

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

12th Working Group meeting of the working group on welfare of dairy cows

27th of January 2023

09:00-16:00

MINUTES - Agreed on 6th February 2023



Location: Web conference

Attendees:

- Working Group Members:

Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Hans-Hermann Thulke
Christoph Winckler (chair)

- Hearing Experts¹:

George Stilwell
Marie Haskell

- European Commission:
Not Applicable

- EFSA:

Denise Candiani, Mariana Aires, Elea Bailly-Caumette, Eliana Lima

- Others:

Not Applicable

I. Welcome and apologies for absence

The EFSA SO coordinator 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

¹ 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>

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



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 8th December 2022, via web-conference

The [11th WG meeting minutes](#) were agreed by written procedure on 16th of December 2022.

V. Scientific topic(s) for discussion

The WG members discussed items a to c together with Dr. George Stilwell and Dr. Marie Haskell who were consulted.

a. Discussion on resting problems and restriction of movements

The section on resting problems and restriction of movements was revised following in depth-review and completion by one working group member. A discussion was held about the number of cubicles per cows to be recommended in the opinion. Additional in-depth discussions were held on depth for bedding for different materials and total space allowance needed in a dairy holding. The latter was calculated by summing up the space allowances for different holding areas, based on values defined in different national legislations. WG members agreed on the conclusions and recommendations for this section.

b. Discussion on farm characteristics and thresholds for classifying farms at risk of poor welfare

The separate chapter on farm characteristics and thresholds for classifying farms at risk of poor welfare was discussed following the feedback from the AHAW Panel. Comments mainly related to the need to keep consistent terminology (e.g. herd-level variables vs farm characteristics), to better define mortality and to give a short definition for the five elicited farm characteristics. WG members agreed on the conclusions and recommendations for this section.

c. Overall revision

The whole draft opinion was revised and last comments were discussed and resolved. It was agreed the opinion will be submitted to the AHAW Panel for their in-depth discussion at the Plenary meeting of February 22.

VI. Any Other Business

WG members will be informed of the feedback from the Panel and might be further consulted.

VII. Next meeting

No further meeting planned, unless necessary.



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 11th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 08 December 2022

(Agreed on 16 December 2022)

Participants

■ Working Group Members:

Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Hans-Hermann Thulke
Christoph Winckler (chair)

■ Hearing Experts¹:

George Stilwell
Marie Haskell

■ EFSA:

BIOHAW Unit: Denise Candiani, Mariana Aires, Elea Bailly-Caumette, Eliana Lima

■ European Commission:

Ester Alaez Pons

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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) 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.

4. Agreement of the minutes of the 10th Working Group meeting held on 25 November 2022 - WEB-conference.

The minutes of the 10th Working Group meeting were agreed by written procedure on 30 November 2022.⁴

5. Scientific topic(s) for discussion⁵

The WG discussed items 5.1 to 5.3 together with Dr. George Stilwell and Dr. Marie Haskell who were consulted.

5.1. Discussion on housing systems

The chapter on the description of housing systems for dairy cows was revised. Pending comments were solved and it was agreed to further revise – before next meeting – the section on cubicle dimensions, more specifically the table on cubicle length.

5.2. Discussion on resting problems and restriction of movements

The main points for clarifications related to resting problems and restriction of movements were discussed within the group. It was agreed to further complete the section on bedding depth and materials as well as the section on space allowance.

5.3. Discussion on mastitis

The separate chapter on mastitis was discussed and comments were solved following the revision of the AHAW Panel. It was agreed that additional conclusions on the use of data obtained from automated milking systems are needed.

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://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁵ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

5.4. Discussion on draft conclusions and recommendations about the herd-level variables

The outcomes of the exercise, based on expert knowledge elicitation (EKE), for the identification of 1) herd-level variables associated with a high risk of poor animal welfare on a farm, and 2) auditable animal-based measures (ABMs) – were shortly discussed and some preliminary conclusions and recommendations were drafted.

6. Any Other Business

6.1. Planning and task distribution

At the next meeting on 27 January 2023, progress of the overall scientific opinion will be discussed. The separate chapter on herd-level variables will be discussed following the review by the AHAW Panel at their Plenary meeting (18 19 January 23).

