Scientific Panel on Animal Health and Welfare

Minutes of the 78th plenary meeting

Held on 22-23 10 2013, Parma
(Agreed on 26 11 2013)

Participants

- **Panel Members:**

  Edith Authié, Anette Bøtner, Howard Browman, Klaus Depner, Mariano Domingo, Sandra Edwards, Christine Fourichon, Aline de Koeijer, Frank Koenen, Simon More, Mohan Raj, Liisa Sihvonen, Hans Spoolder, Jan Arend Stegeman, Hans-Hermann Thulke, Ivar Vågsholm, Antonio Velarde, and Preben Willeberg

- **EFSA:**
  - AHAW Unit: Franck Berthe, Denise Candiani, Elzbieta Ceglarska, Sandra Correia, Chiara Fabris, Maria Ferrara, Andrea Gervelmeyer, Justyna Jaskiewicz, Per Have, Silvia I. Nicolau Solano, and Frank Verdonck
  - SAS Unit: Gabriele Zancarano and Jose Cortinas Abrahantes
  - SciStrat Directorate: Andras Szoradi
- **European Commission**
  - Sanco Unit 03: Marina Marini
- **Observers**

  The following observers were registered and attended the meeting:
  - Roxan Hooshangi (Canadian), Mission of Canada to the EU, Belgium;
  - Christopher Hamilton-West (Chilean), University of Chile, Chile;
  - Leopoldo Stuardo-Escobar (Chilean), Agriculture and Livestock Service, Chile;
  - Shih-kuo Lin (Taiwanese), Università Cattolica del Sacro Cuore, Italy;
  - Anna Zuliani (Italian), organisation/affiliation not mentioned, Italy;
  - John Cranley (Irish), Animal Welfare Science, Ethics and Law Veterinary Association (AWSELVA), UK
  - Maria Cristina Ossiprandi (Italian), University of Parma, Italy;
  - Annette Dresling (Danish), Danish Agriculture and Food Council, Denmark;
  - Luca Bassanini (Italian), Istituto Zooprofilattico Sperimentale della Lombardia ed Emilia Romagna (IZSLER), Italy;
  - Elena Artico (Italian), CIWF Italia (Compassion in World Farming), Italy;

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- Stefano Messori (Italian), Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", Italy;
- Sara Rota Nodari (Italian), Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (IZSLER), Italy;
- Leonardo James Vinco (Italian), Istituto Zooprofilattico Sperimentale della Lombardia e dell'Emilia Romagna (IZSLER), Italy;
- Lindsay Matthews (New Zealander), Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", Italy;
- Silvia Sutera (Italian), University of Milan, Italy.

1. Welcome and apologies for absence

The Chair of the Panel, welcomed the participants.

Apologies were received from Charlotte Berg.

2. Adoption of agenda

The agenda was adopted with no changes.

3. Declarations of interest

In accordance with EFSA's Policy on Independence and Scientific Decision-Making Processes[1] and the Decision of the Executive Director implementing this Policy regarding Declarations of Interests[2], EFSA screened the Annual Declaration of interest (ADoI) and the Specific Declaration of interest (SDoI) filled in by the experts invited for the present meeting. No conflicts of interests related to the issues discussed in this meeting have been identified during the screening process or at the Oral Declaration of interest at the beginning of this meeting.

4. Agreement of the minutes of the 77th Plenary meeting held on 19 09 2013.

The minutes were agreed by written procedure on 05 10 2013 and published on the EFSA website.

5. New mandates

Two new requests were received.

5.1. Request for an update of the 2010 scientific opinion on African Swine Fever (EFSA-Q-2013-00834)

The ASF epidemiological situation has changed significantly in Eastern Europe in the last year and the presence of the disease close to the EU border represents a serious risk to the livestock population of the Union and a challenge for animal health risk managers. It is therefore necessary to better determine the extent of the problem in order to better target preventive and control measures in the light of the current evolution of the ASF epidemic at the EU border updating the scientific opinion issued by EFSA in 2010[3].

