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## On-farm culling methods used for pigs

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### Abstract

*The culling of injured and non-viable pigs (Sus scrofa) (neonate to breeding stock) is a routine and necessary procedure on most farms. Usually, pigs are culled using one of the following methods: blunt-force trauma (manual and mechanical), captive-bolt stunners, electrical stunning and electrocution or carbon dioxide. Manual blunt-force trauma is one of the most widely used methods due to its low or absent operational and investment costs. However, as a method, it has serious limitations, which include the risk of incomplete concussion, pain, and distress. Manual blunt-force trauma is also aesthetically unpleasant to operators and wider society. To address these issues there has been significant recent research into the development of alternatives to manual blunt-force trauma, these include: captive-bolt stunners, on-farm, gas-based controlled atmosphere systems, low atmospheric pressure systems and electrical stunning. Some of these are currently in commercial use while others are still in the developmental phase. This review brings together the relevant research in this field, evaluating the methods in terms of mechanism of action (mechanical and physiological), effectiveness and animal welfare.*

**Keywords:** animal welfare, culling, killing, neonate, pig, suffering