7. Next meeting

The next meetings will take place on 27 January 2023, 6 February 2023.



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 10th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 25 November 2022

(Agreed on 30 November 2022)

Participants

■ Working Group Members:

Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Hans-Hermann Thulke
Christoph Winckler (chair)

■ Hearing Experts¹:

George Stilwell
Marie Haskell

■ EFSA:

BIOHAW Unit: Denise Candiani, Mariana Aires, Elea Bailly-Caumette, Eliana Lima

■ European Commission:

Ester Alaez Pons

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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) 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.

4. Agreement of the minutes of the 9th Working Group meeting held on 25-26 October 2022 - WEB-conference.

The minutes of the 9th Working Group meeting were agreed by written procedure on 26 October 2022.⁴

5. Scientific topic(s) for discussion⁵

The WG discussed points 5.1 together with Dr. George Stilwell and Dr. Marie Haskell who were consulted for the elicitation.

5.1. Discussion on associations between dairy cow welfare indicators and herd-level variables

This meeting was entirely dedicated to the exercise, based on expert knowledge elicitation (EKE), for the identification of 1) farm-level hazards associated with a high risk of poor animal welfare on a farm, and 2) auditable animal-based measures (ABMs) or routinely collected farm data that could be used to verify whether, considering respective thresholds, the welfare of the animals in a high-risk herd is indeed impaired.

The first part of the exercise had already been completed at the previous meeting, whereas in relation to the second part, several elicitation exercises remained incomplete. An elicitation has been conducted at the previous meeting for three ABMs, but another six remained for discussion at this meeting. ABMs included health-related measures (e.g. lesions and integument damage) or behavioural measures (e.g. agonistic interactions). For each ABM, the scoring method was discussed and agreed, and the background data (on the prevalence of the ABMs in relevant publications) was discussed. For three ABMs (perching, lateral lying, duration of lying down movements) it was agreed that an elicitation was not appropriate due to a lack of data or lack of validity. For the other 3 ABMs (lesions, agonistic interactions, rising behaviour) the elicitation was conducted with support from a facilitator.

The aim of the elicitation was to define the possible farm-level ABM distribution across a gradient of welfare practices of EU farms and possible thresholds beyond which the ABM would be indicative

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://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁵ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

of poor welfare in a farm at risk. The outcomes of the elicitation will be reported in the scientific opinion.

6. Any Other Business

6.1. Planning and task distribution

At the next meeting on 8th December, progress of the overall scientific opinion will be discussed. The separate chapter on mastitis will be discussed following the review by the AHAW Panel at their last Plenary meeting in November 22.

7. Next meeting

The next meetings will take place on 8 December 2022, 27 January 2023, 6 February 2023 (if needed).



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 9th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

Held on 25-26 October 2022, Parma

(Agreed on 28 October 2022)

Participants

- Working Group Members:
Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Hans-Herman Thulke
Christoph Winckler (chair)

- Hearing Experts¹:
George Stilwell

- EFSA:
BIOHAW Unit: Denise Candiani, Mariana Aires, Eliana Lima

- European Commission:
Ester Alaez Pons

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

1. Welcome and apologies for absence

The Chair welcomed the participants. Marie Haskell apologised for absence.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) 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.

4. Agreement of the minutes of the 8th Working Group meeting held on 30 September 2022 - WEB-conference.

The minutes of the 8th Working Group meeting were agreed by written procedure on 10 October 2022.⁴

5. Scientific topic(s) for discussion⁵

The WG discussed points 5.1 together with Dr. George Stilwell who was consulted for the elicitation.

5.1. Discussion on associations between dairy cow welfare indicators and herd-level variables

This meeting was entirely dedicated to the exercise, based on expert elicitation (EKE), for the identification of 1) farm-level hazards associated with a high risk of poor animal welfare on a farm, and 2) auditable animal-based measures (ABMs) including routinely collected farm data that could be used to verify whether the welfare of the animals in a high-risk herd is indeed impaired.

