


20 January 2020



EFSA Scientific opinions on the welfare of rabbits: slaughter and killing for purposes other than slaughter

Animal Health and Welfare (AHAW)
Animal and Plant Health (ALPHA) Unit

Trusted science for safe food

Mandate from EC + mandate from EP



Background

- Council Regulation (EC) No 1099/2009
- Past EFSA opinions
- Terrestrial Animal Health Code from OIE revision of:
 - Slaughter of animals
 - Killing of animals for disease control

Request to EFSA

review scientific literature and provide a sound scientific basis for discussions at international level



Background

- Second most farmed species in EU
- Public concerns: poor welfare, high stress, no specific stunning methods
- No species-specific legislation

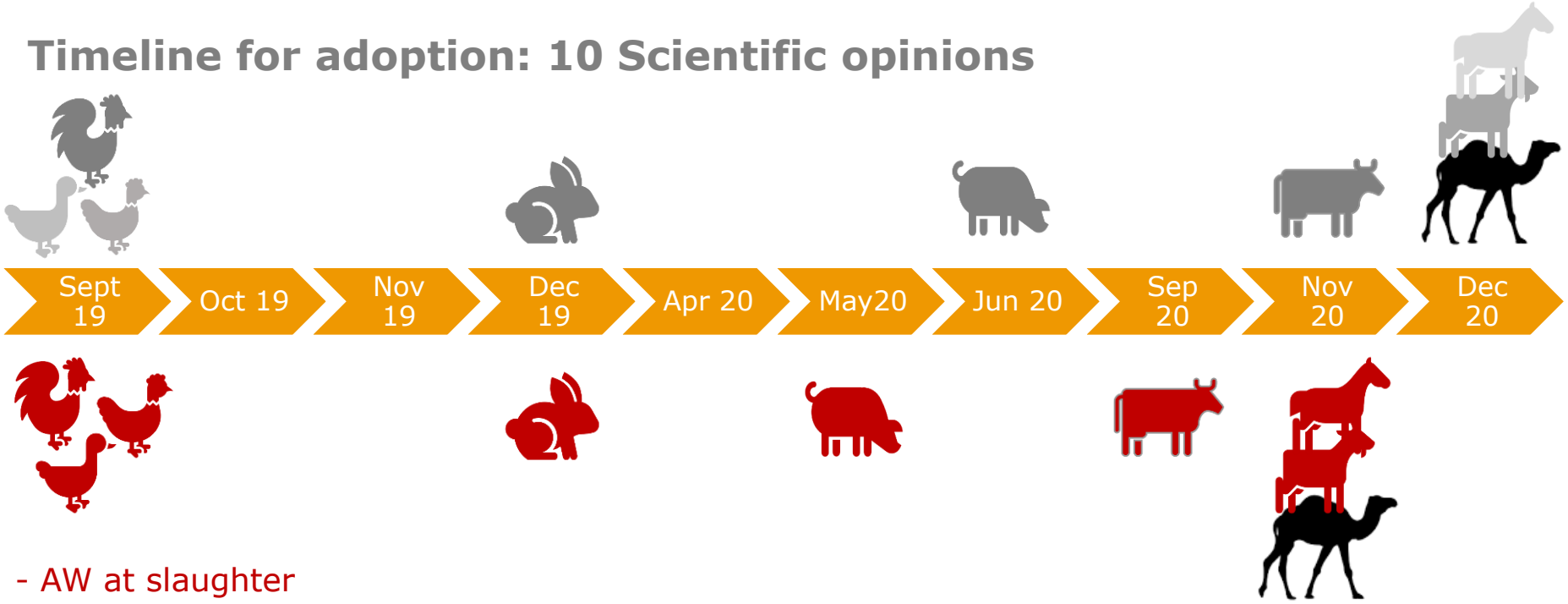
Request to EFSA

Stunning methods and slaughter of rabbits for human consumption, including indicators of consciousness to monitor the stunning process

Animal species

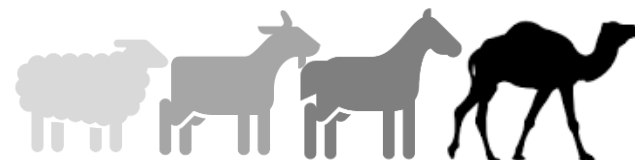
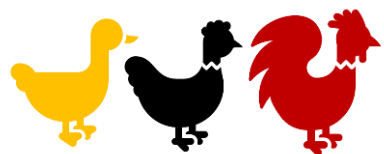
Animals in containers (domestic birds and rabbits); pigs; cattle; 'other species' (buffalo, bison, sheep, goats, camelids, deer, horses, ratites)