5.2. Request for a scientific opinion on canine leishmaniosis (EFSA-Q-2013-00835)

Scientific evidence from EFSA is required in order to support the European Commission in determining if canine leishmaniosis complies with the characteristics of a disease for which

[1] http://www.efsa.europa.eu/en/keydocs/docs/independencepolicy.pdf
[2] http://www.efsa.europa.eu/en/keydocs/docs/independencerules.pdf
[3] http://www.efsa.europa.eu/en/efsajournal/pub/1556.htm

the Commission might adopt preventive health measures for its control pursuant to Regulation (EC) No 998/2013 of the European Parliament and of the Council. Those measures shall be scientifically justified and proportionate to the risk of spreading those diseases due to such movement. *Leishmania infantum* is the most widespread etiological agent of zoonotic cutaneous and visceral leishmaniosis in human and of canine leishmaniosis in dogs in Mediterranean areas. Canine leishmaniosis is a major global vector-borne zoonotic disease and potentially fatal to humans and dogs

6. Scientific outputs submitted for discussion

6.1. Monitoring procedures at slaughterhouses (EFSA-Q-2012-00840)

For this mandate, the conceptual model is an assessment based on sensitivity and specificity of indicators for consciousness when considering slaughter with stunning, and indicators for unconsciousness and death when considering slaughter without stunning. Various activities - including systematic literature review, online survey, hearing expert meeting – were run to get information about specificity, sensitivity and feasibility of the indicators that are being selected for inclusion in the monitoring procedures.

The draft opinion on bovines (captive bolt stunning and slaughter without stunning) was discussed with the Panel. A flowchart showing the toolbox of selected indicators and, eventually, actions to be undertaken at each key stage of the stunning process was discussed together with the statistical model for the sampling protocols.

The opinion on bovines was adopted by the majority of the Panel members. The remaining three opinions will be discussed in November and circulated for written adoption in the following weeks.

7. Progress report on other scientific outputs

7.1. Vaccine for bovine tuberculosis (EFSA-Q-2013-00241)

The Panel reviewed the draft document and specific comments were discussed. It was confirmed that the opinion should consider the ideal test conditions to test the DIVA test and vaccine performance in field trials, although a bit more background information could be added, for instance to the description of the available DIVA test systems. A clearer description of the data and outcomes required to assess vaccine performance was requested as well as a better explanation of the advantages/disadvantages to combine or separate the analysis of the DIVA test and vaccine performance in field trials. It was also asked to check with the EMA representative whether asking for derogations from the current legislation to facilitate the implementation and/or analysis of field trials could create a conflict with the regulatory process.

7.2. Self-task for bovine tuberculosis (EFSA-Q-2013-00531)

The WG presented their approach to build a conceptual framework on bTB around an anchor model describing the interactions between the most important parameters involved in bTB infection, detection and control. These interactions are examined at three levels, corresponding to three “units of interest” in the case of bTB: the animal, the herd and the area or country level. Some parameters of the anchor model (‘rate of infection’, ‘testing’ and ‘sampling schemes’) and the factors that may influence them are further explained in subsequent compartmental models. The Panel agreed that this could be a good approach to present the complexity of bTB but expressed the need to have a text available describing the conceptual framework before entering into a detailed discussion.

7.3. Use of low atmosphere pressure system (LAPs) for stunning of poultry (EFSA-Q-2013-00322)

This mandate follows the previous 2 mandates for a Scientific Opinion concerning electrical parameters for the stunning of lambs and for a Scientific Opinion concerning the use of

carbon dioxide for stunning of rabbits, received by the Commission in February. The common background is the following: Council Regulation 1099/2009 on the protection of animals at the time of killing lays down in Annex I the allowed stunning methods and related specifications. Such Annex can be amended to take into account of scientific and technical progress, on the basis of an EFSA opinion.

At present, the Regulation does not allow the use of low atmosphere pressure system for stunning of poultry; EFSA is requested to assess 4 scientific publications received by the Commission to support the inclusion of this method in the EU Regulation.

The methodological approach to address the mandates on lambs and rabbits was in detail discussed with the Commission at the February AHAW Panel meeting; A working group was created and has been addressing the LAPs mandate with the same approach as the above mentioned previous two mandates and in line with the working document "Guidance on the assessment criteria for studies evaluating the effectiveness of stunning interventions regarding animal protection at the time of killing". Meanwhile, an expert on avian respiratory physiology has been invited to the working group in order to better support the evaluation of the studies submitted to AHAW.