The first part of the exercise was already initiated prior to the meeting and each WG member was required to send to EFSA staff and the EKE facilitator a list of 5 farm-level hazards (the so called "farm characteristics"). Farm characteristics should be quantified, when possible, and measurable across all farms in the EU (e.g. those that are already routinely measured but also those that might be easily routinely measurable).

Related to the identification of farm characteristics, the exercise consisted in several steps to select a sub-group of 5-6 characteristics for further investigation: i) presentation and discussion of all farm characteristics proposed by expert members, ii) formal elicitation for ranking from the most useful (i.e. to characterize poor welfare on a farm) to the least and iii) allocation of one or more welfare consequences that are relevant to each farm characteristics (for the first 4 ranked characteristics).

Related to the identification of auditable ABMs, another elicitation exercise was held per each welfare consequence of each farm characteristic. It included the following steps: i) discussion and

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://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁵ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

agreement of the ABMs that are practical to be used for assessing the welfare consequence, ii) discussion and agreement of the scoring method for each ABM, and iii) formal elicitation for each ABM aimed at defining possible ABM prevalence across average EU farms and possible thresholds beyond which the ABM will be indicative of poor welfare in such average farms.

Steps i, ii and iii of the exercise were conducted for one farm characteristic including 3 ABMs. In addition, step iii was carried out for on-farm mortality, which, although being an information derived from the animals, is not considered a housing or management related farm characteristic but was deemed useful to identify poor welfare farms.

6. Any Other Business

6.1. Planning and task distribution

The exercise is to be continued at the next meeting. Each WG member to prepare summarised information for the remaining ABMs to share prior to the meeting for an informed elicitation at next meeting.

7. Next meeting

The next meetings will take place on 25 November 2022, 8 December 2022, 27 January 2023, 6 February 2023 (if needed).



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 8th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 30 September 2022

(Agreed on 10 October 2022)

Participants

■ Working Group Members:

Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Hans-Herman Thulke
Christoph Winckler (chair)

■ Hearing Experts¹:

Marie Haskell
George Stilwell

■ EFSA:

BIOHAW Unit: Denise Candiani, Mariana Aires, Eliana Lima

■ European Commission:

Ester Alaez Pons

■ Others:

Asia Ebinghaus and Silvia Ivemeyer (via the EFSA Framework Contract on support services for Expert Knowledge Elicitation)

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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) 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.

4. Agreement of the minutes of the 7th Working Group meeting held on 7 June 2022 - WEB-conference.

The minutes of the 7th Working Group meeting were agreed by written procedure on 14 June 2022.⁴

5. Scientific topic(s) for discussion⁵

The WG discussed points 5.1 to 5.3. together with Prof. Marie Haskell and Dr. George Stilwell. The hearing experts provided their views on the topics discussed, and information on any additional relevant scientific reference not yet considered by the WG.

5.1. Feedback from the AHAW panel on sections on housing and foot and leg disorders

Following the request from the AHAW Panel during its last Plenary meeting, the WG members, hearing experts and two external experts discussed whether and to what extent it is possible to quantify certain welfare consequences (e.g. the difference in prevalence of foot and leg disorders) resulting from the impact of housing systems. To guide the discussion, the raw data extracted from the bibliographic search (i.e. the outcome of the outsourced preparatory work for this mandate) were checked and discussed. In most cases, it will not be possible to provide a quantification of the impact on certain welfare consequences. However, the conclusions are mostly paraphrased to reflect the direction of the likely impact, and the uncertainty contributes to express this as well.

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://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁵ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

5.2. Comparison among housing systems

In the scientific opinion section on outdoor systems, there is a need to create a table, based on the literature, summarising strengths, weaknesses and factors contributing to poor welfare.

For the conclusions, it was agreed that the section on housing systems will only reflect strengths and weaknesses for each but will not include any comparison. Comparative remarks are kept to the conclusions in the specific sections for welfare consequences.

5.3. Discussion on associations between dairy cow welfare indicators and herd-level variables

The WG discussed the future exercise, based on expert knowledge elicitation (EKE), for addressing the request that involves identification of 1) farm-level hazards associated with a high risk of poor animal welfare on a farm, and 2) auditable animal-based measures or routinely collected farm data that could be used to verify whether the welfare of the animals in a high-risk herd is indeed impaired.

