

TIMELY Innovation

New Method for DNA Collection Enables Quicker, Easier and More Economical Genetic Testing to Facilitate Breed Improvements

“Performagene•LIVESTOCK as a DNA sampling method allows me to collect from my cattle significantly faster than taking hair samples. Time is critical to every element of farming and Performagene•LIVESTOCK enables easier genetic testing of my herd by decreasing the complexity of sample collection. This DNA collection method is extremely easy and I would recommend to any producer to try this method.”

Louis Patenaude
La Ferme Gillette Inc.

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Whether making nutritional decisions for their herd, conducting research to learn more about how genetics can improve the herd, or managing more with less, today's producers are getting busier every day. In their increasingly competitive and complex world, producers are looking for an edge. If there are tools available to help them improve the performance traits of their herd or to increase productivity, they are willing to give them a try.

DNA Genotek, Inc., well known for DNA collection, stabilization and preparation products for humans and lab or companion animals, recently unveiled a new method for collecting DNA from livestock – with nasal samples. Performagene™•LIVESTOCK, a simple and easy-to-use DNA collection device, provides high quality and high quantity samples and is more reliable than current methods.

A December 2009 survey of producers shows that while blood or hair follicles are currently being used for DNA sampling, producers are open to new methods that are easier, more reliable or more cost-effective. DNA Genotek's Performagene•LIVESTOCK is hitting the mark. Survey responses are from dairy and beef farms in Ontario, Canada with herd sizes ranging from 45 to 750 cattle.

“Collecting and extracting high quality DNA from livestock is not easy, yet it is essential as the industry relies more on genomic testing for performance traits and parentage verification. The key to widespread adoption of genomic testing is the availability of a reliable, easy and cost effective means of collecting the sample. Early indications from field trials show the Performagene•LIVESTOCK nasal DNA collection kit offers benefits that address some of these challenges.”

Jay Shannon, Breed Improvement
Manager, Holstein Canada.



Livestock DNA Collection Today

Parentage verification was cited as the primary reason for collecting a sample for DNA analysis by 100% of the producers. However, producers also indicated they collect samples for genetic identification of embryo donor cows and/or artificial insemination sires.

DNA Sampling Method

According to the survey, 70% of the respondents collect tail hair follicles, 30% collect both blood and tail hair and none were using ear tags for DNA collection. When asked about their biggest challenges in obtaining DNA samples today, 41% of producers emphasized the difficulty associated with collecting a clean sample with sufficient quantity of DNA. 12% cited the frequency of failed results in the lab due to a poor quality sample and 18% noted the time required to collect the sample.

Performagene•LIVESTOCK/Nasal Samples vs. Blood and Tail Hair

94% of those surveyed indicated that ease-of-use was the number one benefit associated with DNA Genotek's Performagene•LIVESTOCK product. 82% found the collection process quicker compared to their current method. Speed of collection and simplicity of the collection process were the most preferred features of the collection kit.

Preferred Method for Sampling from Large Herd

When asked what method producers would prefer if they had to sample a large number of animals, 88% stated they would choose Performagene•LIVESTOCK's nasal samples. The second most preferred method was tail hair but it lagged significantly at 12%. None of the participants opted for blood or ear punch as their preferred method.

Would Producers Switch to Performagene•LIVESTOCK?

A resounding 94% of those surveyed stated they would switch to Performagene•LIVESTOCK for their DNA collection.

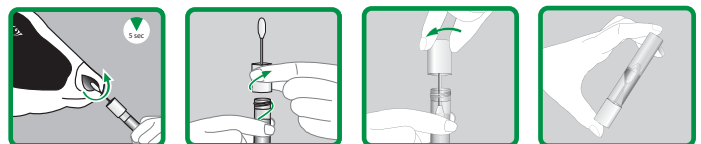
The Impact goes Further

There are areas where the economic health of a farm can be improved but which may not be apparent when looking at the bottom line. Examples include the time saved for the initial sample collection and by never having to re-collect tail hair samples (which are prone to contamination and sample degradation); this can be as good as money in the bank.

"This survey tells us that the most important part of the whole process is to understand how much time it takes to collect the DNA samples," said Ian Curry, president and CEO, DNA Genotek, Inc. "Producers want to do everything they can to collect the DNA without unnecessary investment of extra effort. As we develop our products for the livestock industry, we maximize the efficiency and ease-of-use for both the producers and the labs which process the samples."

So why is DNA Genotek so focused on ease of DNA collection? Curry stated: "By offering a product that provides cost effective sample collection, reliability and ease-of-use, we have the opportunity to improve performance with a single collection, while also saving labour time and effort. And that could ultimately benefit the producers' bottom line."

Material compiled by DNA Genotek, Inc.
Performagene is a trademark of DNA Genotek, Inc.



Collection Device



Ready for processing



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