14th Working Group meeting on persistence of microbiological hazards



15 and 20 November 2023 09:00-13:00 / 09:00-13:00 MINUTES - Agreed on 4 December 2023

Location: Web-conference

Attendees:

o Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS (15 November only), Beatrix STESSL (15 November only)

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:

Not applicable

o EFSA:

BIOHAW Unit: Winy MESSENS, Teresa DA SILVA FELICIO

Others:Not Applicable

Welcome and apologies for absence

The Chair welcomed the participants.

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting. The Annual Declarations of Interest of Beatrix Melero is pending validation, but there was only minor change of editorial nature made not impacting on the screening outcome.

IV. Agreement of the minutes of the 13th Working Group meeting held on 10 and 11 October 2023, hybrid

The <u>minutes of the 13th Working Group meeting</u> were agreed by written procedure on 16 October 2023.

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

MEETING MINUTES – 15 and 20 November 2023 14th Working Group meeting on persistence of microbiological hazards



V. Scientific topic(s) for discussion

a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

EFSA provided feedback from the 165th BIOHAZ Plenary meeting (25-26 October 2023). The revised draft scientific opinion was shared with the BIOHAZ panel for thorough reading. The WG Chair went through the various comments requiring a discussion with the BIOHAZ panel. In general, no major comments were received, but the BIOHAZ panel requested to better balance the list of knowledge gaps and priorities for future research considering both the usefulness for scientists and food business operators. The comments from the BIOHAZ panel were discussed during this last WG meeting and the scientific opinion was finalised. Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable.

VII. Next meetings

This was the last Working Group meeting.

⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

13th Working Group meeting on persistence of microbiological hazards



10 and 11 October 2023 14:00-18:00 / 09:00-13:00 MINUTES - Agreed on 16 October 2023

Location: Hybrid (Parma and Web-conference)

Attendees:

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS (online), Beatrix STESSL

Hearing Experts¹:

Not Applicable

- European Commission and/or Member States representatives:
 Not applicable
- o EFSA:

BIOHAW Unit: Winy MESSENS, Teresa DA SILVA FELICIO, Mirko ROSSI (part of meeting dealing with AQ2-3)

Others:Not Applicable

Welcome and apologies for absence

The Chair welcomed the participants.

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 12th Working Group meeting held on 24 July, via web-conference

The <u>minutes of the 12th Working Group meeting</u> were agreed by written procedure on 31 July 2023.

V. Scientific topic(s) for discussion

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

MEETING MINUTES – 10 and 11 October 2023 13th Working Group meeting on persistence of microbiological hazards



a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

EFSA provided feedback from the 164th BIOHAZ Plenary meeting (27-28 September 2023). The whole draft scientific opinion was shared for its first reading. Several comments were raised which were partially solved during the plenary meeting, while some need to be addressed by the Working Group members still. The panel members requested to check for repetitions; also it was commented to ensure that conclusions are to the point and practical. The panel agreed with the suggestion to have a single uncertainty table. It was agreed that the formulation of the questions would not require to include an overall uncertainty expression in the conclusions. During the WG meeting, the panel comments were addressed. A brainstorming was held on the knowledge gaps and priorities for future research. The concluding remarks and conclusions were carefully revised. Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable.

VII. Next meetings

The last Working Group meeting will be held on 15 November 2023 9:00-13:00 and 20 November 9:00-13:00, by WEB-conference

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⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

12th Working Group meeting on persistence of microbiological hazards



24 July 2023 09:00 -13:00 MINUTES - Agreed on 31 July 2023

Location: web-conference

Attendees:

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:

Not applicable

o **EFSA**:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants.

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 11th Working Group meeting held on 9 June 2023, in Parma

The minutes of the 11th Working Group meeting were agreed by written procedure on 19 June 2023.