The first part of the exercise is initiated and each WG member is required to send to EFSA staff and the EKE facilitator a list of 5 farm-level hazards (the so called "farm-characteristics") by the 12th October 2022. Farms characteristics should be measurable across all farms in the EU (e.g. those that are already routinely measured but also those that might be easily routinely measurable). Farms characteristics should be accompanied as much as possible by quantitative specifications.

The received list of characteristics will be used in the elicitation process to select a maximum of 5-6 of them which will be further analysed.

5.4. Discussion on recommendations

The draft recommendations for the sections on mastitis, restriction of movement, lameness and inability to perform comfort behaviour were revised. There is still a need to develop recommendations for metabolic disorders.

6. Any Other Business

6.1. Planning and task distribution

Finally, the plan for the next meetings was agreed on and tasks distributed among WG members.

7. Next meeting

The next meetings will take place on 25-26 October 2022, 25 November 2022, 8 December 2022, 27 January 2023, 6 February 2023 (if needed).



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 7th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 07 June 2022

(Agreed on 14 June 2022)¹

Participants

■ Working Group Members:

Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Hans-Herman Thulke
Christoph Winckler (chair)

■ Hearing Experts²:

Marie Haskell
George Stilwell

■ EFSA:

BIOHAW Unit: Denise Candiani and Eliana Lima

¹ Minutes should be published within 15 working days of the final day of the relevant meeting.

² 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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, 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. Agreement of the minutes of the 6th Working Group meeting held on 17 May 2022 - WEB-conference.

The minutes of the 6th Working Group meeting were agreed by written procedure on 25 May 2022.⁵

5. Scientific topic(s) for discussion⁶

The WG discussed points 5.1 and 5.3. together with Prof. Marie Haskell and Dr. George Stilwell. The hearing experts provided their views on the topics discussed, and information on any additional relevant scientific reference not yet considered by the WG. A new working group member, Dr Hans-Herman Thulke, was introduced to the group, to join the discussions on point 5.3.

5.1. Discussion on comments on sections on metabolic disorders and inability to perform comfort behaviour

Comments on a literature review on risk factors and animal-based measures (ABMs) of metabolic disorders and inability to perform comfort behaviour were discussed by the WG. It was agreed to focus the section on comfort behaviour on aspects related to keeping the integrity of the integument, to align it with the definition used by EFSA ("the animal experiences stress and/or negative affective states such as discomfort and/or frustration resulting from the thwarting of the motivation to maintain the function and integrity of the integument"). Animal-related factors associated with self-grooming, brush use, and allo-grooming reported for dairy cows in different housing systems were discussed.

The WG then discussed the section on metabolic diseases, which focuses on ketosis, ruminal acidosis and hypocalcaemia. It was agreed to clarify some of the terms used to describe metabolic disorders to reflect current use of terminology in the scientific literature (e.g., subacute ruminal acidosis instead of clinical acidosis).

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <https://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁶ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

In addition, the WG listed animal-based measures for detection of inability to perform comfort behaviour and metabolic disorders and assessed in a qualitative manner the sensitivity and specificity of each ABM (low/medium/high).

5.2. Discussion of conclusions on restriction of movement, resting problems and access to pasture

The WG discussed the main points resulting from the literature review and drafted conclusions on restriction of movement, resting problems and access to pasture. The certainty level of each statement was discussed by the WG.

5.3. Discussion on associations between dairy cow welfare indicators and herd-level variables

The last scientific topic for discussion was related to the identification of routinely collected data at herd level with the potential for serving as a proxy for on-farm welfare, to address the mandate point requesting the identification of

“(…) the specific relevant hazards, leading to the welfare consequences above-mentioned and which can be used to classify the level of risk for animal welfare based on data currently collected (e.g. milk production, herd size, housing system etc.).”

The WG discussed a possible approach for addressing this request, based on expert elicitation, that involves identification of 1) farm-level hazards associated with a high risk of poor animal welfare on a farm, and 2) auditable animal-based measures or routinely collected farm data that could be used to verify whether the welfare of the animals in a high-risk herd is indeed impaired. The WG will continue this discussion in the next meeting.

