

Northern Colorado **BUSINESS REPORT**

Breeding software pregnant with promise

By Steve Lynn March 8, 2013

Technology is helping save Dairy farmer Jerod Henrickson thousands of dollars a month. It promises to soon help him make money, too.

Henrickson runs Bella Holsteins, a dairy farm boasting 5,300 cattle in Platteville, and he uses DVM Systems technology to detect illnesses in his cows.

The newest offering from Greeley-based DVM — called TempTrack Plus — will help him determine when he can breed his cows. He believes DVM's technology can help him reduce the amount of money he spends on hormones — about \$8,000 a month — to induce ovulation in its cows.



Dairy farmer Jerod Henrickson spends thousands of dollars a month inducing ovulation in his cows at the Bella Holsteins dairy in Platteville.
(JONATHAN CASTNER)

“It’s extreme right now,” he said. “If we can take that down to a minimal level and do everything naturally, I think there’s a huge cost advantage.”

DVM, founded in 2009, bills itself as the first company to offer early automatic detection of ovulation in cows, a product that recently earned the company a spot on the 2013 World Ag Expo Top 10 New Products of the Year.

Its technology predicts ovulation 12 hours in advance, letting dairy farmers know the cow is ready to breed.

The system deploys the same technology the company uses to detect illnesses such as pneumonia, mastitis, metritis and others, often before a cow shows symptoms, according to DVM.

Called TempTrack, the technology involves placing a wireless, temperature-sensing, battery-free radio frequency identification microchip in a small capsule.

A cow swallows the capsule, which stays in the reticulum, a compartment in the cow’s stomach, for five to

seven years. The capsule, called a bolus, transmits data on the animal that dairy owners can then analyze.

The product takes a cow's temperature 24 times daily. It sends an alert notifying dairy farmers of ovulation and signs of disease and an alert six to 12 hours before a cow will deliver a calf.

Farmers can discern when a cow is ovulating by its behavior, though that isn't the best indicator, said Kevin Wild, DVM Systems CEO. They also can use blood tests or ultrasounds, but that takes time and labor.

"They're expensive to do, and they're not automatic," Wild said.

Cows produce milk only after they bear a calf. About two to three months later, farmers typically try to breed the cow again to enhance productivity. If farmers miss a breeding cycle, the cow will produce less milk or miss days of production.

Dairy cows generally can continue this process for three or four years, until farmers sell them for beef.

Using DVM Systems technology, a farmer can do a better job of making sure their cows are breeding.

Farmers typically see only a 22-percent success rate in breeding their cows, said Scott Asnicar, the company's vice president of business development. DVM Systems' technology can increase that rate by 2 to 3 percent.

That may not sound like much, but consider what DVM Systems says its technology has done for one Canadian dairy operator. Using TempTrack Plus, the farmer got his cows to produce seven to 10 pounds more milk per cow per day.

Its illness detection product, meanwhile, has helped another dairy farmer reduce cow deaths by 27 percent. That farmer, who has 1,350 cows, saves \$32,400 annually based on a \$1,200 cost of replacing each cow.

"Everyone is tired of spending so much money on drugs for illness, as well as drugs for breeding," Wild said. "We believe that you can realize a significant reduction in drugs over time."

Henrickson, for one, uses the technology to check his cows from his computer in the morning. He has boluses, the device that sits in the cow's stomach, in 400 cows and has found illness in two or three cows daily.

The system costs just 8 cents per cow daily, Wild said. That's about \$50,000 a year for a dairy farm with 700 cows, including software, receivers and a base station.



Jerod Henrickson, monitoring his cows using DVM Systems software. (JONATHAN CASTNER)

SmartStock in Pawnee, Okla., makes the boluses, which cost \$50 apiece. The technology has existed in one form or another for years, but researchers at five North American universities, including CSU, have been working to enhance its reliability and data analysis capabilities.

Jack Whittier, professor and extension beef specialist at CSU, has worked with DVM Systems on its technology, which he believes will increase cow pregnancy rates.

“One of the challenges in dairy herds in the last 15, 20 years has been getting calves re-bred after calving,” he said. “Anything we can do to improve that, I think has a lot of advantages.”

The company has sold its systems in Northern Colorado, but recently has focused on marketing its products overseas, from Canada to Taiwan, as the U.S. dairy industry struggles with high feed costs and drought.

In the future, the company plans to make different kinds of boluses for other kinds of livestock, including goats and sheep.

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