V. Scientific topic(s) for discussion

a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf
 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

MEETING MINUTES – 24 July 2023 12th Working Group meeting on persistence of microbiological hazards



EFSA provided feedback from the 163rd BIOHAZ Plenary meeting (12-13 July 2023). An update was given of the whole assessment to the panel, giving feedback on the suggestions that were raised at the previous plenary meeting on the assessment question 6 "What are the perspectives of integrating the information gathered in the previous AQs in risk assessment?" The persistence in the extended version of the two-linked-compartments model would be considered through the parameter representing the change in the population size in the non-food contact surface of the production environment. Further, this assessment would: (i) describe the available persistence models and data needs; (ii) include the hazards *L. monocytogenes* and *Salmonella*, and (iii) describe in a narrative way the use of the top-down approach. During the WG meeting, it was agreed what parts will need to be finalised before the "first reading" at the next BIOHAZ plenary meeting on 27-28 September 2023. It was agreed how to progress with the AQ2-3 (subtypes and features), AQ4 (factors at facility level), AQ5 (available and enhanced measures), AQ6 (approach to deal with one of the risk questions). Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable.

VII. Next meetings

- 10-11 October 2023, 14:00-18:00 and 9:00-13:00, in Parma
- 10 November 2023, 9:00-17:00, by web-conference
- 15 November 2023 9:00-13:00 and either 15 November 14:00-17:00 OR 20 November 9:00-13:00, by WEB-conference

11th Working Group meeting on persistence of microbiological hazards



09 June 2023 08:30 -16:30 MINUTES - Agreed on 19 June 2023

Location: EFSA - Parma (Meeting Room 00/M06a) and by web-conference

Attendees:

o Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:
 Not applicable

o EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Mirko ROSSI

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Martial PLANTADY and Sandrine AMSLER (DG SANTE).

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 10th Working Group meeting held on 10 May 2023, via web-conference

The <u>minutes of the 10th Working Group meeting</u> were agreed by written procedure on 14 May 2023.

V. Scientific topic(s) for discussion

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

MEETING MINUTES – 09 June 2023 11th Working Group meeting on persistence of microbiological hazards



a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

EFSA provided feedback from the 162th BIOHAZ Plenary meeting (7-8 June 2023). An update on the assessment question 6 of Terms of Reference (ToR) 5 ("What are the perspectives of integrating the information gathered in the previous AQs in risk assessment?") was given. This covered the perspectives of the bottom-up quantitative microbial risk assessment (QMRA) with the persistence module, using cooked meat as a case study. The model performance was shown, and the R shiny app of the "Persistence model Listeria" introduced. The baseline situation and relative risk of scenarios were presented. It was discussed which parameter(s) in the model would best represent the persistence parameter. It was agreed to provide examples of persistence events which could be used as specific case studies. Further, the WG members gave an update on the assessment of ToR2-4. Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable

VII. Next meetings

- 24 July 2023, 9:00-13:00, by web-conference
- 10-11 October 2023, 14:00-18:00 and 9:00-13:00, in Parma
- 10 November 2023, 9:00-17:00, by web-conference

⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

10th Working Group meeting on persistence of microbiological hazards



10 May 2023 08:30 -12:30 MINUTES - Agreed on 14 May 2023

Location: Web-conference

Attendees:

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:
 Not applicable

o EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Joana LOURENCO, Mirko ROSSI

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Martial PLANTADY (DG SANTE).

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 9th Working Group meeting held on 12 April 2023, in Parma

The minutes of the 9th Working Group meeting were agreed by written procedure on 18 April 2023.

V. Scientific topic(s) for discussion

a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf
http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

MEETING MINUTES – 10 May2023 10th Working Group meeting on persistence of microbiological hazards



EFSA provided feedback from the 161th BIOHAZ Plenary (26-27 April 2023). The restructuring proposed in the endorsed section of the Scientific Opinion dealing with the identification of the most relevant microbiological food safety hazards associated with persistence in food and feed processing environment (Terms of Reference 1) was agreed. The WG Chair shortly updated the Panel on the literature review to deal with the other ToR. He gave an overview of the number of eligible records obtained as reviews or primary research studies for the food sectors and feed sector, respectively. The extracted data was also presented illustrating how the "features" and "interventions" would be classified. During the WG meeting, the WG members further discussed the data curation and use of the extracted data in the assessment when dealing with ToR2-4. The WG members also discussed the bottom up QMRA model. A baseline model was compared against scenarios and the relative risks were calculated. The outcome of this analysis highlights that virulence and growth matter. The current model has been restricted to *Listeria monocytogenes*, but may be extended to *Salmonella*. Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable

VII. Next meetings

- 9 June 2023, 8:30-16:30 CET, in Parma
- 24 July 2023, 9:00-13:00, by WEB-conference
- 10-11 October 2023, 14:00-18:00 and 9:00-13:00 CET, in Parma

9th Working Group meeting on persistence of microbiological hazards



12 April 2023 13:00 -17:00 MINUTES - Agreed on 18 April 2023

Location: Web-conference

Attendees:

o Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

o Hearing Experts¹:

Not Applicable

- European Commission and/or Member States representatives:
 Sandrine AMSLER (DG SANTE)
- EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Joana LOURENCO, Mirko ROSSI

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Martial PLANTADY (DG SANTE).

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 8th Working Group meeting held on 14 March 2023, in Parma

The minutes of the 8th Working Group meeting were agreed by written procedure on 22 March 2023.

V. Scientific topic(s) for discussion

a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf
 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

MEETING MINUTES – 14 March 2023 8th Working Group meeting on persistence of microbiological hazards



EFSA provided feedback from the 160th BIOHAZ Plenary (15-16 March 2023). The section of the Scientific Opinion dealing with the identification of the most relevant microbiological food safety hazards associated with persistence in food and feed processing environment (Terms of Reference 1) was endorsed by the BIOHAZ Panel. The WG Chair shortly updated the Panel on the literature review to deal with the other ToR. An update was also given on ToR 5 focusing on the model with two linked compartments. The impact of growth for persistence was discussed. The WG members discussed the data curation and use of the extracted data in the assessment when dealing with ToR2-4. Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable

VII. Next meetings

- 10 May 2023, 08:30-12:30, by web-conference
- 9 June 2023, 8:30-17:30 CET, in Parma
- 24 July 2023, 9:00-13:00, by WEB-conference

8th Working Group meeting on persistence of microbiological hazards



14 March 2023 08:30 -17:30 MINUTES - Agreed on 22 March 2023

Location: EFSA - Parma (Meeting Room 00/M04)

Attendees:

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:
 Not Applicable

o EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Joana LOURENCO, Mirko ROSSI

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Martial PLANTADY (DG SANTE).

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 7th Working Group meeting held on 03 February 2023, in Parma

The minutes of the 7th Working Group meeting were agreed by written procedure on 10 February 2023.

V. Scientific topic(s) for discussion

a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf
 http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

MEETING MINUTES – 14 March 2023 8th Working Group meeting on persistence of microbiological hazards



No BIOHAZ plenary meeting was held since the last WG meeting. At the next 160th BIOHAZ Plenary (to be held on 15-16 March 2023), the draft scientific opinion will be presented to endorse the reply to Terms of Reference (ToR) 1 (most relevant bacterial food safety hazards associated with persistence in FFPE of the various food and feed production and processing sectors in the EU/EEA). Those comments from the BIOHAZ panel experts received before the WG meeting were discussed and addressed, and an updated draft Scientific Opinion will be shared with the BIOHAZ panel. The next steps in the full text screening and especially the data extraction were discussed and agreed. A presentation was given by EFSA staff of the One Health system for the collection and joint analysis of Whole Genome Sequencing (WGS) data and use of other databases for addressing the question on the main (sub)types of the most relevant bacterial food safety hazards involved in persistence. Also, a further update was given on the development of risk assessment models for persistence to deal with ToR5 (perspectives of integrating the information gathered in risk assessment). Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable

VII. Next meetings

- 12 April 2023, 13:00-17:00, by web-conference
- 10 May 2023, 08:30-12:30, by web-conference

7th Working Group meeting on persistence of microbiological hazards



03 February 2023 09:00 -13:00 MINUTES - Agreed on 10 February 2023

Location: Web-conference

Attendees:

o Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Rebecca (Becky) GOSLING, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:

Not Applicable

o EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Joana LOURENCO

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants. Rebecca (Becky) Gosling joined the WG to replace Rob Davies.

Apologies were received from Martial PLANTADY (DG SANTE).

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 6th Working Group meeting held on 08 December 2022, in Parma

The <u>minutes of the 6th Working Group meeting</u> were agreed by written procedure on 16 December 2022.

