

Controlling parasitic worms with genetic selection

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Helminths are gastrointestinal parasitic worms that have become a major concern and source of economic loss for sheep producers around the world. A new article published today in the *Canadian Journal of Animal Science* reviews current research into a promising alternative to control the disease.

According to the paper, the sheep industry has become dependent on drugs to control these parasites. Over time these drugs are less effective as helminths become resistant to the drugs. Therefore, there is pressure on the industry to find alternate strategies. One such strategy is genetic selection. Certain breeds of sheep are more immune to helminths than the conventional breeds used in Canada, and a breeding program that aims to pass on this resistance trait could help to control the disease and ultimately limit production losses attributed to helminth infection.

A key advantage to applying [genetic selection](#) rather than chemicals to get rid of the worms is that it is permanent and it could help reduce the potential risk of chemical residues in products made for human consumption. This is key for the public as well as the sheep industry.

"With today's developments in genomic selection, breeding [sheep](#) for helminth resistance can be achieved efficiently, without adversely affecting other economically important traits," explained Niel Karrow, lead author of the paper, a researcher at the Centre for Genetic Improvement of Livestock at the University of Guelph.

"We believe that breeding for helminth resistance, when combined with good biosecurity and pasture management practises, will greatly help to control against production losses due to [gastrointestinal parasites](#)."

More information: The article "Genetics of helminth resistance in sheep" was published e-first today in the *Canadian Journal of Animal Science*. [DOI: 10.4141/CJAS2013-036](https://doi.org/10.4141/CJAS2013-036)

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