Timeline for adoption: 10 Scientific opinions



- AW at slaughter
- AW during killing for purposes other than slaughter

Process steps to consider	ToRs
<ul style="list-style-type: none">• Arrival• Unloading• Lairage• Handling and moving (free moving animals only)• Restraint• Stunning (Stunning/killing)• Bleeding	<p>ToR-1: Identify welfare hazards and their origins (in terms of facilities, equipment, staff)</p> <p>ToR-2: Define indicators to assess performance on AW</p> <p>ToR-3: Provide preventive and corrective measures (structural or managerial) to address the hazards</p> <p>ToR-4: Point out specific hazards related to species or types of animals (e.g. young, with horns)</p>



Slaughter

Killing of rabbits for human consumption that could take place in a slaughter plant or during on-farm slaughter, from the arrival until the animal is dead, including slaughter without stunning (assessment of AW on the farm and during transport is excluded).



Unloading from the truck, courtesy: L. Berg



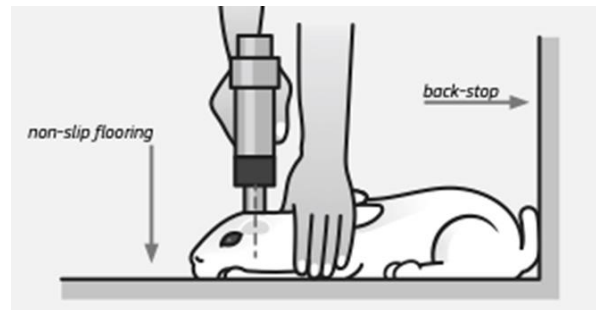
Lairage zone, source: FIA



Handling and removing rabbits from containers, courtesy: Credit Avipôle Formation



Head-only electrical stunning, source: EC



Captive bolt stunning, source: EC

- One outcome table for each process that has been described
- links between all elements requested by the ToRs

'handling and removing of rabbits from crates or containers' (phase 1)

Table 21. Outcome table on 'handling and removing of rabbits from crates or containers': hazards, welfare consequences and relevant indicators; hazards' origin and preventive and corrective measures

Hazard	Welfare consequence/s occurring to the rabbits due to the hazard	Hazard origin/s	Hazard origin specification	Preventive measure/s of hazards (implementation of SOP)	Corrective measure/s of the hazards
Rough handling of the rabbits during removal from the containers (see 3.5.1.8)	Pain, fear	Staff, facilities, equipment	Unskilled personnel; operator fatigue; high throughput rate, poorly designed containers (with small openings)	<ul style="list-style-type: none"> • Staff training; • staff rotation; • changecontainer system; • slow down line speed 	None
Unexpected loud noise (see 3.5.1.7)	Fear	Equipment, facilities, staff	Staff shouting, machine noise, poor design and layout of the facilities	<ul style="list-style-type: none"> • Identify and eliminate the source of noise; • staff training; • avoid personnel shouting; • proper machine construction; • avoid noisy equipment close to the rabbits; • sound proofing of the facilities 	None

Indicators: injuries such as fractures, bruising, broken or dislocated spine (pain), vocalisations (pain and fear) escape attempt or startling behaviour (fear)

The scientific opinion describes application and main hazards for:

Electrical stunning methods (+ restraint):

1. Head-only electrical

Mechanical stunning methods (+ restraint):

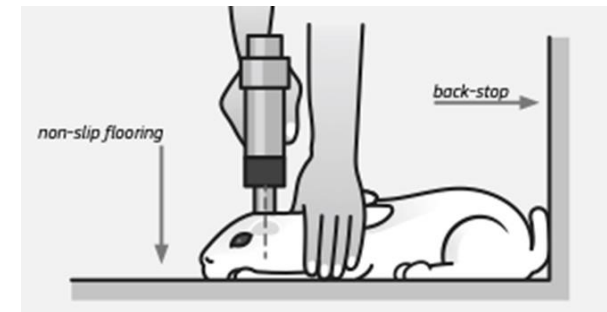
1. Penetrative Captive bolt
2. Non –penetrative captive bolt
3. Percussive blow to the head

Controlled atmosphere stunning methods
(not allowed in EU – EC Reg 1099/2009):

1. High Carbon dioxide
2. Mixture of carbon dioxide with inert gases



Head-only electrical stunning



Captive bolt stunning, source: EC

Recommendations:

- More research is recommended for gas stunning of rabbits to establish concentration of gasses that causes minimum distress prior to loss of consciousness.

