

Alberta Lamb Supply Chain Research Projects

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Project # / Funding	Project Title	Description / Outcome
2003D931N DLFOA Industry cash / in-kind	Prescription Sheep Grazing in Alberta	This project is testing the feasibility and economics of using sheep to graze right-of-ways for the purposes of vegetation control. The project will establish a base of knowledge, standards and best practices for prescription grazing and provide an alternative to the industries using right-of-ways. This practice has the potential to provide agricultural producers with income while providing a valuable service to right-of-way lessees.
2004D958D DLFOA AFC-CARD Industry cash / in-kind	Alberta Scrapie Surveillance and Genotyping Program	The program benefits flock owners by gaining confidential test results that enable producers to make appropriate decisions as it indicates the health status of the tested animal as well as the entire flock. The survey will provide concrete scientific data that will be placed into a provincial database that may be used as a marketing tool to selling provincial stock to sheep importers who are looking for flocks with minimal levels of Scrapie or Scrapie resistant stock. In which will enable Canadian sheep producers to continue access to the United States lamb market.
2005D993D DLFOA Industry cash / in-kind	Sheep Inter-provincial Lamb Market Development Program	This study is seeking information and consensus about the marketing problem, seek solutions and determine the willingness of stakeholders to use a new marketing system. This sheep oriented project could be used to propose a more efficient central marketing structure for other diversified livestock that could encourage producers to grow a higher quality animal to meet a more competitive market that pays a more competitive price.
2005D978D DLFOA AFC- ACAAF SK Ag&Food Industry cash / in-kind	Lakeland Carcass Sire Project	This 'Building Better Lamb' Program project is focused on improving product quality and increasing value. In addition the project has built a collaborative alliance across the western sheep industry supply chain that includes consumer markets, industry suppliers, processors, producers, industry organizations, education institutions, and government consultants to address a barrier to sustainable growth – consistent high quality lamb. Ultimately, working together to produce more high quality lambs will increase returns to producers and enable increased processing efficiencies. Over the three years, the project team has also worked with Lakeland College to establish a high level of flock management and student training. Production issues have arisen which, in turn have generated information on improving efficiencies for the lamb supply chain. The opportunity to use RF identifiers supplied by Allflex Canada provides hands-on experience in using new technology (CSIP approved tags, readers, scale readers and software) available to Canadian producers. The growing high value lamb market in Canada demands a quality product. If Canadian producers cannot supply that quality product, imports will. This project is hopefully a starting point for the

		Canadian industry and by providing data for selection of terminal sire breeds will lead to improved carcass quality, more uniform standards and increased consistency of lambs.
2006D841D DLFOA AAFC Lacombe Meat Research Centre Industry cash / in-kind	Lakeland Carcass Sire Project - Lamb Sensory Testing	<p>The project is an add-on project to 2005D978D: Lamb Carcass Sire Project Lacombe Sensory Trial was undertaken to ensure the assumptions of meat quality related to sire breeds, and existing lamb carcass and grading standards align with consumer product quality criteria. In partnership with Lacombe Meat Research Centre this project established quality benchmarks using human sensory taste panels to rank product characteristics.</p> <p>Based on the results of this study there are no differences in eating quality by gender or amongst progeny from these five terminal sires within the hot carcass weight range of 22-27 kg (50-60 lb.). This re-affirms other studies and provides a base set of consumer information on the five breeds being studied in these trials.</p> <p>Certain terminal sire breeds may be suited to different production systems for such traits as rate of gain, carcass weight, and level of fat cover without detriment to sensory traits. However, if the trend towards marketing very different - smaller or larger leaner carcasses – continues, more research will be required to determine the effect on lamb eating quality. The numbers of lambs studied in this first year did show some differences between breeds, sexes and weights but the differences were insignificant. If the numbers were larger and the weight ranges more targeted more differences might show.</p> <p>This project is being considered for a second year using 2008 lambs, if funding, staff and facilities are available. A second year trial would: narrow weight range target, look at complete carcass cutouts, the ‘gold standard’ on carcass composition on a subset group, look more closely at differences in moisture and muscle fibre type (an overall estimation of eating quality that can vary between breeds), establish base benchmarks for CLA (conjugated linoleic acid) levels in western lamb – a growing consumer health issue in red meat consumption</p>
2006D850D	Building Better Lambs Year 3 Lakeland Carcass Sire Project	Year 3 continuation of the Lakeland Carcass Sire project was undertaken to ensure adequate sire breed data based on a large sample of lambs.
AAF T. I. # 1.2.6 AAF Industry cash / in-kind	Lamb Traceability Pilot Project	<p>Traceability across the food supply chain is becoming a global market requirement. It is also essential in emergency preparation and planning whether the event is a disease outbreak, a product recall, or a weather disaster. Traceability alone cannot guarantee quality and safety of the food supply but can verify it by making linkages between primary production and the rest of the food supply chain.</p> <p>Traceability is based on premise and animal identification as well as animal and product movement. Technological advances in Radio Frequency Identification systems are making a difference in the effectiveness and efficiency of building linkages.</p>

		<p>In primary production in Canada there is no ‘hands on’ experience with the technology, there are many components and not many complete, functioning systems. Producers cannot go out and buy a system, take it out of the box and be up and running. There are gaps on farm and between farm and processor. Pilot projects looking at full systems from farm to consumer are being undertaken in Alberta cattle, hog, bison and sheep sectors.</p> <p>This lamb pilot project focuses on evaluating a workable on-farm RF ID system. Different systems in use in sheep production in different countries were reviewed, as was the system of RF ID being used for tracking lambs in the Lakeland Carcass Sire project. A system from a pilot project in the UK was selected to evaluate and compare. In order to collect enough data in a short time frame, a farm cooperator was selected who runs over 1,000 ewes on a multiple lambing season system and has extensive production and financial paper records.</p> <p>Project goals are to determine on-farm practicality; to develop links with processor which will return carcass data to producer; assess costs and benefits; to provide working experience and to develop local expertise.</p> <p>An effective national traceability program requires an efficient, cost effective on-farm component.</p>
AAF-FSD	Alberta Scrapie Surveillance	<p>The program objective is to determine the incidence and geographical localization of scrapie in Alberta’s sheep & goats, through submission of heads and carcasses by producers. The program will contribute to the elimination of scrapie from Alberta’s small ruminants and help to ensure the quality and safety of the Canadian sheep and goat industries. When producers deliver whole carcasses, full post mortem examinations will verify the high-risk status of the submission contributing to the production of internationally valid and credible scrapie surveillance. In addition, studies of sheep/goat mortality and post-mortem study methods will be continued concurrently.</p>

Funding:

- AAF-FSD - Alberta Agriculture & Food – Food Safety Division
- AAF-TI - Alberta Agriculture & Food - Traceability Initiative
- ACAAF - Advancing Canadian Agriculture & Agri-Food (AFC)
- AFC - Ag & Food Council
- CARD - Canadian Adaptation & Rural Development Fund (AFC)
- DLFOA - Diversified Livestock Fund of Alberta
- SAF - Saskatchewan Agriculture and Food - Agriculture Development Fund