6. Any Other Business

6.1. Planning and task distribution

Finally, the plan for the next meetings was agreed on and tasks distributed among WG members.

7. Next meeting

The next meeting will take place on 30 September 2022 (09.00 – 17.00).



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 6th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 17 May 2022

(Agreed on 25 May 2022)¹

Participants

- Working Group Members:
 - Margit Bak Jensen
 - Alice De Boyer Des Roches
 - Martin Green
 - John Mee
 - Søren Saxmose Nielsen
 - Christoph Winckler (chair)

- Hearing Experts²:
 - Marie Haskell
 - George Stilwell

- EFSA:
 - BIOHAW Unit: Eliana Lima

¹ Minutes should be published within 15 working days of the final day of the relevant meeting.

² 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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, 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. Agreement of the minutes of the 5th Working Group meeting held on 25-26 April 2022 - WEB-conference.

The minutes of the 5th Working Group meeting were agreed by written procedure on 6 May 2022.⁵

5. Scientific topic(s) for discussion⁶

The WG discussed points 5.1, 5.2., and 5.3. together with Prof. Marie Haskell and Dr. George Stilwell. The hearing experts provided their views on the topics discussed, and information on any additional relevant scientific reference not yet considered by the WG.

5.1. Discussion on the structure of the text on restriction of movement

It was decided to add the subject of 'resting problems' to the section on restriction of movement because, although this welfare consequence was not included in the mandate from the European Commission, it was considered by the WG to be very relevant when describing husbandry systems from a welfare point of view. It was agreed to describe restriction of movement from the angle of animal activity (e.g. locomotion), and resting problems from the angle of lying behaviour.

The WG also agreed to include additional text on the motivation of dairy cows to access less restrictive environments.

5.2. Discussion of ABMs for restriction of movement, resting problems, lameness and mastitis

The WG discussed animal-based measures for detection of restriction of movement, resting problems, lameness and mastitis. The sensitivity and specificity of each ABM was assessed qualitatively (low/medium/high). Feasibility to use the ABM in the event of, for instance, a farm inspection by veterinary authorities, was also discussed.

5.3. Discussion on cubicle design and cubicle characteristics

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <https://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁶ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

The WG compared dimensions reported for cubicle design and space allowance from different research papers and from guidance from technical bodies and institutions. The WG selected the most relevant elements of cubicle design from a welfare point of view and agreed to continue the discussion in the next meeting.

5.4. Discussion on conclusions on restriction of movement and resting problems and associated uncertainty

The WG reviewed the conclusions on husbandry systems, foot and leg disorders and mastitis, and classified each statement in terms of the associated uncertainty.

6. Any Other Business

6.1. Planning and task distribution

Finally, the plan for the next meetings was agreed on and tasks distributed among WG members. The WG was informed that the literature review sections on inability to perform comfort behaviour and restriction of movement are to be provided by the contractor assigned with the task by the end of May 2022. These sections will be discussed in the next meeting.

7. Next meeting

The next meeting will take place on 7 June 2022 (09.00 – 17.00).



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 5th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

Held on 25-26 April 2022, Parma

(Agreed on 6 May 2022)¹

Participants

■ Working Group Members:

Margit Bak Jensen
Alice De Boyer Des Roches
Martin Green
John Mee
Søren Saxmose Nielsen
Christoph Winckler (chair)

■ Hearing Experts²:

Marie Haskell
George Stilwell

■ EFSA:

BIOHAW Unit: Eliana Lima and Denise Candiani

■ Others:

Asja Ebinghaus, Silvia Ivemeyer (point 5.5)

¹ Minutes should be published within 15 working days of the final day of the relevant meeting.

² 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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, 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. Agreement of the minutes of the 4th Working Group meeting held on 11 March 2022 - WEB-conference.

The minutes of the 4th Working Group (WG) meeting were agreed by written procedure on 21 March 2022.⁵

5. Scientific topic(s) for discussion⁶

The WG discussed points 5.1, 5.3., and 5.5. together with Prof. Marie Haskell and Dr. George Stilwell. The hearing experts provided their views on the topics discussed, and information on any additional relevant scientific reference not yet considered by the WG.