V. Scientific topic(s) for discussion

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

MEETING MINUTES - 03 February 2023 7th Working Group meeting on persistence of microbiological hazards



a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

EFSA provided the feedback from the 159th BIOHAZ Plenary (25-26 January 2023). An update was given on the development of risk assessment models for persistence to deal with ToR5 (AQ6). Three models were presented that only consider transfer. (1) One compartment model; (2) Model with two separate compartments; (3) Model with two linked compartments. The potential effect of cleaning can be simulated and the model could be extended using stochasticity. Then the perspective for a risk assessment model was presented, using *Listeria monocytogenes* in cooked meat as an example. This was followed by a discussion to clarify certain concepts. During the WG meeting, it was presented how the panel comment could be addressed and how the persistence factors can be considered in the model. However, this would lead to a more complex model with more data inputs (and data lacks). Also, an update was given about pathogens of public health relevance persisting in the various food producing sectors and it was decided to restrict the relevant hazard-sector combinations until further evidence is found. In the feed producing sector, only *Salmonella* is considered of public health relevance. The next steps in the full text screening and data extraction were agreed. Tasks were allocated to EFSA staff and WG experts.

VI. Any Other Business

Not applicable

VII. Next meetings

- 14 March 2023, 08:30-17:30, in EFSA Parma
- 12 April 2023, 13:00-17:00, by web-conference
- 10 May 2023, 08:30-12:30, by web-conference

⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

6thth Working Group meeting on persistence of microbiological hazards



08 December 2022 08:30 -17:30

Location: EFSA - Parma (Meeting Room 00/M06a)

Attendees:

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing Experts¹:

Not Applicable

European Commission and/or Member States representatives:

Not Applicable

o EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Joana LOURENCO

Others:Not Applicable

I. Welcome and apologies for absence

The Chair welcomed the participants.

Apologies were received from Martial PLANTADY (DG SANTE).

II. Adoption of agenda

The agenda was adopted without changes.

III. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management³, EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

IV. Agreement of the minutes of the 5th Working Group meeting held on 09 November 2022, via web-conference

The <u>minutes of the 5th Working Group meeting</u> were agreed by written procedure on 16 November 2022.

V. Scientific topic(s) for discussion

As defined in Article 17 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/en/keydocs/docs/expertselection.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

MEETING MINUTES - 08 December 2022 6thth Working Group meeting on persistence of microbiological hazards

a. The persistence of microbiological hazards in food and feed production and processing environments (EFSA-Q-2022-00217)⁴.

EFSA provided the feedback from the 158th BIOHAZ Plenary (6-7 December 2022). The panel agreed with the minor clarification added to the already approved protocol and on how the few comments were addressed in the section of the draft scientific opinion dealing with subquestion 1.1 (i.e. bacterial pathogens of public health relevance in the various sectors). The list of most relevant bacterial pathogens in each of the sectors was endorsed. An update about the transversal literature search for ToR1 – ToR4 was given and the way forward agreed. The Title/Abstract screening has nearly been completed. For dealing with ToR5, three models were presented that only consider transfer. (1) One compartment model; (2) Model with two separate compartments; (3) Model with two linked compartments. The potential effect of cleaning can be simulated and the model could be extended using stochasticity. Then the perspective for a risk assessment model was presented, using *L. monocytogenes* in cooked meat as an example. Tasks were allocated to EFSA staff and Working Group members. The Working Group was informed that Rebecca (Becky) Gosling joined the Working Group to replace Rob Davies.

VI. Any Other Business

Not applicable

VII. Next meetings

The next Working Group meetings will be held on:

- 03 February 2023, 09:00-13:00, by web-conference
- 14 March 2023, 08:30-17:30, in EFSA Parma
- 12 April 2023, 13:00-17:00, by web-conference
- 10 May 2023, 08:30-12:30, by web-conference

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⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217





UNIT ON BIOLOGICAL HAZARDS & ANIMAL HEALTH AND WELFARE

SCIENTIFIC PANEL ON BIOLOGICAL HAZARDS

MINUTES OF THE 5th MEETING OF THE WORKING GROUP ON PERSISTENCE OF MICROBIOLOGICAL HAZARDS

WEB-conference, 9 November 2022

(Agreed on 16 November 2022)

Participants

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing experts¹:

Not applicable

■ European Commission and/or Member States representatives:

Not applicable

■ EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON

Others:

Not applicable

1. Welcome and apologies for absence

The Chair welcomed the participants. The WG was informed that Rob Davies resigned from the WG on 14 October 2022. Apologies were received from Martial PLANTADY (DG SANTE).