7.4. Self-task for a guidance on assessing studies evaluating the efficacy of stunning interventions regarding animal protection during stunning (EFSA-Q-2013-00532)

The AHAW Panel agreed to develop a guidance document, which defines the criteria against which studies evaluating the efficacy of stunning interventions regarding animal protection during stunning will be assessed. The approach followed in the guidance document was agreed with the panel. The draft guidance document will be sent to the panel members for endorsement for the public consultation of the guidance document, which will take place from 15 July to 08 September 2013 before its adoption in November.

7.5. Request for a scientific opinion on the main welfare risks related to the farming of sheep for wool, meat and milk production (EFSA-Q-2013-00580)

Sheep farming for milk, meat and wool production is of increasing importance worldwide, including in the EU and particularly in Eastern European countries.

Council Directive 98/58/EC lays down minimum standards for the protection of animals kept for farming purposes, including sheep. The EU Strategy for the protection and welfare of animals 2012-2015 foresees the option of a revised animal welfare framework, introducing the use of animal-based welfare indicators to simplify the current legal framework and to enhance the applicability of general principles to all farm animals. The European Commission requested EFSA to review the scientific literature on the welfare of sheep farmed for wool, meat and milk production, and in particular to identify the main risk factors and welfare consequences for the different farming productions. Main factors and welfare consequences common to the different production systems should also be identified. EFSA formally accepted the mandate and established an ad hoc Working Group for the development of the Opinion. The chair of the WG presented the preliminary approach discussed by the WG to address the terms of reference of the mandate and also he also highlighted that contacts are being undertaken with stakeholders and international organisations involved in the welfare of sheep to gather information.

7.6. Request for a scientific opinion on Enzootic bovine leukosis (EFSA-Q-2013-00546)

Enzootic bovine leukosis (EBL) is a disease caused by the bovine leukaemia virus (BLV). Most infections appear to be subclinical, but a proportion of cattle over 3 years old develop persistent lymphocytosis, and a smaller proportion develop lymphosarcomas in various internal organs. While the infection appears to be widespread globally, in the EU there are

many Member States that are officially free (Decision 2003/467/EC), or have one or more regions recognised as officially free.

There is a need to assess if EBL is a disease for which control measures are still justified. This is linked to the existence of free areas within the EU and in some of its trading partners and the possible risk of reintroduction of the disease in these currently free areas. Another important aspect is related to estimating the morbidity rate and whether it can be considered significant at country or regional level; this consequently needs to be assessed against the control measures and their impact on cattle production.

There is a need for an assessment of the significance of the risk posed by EBL, its morbidity and the relevance of control measures and surveillance.

An update on the work in progress was given and various options and approaches for dealing with the risk of introduction/spread were discussed.

7.7. Request for a scientific opinion concerning a multifactorial approach on the use of animal-based measures to assess the welfare of pigs (EFSA-Q-2013-00667)

The Commission is planning to develop guidelines to facilitate the proper implementation of the requirements of Council Directive 2008/120/EC laying down minimum standards for the protection of pigs as part of the EU Animal Welfare Strategy 2012-2015. We therefore request EFSA to deliver a scientific opinion to assess the multi-factorial interaction and associations between risk factors, welfare consequences and animal-based measures to assess the welfare of pigs bearing in mind the objective of their use in assessing degree of compliance with legal requirements.

The Commission requests EFSA to use a multi-factorial approach on the use of animal-based measures to assess the welfare of pigs especially those welfare parameters regulated in Directive 2008/120, Articles 3 and 4 and Annex I Chapter I-II as well as Directive 98/58 Annex numbers 10, 13 second paragraph, 14, 15 and 16. The assessment should be based on and linked to the risk assessment of the previous EFSA scientific opinions on the welfare of pigs. In particular the Commission highlights the importance of the chosen indicators use in assessing compliance with legislative requirements as listed above.

The chair of the WG presented an update on the progress done so far and various options and approaches to address the terms of references were briefly discussed.

