



Alveo and AgriNerds build data-driven early warning system for Avian Influenza

28 August 2026 | News

The partnership combines satellite imagery, weather radar and AI-driven waterfowl risk scoring with rapid on-farm molecular testing to help producers target surveillance when HPAI risk rises



Alveo Technologies, Inc., a global leader in rapid, point-of-need molecular diagnostics for early disease detection, today announced a strategic partnership with AgriNerds Inc, which has developed the Waterfowl Alert Network, a first-of-its-kind dynamic surveillance and awareness program that predicts historic and daily waterfowl activity around the nation's poultry and livestock farms. The partnership will pair Alveo's unique, rapid, molecular diagnostic with AgriNerds' Waterfowl Alert Network, a proprietary system that uses a combination of satellite imagery, weather radar, and telemetry to create daily farm-level HPAI risk scores based on remote sensing and HPAI surveillance data.

To defend against HPAI and other pathogens, poultry producers have heavily invested in strengthening their biosecurity programs, but farms continue to suffer from HPAI outbreaks triggered by migratory birds, which is the source of infection for 68 per cent of US H5N1 outbreaks since 2022, according to the APHIS. Currently, producers typically take one of two strategies for testing. Most test only when animals display flu-like symptoms, but this approach risks detecting the virus too late to prevent it from spreading. Some conduct periodic blind surveillance testing, which has the advantage of enabling early detection, but can be expensive.

Alveo and AgriNerds are partnering to develop a new rapid and targeted approach: dynamic surveillance that alerts farmers when the risk of infection is high. AgriNerds' Waterfowl Alert Network will use radar imagery to detect migratory bird movements, analyze the data using AI-powered pattern recognition software, and generate daily risk scores it shares with customers. When risk escalates, Alveo's on-farm molecular test will help farms to conduct asymptomatic surveillance testing that provides precise results in under an hour, as opposed to waiting days for traditional PCR results to arrive from a lab. This targeted, risk-based testing approach is designed to lower costs and increase effectiveness, so farmers can detect the virus

early and reduce its spread.

"To stop the spread of HPAI, producers need tools that will enable them to monitor risk and, when it's elevated, employ rapid, accurate tests so they can take quick action and prevent further infection," said Shaun Holt, CEO of Alveo Technologies "This dynamic solution will aggregate and simplify rich data from AgriNerds' and deliver sophisticated risk assessments to users phones in a simple red, yellow and green format. They can then run surveillance tests based on informed risk and rapidly respond if bird flu is detected."

The two organizations will use this feedback loop to strengthen the accuracy of risk assessments over time. As positive and negative test data accumulate across regions and seasons, both the risk alerts and testing guidance will become increasingly precise and valuable, securing the nation's food supply as well as producers' businesses.

"Biosecurity extends far beyond the facility's fence line," said Maurice Pitesky, professor at UC Davis and CEO and co-founder of AgriNerds. "Our Waterfowl Alert Network gives farmers visibility into the dynamic risk landscape around their operations. When paired with Alveo's testing capability and rapid results, farmers can respond to real risks in real time. In this way, agriculture can move past reactive disease management to adopt a proactive, risk-informed approach."