

Slaughter of rabbits for human consumption, and on-farm killing of rabbits for other purposes

According to European Council Regulation 1099/2009 on The Protection of Animals at the Time of Killing: “[animal welfare] monitoring through indicators... should be carried out to evaluate the efficiency of the procedure under practical conditions”. A range of requirements are listed in Article 16, including that the indicators of consciousness, unconsciousness and death must have criteria for determining whether the results shown by the indicators are satisfactory and, if the results are not satisfactory, then the cause must be identified and the necessary changes made to the procedure. To this end, in 2013 the European Food Safety Authority (EFSA) published a methodology (eg <https://doi.org/10.2903/j.efsa.2013.3460>) used to select the most appropriate animal-based measures for routine monitoring of the efficacy of stunning. This approach, via literature reviews and expert opinion, was recently used for two Scientific Opinions, published in January 2020, on humane killing of farmed rabbits in Europe.

The EFSA’s aim is to suggest structural and managerial procedures (preventive and corrective measures, or mitigating actions) that Food Business Operators (FBOs) and commercial farms can apply to minimise or eliminate hazards to animal welfare and so prevent negative welfare outcomes for rabbits. This includes during slaughter (whether in large-scale automated abattoirs or during small-scale, on-farm manual slaughter), and during on-farm culling of unviable animals (ie of individual unhealthy or injured rabbits, or on a large scale for healthy but less-productive rabbits and for disease control or in the event of man-made or natural disasters). In both Scientific Opinions, the EFSA provide outcome tables that are useful for drafting standard operating procedures (SOPs), including mitigating measures for contingency planning.

In the rabbit slaughter Scientific Opinion, the EFSA define ‘toolboxes’ of animal-based measures or indicators (selected by the EFSA on the basis of their sensitivity, specificity and feasibility) within flow charts, to support operatives in: i) assessing the state of consciousness in each rabbit that undergoes electrical or captive-bolt stunning during slaughter; and ii) confirming death before beginning carcass dressing (including for rabbits intentionally slaughtered without stunning). For assessing states of consciousness, the EFSA suggest three or four ‘recommended’ indicators (of which at least two should be chosen in order to achieve effective monitoring, eg corneal reflex and breathing), and thereafter two ‘additional’ indicators (which should not be relied upon solely as they are insufficient on their own, eg spontaneous blinking and vocalisation). For confirming death, the EFSA suggest both recommended *and* additional indicators are all used, due to their lower sensitivity (ie breathing, cessation of bleeding, muscle tone, heart-beat and dilated pupils). Depending on whether each indicator is present or absent, the outcome may be a conscious or unconscious, or live or dead, rabbit (the former of each of which will require an intervention, eg back-up

stunning). Therefore, these indicators are used to assess any negative welfare consequences of a hazard, eg pain or fear. Each rabbit must be checked for consciousness, or life, during three key stages of monitoring: (i) immediately after stunning; (ii) just before neck cutting; and (iii) during bleeding. The EFSA also assessed related operations within abattoirs, ie pre-stunning procedures, such as lairaging of rabbits, the welfare consequences of which might include prolonged hunger or thirst and thermal stress.

In the on-farm killing Scientific Opinion, the EFSA also considered manual percussive blow to the head or blunt-force trauma (the EFSA advised that this method should be immediately followed by exsanguination, or another suitable killing method, to ensure death before disposing of the carcass), cervical dislocation and decapitation (the EFSA considered these killing methods should only be applied on unconscious rabbits to reduce the risk of negative welfare consequences) and lethal-dose injection of anaesthetic drugs. The EFSA also cautioned: “spring loaded captive bolts may not always deliver sufficient force”, similar to Humane Slaughter Association advice. In addition, the EFSA considered anecdotal reports of the use of suffocation/smothering of conscious rabbits or rabbit kits in a tied, air-tight bag (which is sometimes also placed into a domestic freezer) and concluded that this is unacceptable on welfare grounds.