8. Other issues

8.1. Questions from Observers and answers by the AHAW Panel

Observer	Question	Response	Answered by
Leopoldo Stuardo-Escobar (Chilean), Agriculture and Livestock Service, Chile (3 questions)	Could welfare area be an important tool to use fewer resources?	Your question could be addressed both from a scientific and a management point of view. I'll address its scientific angle which falls under EFSA's remit and in particular under the responsibilities of this Panel. Welfare of animals has an overall impact on the condition of the animal, including possible implications on animal health and food safety, as it was assessed in a number of EFSA Scientific Opinions on animal welfare. Tail biting in pigs is a major welfare issue and also a risk	Simon More

		factor for increased frequency of abscesses and infections in carcasses. On animal transport, fitness for transport, animal welfare and infectious diseases are strictly related. Stresses associated with handling and transport may cause latent infectious with e.g. *Salmonella* or *Pasteurella*, to proceed to clinical disease. Prevention of welfare risks may have a positive impact on the overall livestock production and consequently on the resources to be invested.	
	"How important and how much resource demand is the use of risk analysis on animal welfare?" (Could the question be: How important and how much resources does the risk analysis animal welfare demand?)	Risk assessment is one of the three components of risk analysis, the other two being risk communication and risk management. Risk assessment provides a scientific basis for appropriate risk analysis and informed management decision (i.e. the assessment, communication and management to reduce, eliminate or prevent risks that can lead to poor welfare in animals). More in detail, given certain risk factors leading to welfare consequences, the full risk assessment process determines the qualitative and quantitative estimation of the probability of occurrence and magnitude of welfare consequences in a given population. The resources and time needed to carry out the risk assessment depend on the purpose, breadth and focus of the problem formulation as well as on the type of risk assessment performed (qualitative, semi-quantitative or quantitative). The type of data, the need for data collection or for an expert elicitation are important factors as well as the different professional profiles (AW and modelling expertise) needed for the exercise. The final aim of the risk assessment process is to quantify/estimate the welfare risks, therefore providing tools to risk managers to prioritize resources and actions.	Simon More
	Are there other examples of use of the tool of animal welfare risk analysis by Official Veterinary Services in a more practical way?	Concerning the scientific assessment on animal welfare carried out by EFSA, previous EFSA opinions were considered by the European Commission to update the legislation or to develop policy options. Giving some examples: - to draft EU legislation, such as Council Regulation 1099/2009 on the protection of animals at the time of killing; -to evaluate policy options and prepare Commission reports on issues such as the influence of genetic selection on the welfare of broilers; - to review/update the scientific evidence at the basis of certain requirements of the EU Regulation on the protection of animals during transport. The ongoing EFSA work on monitoring procedures at slaughterhouses is another example of a possible practical tool to be used by Commission and EU MS to ensure	Simon More

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<tr><td></td><td></td><td>welfare and implement the legislation.</td><td></td></tr>
<tr><td rowspan="2">Shih-kuo Lin (Taiwanese), Universita Cattolica del Sacro Cuore, Italy (2 questions)</td><td>After electrical stunning, if the poultry stunning signs (signs of insensibility: tonic seizure, no blink reflex, no wing flapping and no rhythmic breathing) not all appear (for example, only: no blink reflex and floppy head), is it can be considered a valid stunning?</td><td>In the draft opinion on monitoring procedures at slaughterhouses for poultry, not yet adopted, the WG proposes to check specific welfare indicators to determine whether an animal is still conscious (outcome of consciousness), this being more indicative than checking for unconsciousness.

If one outcome of consciousness is found, the stunning was not effective.

The opinion, once adopted, will identify a set of recommended indicators with high sensitivity in detecting conscious animals (out of which a minimum of two indicators should be checked) and a set of additional indicators, with lower sensitivity, that one may want to check in addition.</td><td>Mohan Raj</td></tr>
<tr><td>To ensure best quality of carcass, what are the best stunning settings(electric current, frequency) for different types of poultry(ex: chicken , turkey)?</td><td>The quality of the carcass is out of the remit of the Animal Health and Welfare Panel of EFSA.

Council Regulation (EC) 1099/2009 provides for specific electrical requirements for waterbath stunning equipment (as average values per animal) for poultry, as

Annex I, Chapter II, 6.3.:

For animals referred to in Table 2, waterbath stunning shall be carried out in accordance with the minimum currents laid down therein, and animals shall be exposed to that current for a minimum duration of at least four seconds.

