

Pain in Farm Animals

*An investigation into how bad it is and what can be done about it
by Jeffery Rau*

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The Colonel K.L. Campbell Centre for the Study of Animal Welfare at the University of Guelph played host to the Annual Basil Capes Memorial Lecture on Animal Welfare on March 9, 2004. The keynote speaker for the event was Dr. Vince Malony. A veterinarian and scientist by training, Dr. Malony is a Professor of Neurophysiology at the Royal School of Veterinary Studies at the University of Edinburgh.

With the livestock and poultry industries coming under an increasing amount of public scrutiny with respect to animal welfare, the scientific investigation into pain and pain management in farm animals is a hot area of research. Malony answered the question “why assess pain?” by suggesting that we must, in order to make judgments of the significance of the pain to the animal(s), and therefore make a more accurate assessment of their welfare. Furthermore, Malony sees value in pain assessment when making decisions to treat or not to treat animals; and it can be used to prevent the recurrence of painful lesions by educating the animal’s keeper about procedures that may cause (unnecessary) pain. Malony and his team of scientists used castration as a model for their quantitative analysis of physiological and behavioural changes that are indicative of pain and the severity of its expression. Given the nature of the experimentation required to assess pain, Malony made special note of the ethical conflict that comes with having to inflict pain in order to study and understand it. The scientists chose castration as the model because it is a procedure that is commonly performed on most farm animal species, and it is also commonly performed without the use of a pain management protocol such as anesthetic or analgesic use.

Dr Malony presented scientific evidence from a series of studies that anesthetic use in castration procedures significantly reduces the severity of pain expression in lambs. He tested a mechanical (nerve crushing) anesthetic technique using a Burdizzo clamp, against jet injection of anesthetic. Both methods were effective in reducing pain indices in castrated lambs. In a field test, Malony’s research group found that British shepherds who volunteered to implement pain management protocols were able to achieve the same results in alleviating pain in lambs as found under more controlled laboratory conditions. This information is encouraging, in that it shows that pain management techniques can be applied under practical circumstances.

Malony’s research shows that assessments of pain can be done, with a high level of accuracy, in order to discriminate between various levels of pain using relatively few indices. It can also be used to differentiate between the relative pain indices of two different methods of a procedure such as castration. Malony’s group suggests that this information should be used to develop new and more humane methods of addressing current needs such as castration of male livestock. Although the scientist suggested that pain assessment can be used to provide evidence to permit the development and implementation of new regulations, he cautioned that the proper interpretation of pain assessment information is key. His research found that lambs less than one week of age exhibit just as much pain as older lambs. He expected that this information would be used to dispel the common assumption in the livestock industries that younger animals

experience less pain than older animals when subjected to similar procedures. Furthermore, he anticipated that his findings would be used as evidence to support the implementation of pain management protocols for animals subjected to painful procedures at any age. Unfortunately the British sheep industry used the information as justification for increasing the maximum age for castration (previously 7 days of age).

Malony plans on using his research to make recommendations to the British government as they develop and implement a new Animal Welfare Act. Furthermore, he called on the veterinary profession to take on a greater amount of responsibility with respect to assessing and alleviating pain in farm animals, and recommends that effective anesthesia and analgesia should be used for all methods of castration. Dr. Malony's group has developed a comprehensive and interactive website, "Guidelines for the recognition and assessment of animal pain", that can be accessed using the following url: www.vet.ed.ac.uk/animalpain/