The EFSA found that hazards to rabbit welfare, which can be cumulative and therefore perpetuate and exacerbate welfare consequences, are mostly associated with the stunning and/or killing procedures, and unskilled or fatigued staff are the most common potential origin for all hazards, followed by equipment (eg transport containers, stunners, knives) and facilities (eg structures, layout). Most hazards can have more than one origin, which is key for determining the most appropriate preventive and corrective measures and assists FBOs with writing SOPs (as required under Article 6 of EC Reg 1099/2009). Other hazards include anatomical or behavioural variation between types of rabbit (eg breed, age, sex, hair length, ear posture [eg lop], rearing system and familiarity with handling by humans) which may require modification of stunning or handling procedures.

The EFSA propose that measures are possible for preventing most potential welfare hazards for conscious rabbits, and so management should prioritise their implementation; for example, increasing the space (and therefore air flow) between stacks of rabbit transport containers during hot weather to prevent (and, if necessary, correct) heat stress; and routinely monitoring rabbits immediately after stunning and immediately prior to neck cutting to ensure they are unconscious, regularly sharpening the knife and cutting promptly and accurately.

The EFSA report that, often, corrective measures do not exist, so instead one must apply measures to mitigate the welfare consequences (typically, to re-stun or kill the animal as quickly as possible by applying a back-up method). So, management should put in place such measures (eg contin-

gency plans describing the location, and timely use, of back-up methods) to reduce associated welfare consequences.

For example, the EFSA state that, even in well-designed and well-managed enterprises, rough handling of rabbits (causing fear and pain) can be prevented by management recruiting compassionate staff, training them thoroughly in animal sentience and their tasks (eg removing rabbits from containers one at a time using both hands), and rotating their duties to avoid mental and physical fatigue, as well as sourcing and maintaining appropriate designs of equipment (eg wide-opening transport containers) and setting an appropriate working pace so staff are not rushed. If a welfare consequence still occurs (eg an injury) then no corrective measures are possible, though post mortem carcass trauma can be monitored and used to attempt to indicate when and where such shortcomings occurred in the slaughter or killing process.

Finally, the EFSA recommended that rabbits can be spared avoidable suffering by not being shackled and bled whilst conscious. The EFSA also identified areas where scientific evidence is lacking for quantifying welfare consequences, including the times to onset of unconsciousness and to death when shackled, conscious rabbits are slaughtered without prior stunning. In addition, the EFSA recommend ascertaining which gas concentrations cause the minimum

of distress to rabbits prior to loss of consciousness, and how feasible it is to perform controlled atmosphere killing of rabbits on-farm. (EFSA Scientific Opinions are limited to considering methods that are sufficiently described in the scientific and technical literature; for gas killing of rabbits, there was insufficient evidence to assess the on-farm procedures, associated hazards and welfare consequences. With regard to such studies, in 2013 and 2018 the EFSA published guidance for researchers (<https://doi.org/10.2903/j.efsa.2013.3486> and <https://doi.org/10.2903/j.efsa.2018.5343>) on the EFSA assessment criteria for evaluating the effectiveness of stunning methods).

Scientific Opinion on Stunning Methods and Slaughter of Rabbits for Human Consumption (2020). A4, 106 pages. European Food Safety Authority (EFSA) Panel on Animal Health and Animal Welfare (AHAW), Parma, Italy. Available at: <http://www.efsa.europa.eu/> and <https://doi.org/10.2903/j.efsa.2020.5927>.

Scientific Opinion Concerning the Killing of Rabbits for Purposes other than Slaughter (2020). A4, 50 pages. European Food Safety Authority (EFSA) Panel on Animal Health and Animal Welfare (AHAW), Parma, Italy. Available at: <http://www.efsa.europa.eu/> and <https://doi.org/10.2903/j.efsa.2020.5943>.

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