5.1. Risk factors and ABMs for restriction of movement

Comments on a literature review on risk factors and animal-based measures (ABMs) of restriction of movement in dairy cow husbandry systems (tie-stalls, cubicles, open bedded systems combined or not with access to loafing area or pasture) were discussed by the WG. It was agreed to clarify in the text what is meant by "restriction of movement": it is assumed to be a welfare consequence of restrictive conditions and defined as "negative affective states such as pain, fear, discomfort and/or frustration due to the fact that an animal is unable to move freely or is unable to walk comfortably".

The WG discussed animal-based measures for restriction of movement such as locomotion behaviour, lying behaviour, cleanliness, and social behaviour. For clarity, considerations on the interpretation of lying times and lying bouts in relation to meaning in terms of cow welfare will be added to the text.

The WG noted that some of the aspects discussed (e.g., shorter lying times) can also result from resting problems, and has therefore agreed to expand the text on risk factors for resting problems, such as hard surfaces and limited space allowance.

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <https://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁶ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

In view of ToR 6, which requests a possible identification of herd-level variables that can be associated with a greater risk of poor cow welfare and that could be used for future welfare monitoring activities, the WG reviewed results from studies looking at associations between indicators of restriction of movement and herd-level variables.

5.2. Conclusions on restriction of movement

The WG discussed the main points resulting from the literature review and drafted conclusions on this topic, including a comparison of husbandry systems with regards to the extent of restriction of movement.

5.3. Risk factors and ABMs for mastitis

Comments on a literature review on risk factors and animal-based measures of mastitis were discussed by the WG. The WG noted that risk factors for mastitis are mostly related with farm management practices and not husbandry system *per se*. It was also noted that it is difficult to make comparisons between study results due to the high variability of study conditions and designs.

5.4. Conclusions on mastitis

The WG discussed the main points resulting from the literature review and drafted conclusions on mastitis. The certainty level of each statement was discussed by the WG.

5.5. Scope of literature review on inability to perform comfort behaviour and metabolic disorders

The scope of the literature reviews on the welfare consequences “inability to perform comfort behaviour” and “metabolic diseases” was discussed to help framing the literature review and avoid duplication of topics already included in the text. In this context, the literature review on comfort behaviour will focus on behaviours linked with keeping the integrity and function of integument, such as self-grooming and the use of brushes by dairy cows and will not include resting behaviours.

The review on metabolic diseases will focus on ketosis, ruminal acidosis and hypocalcaemia. It was noted the most prevalent metabolic diseases in dairy cows will be mostly linked with feeding management and not housing *per se*.

6. Any Other Business

6.1. Planning and task distribution

Finally, the plan for the next meetings was agreed on and tasks distributed among WG members. The WG was informed that the literature review sections on inability to perform comfort behaviour and metabolic disorders are to be provided by the contractor assigned with the task by the end of May 2022 and be shared with the WG for review.

In addition, dates for working groups between September-December 2022 were agreed on.

7. Next meeting

The next meeting will take place on 17 May 2022 09:00 – 13:00 CET.



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 4th MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 11 March 2022

(Agreed on 21 March 2022)¹

Participants

- Working Group Members:
 - Margit Bak Jensen
 - Alice De Boyer Des Roches
 - Martin Green
 - John Mee
 - Søren Saxmose Nielsen
 - Christoph Winckler (chair)

- Hearing Experts²:
 - Marie Haskell
 - George Stilwell

- EFSA:
 - BIOHAW Unit: Denise Candiani and Eliana Lima

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

1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) members

In accordance with EFSA's Policy on Independence³ and the Decision of the Executive Director on Competing Interest Management⁴, 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. Agreement of the minutes of the 3rd Working Group meeting held on 18 February 2022 - WEB-conference.

The minutes of the 3rd Working Group meeting were agreed by written procedure on 23 February 2022.⁵

5. Scientific topic(s) for discussion⁶

The WG discussed points 5.1, 5.2., and 5.3. together with Prof. Marie Haskell and Dr. George Stilwell. The hearing experts provided their views on the topics discussed, and information on any additional relevant scientific reference not yet considered by the WG.