Reg (EC)1099/2009: protection of the animals at the time of slaughter and killing

Article 5: *"Business operators should ensure that persons responsible for stunning carry out regular checks to ensure that the animals do not present any signs of consciousness between the end of the stunning process and death."*



Indicators of consciousness to be selected based on

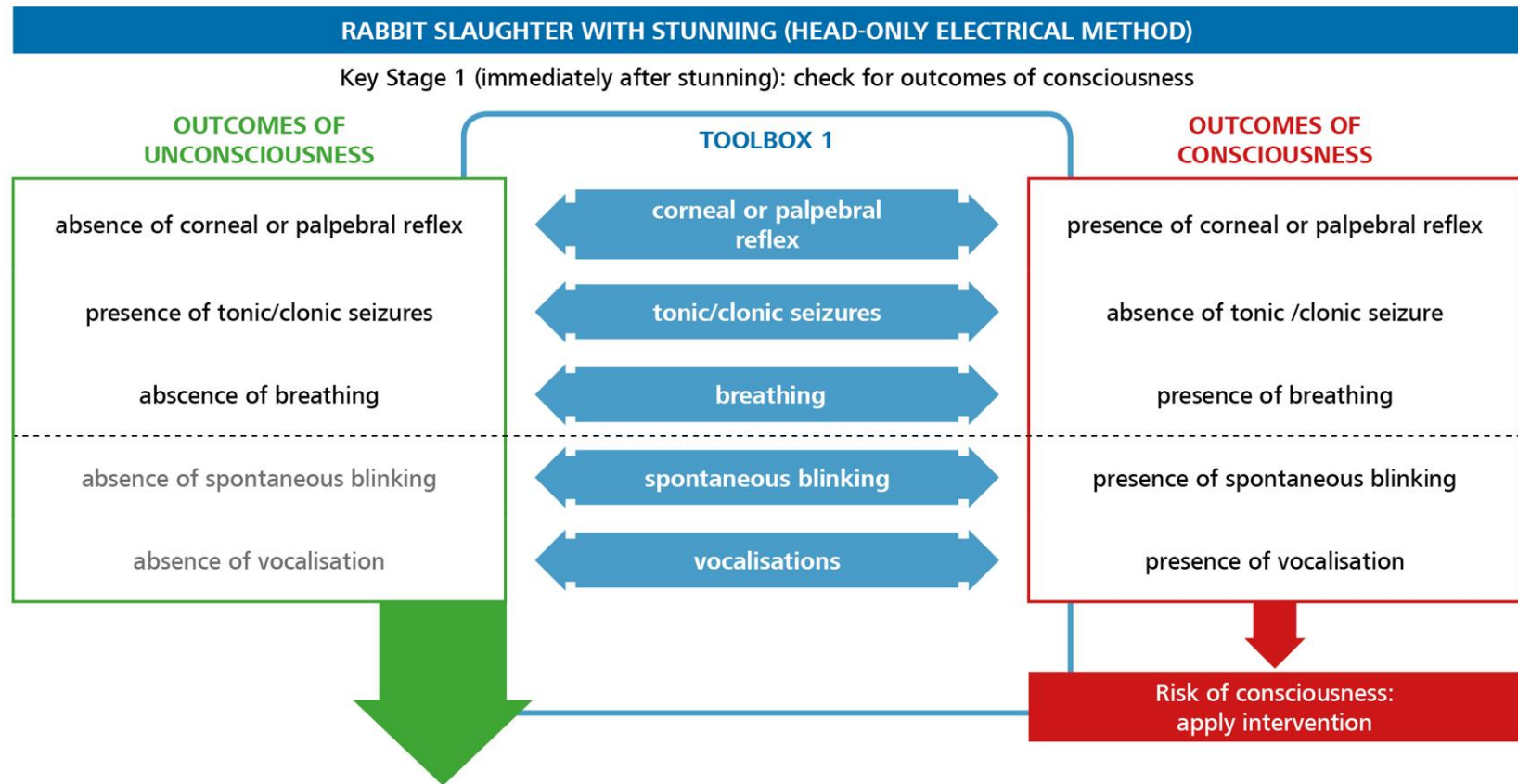
SENSITIVITY & SPECIFICITY & EASE OF USE

Lack of data



- Expert opinion provided estimates
- Survey: 20 respondents - separately for the two stunning methods (electrical and captive bolt) - total = 40 completed surveys about sensitivity and specificity.
- Workshop with experts: 8 hearing experts invited to discuss about for easiness of use





Recommendation: The state of consciousness of the animals should be checked at each of the 3 key stages using the suggested indicators:

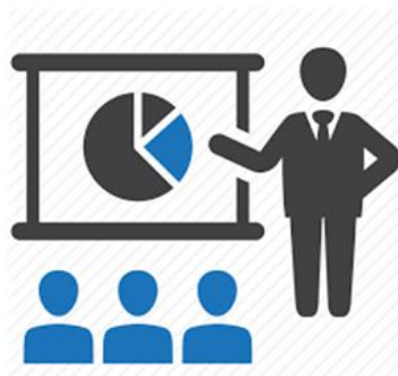
- immediately after stunning,
- just prior to neck cutting
- during bleeding

General conclusions

- Hazards were identified for all slaughter processes. Most hazards had lack of appropriate skill sets as origin.
- Hazards lead to welfare consequences.
- Welfare consequences identified: Heat stress, Cold stress, Prolonged thirst, Prolonged hunger, Restriction of movements, Pain, Fear, Distress

Recommendations:

- All processes should be carried out by **trained and skilled** personnel
- Training of staff in the different processes of slaughter should be implemented, with clear identification of **roles and responsibilities**
- The welfare status of rabbits should be assessed by **welfare indicators** and existing hazards should be identified.



Phase 1 - pre-stunning

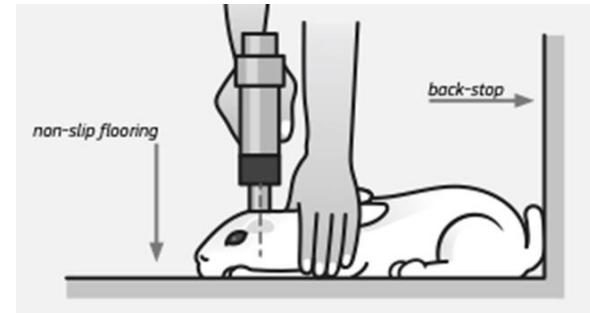


