

ALBERTA LAMB PRODUCERS AWARDED \$399,000 FROM RESEARCH DRIVEN AGRICULTURE RESEARCH (RDAR) TO SUPPORT THE ADAPTATION AND DEVELOPMENT OF THE ANESTHETIC RELEASING ELASTRATOR BAND FOR USE IN THE CANADIAN LAMB INDUSTRY

AIRDRIE, ALBERTA, June 24, 2022

Alberta Lamb Producers (ALP) today announced that it has recently been awarded \$399,000 from Research Driven Agriculture Research (RDAR) to investigate the adaptation of a novel anesthetic delivering elastration ligation band, developed by Chinook Contract Research Inc. (CCR) of Calgary, Alberta, for use in the Canadian lamb industry.

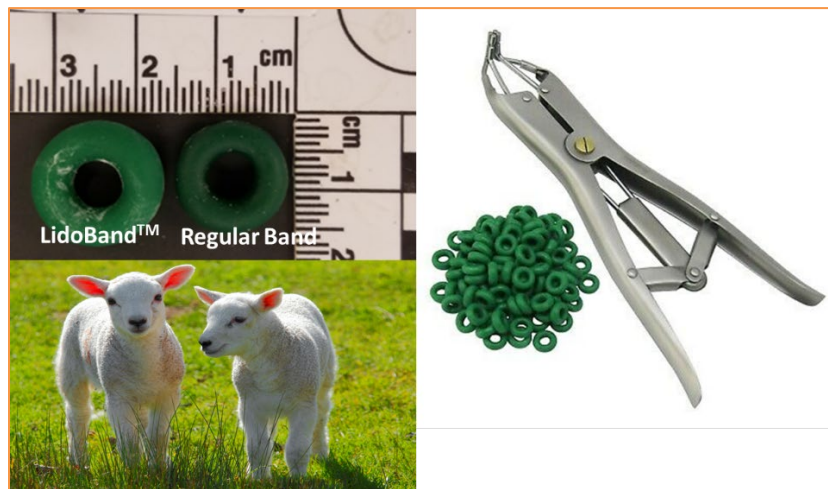


Image caption: Picture of the LidoBand™ lidocaine loaded elastrator band compared to a standard elastrator band in use today.

The LidoBand™ can be used with all current elastrator tools. It has been designed to deliver a clinically relevant therapeutic dose of local anesthetic (lidocaine) for the duration of its application(s). CCR has partnered with Alberta Veterinary Laboratories/Solvat (AVL/Solvat) of Calgary Alberta to manufacture the device in Alberta. Studies are in progress to register this device for sale in Canada with a local anesthesia label claim for use in cattle. This product was developed at the request of Alberta's beef cattle industry to provide an inexpensive and efficient way to deliver anesthesia during castration.

The purpose of this funding request is to adapt this novel made-in-Alberta welfare technology for use in Alberta's lamb industry for welfare-friendly tail docking and castration applications.



Ram lambs are normally castrated for management reasons. Tail docking in sheep is done for health and hygiene reasons, to reduce the risk of flystrike and to decrease dag (manure build up) on a docked animal, thereby helping to avoid contact of the meat with bacteria at processing. All methods of castration and tail docking at any age may cause short-term and long-term pain.

Drugs effective for pain mitigation in food animals are available in Canada, but their use in lambs constitutes an extra-label drug use and these drugs must be prescribed and dispensed by a veterinarian. Short term pain mitigation can be achieved by the use of an injectable local anesthetic and post-operative analgesia can be achieved when a non-steroidal anti-inflammatory drug (NSAID) is administered at the time of the procedure. However, there are a number of challenges in applying anesthesia and analgesia to large numbers of animals in field situations, including the administration of local anesthesia to lambs in medium to large flocks, the difficulty of using current drug formulations, and the reluctance of veterinarians to dispense large volumes of drugs to farmers for extra-label use.

Notwithstanding these concerns, pain relief reduces the impact of castration on suffering animals and should be applied whenever it is safe and effective to do so. Alberta Lamb Producers is keen to work with all relevant stakeholders to address the challenges faced by the industry in applying long term pain relief to large numbers of animals in field situations.

The development of the LidoBand™ anesthetic delivering elastration ligation band is chronicled in the peer reviewed journal *Animals 2020*.¹ The LidoBand™ patent has been granted in Canada (CA 3,072,762), and CCR and AVL/Solvat are currently working with the Veterinary Drug Directorate to develop studies to register this device for sale in Canada with a local anesthesia label claim for use in cattle and sheep.

The LidoBand™ technology has the advantage over other pain administration routes in that the continual release provides pain mitigation for the entire banding process. All alternative pain mitigation strategies only last during the acute administration of the agent. Because of this novel attribute, this technology has the potential to become the standard of care during painful elastration procedures. For reference, globally over one billion farm animals undergo some form of castration, dehorning, or tail docking annually².