2. Adoption of agenda

The agenda was adopted without changes.

¹ As defined in Article 15 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/expertselection.pdf





3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management^{3,} EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

4.1. The persistence of microbiological hazards in food and feed production and processing environments⁴. EFSA provided the feedback from the 157th BIOHAZ Plenary (26-27 October 2022). Of note is that the protocol was approved by the BIOHAZ panel. The section of the draft scientific opinion dealing with sub-question 1.1 (i.e. pathogens of public health relevance in the various sectors) was presented for possible endorsement. Few comments were raised, mainly related to the use of foodborne outbreak data for this purpose although the approach was agreed. The limitations would have to be considered and the assessment complemented with expert knowledge. It was mainly commented whether Bacillus cereus would also be relevant in the meat, dairy and fruit and vegetables sector. This was discussed and the comments addressed. An update about the transversal literature search for ToR1 – ToR4 was given and way forward agreed. Tasks were allocated to EFSA staff and WG experts.

5. Any other business

Not applicable.

6. Next meeting(s)

The next WG meetings will be held on 8 December 2022 (8:30-17:30 CET), in Parma; on 3 February 2023 (09:00-13:00 CET), by WEB-conference; and on 14 March 2023 (8:30-17:30 CET), in Parma.

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² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate publications/files/competing interest management 17.pdf

⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217





UNIT ON BIOLOGICAL HAZARDS & ANIMAL HEALTH AND WELFARE

SCIENTIFIC PANEL ON BIOLOGICAL HAZARDS

MINUTES OF THE 4th MEETING OF THE WORKING GROUP ON PERSISTENCE OF MICROBIOLOGICAL HAZARDS

WEB-conference, 11 October 2022

(Agreed on 17 October 2022)

Participants

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing experts¹:

Not applicable

■ European Commission and/or Member States representatives:

Not applicable

EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON

Others:

Not applicable

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Rob DAVIES (WG member) and Martial PLANTADY (DG SANTE).

2. Adoption of agenda

The agenda was adopted without changes.

¹ As defined in Article 15 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/expertselection.pdf





3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management^{3,} EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

4.1. The persistence of microbiological hazards in food and feed production and processing environments⁴. EFSA provided the feedback from the 156th BIOHAZ Plenary (28-29 September 2022). Of note are the further clarifications of the ToRs that were agreed with the panel: (a) persistence would not include continuous reintroduction in the facility of the same organism; (b) viruses and parasitic protozoa will be excluded from the assessment; (c) Controlled Environment Agriculture (CEA)/production through indoor hydroponic operations would be included in fruit and vegetable processing. The assessment questions and conceptual model as included in the protocol were agreed. Few comments on the approach were received that were addressed during the WG meeting. One hazard was added to the preliminary list of pathogens of public health relevance in the dairy sector. For part of ToR5 (to develop the perspectives of integrating the information gathered in the previous ToRs in risk assessment), a presentation was given covering the possible risk questions, the approaches using either a top-down (virtual) or bottom-up approach with their strengths and weaknesses, and how persistence could be included in a QMRA. The protocol was further revised during the WG meeting with the aim to present it for approval at the next BIOHAZ plenary meeting on 26-27 October 2022 as the deadline for its approval was set on 31 October 2022. The preliminary assessment of the pathogens of public health relevance persisting in the sectors was discussed. The three options for the transversal literature search for ToR1 - ToR4 were presented and it was agreed how to proceed with the search and initial trials for screening. The structure of the draft opinion was discussed. Tasks were allocated to EFSA staff and WG experts.

5. Any other business

Not applicable.

