

Study highlights link between poor welfare and meat quality

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A recent scientific study has shown that pre-stun shocks in commercial broiler processing significantly affect carcass and meat quality as well as bird welfare.

A report of a study into the incidence and effect of pre-stun shocks in a commercial broiler processing plant using an electrical waterbath stunning system, the most commonly used system in the UK, has been published in [Animal Welfare](#), the journal of the Universities Federation for Animal Welfare (UFAW).

The research was undertaken by Professor Toby Knowles and Steve Wotton from the University of Bristol's School of [Veterinary Sciences](#) and Muhammad Asif Rao, and was supported by a Dorothy Sidley Memorial Scholarship from the Humane Slaughter Association (HSA).

The study identified a significant level of pre-stun shocks, particularly in lighter, more active birds, correlated with a significant level of adverse effect on carcass and meat quality. Pre-stun shocks were also seen to be a contributor to the incidence of mis-stuns (by causing birds to 'fly' the waterbath).

The results of the study indicate not only a serious welfare problem but also a significant [financial burden](#) for producers of [broiler chickens](#) stunned using the electrical waterbath.

The report states "EC Regulation (1099/2009) stipulates...that for electrical waterbath stunning a key consideration is the prevention of

electrical shocks before stunning. The results reported here add very strong commercial and economic arguments to this legislative [welfare](#) requirement, entirely justifying any financial output that would be required to improve controlled entry of birds into a waterbath stunner... (pre-stun shocks) can be prevented by careful waterbath entry design and modification. It should be entirely possible to avoid (pre-stun shocks) in commercial processing plants and there is a strong economic reason to do so."

More information: Rao, M. et al. The effect of pre-stun shocks in electrical water-bath stunners on carcass and meat quality in broilers. *Animal Welfare*, Volume 22 Issue 1 February 2013.
www.ufaw.org.uk/documents/RAO.pdf

Provided by University of Bristol

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