EUWelNet
Coordinated European Animal Welfare Network

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Website: http://www.euwelnet.eu

Background:

2006 Community Action Plan
on the Protection and Welfare of Animals 2006-2010

‘creation of a European Centre or Laboratory
for the protection and welfare of animals’

- Support to the Commission and the MS with technical expertise.
- Conduct training courses.
- Contribute to dissemination of research findings and technical innovations
- Coordination of research.
Call (SANCO 2012/10293) for a pilot project

➢ ‘to investigate (and make recommendations) on the feasibility and usefulness of a network of technical resources designed to assist the competent authorities and the stakeholders in improving the implementation of EU legislation on animal welfare through targeted knowledge strategies.’

Objectives:

1) Establish and coordinate a network of recognised technical, scientific and educational experts in the field

2) Identify some of the bottlenecks/difficulties in implementing EU legislation on animal welfare

3) Develop and test knowledge transfer strategies designed to overcome selected bottlenecks

4) Make recommendations on the feasibility and the likely conditions required for an effective European animal welfare network
Legislations:


Task 3.4 Setting up a technical network of experts to develop and improve standard operation procedures to implement welfare requirements at slaughter (of poultry, pigs, cattle and sheep)

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Luc Mirabito (Institute d’Elevage)
Claudia Terlouw (INRA)
Xavier Manteca (UAB)
Objectives:


2. Identification of the main causes of difficulties in:
   - Implementation of minimum electrical requirements for effective waterbath stunning in poultry.
   - Assessing unconsciousness after mechanical stunning in bovines, electrical stunning of ovine and poultry, and gas stunning in pigs.

3. Development of strategies to solve these difficulties with SOPs

4. Assessment of the effectiveness of the SOPs.

5. Evaluation of the role of the technical network in the development of the SOPs.

1. Development of the technical network

   • Identification of the national contact points in
     – UK: FAWC Secretariat
     – France: Institute d'Elevage/INRA
     – Sweden: SLU
     – The Netherlands: Wageningen UR Livestock Research
     – Spain: IRTA
2. Identification of the main causes of the difficulties in implementation of requirements for waterbath stunning in poultry and the valid and reliable assessment of unconsciousness

• Questionnaire to Competent Authorities:
  – Bottlenecks
  – Actions
  – Guidelines
  – Revision

Main conclusions

Waterbath stunning in poultry:

• Huge variation in stunning parameters.
• Poor understanding of the variation in current delivered to each bird.
• Very difficult to assess effective waterbath stunning.
• One solution to gain greater control is the use of SOPs.
Main conclusions

Development of standardized assessment guidelines in response to Regulation 1099/2009 in most of cases.

- The industry has applied to the CA for collaboration.
- The CA has revised the guidelines.

- The industry has consulted to competent authorities the difficulties faced and CA have taken actions to improve the assessment procedure:
  - WBS in poultry in all cases except Sweden.
  - Electrical stunning in sheep in Spain and Sweden.
  - Gas stunning in pigs in Netherlands and Spain
  - Captive bolt stunning in cattle in Spain

Subtask 3.4.2. Identification of the main causes of the difficulties in implementation of requirements for waterbath stunning in poultry and the valid and reliable assessment of unconsciousness

- Spot visit to abattoirs: (5 per specie)
  - AWOs: difficulties, criteria, SOPs, scientific support
  - OVs: difficulties
  - Direct assessment of the main difficulties, risk factors.
• SOPs

- The assessment of unconsciousness is carried out according to the description of the SOP

- Animals that recovered consciousness before brain death and are not detected by operators
Risk factors

– Common:
  • Lack of training of both the operators and the AWO.
  • Slaughterhouse facilities often do not allow a correct assessment of unconsciousness.

– Cattle:
  • Questionable security for the operator.
  • Clonic activity occurred from hoisting and made assessment of rhythmic breathing difficult in some animals.

– Pigs:
  • Rhythmic breathing is difficult to assess.

Risk factors

– Sheep:
  • Post-stun convulsions (clonic activity) can mask the presence of rhythmic breathing.