6. Next meeting(s)

The next WG meetings will be held on 9 November (14:00-18:00 CET), by WEB-conference, and on 8 December (8:30-17:30 CET), in Parma.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

4 https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

http://www.efsa.europa.eu/sites/default/files/corporate publications/files/competing interest management 17.pdf





UNIT ON BIOLOGICAL HAZARDS & ANIMAL HEALTH AND WELFARE

SCIENTIFIC PANEL ON BIOLOGICAL HAZARDS

MINUTES OF THE 3rd MEETING OF THE WORKING GROUP ON PERSISTENCE OF MICROBIOLOGICAL HAZARDS

Held on 22-23 September 2022, Parma

(Agreed on 3 October 2022)

Participants

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing experts¹:

Not applicable

European Commission and/or Member States representatives:

Not applicable

■ EFSA:

BIOHAW Unit: Winy MESSENS, Ancuta Cezara SIMON, Kateryna CHUZHAKINA

Others:

Not applicable

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Rob DAVIES (WG member) and Martial PLANTADY (DG SANTE).

2. Adoption of agenda

The agenda was adopted without changes.

¹ As defined in Article 15 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/expertselection.pdf





3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management^{3,} EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

4.1. The persistence of microbiological hazards in food and feed production and processing environments4. The persistence of microbiological hazards in food and feed production and processing environments⁵. EFSA provided the feedback from the 155th BIOHAZ Plenary (13-14 July 2022). The WG members further discussed the draft protocol, both the problem formulation (step 1) and the planning of the methods to conduct the assessment (step 2). Microbial toxins and other hazardous microbial metabolites (e.g., histamine) are excluded. Focus is on EU feed and food production systems, or similar production systems from other regions of the world. Following sectors were agreed: (i) feed for food animal production, (ii) meat processing (including slaughterhouses and processing plants), (iii) fish and seafood processing, (iv) dairy processing, (v) egg and egg products processing, (vi) fruit and vegetable processing and (vii) low moisture food (LMF) processing. For fruit and vegetable processing, it was agreed to add production considering production using Controlled Environment Agriculture (CEA) through indoor hydroponic operation. The ToRs were translated into draft assessment questions and the links between these are presented using a conceptual model. The draft protocol will be shared with the BIOHAZ panel for review. For ToR1 (i.e. most relevant microbiological food safety hazards associated with persistence), the pathogens of public health relevance in the various sectors were listed and it will be evaluated for which of those there is evidence for persistence in the food and feed production and processing environments (FFPE) of the corresponding sectors. For ToR5 (to develop the perspectives of integrating the information gathered in the previous ToRs in risk assessment), the two approaches (top down and bottom up) were explained to deal with several possible risk assessment questions. The strength and weakness of the models were listed. Tasks were allocated to EFSA staff and WG experts.

5. Any other business

Not applicable.

6. Next meeting(s)

The next WG meetings will be held on 11 October (9:00-18:00 CET) and 9 November (14:00-18:00 CET), by WEB-conference, and on 8 December (8:30-17:30 CET), in Parma.

² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

³ http://www.efsa.europa.eu/sites/default/files/corporate publications/files/competing interest management 17.pdf

⁴ https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217

https://open.efsa.europa.eu/questions/EFSA-Q-2022-00217





UNIT ON BIOLOGICAL HAZARDS & ANIMAL HEALTH AND WELFARE

SCIENTIFIC PANEL ON BIOLOGICAL HAZARDS

MINUTES OF THE 2nd MEETING OF THE WORKING GROUP ON PERSISTENCE OF MICROBIOLOGICAL HAZARDS

WEB-conference, 1 July 2022

(Agreed on 14 July 2022)

Participants

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Edward FOX, Beatriz MELERO GIL, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing experts¹:

Not applicable

■ European Commission and/or Member States representatives:

Not applicable

■ EFSA:

BIOHAW Unit: Winy MESSENS, Lorena CORREDOR, Maria Teresa DA SILVA FELÍCIO, Eleonora SARNO

Others:

Not applicable

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Rob DAVIES (WG member) and Martial PLANTADY (DG SANTE).

