







Special Issue Reprint

# Anaesthesia and Pain Management in Large Animals

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This reprint showcases recent advances in understanding concepts related to anaesthesia and analgesia in large, or production animal species. The scope of this reprint was originally broad with invitations to submit manuscripts related to both anaesthesia and analgesia in a range of species that are usually bred for food, but who may exist in a production context (small, large, intensive or extensive), in biomedical research, in agricultural research, in zoo collections, or as pets. The result is impressive with original research describing the pharmacokinetics of novel analgesic therapies in donkeys, and three separate manuscripts focused on nociception in chicken embryos. These three articles compartmentalise the criteria for nociception by evaluating the cardiovascular responses to a noxious stimulus 16; describing neuronal from embryonic day responses, assessed electroencephalography, suggesting that developmental day 13 is the earliest embryonic stage able to receive and process nociceptive stimuli; and recording movement before and after a noxious stimulus from embryonic day 15. The reprint also includes review papers on sheep, goats, pigs and cattle. These review papers highlight the status quo, identifying the pathways to improving pain assessment and treatment of sheep, goats and cattle along with progress in the management of goat kids undergoing disbudding.





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