Table 2
<table>
<tr><td>Frequency (Hz)</td><td>Chickens</td><td>Turkeys</td><td>Ducks and geese</td><td>Quails</td></tr>
<tr><td>< 200 Hz</td><td>100 mA</td><td>250 mA</td><td>130 mA</td><td>45 mA</td></tr>
<tr><td>From 200 to 400 Hz</td><td>150 mA</td><td>400 mA</td><td>Not permitted</td><td>Not permitted</td></tr>
<tr><td>From 400 to 1500 Hz</td><td>200 mA</td><td>400 mA</td><td>Not permitted</td><td>Not permitted</td></tr>
</table></td><td>Mohan Raj</td></tr>
<tr><td>John Cranley (Irish), Animal Welfare Science, Ethics and Law Veterinary Association (AWSELVA), UK (2 questions)</td><td>The risk of resurgence of sensibility engendered by hoisting inverted stunned animals, being a potential non-compliance with EC1099/2009 requirements, how</td><td>According to Article 5, 2, of Regulation EC1099/2009, systematic checks should be carried out to ensure that the animals do not present any signs of consciousness or sensibility before being released from restraint.

In the draft opinions on monitoring procedures at slaughterhouses being developed by EFSA, also in case of simple stunning, the risk of recovery of consciousness is assessed by monitoring the indicators in order to detect conscious animals (outcomes of unconsciousness) in the</td><td>Antonio Velarde</td></tr>
</table>

	should this be ameliorated?	three key stages of the slaughter process (after stunning, during neck cutting and during bleeding). In case of risk of recovery of consciousness, the intervention should be applied.	
	The assessment in water bath stunned birds of Sensibility using corneal reflexes in view of the complexities of epileptiform activity in birds	In the draft opinion on monitoring procedures at slaughterhouses for poultry, not yet adopted, the WG proposes a set of recommended indicators with high sensitivity in detecting conscious animals (out of which a minimum of two indicators should be checked) and a set of additional indicators, with lower sensitivity, that one may want to check in addition. According to the draft opinion, the indicators should be used in order to determine whether an animal is still conscious. As regard the epileptiform activity occurring in electrically-stunned poultry, recent scientific literature clearly demonstrates that poultry are not different from mammals. This aspect is covered in the AHAW Panel **draft** "Guidance on the assessment criteria for studies evaluating the effectiveness of stunning interventions regarding animal protection at the time of killing" that is also being discussed during this Plenary and it's expected to be adopted by this Panel by the end of this year.	Mohan Raj
Luca Bassanini (Italian), Istituto Zooprofilattico Sperimentale della Lombardia ed Emilia Romagna (IZSLER), Italy (1 question)	Can/will a condition of welfare or non-welfare assessed in a farm be used for the evaluation and certification of the whole production chain	The classification of farming systems and the certification of the production chain are management issues which fall outside EFSA's remit. Animal welfare in the production chain can be assessed, quantified and compared using different categories of measures such as animal, management and environmentally based measures. EFSA recently evaluated and published animal-based measures which are useful in the assessment of on farm welfare of specific species (dairy cows, pigs and broilers- work on sheep has just started). The implementation of protocols based on animal-based measures in commercial schemes, the classification of farming systems and the certification of the production chain are management issues which fall outside EFSA's remit.	Hans Spoolder
Lindsay Matthews (New Zealander), Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", Italy (2 questions)	How are the thresholds for acceptable levels of welfare determined?	In order to check an overall welfare status of an animal, a set of validated welfare indicators can be used (as diagnostic tests). The indicators are validated based on their performance (see EFSA Statement, 2012).	Hans-Hermann Thulke
	Have the agreed thresholds been validated, and, if so, how?	The setting of thresholds is a management issue. In order to use welfare indicators as diagnostic tests, a clear description of what has to be measured and how it should be measured (method of measurement) should be defined together with specific cut off values for each single indicator.	Hans-Hermann Thulke

9. Next meetings

Next meetings in 2013: November 26/27.

The following dates have been agreed for 2014: Feb 4/5, March 24/25 (Dublin), May 13/14, June 24/25, Sept 16/17, Oct 21/22, and Dec 02/03.