¹ As defined in Article 15 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/expertselection.pdf





2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management^{3,} EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

4.1. The persistence of microbiological hazards in food and feed production and processing environments⁴. EFSA provided the feedback from the 154th BIOHAZ Plenary (15-16 June 2022). The WG members further clarified the Terms of Reference (ToRs) of the mandate. The protocol development was discussed; the problem formulation (step 1) and the planning of the methods to conduct the assessment (step 2) were discussed. In particular for ToR1, the methodology and available evidence were presented by each WG member for the assigned food sector. A presentation was provided on the foodborne outbreak data from the EFSA database and those that were multi-country foodborne outbreaks. Also, the proposed methodology to use for addressing AQ8-ToR5 was discussed. Tasks were allocated to EFSA staff and WG experts.

5. Any other business

Not applicable.

6. Next meeting(s)

The third WG meeting will be held on 22 (14:00-18:00 CET) and 23 (9:00-13:00 CET) September 2022, in Parma. The next WG meetings will be held on 11 October (9:00-18:00 CET) and 9 November (14:00-18:00 CET), by WEB-conference.

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² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate publications/files/competing interest management 17.pdf

https://open.efsa.europa.eu/guestions/EFSA-Q-2022-00217





UNIT ON BIOLOGICAL HAZARDS & ANIMAL HEALTH AND WELFARE

SCIENTIFIC PANEL ON BIOLOGICAL HAZARDS

MINUTES OF THE 1st MEETING OF THE WORKING GROUP ON PERSISTENCE OF MICRIBIOLOGICAL HAZARDS

WEB-conference, 16 May 2022

(Agreed on 3 June 2022)

Participants

Working Group Members:

Avelino ÁLVAREZ ORDÓÑEZ, Rob DAVIES, Edward FOX, Beatriz MELERO GIL, Trond MØRETRØ, Maarten NAUTA, Panos SKANDAMIS, Beatrix STESSL

Hearing experts¹:

Not applicable

European Commission and/or Member States representatives:

Not applicable

■ EFSA:

BIOHAW Unit: Winy MESSENS, Maria Teresa DA SILVA FELÍCIO

Others:

Not applicable

1. Welcome and apologies for absence

The Chair welcomed the participants. Apologies were received from Martial PLANTADY (DG SANTE).

2. Adoption of agenda

¹ As defined in Article 15 of the Decision of the Executive Director concerning the selection of members of the Scientific Committee, the Scientific Panels, and the selection of external experts to assist EFSA with its scientific work: http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/expertselection.pdf





The agenda was adopted without changes.

3. Declarations of Interest of Working Groups members

In accordance with EFSA's Policy on Independence² and the Decision of the Executive Director on Competing Interest Management^{3,} EFSA screened the Annual Declarations of Interest filled out by the Working Group members invited to the present meeting. No Conflicts of Interest related to the issues discussed in this meeting have been identified during the screening process, and no interests were declared orally by the members at the beginning of this meeting.

4. Scientific topic(s) for discussion

4.1. The persistence of microbiological hazards in food and feed production and processing environments⁴. EFSA provided an introductory presentation on: a) the remit and governance of EFSA and the way the scientific advice is produced; b) administrative and logistical matters, the use of Microsoft Teams as the platform for communications and repository of data and documents during the lifespan of the mandate; c) the work plan, meetings planned and technical and scientific support provided by EFSA; d) uncertainty and protocol development guidance documents to be followed. The chair presented the background and Terms of Reference (ToR) of the self-task mandate from the BIOHAZ Panel to the WG. The WG discussed the ToRs and will seek further clarifications from the BIOHAZ Panel. The first steps for protocol development were discussed: the problem formulation (step 1) and the planning of the methods to conduct the assessment (step 2) were initiated using a brainstorming session. Tasks were allocated to EFSA staff and WG experts. A timeline for Plenary and WG meetings in 2022 was presented.

5. Any other business

Not applicable.

6. Next meeting(s)

The second WG meeting will be held on 1 July 2022, 9:00-18:00 CET, by WEB-conference.

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² http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

http://www.efsa.europa.eu/sites/default/files/corporate publications/files/competing interest management 17.pdf

⁴ https://open.efsa.europa.eu/guestions/EFSA-Q-2022-00217