Determination of swine euthanasia criteria and analysis of barriers to euthanasia in the United States using expert opinion

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Abstract

Timely euthanasia on swine farms can help to reduce the incidence of poor welfare outcomes for compromised pigs (Sus scrofa) when recovery is prolonged or impossible. Timely euthanasia relies upon caretakers’ abilities to identify compromised pigs and administer euthanasia in various environments. To determine appropriate timelines and most common reasons for on-farm euthanasia, an online survey was conducted with members of the United States National Pork Board. Additionally, two focus groups were conducted to investigate barriers and possible solutions associated with timely euthanasia. Clinical signs related to poor locomotion (57.6%), prolapses (47.2%), and hernias (43.5%) were identified by the greatest percentage of respondents who believed immediate euthanasia was warranted, while a greater percentage of respondents believed euthanasia was not warranted for clinical signs related to the integumentary (90.3%), reproductive (75.8%), and respiratory (67.5%) systems. The most common reason for euthanasia was poor body condition in pre-weaned piglets and non-ambulatory or severely weak for both breeding and non-breeding pigs. In the focus groups, two themes were identified when evaluating barriers to euthanasia on-farm, and participants agreed that making timely decisions relies upon several dimensions of risk analysis. An unsupportive farm culture was identified as a critical barrier to timely euthanasia decision-making, suggesting that caretaker characteristics may play a role in the success of any timely euthanasia programme. This present study has highlighted areas for future research and demonstrated the need to extend educational efforts both to swine industry leaders and producers to improve overall animal welfare by ensuring timely euthanasia in swine.

Keywords: animal welfare, decision-making, education, euthanasia, swine, timeliness

Introduction

Performing euthanasia may be necessary on swine (Sus scrofa) farms for severely ill or injured pigs. Euthanasia, derived from the Greek terms ‘eu’ and ‘thanatos,’ meaning ‘good’ and ‘death,’ respectively (American Veterinary Medical Association [AVMA] 2013), is conducted to reduce the incidence of poor animal welfare outcomes when, for example, a humane death is a better alternative for a pig than a continued life of unremitting pain and suffering. As with all livestock production systems, it is inevitable that a proportion of pigs on-farm will become injured or ill to the extent that recovery is unlikely, impossible, or would require invasive and/or prolonged treatment. In these cases, timely euthanasia, considered as euthanasia performed when recovery is unlikely or when the animal has demonstrated no signs of improvement, is warranted (National Pork Board [NPB] 2008; NPB & American Association of Swine Veterinarians [AASV] 2008). Making timely euthanasia decisions is also warranted as a means to eliminate pain and suffering associated with decline in health (Fraser et al 2013) and physiological distress (Morton 1998).

The act of performing euthanasia is a multi-step process requiring those working with pigs to have the observational abilities to identify compromised animals and the technical skills and willingness to humanely terminate these animals. In the United States (US), swine farm caretakers are often responsible for making independent decisions regarding if and when to administer treatment, provide supportive care and, in some situations, administer euthanasia on-farm (Morrow et al 2006; Turner & Doonan 2010; Gemus- Benjamin et al 2015). These decisions are often based on the farm’s established procedures and policies, which may include farm-developed standards (Morrow et al 2006),