

NEW MONITORING SYSTEM GIVES FARMERS A STEP UP ON PREVENTION, ELECTRICAL SAFETY

A new electrical monitoring system is pushing the boundaries of electrical maintenance and farm fire prevention. PreVTech Innovations Inc., a Quebec-based company, is piloting their system on select dairy, pork and poultry farms in Ontario, working with farmers, electricians and insurance companies to test the new technology and demonstrate the client service support PreVTech offers.

It's estimated more than one-third of on-farm fires are caused by electrical faults, causing losses in buildings, equipment, livestock and genetics. "The foundation of our company is prevention," says Pierre-André Meunier, PreVTech founder and president. "Farmers are keeping buildings which have been used for many generations and may not have the most up-to-date systems in place. Despite using best management practices, these older buildings can have outdated electrical systems that can be dangerous.

It's hard to question what goes on behind a wall when you can't see it. That's why PreVTech has designed a CSA (Canadian Standards Association Group)-certified 24-7 electrical monitoring system. The unit is easily installed by a licensed electrician at the main electrical service of the farm building, focusing on monitoring select farm buildings and those with higher value and animals.

By measuring fault currents and overheating panels, the system can identify breakdowns and wear and tear on equipment, and even guide the farmer to take appropriate corrective measures. "The system is designed to be a prevention tool," Meunier explains. "By monitoring the overall health of the electrical system, we can detect early signs of equipment malfunction, giving a farmer time to fix the problem before it causes equipment downtime or ultimately, a fire."

DIAGNOSING ELECTRICAL HEALTH

"An electrical system operates with an alternating current. In a healthy electrical system, the flow of electricity should be the same going in and out of the farm. If there is a difference, then there is a leakage or fault in the electrical system," explains Dave Colyn, manager of claims at Trillium Mutual Insurance Company. "PreVTech monitors the alternating current and will detect if there is a leakage or fault in the system."

Trillium Mutual Insurance Company has partnered with PreVTech to run a pilot project with a group of policy holders to evaluate the system. PreVTech introduced the technology to the Quebec market two years ago. "Today's farms are bigger than ever and operate under heavy electrical loads," Colyn says. "Farm fires result in millions of dollars of losses each year."

Colyn also notes the cause of fire is often believed to be electrical, making PreVTech's insight into the health of an electrical system a new, welcome aid for farmers. "We are hoping that with this technology, one of the largest potential fire threats can be managed and the ability to manage this exposure will benefit everyone," Colyn says.

Meunier explains PreVTech monitoring runs on a dashboard, which is available to the farmer, their electrician and the company in real time from any electronic device. If electronic discrepancies or concerns are detected, PreVTech will alert the farmer and electrician through email or text messaging.

Like the "check engine" light in a car, the notifications are meant to serve as a maintenance reminder, identifying specific barn areas that require attention, like a fan motor showing early signs of malfunction or a fault in a vacuum pump or TMR (total mixed ration) mixer motor.

PreVTech's service aims to encourage farmers to work with their electricians to resolve any identified issues. In most cases, PreVTech will reach out to the farmer to help bring perspective to trends or reoccurring concerns that the system has identified. This information can be used in diagnostics of what would otherwise

be invisible electric issues.

"In one situation, our system noted a fault during morning and evening milking on a client's farm. So, we called them to advise them of the situation, offering them a new insight on their operation," Meunier says, explaining his clients know their farms best and often use the additional information and guidance to problem-solve and get things fixed by their electrician.

"In this case, our clients paused for thought and remembered hearing a motor running loudly. They promptly had it fixed, potentially preventing a malfunction, equipment downtime or fire."

NEXT STEPS

Colyn is hopeful the Ontario pilot farms, established in July 2019, will provide insight into effective electrical installation, early detection of wear and tear on equipment and identify any areas commonly afflicted with electrical issues.

"New barns and electrical systems don't equal healthy," notes Colyn. "That's why we're piloting PreVTech in different ages and types of barns. We're providing an opportunity for farmers, their electricians and PreVTech to work together to resolve any issues or electrical anomalies."

PreVTech has 250 clients in Ontario and Quebec, with new farm pilot projects beginning in Manitoba. For more information, visit agriprevtech.com.

This article was written by Jeanine Moyer and produced as part of the Farm & Food Care Ontario: Livestock Emergency Preparedness Project and the Reducing the Risk of Barn Fires Advisory Panel (2016), a group of concerned Ontario farm commodity groups, fire prevention officers, electrical safety professionals and government of Ontario staff. This project was funded in part through the Canadian Agricultural Partnership (the Partnership), a federal-provincial-territorial initiative. The Agricultural Adaptation Council assists in the delivery of the Partnership in Ontario.



RK Animal Supplies **JK REID**
Manufacturing & Sales Ltd.

7647 Wellington Road 10, Moorefield, ON, N0G 2K0
JK: 1-877-710-2296 RK: 1-800-440-2694
www.jkreid.com www.rkanimalsupplies.com

Invest in your future with JK Reid Equipment!

Hoof Trimming Discs

AGRI-Speed HITCH

Hook-up • Safely • Quick • Easy



- Works on tractors, pick-ups & choppers
- Bolts to drawbar
- Makes chopping silage easy
- Built tough - to pull even the largest wagons
- Increases your productivity up to 25%
- Works with PTO **Demos are available - just ask**

Call Jason at Mohawkholm Farms Elmira, On
1-877-669-1196
Ask About Our Satisfaction Guarantee