EFSA work related to Council Regulation (EC) 1099/2009

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Animal Health and Welfare Team (AHAW)
Animal and Plant Health Unit (ALPHA)
• AHAW Panel scientific outputs
  • Guidance on the assessment criteria for studies evaluating the effectiveness of stunning interventions regarding animal protection at the time of killing
  • Scientific Opinions on monitoring procedures at slaughterhouses
  • Sample size calculation tool for monitoring stunning at slaughter

• EFSA Scientific Network for Risk Assessment in Animal Health and Welfare
GUIDANCE ON THE ASSESSMENT CRITERIA FOR STUDIES EVALUATING THE EFFECTIVENESS OF STUNNING

- Several submissions of stunning studies to AHAW Panel in 2013
- Need for structured, harmonised approach
- Self-task of AHAW Panel
  - define criteria against which studies evaluating the efficacy of stunning interventions regarding animal protection during stunning will be assessed
  - Checklist with scientific reasoning for each checklist item
<table>
<thead>
<tr>
<th>Type</th>
<th>Conditions</th>
<th>Elements of research recommended</th>
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<tbody>
<tr>
<td>I. Proof of concept</td>
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<td>A. Comprehensive record of stunning intervention and key parameters</td>
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<td>Study under controlled laboratory conditions</td>
<td>B. Assessment of onset and duration of unconsciousness by EEG or ECoG</td>
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<td>C. Assessment of absence of pain, distress and suffering using behavioural and either physiological or neurological animal-based measures</td>
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<td>D. Comprehensive record of outcome assessment</td>
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<td>E. Stunning without sticking to establish duration of unconsciousness achievable with simple stunning intervention</td>
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<tr>
<td>II. Ground truthing</td>
<td>Study under slaughterhouse conditions</td>
<td>F. Comprehensive record of stunning intervention and key parameters</td>
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<td>G. Assessment of onset and duration of unconsciousness using animal-based measures</td>
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<td>I. Comprehensive record of outcome assessment</td>
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<td>J. Assessment of absence of pain, distress and suffering during restraint/pre-stunning if it deviates from conventional methods and/or is potentially painful</td>
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MONITORING PROCEDURES AT SLAUGHTER

- toolboxes of welfare indicators for developing monitoring procedures at slaughterhouses
- Bovines, pigs, sheep & goats, poultry
- assess consciousness at 3 key stages of monitoring:
  - after stunning and during shackling and hoisting
  - during neck cutting or sticking
  - during bleeding
- specificity, sensitivity, feasibility of indicators
  - systematic literature review
  - stakeholders’ and hearing experts’ meetings
MONITORING PROCEDURES AT SLAUGHTER

**Key Stage 1 (between end of stunning and shackling): check for outcomes of consciousness**

**OUTCOMES OF UNCONSCIOUSNESS**
- presence of tonic/clonic seizures
- apnoea
- absence of corneal or palpebral reflex
- absence of spontaneous blinking
- immediate collapse of the animal
- absence of vocalisation

**TOOLBOX 1**
- tonic/clonic seizures
- breathing
- corneal or palpebral reflex
- spontaneous blinking
- posture
- vocalisations

**OUTCOMES OF CONSCIOUSNESS**
- absence of tonic/clonic seizure
- presence of breathing
- presence of corneal or palpebral reflex
- presence of spontaneous blinking
- failure to collapse
- presence of vocalisation

Risk of consciousness: apply intervention

**Key Stage 2 (during sticking): check for outcomes of consciousness**

**OUTCOMES OF UNCONSCIOUSNESS**
- apnoea
- presence of tonic/clonic seizures
- lack of righting reflex, lack of attempts to raise the head
- absence of corneal or palpebral reflex
- absence of spontaneous blinking
- absence of vocalisation

**TOOLBOX 2**
- breathing
- tonic/clonic seizures
- muscle tone
- corneal or palpebral reflex
- spontaneous blinking
- vocalisations

**OUTCOMES OF CONSCIOUSNESS**
- presence of breathing
- absence of tonic/clonic seizure
- righting reflex, attempts to raise the head
- presence of corneal or palpebral reflex
- presence of spontaneous blinking
- presence of vocalisation

