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Hazard identification and ranking for poultry at slaughter

European Food Safety Authority

Abstract

Protecting animal welfare at slaughter is about minimising the pain, distress or suffering of farmed animals at the time of killing. The AHAW Network on "NCP for EC Regulation 1099/2009" includes EU Member State organisations representatives that are designated as National Contact Points for Regulation EC 1099/2009 on the protection of animals at the time of slaughter and killing. At the NCP Network meeting held in October 2018, an exercise was held aimed at the identification and ranking of hazards for poultry at slaughter. Hazard identification involved a questionnaire sent to NCP experts prior to the meeting where experts listed the hazards based on their knowledge and/or practical experience. During the meeting, per each phase of the slaughter process, a list of all indicated hazards was produced and discussion was held in order to agree on a common terminology. Hazard ranking was achieved through an online voting system by which NCP experts were asked to vote for the hazards that were present in their countries. The resulting ranking gives indication of the hazards that are most common in European Member States and most urgent to be addressed in order to safeguard animal welfare during the slaughter process.

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Table of contents

Abstract.....	1
1. Introduction.....	4
2. Assessment	4
2.1. Hazard identification	4
2.2. Ranking of hazards for poultry slaughter	4
3. Conclusions	4
3.1.1. Hazards for poultry slaughter: phase "arrival"	5
3.1.2. Hazards for poultry slaughter: phase "unloading"	5
3.1.3. Hazards for poultry slaughter: phase "lairage"	5
3.1.4. Hazards for poultry slaughter: phase "handling and moving of animals"	6
3.1.5. Hazards for poultry slaughter: phase "restraint"	6
3.1.6. Hazards for poultry slaughter: phase "stunning"	6
3.1.7. Hazards for poultry slaughter: phase "bleeding"	7

1. Introduction

Protecting animal welfare at slaughter is about minimising the pain, distress or suffering of farmed animals at the time of killing.

Article 20 of Council Regulation 1099/2009 on the protection of animals at the time of killing requires Member States to ensure sufficient independent scientific support to assist the competent authorities in a series of scientific and technical tasks, e.g. for the development of new stunning methods or guides to good practice, for the sharing of best practices and scientific information regarding the implementation of the Regulation. Each Member State identified a single contact point, responsible for sharing technical and scientific information and best practices regarding the implementation of this Regulation with its counterparts and the Commission.

The AHAW Network on “NCP for EC Regulation 1099/2009” includes EU Member State organisations representatives that are designated as National Contact Points (NCP) for Regulation EC 1099/2009. The NCP Network meets once a year in order to facilitate exchange of information and sharing of best practices among NCPs.

At the NCP Network meeting held in October 2018, an exercise was held aimed at the identification and ranking of hazards for poultry at slaughter.

The process from unloading to killing of the animals at the abattoir can be divided into several phases such as i) arrival, ii) unloading, iii) lairage, iv) handling and moving of the animals, v) restraint, vi) stunning and vii) bleeding. During each phase, the animals are exposed to hazards and run a risk of reduced welfare.

NCP experts listed and ranked the hazards present during the various phases of the slaughter process. The resulting ranking of hazards is included in specific tables of this report.

2. Assessment

2.1. Hazard identification

A questionnaire was sent to the meeting participants prior to the meeting and its outcomes were used as a basis for the exercise. The questionnaire asked respondents to indicate all hazards present in the slaughter line according to their knowledge and/or practical experience, divided by the phases of the process listed above.

2.2. Ranking of hazards for poultry slaughter

During the meeting, per each phase of the slaughter process, a list of all indicated hazards was produced and presented to the NCPs. Discussion was held in order to agree on a terminology for the common understanding of the hazards. Finally, per each phase of the process, NCPs were asked to vote, through an online based application, for the hazards that were present in their countries.

3. Conclusions

The tables in the following paragraphs report the outcomes of the ranking of hazards for poultry at slaughter, divided by phase of the process. The resulting ranking gives indication of the hazards that are most common in European Member States and most urgent to be addressed in order to safeguard animal welfare during the slaughter process.

