

LIVESTOCK

■ BIOSECURITY

New biosecurity management system uses facial recognition technology

Merger between Canadian, U.S. start-ups offers improved controlled access for hog and poultry producers



Protocol uses 3D facial recognition to control access to livestock production units. PHOTO: COURTESY FARM HEALTH GUARDIAN

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A controlled-access biosecurity system using human facial recognition is now part of Guelph-based Farm Health Guardian, following a merger with Nebraska-based NoveTech.

The merger, announced June 5, allows Farm Health Guardian to expand its offering to hog farms in Canada and the U.S. that already use the company's system for tracking and recording vehicle movements in and out of hog operations.

► WHY IT MATTERS

The merger allows Ontario start-up Farm Health Guardian to add facial recognition to its existing vehicle tracking expertise.

Farm Health Guardian CEO Rob Hannam said he and his team "had known of (Omaha-based NoveTech) for years because we operate in the same space, and we were aware of their work.

"But it wasn't until earlier this year that we came in contact with them and started talking about how we could work together."

The two companies are merging under the Farm Health Guardian name. The initial product tracks and records transport vehicles onto and off farms, and will remain branded as Farm Health Guardian.

The product now offered by NoveTech, which focuses on controlled access by personnel into production units, will continue to be branded as Protocol.

Farm Health Guardian uses GPS technology to assure hog producers that vehicles entering

their farms are following all disease prevention protocols. This applies to livestock transporters, feed delivery vehicles, manure handling equipment and others.

"Did they come and go in the correct order, were they washed at the correct time, did they adhere to the correct downtime that they're supposed to follow," Hannam explained about the scope of the system's tracking capabilities.

"This all contributes to helping the producer know their disease prevention protocol is being followed."

Tracking and record-keeping are accomplished through GPS technology, using either the existing GPS trackers used by the transport fleet's owner or a GPS system supplied by Farm Health Guardian to the producer.

One example is a transponder installed in the brake light of a trailer that regularly enters the farm.

If the movement of any vehicle falls outside the disease prevention protocol, an alert is sent to the producer and, potentially, to the veterinarian if that option is set by the customer.

Farm Health Guardian was launched in fall 2020, with Maple Leaf Foods as the company's largest customer. The company now supplies transport-centred disease prevention support — as well as other computer-based services for visitor logging and herd health record-keeping — to over 70 per cent of pig farms in Manitoba and has a strong presence in the swine sector across Canada and into the United States.

"We had a large operator in the U.S. Midwest who trialled our system in the fall of 2022 and they signed on earlier this year. We now have over 100 farms in the U.S. using our services," Hannam said.

"This all contributes to helping the producer know their disease prevention protocol is being followed."

Rob Hannam

A pilot project is underway in collaboration with a multi-site operation in Ontario to explore use of the disease prevention support systems on poultry farms, he added.

Hannam acknowledged there's a wider range of species and production cycles to deal with on the poultry side, "but the concept of biosecurity is the same across all livestock species."

Protocol uses 3D facial recognition to control access to livestock production units. In the news release announcing the merger, Hannam said Protocol "will revolutionize controlled access in pork and poultry barns."

Employees, transporters and other service providers are entered into the Protocol database and, through facial recognition, their activities related to disease prevention are tracked and recorded. When they arrive at a particular location, access is either permitted or declined based on adherence to biosecurity protocols.

Anyone attempting to enter who isn't in the database is denied. If the farm owner has provided them with an access code, they can enrol themselves in the database and then gain entry.

Hannam said the merger "allows (Farm Health Guardian) to bring the facial recognition aspect of biosecurity to Canada much more quickly than we would have been able to on our own."

News of the merger came on the heels of another achievement for Farm Health Guardian — inclusion of the company in the annual sustainability report from Maple Leaf Foods.

"For us as a start-up company, to be mentioned in the sustainability report of Canada's largest food company is pretty exciting," said Hannam.