may be reduced to fortnightly testing if satisfactory results are obtained for six consecutive weeks.

In the case of sampling for *Salmonella* analyses of minced meat, meat preparations, carcases and fresh poultry meat, the frequency may be reduced to fortnightly if satisfactory results have been obtained for 30 consecutive weeks. The *Salmonella* sampling frequency may also be reduced if there is a national or regional *Salmonella* control programme in place and if this programme includes testing that replaces the sampling laid down in this paragraph. The sampling frequency may be further reduced if the national or regional *Salmonella* control programme demonstrates that the *Salmonella* prevalence is low in animals purchased by the slaughterhouse.

In the case of sampling for *Campylobacter* analysis of poultry carcases, the frequency may be reduced to fortnightly if satisfactory results have been obtained for 52 consecutive weeks. The *Campylobacter* sampling frequency may be reduced, after authorisation by the competent authority, if there is an official or officially recognised national or regional *Campylobacter* control programme in place and if this programme includes sampling and testing equivalent to the sampling and testing required for verifying compliance with the process hygiene criterion set out in Row 2.1.9 of Chapter 2. If low contamination level of flocks is set for *Campylobacter* in the control programme, the sampling frequency may be further reduced if this low contamination level of *Campylobacter* is reached over a 52-week period in the farms of origin of the broilers purchased by the slaughterhouse. In case the control programme shows satisfactory results during a specific period of the year, frequency of analysis of *Campylobacter* may also be adjusted to seasonal variations after authorisation by the competent authority.

However, when justified on the basis of a risk analysis and consequently authorised by the competent authority, small slaughterhouses and establishments producing minced meat, meat preparations and fresh poultry meat in small quantities may be exempted from these sampling frequencies.**]**

**Textual Amendments**

**F2** Substituted by Commission Regulation (EU) No 1086/2011 of 27 October 2011 amending Annex II to Regulation (EC) No 2160/2003 of the European Parliament and of the Council and Annex I to Commission Regulation (EC) No 2073/2005 as regards salmonella in fresh poultry meat (Text with EEA relevance).

**F3** Substituted by Commission Regulation (EU) 2017/1495 of 23 August 2017 amending Regulation (EC) No 2073/2005 as regards Campylobacter in broiler carcases (Text with EEA relevance).

**[**F4 3.3 *Sampling rules for sprouts*

For the purposes of this Section, the definition of batch in Article 2(b) of Implementing Regulation (EU) No 208/2013 will apply.

A. *General rules for sampling and testing*

1. Preliminary testing of the batch of seeds

Food business operators producing sprouts shall carry out a preliminary testing of a representative sample of all batches of seeds. A representative sample shall include at least 0,5 % of the weight of the batch of seeds in sub samples of 50 g or be selected based on a structured statistically equivalent sampling strategy verified by the competent authority.

For the purposes of performing the preliminary testing, the food business operator must sprout the seeds in the representative sample under the same conditions as the rest of the batch of seeds to be sprouted.

2. Sampling and testing of the sprouts and the spent irrigation water

Food business operators producing sprouts shall take samples for microbiological testing at the stage where the probability of finding Shiga toxin producing *E. coli* (STEC) and *Salmonella* spp. is the highest, in any case not before 48 hours after the start of the sprouting process.

Samples of sprouts shall be analysed according to the requirements in rows 1.18 and 1.29 of Chapter 1.

However, if a food business operator producing sprouts has a sampling plan, including sampling procedures and sampling points of the spent irrigation water, they may replace the sampling requirement under the sampling plans set out in rows 1.18 and 1.29 of Chapter 1 with the analysis of 5 samples of 200 ml of the water that was used for the irrigation of the sprouts.

In that case requirements set out in rows 1.18 and 1.29 of Chapter 1 shall apply to the analysis of the water that was used for the irrigation of the sprouts, with the limit of absence in 200 ml.

When testing a batch of seeds for the first time, food business operators may only place sprouts on the market if the results of the microbiological analysis comply with rows 1.18 and 1.29 of Chapter 1, or the limit of absence in 200 ml if they analyse spent irrigation water.

3. Sampling frequency

Food business operators producing sprouts shall take samples for microbiological analysis at least once a month at the stage where the probability of finding Shiga toxin producing *E. coli* (STEC) and *Salmonella* spp. is the highest, in any case not before 48 hours after the start of the sprouting process.

B. *Derogation from the preliminary testing of all batches of seeds set out in point A.1 of this Section*

When justified on the basis of the following conditions and authorised by the competent authority, food business operators producing sprouts may be exempted from the sampling set out in point A.1 of this Section:

(a) the competent authority is satisfied that the food business operator implements a food safety management system in that establishment, which may include steps in the production process, which reduces the microbiological risk; and,

(b) historical data confirms that during at least 6 consecutive months prior to granting the authorisation, all batches of the different types of sprouts produced in the establishment comply with the food safety criteria set out in rows 1.18 and 1.29 of Chapter 1.**]]]**

**Textual Amendments**

**F4** Inserted by Commission Regulation (EU) No 209/2013 of 11 March 2013 amending Regulation (EC) No 2073/2005 as regards microbiological criteria for sprouts and the sampling rules for poultry carcases and fresh poultry meat (Text with EEA relevance).

**Changes to legislation:**
There are currently no known outstanding effects for the Commission Regulation (EC) No 2073/2005, Chapter 3..