5.1. Discussion of comments made to the scientific opinion text – husbandry systems

The WG discussed pending comments on the husbandry systems section of the document. The text was edited accordingly, and additional references added where needed. For clarity, it was agreed to make the distinction between "pasture-grazing only" and "pasture grazing" to differentiate predominant from short-term access to pasture and to represent this in a schematic figure illustrating all possible system combinations.

5.2. Discussion of comments made to the scientific opinion text – lameness

The WG discussed proposed edits to the text on lameness in dairy cows to reflect the latest scientific evidence on the topic. Additionally, to keep the main sections of the document short and focused, some of the tables on the prevalence of certain lameness conditions were moved to the annexes.

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <https://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁶ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

5.3. Discussion on section on management practices

It was decided to include in the document a new section with a literature review on husbandry and management practices (not related with housing) with an impact on the welfare consequences of interest - lameness, mastitis, restriction of movement, inability to perform comfort behaviour and metabolic disorders.

5.4. Draft conclusions on husbandry systems and lameness

The WG agreed on the structure of the conclusions and discussed a first version of the text on husbandry systems and lameness. It was decided to provide a comparison between housing systems (tie stalls, cubicles, open-bedded and pasture-based) in terms of main advantages and disadvantages for dairy cow welfare. In addition, ABMs (lameness scoring systems) and preventive measures for lameness were discussed.

6. Any Other Business

6.1. Planning and task distribution

Finally, the plan for the next meetings was agreed on and tasks distributed among WG members. The WG was informed that the literature review sections on mastitis and restriction of movement are to be provided by the contractor assigned with the task by the end of March. These sections will be discussed in the next meeting.

7. Next meeting

The next meeting will take place on 25-26 April 2022.



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 3rd MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 18 February 2022

(Agreed on 23 February 2022)¹

Participants

■ Working Group Members:²

Alice De Boyer Des Roches
Margit Bak Jensen
Martin Green
John Mee
Søren Saxmose Nielsen
Christoph Winckler (chair)

■ Hearing Experts³:

Marie Haskell
George Stilwell

■ EFSA:

BIOHAW Unit: Denise Candiani and Eliana Lima

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² Indicate first full name and then surname (John Smith) all throughout the document.

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1. Welcome and apologies for absence

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2. Adoption of agenda

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3. Declarations of Interest of Working Groups (WG) members

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4. Agreement of the minutes of the 2nd Working Group meeting held on 28 January 2022 - WEB-conference.

The minutes of the 2nd Working Group meeting were agreed by written procedure on 08 February 2022.⁶

5. Scientific topic(s) for discussion⁷

The WG discussed points 5.1, 5.2. and 5.3. together with Prof. Marie Haskell and Dr. George Stilwell. The hearing experts provided information on scientific references not yet considered by the WG on topics related with dairy cow rearing practices, lameness, claw disorders and herd-level variables potentially associated with herd welfare. Their views on the most common terminology used to describe lameness were also considered by the WG.

5.1. Discussion of comments made to the scientific opinion text – husbandry systems

The WG discussed pending comments on the section on most common husbandry systems. The text was edited accordingly, and additional references added where needed.

5.2. Discussion of comments made to the scientific opinion text – lameness

The WG discussed proposed edits to the text on lameness in dairy cows. For clarity it was agreed to use the term "foot and leg disorders" rather than locomotor disorders as not all foot and leg disorders cause locomotion issues.

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁵ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁶ <https://www.efsa.europa.eu/sites/default/files/2021-12/wg-welfar-dairy-cows-minutes.pdf>

⁷ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

5.3. Discussion on associations between dairy cow welfare indicators and herd-level variables

The last scientific topic for discussion was related to the identification of routinely collected data at herd level with the potential for monitoring on-farm welfare, to address the mandate point requesting the identification of "(...) the specific relevant hazards, leading to the welfare consequences above-mentioned and which can be used to classify the level of risk for animal welfare based on data currently collected (e.g. milk production, herd size, housing system etc.)." The WG discussed scientific studies investigating relationships between herd welfare and herd variables, but it was noted that information is scarce and that there may be little scientific evidence to identify such links. It was agreed to look in more detail at such scientific publications to identify exactly which herd-level variables were investigated in each study. The WG will continue this discussion in the next meeting.

