

Discussion paper on the follow-up of the EFSA opinion on the microbiological safety of ungulates meat intended to be frozen and on defrosting of frozen ungulates meat

DISCLAIMER: This discussion paper is only intended as starting point for discussion. They do not necessarily represent the Commission's position.

1. Background

Chapter VII (4) in Section 1 of Annex III to Regulation (EC) No 853/2004 lays down that “meat (*of domestic ungulates*) intended for freezing must be frozen without undue delay, taking into account where necessary a stabilisation period before freezing”.

Section 5.8 of the Commission Staff working document ‘Guidance document on the implementation of certain provisions of Regulation (EC) No 853/2004 on the hygiene of food of animal origin’ further clarifies this provision and indicates that “the stabilisation period refers to the time period which is normally a few days. During this period, the meat can be cut and/or transported to a cold store... Consequently, freezing of meat must happen shortly after slaughter and is not allowed on meat:

- approaching its use-by date as a way to longer store such meat for further processing,
- being vacuum-packed for storing as chilled meat beyond the stabilisation period.”

A scientific basis for this strict provision had not been provided yet and the strict application is therefore questioned by the industry.

The Commission therefore asked the European Food Safety Authority (EFSA) to deliver an opinion on the microbiological safety of ungulates meat intended to be frozen and on defrosting of frozen ungulates meat. The growth of pathogens, spoilage bacteria and indicator bacteria was estimated under different scenarios of storage before freezing and during and after defrosting. Estimation of a log₁₀ reduction during freezing was considered uncertain and, therefore, despite freezing being able to reduce the number of bacteria in food, inactivation during freezing was not considered in the assessment.

2. Conclusions of the EFSA opinion

See EFSA presentation. (**EFSA is expected to publish the opinion on 27/1**)

3. Possible risk management measures

As a follow-up of the EFSA opinion the following **preliminary** pre-freezing options can be considered:

1. Option 1: Keep current requirements (do nothing)

Argumentation: based on the EFSA option, this might be the only justifiable option if the meat is stored at maximum 7°C. Alternative options 3 to 5, would require lower temperatures and this variation of possible temperatures might be difficult to control during the whole storage/transport period before freezing.

2. Option 2: Delete the current requirement on freezing without undue delay after slaughter.

Argumentation: The safe freezing of meat is considered the responsibility of the food business operator.

3. Option 3: Keep the current requirement but add an alternative possibility to allow freezing until 14 (13 to 16 in the EFSA opinion) days after slaughter when as quickly as possible stored and transported at maximum 3°C. In this option, the requirement to freeze meat undue delay, ... would remain with the alternative to keep chilled before freezing until 14 days after slaughter if continuously at 3°C.

Argumentation: Additional possibility in line with the EFSA opinion (see conclusions, abstract).

4. Option 4: Keep the current requirement but add an alternative possibility to store/transport under other time/temperature conditions if demonstrating to the satisfaction of the competent authorities that that the maximum daily mean aerobic colony count (ACC) on the surface is \log_{10}^3 cfu/cm² (or $\log_{10}^{3.5}$ cfu/cm²), using a rolling window and sampling just before freezing.

Argumentation: Additional possibility providing maximum flexibility to the industry on time/temperature storage conditions. Similar process hygiene criteria exist for transport and in Regulation (EC) No 2073/2005.

5. Option 5: Combining options 3 and 4 with 3 possibilities to comply with requirements for storage/transport before freezing e.g. new point 4 in Chapter VII of Section I to Annex III of Regulation (EC) No 853/2004:

“4. Meat intended for freezing:

- i. must be frozen without undue delay, taking into account where necessary a stabilisation period before freezing; or,
- ii. **may be frozen until 14 days after slaughter when stored and transported at 3°C immediately after slaughter; or**
- iii. **may be frozen after storage and transport under other time/temperature conditions if demonstrating to the satisfaction of the competent authorities that that the maximum daily mean aerobic colony count (ACC) on the surface is \log_{10}^3 cfu/cm² (or $\log_{10}^{3.5}$ cfu/cm²) on samples taken maximum 24h before freezing using a continuous rolling window of 10 (??) weeks according to the sampling and testing procedures laid out in points 2.1.1, 2.1.2 of Chapter 2, and point 3.2 of Chapter 3, of Annex I to Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs (OJ L 338, 22.12.2005, p. 1).**

However, food business operators carrying out a retail activity may freeze meat in view of its redistribution for the purpose of food donations”

Additional topic for discussion: The EFSA opinion made estimations for bovine, ovine and porcine meat and indicates that they can be applied also to equine and caprine meat. For wild game ungulates, no sufficient data were available to support estimations.

Issues of uncertainty to be taking into account when considering pre-freezing options are:

- Effect on quantity of bacteria during frozen storage was difficult to estimate (limited reduction expected);
- While the effect of defrosting conditions is minimal, the bacterial growth will be strongly influenced by the storage (or treatment) after defrosting e.g. with a 2 to 3 log₁₀ growth when stored at 4°C for 7 days.

4. Points for discussion:

- a) Preference, acceptability, reluctance to different pre-freezing options?
- b) Extension to wild game ungulates in case of pre-freezing options 2 to 5?
- c) Need to lay down requirements on storage after defrosting (maximum temperature, use-by date or time to start processing)?