

Recommendation 3: To support low-throughput abattoirs to meet and build on legislative requirements for animal health and welfare

Recommendation 34: Additional research should be undertaken to determine the overall welfare implications of the use of captive-bolt as a stunning method for horned goats, de-horned goats, and polled goats, including the most effective style of equipment, shot positioning, charge and size of cartridge.

Recommendation 35: There should be further research to determine the efficacy of Single Pulse Ultra-High Current (SPUC) and electromagnetic (microwave) energy stunning.

Recommendation 36: Constant current electrical stunning systems with low stress restraint should be developed to improve the effectiveness of head-only simple stunning.

Recommendation 37: Research should be undertaken by government and industry to develop less aversive gas stunning methods with the aim of phasing out current aversive gas stunning methods for pigs.

Recommendation 38: The stunning of pigs using inert gases such as argon (or nitrogen), or gas mixtures containing up to 30% carbon dioxide in argon (or nitrogen) should be explored.

Recommendation 39: Consideration should be given to amending legislation to permit simple stunning by gas methods to encourage the use of less aversive gas methods and improve pig welfare at slaughter.

Recommendation 40: Until electrical-waterbath stunning is replaced with more effective methods, all of the UK regulations on the Welfare of Animals at the Time of Killing must specify that electrical-waterbath stunning must be carried out in accordance with the minimum currents laid down in Annex I of EC 1099/2009.

Recommendation 41: Electrical-waterbath stunning should be gradually phased out and the meat industry should move towards recoverable stunning methods that immediately and effectively stun birds of all sizes, strains, and ages, and remove the need for live shackling and inversion pre-slaughter.

Recommendation 42: There is an urgent need for research into the development of recoverable stunning methods that effectively stun birds of all sizes, strains, and ages, and remove the need for live shackling and inversion pre-slaughter.

Recommendation 43: Islamic scholars and Halal certification bodies should also be consulted to ascertain whether simple stunning by gas methods would be accepted in Halal production (ie. deliver a recoverable stun). If recoverable stunning via gas methods were considered suitable for Halal production, consideration should also be given to amending legislation to permit simple stunning by gas methods.

Recommendation 44: There should be further research into the following areas to inform the development of new electrical stunning methods for poultry:

Electrical pathways through birds in relation to system design and the requirements of an effective stun;

High frequency AC and pulsed DC should be assessed to determine the optimum combination of current and frequency to stun birds of all sizes, strains and ages effectively; and

Electrical stunning systems which address the concerns of variable current and reduce the need for inversion and live shackling.

Recommendation 45: There should be further research to determine at what point birds are

Recommendation 48: Veterinary surgeons should be able to explain the implications of permanently signing horses out of the food chain, and discuss all end-of-life options for horses with their clients, including the effectiveness of humane slaughter methods that are available for horses in UK abattoirs and carcase disposal.

Recommendation 49: The UK governments should include the stunning of farmed fish (including detailed requirements of key parameters), alongside general welfare protections at slaughter in UK Welfare of Animals at the Time of Killing regulations.

Recommendation 50: There should be further research to develop effective, humane and commercially viable methods of stunning for wild-caught fish.

Recommendation 51: Once effective, humane and commercially viable methods of stunning wild-caught fish are developed, the UK governments should include the stunning of wild-caught fish in commercial fisheries alongside general welfare protections at slaughter in UK Welfare of Animals at the Time of Killing regulations.

Recommendation 52: There should be further research into electrical stunning methods to determine the minimum effective parameters for different types and sizes of decapods.

Recommendation 53: There should be further research to develop effective, humane and commercially viable methods of stunning cephalopods.

Recommendation 54: Once effective, humane and commercially viable methods of stunning decapods and cephalopods are developed, the UK governments should include the stunning of commercially caught decapods and cephalopods alongside general welfare protections at slaughter, in UK Welfare of Animals at the Time of Killing regulations.

Recommendation 55: Schedule 1 of the UK's Welfare of Animals at the Time of Killing regulations should be amended to include rabbits in the prohibition of routine stunning of an animal with a non-mechanical percussive blow to the head.

Recommendation 56: There should be additional research to establish minimum effective parameters and indicators of consciousness for captive-bolt use in rabbits.

Non-stun slaughter, improved regulation, and acceptance of stunning

Recommendation 57: While our long-term aim is to move towards an end to non-stun, the UK governments should introduce a non-stun permit system to ensure that the number of animals slaughtered without prior stunning does not exceed the relevant demand of the UK's religious communities.

Recommendation 58: The export of meat from animals that have not been stunned before slaughter should be prohibited by law.

Recommendation 59: Recoverable stunning methods should be developed in consultation with Islamic scholars and Halal certification bodies to ensure that they meet Halal criteria and potentially increase the numbers of animals that are stunned before slaughter.

Recommendation 60: The veterinary profession should engage positively with all stakeholders, including Islamic scholars and Halal certification bodies, to provide evidence-based information on stunning methods and animal welfare, and promote the acceptability of stunning in Halal production.

Recommendation 61: The veterinary profession should work collaboratively with the meat

