

Alleviating pain in cattle suffering from lameness and following castration, dehorning

August 28 2014, by Greg Tammen



A patent was recently issued for Kansas State University created technology that improves the health and welfare of beef cattle suffering from lameness as well as following castration and dehorning.

A U.S. patent was recently awarded for technology created by researchers at Kansas State University that improves the health and welfare of beef cattle and other ruminant animals suffering from lameness and following castration, dehorning and other painful but necessary management procedures.

U.S. Patent No. 8,791,105, "Methods for Alleviating Chronic Pain and Improving Performance of Cattle Undergoing Dehorning or Castration," was awarded to the Kansas State University Research Foundation, a nonprofit corporation responsible for managing technology transfer activities at the university.

The patent is for research conducted while at Kansas State University by former faculty member Hans Coetzee, now a professor of clinical pharmacology at Iowa State University, and Butch Kukanich, associate professor of anatomy and physiology at Kansas State University.

The patent covers administering meloxicam alone or administering a combination of meloxicam and gabapentin to help alleviate acute and [chronic pain](#) and improve the performance of cattle. Researchers found that combinations of meloxicam and gabapentin improved the welfare of cattle by reducing the severity of lameness. Meloxicam alone improved weight gain after dehorning and reduced the incidence of bovine respiratory disease after castration.

"Once meloxicam was orally administered to [beef cattle](#) prior to these common procedures, the cattle gained more weight and had slower incidence of [bovine respiratory disease](#) because it allowed them to be more comfortable and less stressed," Kukanich said.

A significant benefit of this patented technology is that it reduces reliance on antibiotics to treat and control diseases in [cattle](#). This reduces the risk of antibiotic resistance selection and has positive implications for both human and animal health.

The [patent](#) is available to license.

Provided by Kansas State University

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