¹ Saville, J. W., Ross, J. A., Trefz, T., Schatz, C., Matheson-Bird, H., Ralston, B., Granot, O., Schmid, K., Terry, R., Allan, N.D., Wulff, J.E., Olson, M. (2020). Development and Field Validation of Lidocaine-Loaded Castration Bands for Bovine Pain Mitigation. *Animals*, 10(12), 1-16. <https://doi.org/10.3390/ani10122363>

² FOA. (2017, Dec 1). *The future of food and agriculture: trends and challenges*. Retrieved March 28, 2021, from FAO.org: <http://www.fao.org/3/i6583e/i6583e.pdf>

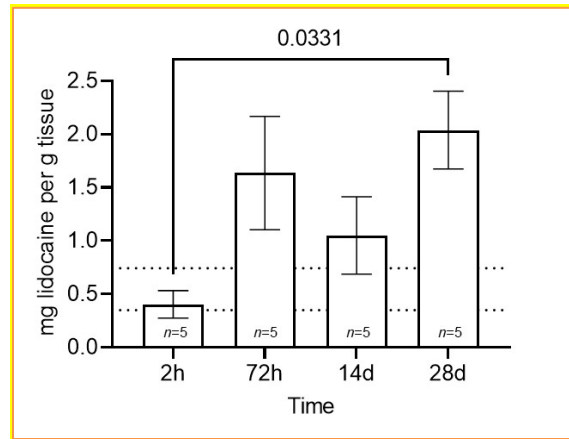


Image caption: Beef cattle experimental data demonstrating tissue lidocaine levels for biopsies taken at 2 hours, 72 hours, 14 days, or 28 days after banding. Biopsies were taken from tissue immediately in contact with the LidoBand™ on the right side of the scrotum. Tukey's multiple comparisons test yielded the P-values indicated on each graph. **NOTE:** For reference, the dotted lines denote the 95% confidence interval of the Effective Concentration 50 (EC_{50}) for injected lidocaine.

This initiative (project) was made possible from funding administered by [Results Driven Agriculture Research](#) (RDAR) and from the [Canadian Agricultural Partnership](#) (CAP), a five-year, \$3 billion investment by federal, provincial and territorial governments.

About CCR: Chinook Contract Research Inc. (CCR) is one of few independent contract research organizations focused on supporting large animal drug trials in the world and the only one capable of delivering studies of this nature under Good Laboratory Practice (GLP) in Western Canada. CCR is a small Canadian Contract Research Organization specializing in providing antimicrobial claims support to medical device developers and providing large animal field trial services for pharmaceutical manufacturers in the food animal production chain. Recently much of this work has been focused on the development of several leading pain control and nutritional supplement products. CCR is an innovative company that specializes in medical device, antimicrobial and veterinary pharmaceutical research and development.



For more information, please visit www.ccr01.com or contact:

Nick Allan, President, Chinook Contract Research Inc.

403-714-7922

nick.allan@ccr01.com

Alberta Lamb Producers:
97 East Lake Ramp NE, Airdrie, AB T4A 0C3
Tel: 403-948-8533
Fax: 403-912-1455
www.ablamb.ca



About AVL/Solvvet: Utilizing their current position in the livestock pharmaceutical manufacturing and distribution industry, this research has the potential to expand AVL's listing to include pain mitigation at affordable prices for livestock producers across Canada. AVL will be involved in project conceptualization, planning, execution, dissemination of project deliverables and results, manufacturing, and distribution of the eventual product and ongoing technical support to livestock producers by AVL's field veterinarians. AVL has significant experience and success in collaboration with various funders (Provincial Government (ALMA, AB Agriculture), Federal Government (Canadian Agricultural Partnership), Industry (BCRC)) to develop livestock products that are currently on the market to address producers' needs (i.e., oral pain medication, nutritional supplements, oral electrolytes). AVL has the capacity to take this new product to market once it is sufficiently tested and proven, leading to considerable economic impact for the company and the expansion of livestock pharmaceutical manufacturing in AB and Canada. AVL employs over 50 highly trained technical staff, and the addition of this product line could substantially increase the jobs required, thereby stimulating the local economy in a sustainable manner.



For more information, please visit www.avetlabs.com or contact:

Dr. Merle Olson, President, Alberta Veterinary Laboratories Ltd./Solvvet
403-803-0893
merle.olson@avetlabs.com

About ALP: Since 1972, Alberta Lamb Producers (ALP) proudly works for every producer in Alberta to enhance advocacy, education, communication, research, and community-building for a stronger sheep industry. ALP has a track record of stakeholder engagement and has the financial capabilities to provide in kind stakeholder engagement support of the collaborative research agreement.



For more information, please visit www.alamb.ca or contact:

Ashley Scott, Executive Director, Alberta Lamb Producers
403-948-8533
info@ablamb.ca

About RDAR: RDAR's (Results Driven Agriculture Research) mandate is to target strategic investments in producer-led, results-driven agriculture research to power the competitiveness, profitability, productivity and sustainability of Agriculture in Alberta. As a not-for-profit corporation, RDAR's funding comes from the Government of Alberta, the Government of Canada, and Alberta's Government through the Canadian Agricultural Partnership program. rdar.ca

Alberta Lamb Producers:
97 East Lake Ramp NE, Airdrie, AB T4A 0C3
Tel: 403-948-8533
Fax: 403-912-1455
www.ablamb.ca



For more information, please visit www.rdar.ca or contact:

Clinton Dobson, Research Director, RDAR • Results Driven Agriculture Research
780-860-2146
clinton.dobson@rdar.ca

Janada Hawthorne, Communications Lead, RDAR • Results Driven Agriculture Research
P: 780-903-2734
janada.hawthorne@rdar.ca

About the Canadian Agricultural Partnership: The Canadian Agricultural Partnership is a five-year, \$3 billion commitment by Canada’s federal, provincial, and territorial governments that supports Canada’s agriculture, agri-food and agri-products sectors. This includes a \$2 billion commitment that is cost-shared 60 per cent federally and 40 per cent provincially/territorially for programs that are designed and delivered by provinces and territories.



Alberta Lamb Producers:
97 East Lake Ramp NE, Airdrie, AB T4A 0C3
Tel: 403-948-8533
Fax: 403-912-1455
www.ablamb.ca