– Poultry:
  • The high line speed difficult the assessment of unconsciousness.
  • Access to the birds is sometimes very difficult due to slaughterhouses facilities.
  • The criteria used to determine effective electrical stunning is compromised by the application of the stunning current to the whole bird, which can result in paralysis without stunning.
3. Development of strategies and SOP

- Assessment of the operation of a poultry WBS.
- Assessment of unconsciousness:
  - In poultry after electrical waterbath stunning.
  - In sheep after electrical stunning.
  - In pigs after gas stunning
  - In cattle after captive bolt stunning

Focus on management recommendation, not structural
Identification of indicators

- on loss of consciousness
- able to detect, with high level of confidence, unsatisfactory stunning / slaughtering practices
- Specify the criteria for selecting indicators, based on the level of sensitivity and specificity

- (EFSA Journal 2013;11(12):3460 - bovines)
- (EFSA Journal 2013;11(12):3521 - poultry)
- (EFSA Journal 2013;11(12):3523 - pigs)
- (EFSA Journal 2013;11(12):3522 - sheep and goats)
Before bleeding:
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Eye movements

Revise equipment and stunning procedure

One or more indicators of consciousness are present or in case of doubt

None of the indicators of consciousness are present

Before hoisting:
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Eye movements

Revise equipment and stunning procedure

One or more indicators of consciousness are present or in case of doubt

None of the indicators of consciousness are present

Re-stun

None of the indicators of consciousness are present or in case of doubt

Re-stun

None of the indicators of consciousness are present or in case of doubt
**ANIMAL WELFARE OFFICER DECISION TREE**

**Before hoisting:**
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Corneal reflex
- Nose pinching response

Ask the operator to re-stun

None of the indicators of consciousness are present

*One or more indicators of consciousness are present or in case of doubt*

**Just after stunning:**
- Remain standing or resume standing posture
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Corneal reflex

Ask the operator to re-stun

None of the indicators of consciousness are present

*One or more indicators of consciousness are present or in case of doubt*

**During bleeding:**
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Eye movements

Re-stun

Record re-stun

Revise equipment and stunning procedure

*One or more indicators of consciousness are present or in case of doubt*

**Before bleeding:**
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Eye movements

None of the indicators of consciousness are present

*STICKING*

**case of doubt**

Re-stick

Record re-stun

Revise equipment and stunning procedure

*One or more indicators of consciousness are present or in case of doubt*
ANIMAL WELFARE OFFICER DECISION TREE

Before bleeding:
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Corneal reflex
- Nose pinching response

Ask the operator to re-stun
One or more indicators of consciousness are present or in case of doubt

None of the indicators of consciousness are present

During bleeding:
- Righting reflex
- Vocalizations
- Rhythmic breathing
- Corneal reflex
- Nose pinching response

Ask the operator to re-stun and to re-stick
One or more indicators of consciousness are present or in case of doubt

During bleeding:
- Check stunning procedures and equipment (short-term correction)
- Retrain operator in the application of the SOP
- Internal audit (long-term correction)

4. Assessing the effectiveness of the SOPs in the pilot study

- 25 slaughterhouses
- FBOs, AWOs and OV5
- 1st visit: Presentation of the SOP
- 2nd visit (after 2 months):
  - Assessment of implementation and effectiveness
  - Interview
  - Direct evaluation of the monitoring procedure
4. Assessing the effectiveness of the SOPs in the pilot study

• Level of implementation:

- 5 slaughterhouses: To complement their own protocols
- 4 slaughterhouses: To improve their own SOPs.
- 6 slaughterhouses: Adapted the SOPs to their own procedures and facilities
- 5 slaughterhouses: Without apparent interest to adopt the SOPs
- 4 slaughterhouses: Lack of time, but with interest to implement the SOPs in the near future

5. Evaluation of the role of the technical network in the development of the SOPs

• 2nd technical meeting to assess the effectiveness of the technical network in identifying and implementing knowledge based strategies to overcome the difficulties.

• Identification of experts from other EU countries for possible inclusion in a future network designed to further progress the work on welfare at slaughter.
5. Evaluation of the role of the technical network in the development of the SOPs

- Identification of experts from other EU countries for possible inclusion in a future network designed to further progress the work on welfare at slaughter.

Identification of experts in AW at slaughter in EU countries.
• Report on the main causes of difficulties in implementation of requirements for waterbath stunning in poultry and the valid and reliable assessment of unconsciousness in all species.

• SPOs for the WBS of poultry and the valid and reliable assessment of unconsciousness after mechanical stunning in bovines, electrical stunning in ovines, water bath electrical stunning in poultry, and gas stunning in pigs.

• Report on the effectiveness of the SOPs developed here and of the role and efficiency of the pilot technical network of experts.

• List of candidate groups and/or individuals in each EU country for possible inclusion in a future technical network on welfare at slaughter).