

phases, the most hazards (16) were identified for slaughter without stunning. These included unsuitable restraint equipment and serious welfare issues arising from human error (eg incomplete severing of carotid arteries and dressing cattle alive). The authors acknowledge that due to the nature of the non-stun slaughter methods, some welfare consequences are inherent and unavoidable. They state “pre-cut stunning is the only preventative measure for the welfare consequences associated with cutting” (p 82). However, some corrective measures to mitigate additional suffering during non-stun slaughter are suggested, eg chest sticking and immediate post-cut stunning. Effective chest sticking, as recommended by the Humane Slaughter Association, reduces the risk of carotid occlusions, thus improving blood loss and reducing time until death compared to a ventral neck incision.

Overall, the new EFSA SO on the welfare of cattle at slaughter is a substantial document and is clearly the result of a considerable work effort. However, it must be noted there are some issues which should be addressed in future versions. For example, some of the science backing the animal-based measures is dated, eg it is stated that cattle only vocalise when in distress. The citations for this are approximately 20 years old and there are more recent scientific papers (Ede *et al* 2019; Green *et al* 2019) showing vocalisation in cattle is a complex topic, performed for a variety of reasons, and may be associated with both positive and negative valence. The scientific evidence relating to efficacy of captive-bolt stunning of water buffalo described in the last chapter of the SO is mis-cited. The findings on skull thickness and shot position reported are not found in Gregory (2009), but rather Gregory *et al* (2009). Also, some of the animal-based measures suggested in this SO, such as ‘pain face’ still require further validation, especially in a slaughter situation, before they can be used as reliable and valid welfare indicators.

A particularly glaring error is found in section 3.2.4 in which appropriate equipment for killing using free bullet firearms is described. What is presumably a typo lists suitable shotgun bores as 0.12, 0.16, 0.20 and 0.28 when in fact it should be 12, 16, 20 and 28 (no decimal!). This mistake would not go unnoticed by an experienced firearms operator and it should not lead to any mistakes in the field, but is a fundamental error which needs to be corrected.

In summary, the new EFSA report on the welfare of cattle at slaughter ties together information compiled during a scientific literature review and expert opinion. It offers valuable insight into the experiences of cattle during slaughter in 2020. Serious welfare issues were identified, particularly for cattle undergoing non-stun slaughter, for which corrective measures and mitigations are sorely needed. Although much of the content is not novel, it is important for these documents to be reviewed and re-written regularly in order to keep up-to-date with current slaughter practices. Future documents in this series will likely be of particular interest to those in the slaughter industry if novel technologies, such as Single Pulse Ultra-High Current (SPUC), are developed and validated.

EFSA Scientific Opinion on the Welfare of Cattle at Slaughter (2020). A4, 107 pages. Published by the EFSA and available at <https://www.efsa.europa.eu/en/efsajournal/pub/6275>.

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Pests, vermin, alien species...

The Wild Animal Welfare Committee (WAWC) is an independent group that provides advice and evidence on the welfare of free-living wild animals in the UK. Part of WAWC’s activities involves publishing ‘Topic Papers’ which seek to introduce a particular wild animal welfare issue with the aim of “stimulating comment, suggestions for additions and further discussion.” Topic Papers are brief and laid out in a similar format in which a summary is first given on the issue of concern, followed by greater detail about the concern itself and the species affected. Possible risk-mitigating actions are also considered, as well as recommendations for stakeholders.

The first Topic Paper in the series considered the welfare issues surrounding animal reintroductions, and the latest addition seeks to tackle: ‘Value-laden language and its consequences for wild animal welfare’.

WAWC raises the importance of considering the connotations of the words that are used when referring to free-living animals. Language can intentionally, or unintentionally, create and perpetuate a cultural norm which, in turn, leads to social acceptance. WAWC outlines the welfare consequences associated with value-laden words such as ‘pest’, ‘alien’, ‘quarry species’, and ‘game species’ when referring to wild animals (an extensive glossary is included covering these terms, amongst others).

It has been generally accepted for many years that words such as ‘pest’ or ‘vermin’ may be used when describing rats and mice, and consequently, these animals are commonly killed with relatively little evidence that a problem is present, or that other methods of control have failed. WAWC comments that:

“The fear and distress caused to animals in trapping and wildlife management operations may be considered to be less of an issue because language defines such wildlife as a species that could (or should) be controlled.”

WAWC recommend that stakeholders “Review the use of value-laden language in policy documents and legislation.” Although a shift in language takes time, understanding the power of words is important, and WAWC’s Topic Paper is a

timely addition that shows a modification in the language that is used when referring to wild animals is required.

Value-Laden Language and its Consequences for Wild Animal Welfare: Topic Paper No 2 (September 2020). A4, 4 pages. Published by the Wild Animal Welfare Committee and available at: <https://www.wawcommittee.org/resources>.

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