Results: Hazards identified: too high T°, too low T°, insufficient space allowance, food deprivation, water deprivation, rough handling of the containers/rabbits, unexpected loud noise.

Conclusion: all preventive and corrective measures concern two domains: 1) the maintenance of the physiology of the rabbit (e.g. provide good ventilation to avoid heat stress), 2) the prevention/correction of pain and fear (e.g. gentle handling of the rabbits in containers).

Recommendations: the presence of hazards should be monitored by assessing the welfare consequence through indicators; when a hazard is present, appropriate corrective measures should be applied.

Phase 2 – stunning (specific methods)



Results: Hazard identified

- for electrical stunning: manual restraint, inversion, inappropriate shackling, poor electrical contact, too short exposure time, inappropriate electrical parameters.
- For mechanical stunning: manual restraint, incorrect shooting position, incorrect bolt parameters, inappropriate shackling, inversion.

Conclusion: Electrical and mechanical methods induce immediate loss of consciousness; when these methods are not properly applied, they can cause consciousness leading to pain, fear and distress as welfare consequences.

Recommendations: if animals show signs of consciousness, intervention needs to be applied i.e. re-stunning of the animals.

Phase 3 - bleeding



Results: Hazards identified: prolonged stun to neck cut interval, incomplete sectioning of carotid arteries, neck cutting, repeated cuts, stimulation of wounds, bleeding to death, dressing of rabbits while still alive (slaughter with stunning); manual restraint, inversion and shackling (slaughter without stunning).

