



CENTRE OF EXCELLENCE FOR
GOAT RESEARCH
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News Release

New research on genetic resistance and susceptibility to scrapie in live goats shows promise *Genetic survey of Ontario goat herds to determine prevalence of resistance and susceptibility*

Guelph, Ontario November 17, 2015 –Ontario’s goat industry has received funding to test goat breeds and herds for genotypes that may confer resistance and susceptibility to scrapie, a slow-moving but fatal central nervous system disease in goats and sheep that limits productivity and poses a severe risk to the viability of the industry.

This project was made possible thanks to newly completed research on genetic resistance and susceptibility to scrapie in goats by Dr. Bradley White at Trent University. Analysis of samples from infected and unaffected goats in two scrapie outbreaks in Ontario last year led the researchers to identify specific genotypes in those herds that were associated with scrapie resistance and susceptibility.

“The future ability to genotype live goats for scrapie resistance and susceptibility would be a significant development,” says dairy goat farmer and Ontario Goat President Anton Slingerland. “As a farmer, I could use genetics to select goats that are scrapie resistant, potentially limiting the financial risk an outbreak would pose to my business and to the larger Ontario goat industry. And down the road, should this research gain international acceptance, this could also see the possible opening of potential export markets for Ontario goat genetics and changes to how outbreaks are controlled.”

Ontario Goat will be working with Trent University and the Centre of Excellence for Goat Research and Innovation on the multi-year project, which will also involve developing herd-specific scrapie control strategies for goats that includes breeding plans for increasing the number of potentially scrapie-resistant animals, and improving awareness of the disease in the industry.

“This funding for the genetic survey of Ontario goats will be a major step towards the creation of a strategy for developing scrapie-resistant herds in Ontario and demonstrates the practical value of university-industry partnerships,” said Dr. White, Director of the Natural Resources DNA Profiling and Forensic Science Centre at Trent University.

It may be possible in some herds to reduce the incidence of potentially susceptible animals in only one or two generations, which would make breeding strategies a cost-effective solution for producers to protect themselves against the risk of scrapie. No treatment or vaccine is currently available for scrapie, which can be spread by positive animals that don’t show any symptoms of the disease.

“Scrapie poses a huge risk to Ontario’s goat industry, so producers need tools to help them identify and control scrapie susceptibility to mitigate their risk of loss,” adds Jennifer Haley, Chair of the Centre of Excellence and Executive Director with Ontario Goat. “The key to success in this project will be proper

record-keeping and traceability so that we're maintaining desirable production traits while reducing possible disease susceptibility."

Researchers will work with randomly selected meat and dairy goat producers to genotype up to 1,500 Ontario goats. Each herd will receive a report on their individual results, and overall project outcomes will be summarized in a final report, newsletter article, and shared at workshops.

This project is supported in part through *Growing Forward 2 (GF2)*, a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists in the delivery of *GF2* programs in Ontario.

Ontario Goat represents Ontario's milk, meat and fibre goat farmers with a united voice and is dedicated to enhancing the goat industry through education, collaboration, innovation and strategic alliances. www.ontariogoat.ca

The Centre of Excellence for Goat Research and Innovation is the collective initiative of the Greater Peterborough Innovation Cluster, Ontario Goat, Trent University, the University of Guelph, and the Ontario Dairy Goat Co-operative. Initial funding for the Centre of Excellence for Goat Research and Innovation has been provided by the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) as well as the University of Guelph and Trent University. www.goatresearch.com

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