3.1.1. Hazards for poultry slaughter: phase "arrival"

Table 1: Hazards for poultry slaughter: phase "arrival"

Hazards for poultry slaughter: phase "arrival"	Number of Member States where this hazard is present
Prolonged waiting time to unloading	20
Poor environmental temperature	14
Overstocking (density)	11
Poor humidity (Air quality, ventilation)	8
Water deprivation too long	5
weather conditions	5
Food deprivation too long	4
Sharp projections	3
Low stocking density (cold weather)	2

3.1.2. Hazards for poultry slaughter: phase "unloading"

Table 2: Hazards for poultry slaughter: phase "unloading"

Hazards for poultry slaughter: phase "unloading"	Number of Member States where this hazard is present
Rough handling leading to fear and physical injuries (personnel)	15
Container tilting & birds bunching	8
Noise	4
Dropping (tipping) birds from containers on to conveyors	3
Careless driving of forklifts (personnel)	3
Jamming of heads and legs in cages	2
Light not blue	2
Temperature difference	1
Lack of protection from adverse weather (construction)	1

3.1.3. Hazards for poultry slaughter: phase "lairage"

Table 3: Hazards for poultry slaughter: phase "lairage"

Hazards for poultry slaughter: phase "lairage"	Number of Member States where this hazard is present
Poor temperature (Environment)	10
Poor air movement, ventilation	10
Poor humidity	9
Water deprivation too long	6
Prolonged waiting time to slaughter	6
High noise levels	6
Too bright - absence of blue light	5
Poor possibilities for inspecting the birds on arrival leading to injured birds remaining undetected	5
Food deprivation too long	4
Lack of protection from adverse weather	4
Poor design and layout (construction)	3

Slippery floor and asperities (personnel falling)	3
Escaped birds	2
Overcrowding in crates	2
Careless stacking of crates, leading to stacks falling over, injuries.	1

3.1.4. Hazards for poultry slaughter: phase "handling and moving of animals"

Table 4: Hazards for poultry slaughter: phase " handling and moving of animals "

Hazards for poultry slaughter: phase "handling and moving of animals"	Number of Member States where this hazard is present
Rough (inappropriate) handling during removal from the crates	15
Tipping or dumping on conveyors	3
Lack of contingency plan	2
High noise levels	1
Improper illumination	1
Escape attempts from crate	1
Carry distance leading to stress and injuries	1

3.1.5. Hazards for poultry slaughter: phase "restraint"

Table 5: Hazards for poultry slaughter: phase "restraint"

Hazards for poultry slaughter: phase "restraint"	Number of Member States where this hazard is present
Improper shackle (resulting in compression of the legs)	20
Improper shackling	19
Being shackled when having injuries	4
Birds escaping from containers	3
High noise levels	2
Wing flapping by adjacent birds	1
Lack of contingency plan	1
Speed of the line	1

3.1.6. Hazards for poultry slaughter: phase "stunning"

Table 6: Hazards for poultry slaughter: phase "stunning"

Hazards for poultry slaughter: phase "stunning"	Number of Member States where this hazard is present
Different size of animals resulting in inefficient stunning	13
Lack/poor calibration of monitors (Gas stunning, Waterbath, Electrical)	7
Pre-stun shocks (Waterbath)	5
Poor electrical contact between legs and shackle (Waterbath)	3
Low voltage / current (Waterbath, Electrical)	3
Lack of contingency plans	2
Short duration of exposure (Gas stunning, Waterbath, Electrical)	2
Irritating gas mixture (Gas stunning)	2

Too high electrical frequency, resulting in insufficient stunning (Waterbath)	2
Fault gas mixture (Gas stunning)	1
Temperature (Gas stunning)	1

3.1.7. Hazards for poultry slaughter: phase "bleeding"

Table 7: Hazards for poultry slaughter: phase "bleeding"

Hazards for poultry slaughter: phase "bleeding"	Number of Member States where this hazard is present
Poor neck cutting practice	13
Neck cutting conscious birds	7
Prolonged stun-to-neck cutting interval	4
Live bird entering scald tank alive and conscious	4
Recovery of consciousness after neck cutting	2
lack of contingency plans	1