Conclusions: A proportion of the rabbits will be exposed to hazards occurring during bleeding: those that were **incorrectly stunned** and still conscious and those that **recover consciousness** prior to death.

Recommendations:

- Unconsciousness should be monitored until rabbits are dead.
- To prevent rabbits experiencing severe welfare consequences such as pain and fear death must be monitored and confirmed before being dressed.

Scientific opinion on the killing for purposes other than slaughter: rabbits

Adopted in December 2019

Published in January 2020 at: <https://www.efsa.europa.eu/en/efsajournal/pub/5943>

Other purposes than human consumption

- **large scale killings on-farm in case of depopulation** for disease control purposes and similar situations (environmental contamination, disaster management, etc.).
- **killing of unproductive animals that might be practiced on-farm**; this can occur for health, welfare or economic reasons



- **Electrical methods:**

1. Head-only (stunning)

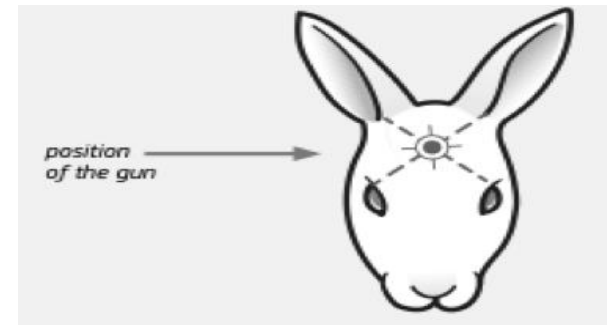
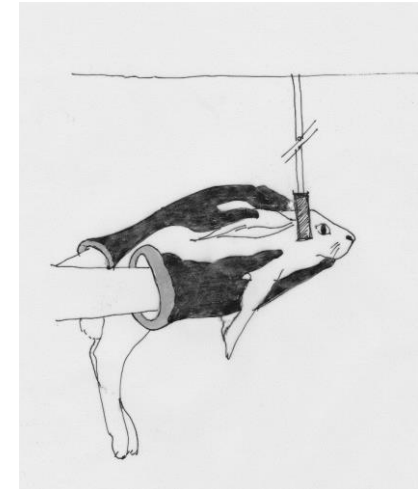
- **Mechanical methods**

1. Captive bolt (stunning and killing)
2. Percussive blow to the head (stunning and killing)
3. Blunt force trauma (kits - stunning and killing)

- **Mechanical killing-only (non stunning) methods:**

1. Cervical dislocation (only after previous stunning)
2. Decapitation following stunning (kits)

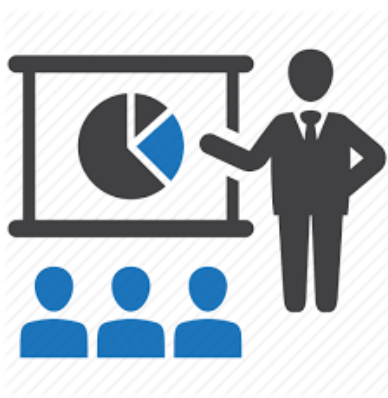
- **Lethal injection**



- **General ones**

All the hazards had lack of appropriate skill sets or fatigue as origin

- Preventive measures should include: (i) have in place proper procedure (e.g. written SOP, contingency plans); (ii) training and rotation of the staff; and (iii) appropriate setting and use of the equipment



- **unacceptable methods** that should not be used: killing rabbits by burying, burning, drowning, suffocating, chilling/freezing, the addition of poisons, pesticides or any other toxic substances to feed or water for killing

Head-only electrical stunning does not lead to death

- a killing procedure should follow (e.g. cervical dislocation)

When **captive bolt** is properly applied in rabbits the process is already enough to kill the animal.

- Repeated use of a captive bolt gun and in quick succession will lead to overheating of the barrel and failure of the gun. A sufficient number of guns should be made available such that each one can be rested to cool off.

For humane **killing of kits** it is suggested to induce unconsciousness by using **blunt force trauma**

- immediately followed by either cervical dislocation or decapitation.

For **lethal injection**:

- Lethal injection of anaesthetic drug should be administered strictly following the manufacturer's instructions on dose, route and rate of administration

Thank you for your attention!

<https://www.efsa.europa.eu/en/topics/topic/animal-health-and-welfare>

Animal health and welfare

Introduction



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