6. Any Other Business

6.1. Planning and task distribution

Finally, the plan for the next meetings was agreed on and tasks distributed among WG members.

7. Next meeting

The next meeting will take place on 11 March February 2022.



BIOHAW UNIT

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE

MINUTES OF THE 2nd MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 28 January 2022

(Agreed on 08 February 2022)¹

Participants

■ Working Group Members:²

Alice De Boyer Des Roches
Martin Green
Margit Bak Jensen
Søren Saxmose Nielsen
Christoph Winckler (chair)

■ Hearing Experts³:

Marie Haskell
George Stilwell

■ EFSA:

BIOHAW Unit: Denise Candiani and Eliana Lima

■ Others:

Asja Ebinghaus, Silvia Ivemeyer (point 4.2)

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1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) members

In accordance with EFSA's Policy on Independence⁴ and the Decision of the Executive Director on Competing Interest Management⁵, 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 discussion⁶

4.1. Discussion on husbandry systems description

The first topic on the agenda was a discussion on the main comments and proposed changes to the scientific opinion text (husbandry systems section). Comments were addressed and an agreement reached for the main points. Sections to be extended were allocated to individual working group members.

4.2. Discussion of a literature review on locomotory disorders

The second topic discussed was an update on the progress of an outsourced literature review on the main risk factors for locomotory disorders (lameness) in dairy cows. The contractor assigned with this task presented the draft text and received feedback from the WG. Options on how to synthesise and present the information were discussed, to prepare the discussion on this topic in the next meeting.

5. Any Other Business

5.1. Planning and task distribution

The plan and task distribution for the next meeting were agreed on.

6. Next meeting

The next meeting will take place on 18 February 2022.

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁵ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁶ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>



UNIT ANIMAL AND PLANT HEALTH

SCIENTIFIC PANEL ON ANIMAL HEALTH AND WELFARE MINUTES OF THE 1st MEETING OF THE WORKING GROUP ON WELFARE OF DAIRY COWS

WEB-conference, 30 November 2021

(Agreed on 09 December 2021)¹

Participants

■ Working Group Members:

Alice De Boyer Des Roches
Martin Green
Margit Bak Jensen
Christoph Winckler (Chair)

■ Hearing Experts²:

Marie Haskell
George Stilwell

■ EFSA:

ALPHA Unit: Denise Candiani, Eliana Lima and Yves Van Der Stede

■ Others:

Asja Ebinghaus and Silvia Ivemeyer (point 4.2)

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1. Welcome and apologies for absence

The Chair welcomed the participants.

2. Adoption of agenda

The agenda was adopted without changes.

3. Declarations of Interest of Working Groups (WG) members

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4. Scientific topic(s) for discussion⁵

4.1. Discussion of the request received from the European Commission (EC) (terms of reference of the mandate)

The first scientific topic discussed was the wording of the request received by the EC, and the interpretation of the terms of reference of the mandate. The mandate requests a description of the "most common husbandry systems" for farming dairy cows in the EU. The WG agreed to describe also pasture-based systems in addition to the systems listed in the mandate (tie stalls, cubicle housing and open-bedded systems). When data are available, risks and benefits for animal welfare of access to a loafing area or to pasture will also be assessed.

4.2. Discussion on a preliminary literature review on most common husbandry systems

The second topic discussed was an update on the progress of an outsourced literature review on dairy cow farming in the EU and most common welfare issues. The contractors presented an overview of dairy cow production figures, a description of the characteristics of most common husbandry systems in the EU, and a plan for the literature reviews that will be delivered in 2022.

5. Any Other Business

5.1. 2022 meeting dates

The meeting dates for the first semester of 2022 were agreed on.

5.2. Forward planning

A plan for completion of the terms of reference was presented. The deadline for adoption of the scientific opinion by the AHAW panel is March 2023.

³ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/policy_independence.pdf

⁴ http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/competing_interest_management_17.pdf

⁵ <https://open.efsa.europa.eu/questions/EFSA-Q-2021-00495>

6. Next meeting

The next meeting will take place on 28 January 2022.