Risk of consciousness: apply intervention

**Key Stage 3 (during bleeding): check for outcomes of consciousness**

**OUTCOMES OF UNCONSCIOUSNESS**
- apnoea
- loss of muscle tone
- corneal or palpebral reflex
- spontaneous blinking
- absence of vocalisation

**TOOLBOX 3**
- breathing
- muscle tone
- corneal or palpebral reflex
- spontaneous blinking
- vocalisations

**OUTCOMES OF CONSCIOUSNESS**
- presence of breathing
- righting reflex, attempts to raise the head
- presence of corneal or palpebral reflex
- presence of spontaneous blinking
- presence of vocalisation

Risk of consciousness: apply intervention

No risk of consciousness
MONITORING PROCEDURES AT SLAUGHTER

TECHNICAL REPORT

Sample size calculation tool for monitoring stunning at slaughter

European Food Safety Authority

European Food Safety Authority (EFSA), Parma, Italy

ABSTRACT

Article 16 of Council Regulation (EC) No 1099/2009 on the protection of animals during killing requires slaughterhouse operators to carry out regular checks to ensure that animals do not present any sign of consciousness following stunning. The Commission therefore requested EFSA to provide an independent view on the indicators and methods of monitoring procedures, including sampling protocols, at slaughterhouses. In order to provide food business operators with guidance on the sample size and frequency of sampling, a mathematical model was developed. This tool with a user friendly interface. This technical report presents this tool and a user manual is also provided where detailed instructions can be found.

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**EFSA SCIENTIFIC NETWORK FOR RISK ASSESSMENT IN ANIMAL HEALTH AND WELFARE**

- **Overall objectives**

  - Enhance cooperation between Member States and EFSA
  - Build a mutual understanding of RA principles in AHAW
  - Promote harmonization of RA practices and methodologies
  - Reduce duplication by identifying and sharing current priorities
  - Provide increased transparency
EFSA SCIENTIFIC NETWORK FOR RISK ASSESSMENT IN ANIMAL HEALTH AND WELFARE

Specific objectives

Harmonisation
- Sharing best practices
- New scientific developments
- Ongoing issues
- Streamlining common research

Exchange
- Availability and quality of data
- Information and experience
- Identifying and mapping expertise

Synergies
- Identifying common themes
- Discussing ongoing RA activities
- Discussing priorities
- Identifying emerging risks
EFSA SCIENTIFIC NETWORK FOR RISK ASSESSMENT IN ANIMAL HEALTH AND WELFARE

Agenda points

- Pig slaughtering using gas stunning – recent research on stunning of pigs using CO$_2$ or other gases
- EFSA guidance on the assessment criteria for studies evaluating the effectiveness of stunning
- Implementation of Council Regulation (EC) 1099/2009 – scientific support, national contact points, monitoring programmes
- Slaughter of pregnant animals during late gestation stages
EFSA SCIENTIFIC NETWORK FOR RISK ASSESSMENT IN ANIMAL HEALTH AND WELFARE

EFSA Scientific Network for Risk Assessment in Animal Health and Welfare

EFSA networks with Member States to build a mutual understanding of risk assessment principles in the area of animal health and welfare, to promote harmonisation of animal health and welfare risk assessment practices and methodologies and to reduce the duplication of activities by identifying and sharing current and upcoming priorities. EFSA convokes subgroups of the network to address particular scientific questions in collaboration with Member States.

Mandate and composition of the network

- Terms of reference (0.1 Mb)
- List of members (0.1 Mb)

Past activities / Completed work

- Meetings
- Publications

Network meetings on Schmallenberg Virus

Past activities / Completed work

- Meetings

Network meetings on Porcine Epidemic Diarrhoea (PED)

Past activities / Completed work

- Meetings

Network meetings on Tuberculosis Testing
EFSA’S AIM REGARDING COUNCIL REGULATION (EC) 1099/2009

- Promote research on stunning methods
- Facilitate networking
- Promote monitoring capacity
- Facilitate data collection/exchange
- Provide scientific support
Happy to discuss .......