

Risk-based meat inspection and integrated meat safety assurance

RISK CATEGORISATION CASE STUDY: General information

Background

The aim of the farm/abattoir risk categorisation workshop is to utilise knowledge of farm/abattoir risk factors and controls for important foodborne pathogens and chemical hazards to categorise farms/abattoirs based on the corresponding risk for public health, enabling implementation of risk-based decisions and respective actions as a future risk manager.

Homework tasks prior to the workshop:

1. Read the following references:

EFSA opinions on the modernisation of meat inspection (only document and parts relevant to your animal species/hazard):

EFSA (2011). Scientific Opinion on the public health hazards to be covered by inspection of meat from **swine**. *EFSA Journal, 9*, 2351. <u>https://doi.org/10.2903/j.efsa.2011.2351</u>

EFSA (2011). Technical specifications on harmonised epidemiological indicators for public health hazards to be covered by meat inspection of **swine**. *EFSA Journal*, *9*, 2371. https://doi.org/10.2903/j.efsa.2011.2371

EFSA. (2012). Scientific opinion on the public health hazards to be covered by inspection of meat from **poultry**. *EFSA Journal, 10,* 2741. <u>https://doi.org/10.2903/j.efsa.2012.2741</u>

EFSA (2012). Technical specifications on harmonised epidemiological indicators for biological hazards to be covered by meat inspection of **poultry**. *EFSA Journal, 10,* 2764. https://doi.org/10.2903/j.efsa.2012.2764

EFSA (2013). Scientific Opinion on the public health hazards to be covered by inspection of meat (**bovine animals**). *EFSA Journal, 11*, 3266. <u>https://doi.org/10.2903/j.efsa.2013.3266</u>

EFSA (2013). Technical specifications on harmonised epidemiological indicators for biological hazards to be covered by meat inspection of **bovine animals**. *EFSA Journal*, *11*, 3276. <u>https://doi.org/10.2903/j.efsa.2013.3276</u>

EFSA (2013). Scientific Opinion on the public health hazards to be covered by inspection of meat from **sheep and goats**. EFSA Journal 2013;11(6):3265, 186 pp. <u>https://doi.org/10.2903/j.efsa.2013.3265</u>







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EFSA (2013). Technical specifications on harmonised epidemiological indicators for biological hazards to be covered by meat inspection of domestic sheep and goats. EFSA Journal 2013;11(6):3277, 63 pp. https://doi.org/10.2903/j.efsa.2013.3277

Other relevant papers:

EFSA/ECDC (2022). The European Union One Health 2021 Zoonoses Report. EFSA Journal 2022;20(12):7666, 273 pp. https://doi.org/10.2903/j.efsa.2022.7666

Salines, M. et al. (2023). Risk categorisation of abattoirs in Europe: Current state of play. Food Control, 109863.

Antic, D., et al. (2021). Beef abattoir interventions in a risk-based meat safety assurance system. Meat Science, 182, 108622.

Zdolec, N., et al. (2022). Systematic review and meta-analysis of the efficacy of interventions applied during primary processing to reduce microbial contamination on pig carcasses. Foods, 11, 2110.

Dogan, O. B., et al. (2022). A systematic review and meta-analysis of the efficacy of processing stages and interventions for controlling Campylobacter contamination during broiler chicken processing. Compr Rev Food Sci. Food Saf. 21, 227–271. https://doi.org/10.1111/1541-4337.12860

2. Address the questions ahead of the workshop (no need to share written answers)

- Why is your chosen hazard an important meatborne hazard?
- How does the farm production cycle look like for your chosen animal species and primary processing at slaughter in your country?
- What are the risk factors for your chosen hazard in the respective animal species at farm and abattoir level?
- What is the prevalence of your chosen hazard in your country in humans (human cases), chosen animal species at farm and carcasses after chilling?
- What are the testing methods and surveillance systems for your chosen hazard at farm and abattoir?
- What are the main components of risk based meat safety assurance system as recommended by EFSA and farm/abattoir risk categorisation components in such a system?
- Have any Harmonised Epidemiological Indicators (HEIs) been applied for your chosen hazard in your country at farm and abattoir level?





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Workshop: You are a risk manager responsible for risk categorising the following farms and abattoirs in your area and making risk-based decisions to protect public health.

- 1. Review and discuss the epidemiology and risk factors for your hazard in given food production animal species at farm and abattoir level
- 2. Categorize the 3-4 farms according to farm profile descriptions given by using provided Excel template and score them as 1) low risk, 2) medium risk; and 3) high risk (complete the excel file and discuss the parameters whether they represent a risk factor for your hazard)
- Risk categorise 3 abattoirs based on abattoir profiles given, by using Food Safety Management System Performance Assessment tool, in 1) high, 2) medium or 3) low performing abattoirs. Explanatory video how to use this tool can be found <u>here</u>.
- 4. In addition (only pig scenarios), use another Abattoir Risk Categorisation Tool to create final risk score for abattoirs.
- 5. Apply risk-based decisions to mitigate meatborne risks:
 - Discuss whether the abattoirs' performance has an impact on your hazard. If yes, which parameters are specifically important?
 - Animals from which farms should be slaughtered in which abattoir? Why?
 - Are there any additional components of risk based meat safety assurance system (as recommended by EFSA) that can be used in your scenario
- 6. Prepare short presentation (10 slides) outlining the main points from above.

Before joining the meetings, please ensure that your Zoom name is fully written so that we can correctly allocate you in the right rooms. During the workshop, the facilitator will give very short introduction and then the group will work on specific tasks.

Outcome of the workshop

Participants will prepare and present on Wednesday, a short max 15mins (+5mins discussion) presentation with the main points to be considered from their group case.



