DATA-DRIVEN DECISION MAKING:
HOW ONE TEXAS DAIRY HAS REVOLUTIONIZED THEIR APPROACH TO COW MANAGEMENT

By Ariana Bigham

The smell of corn silage filled the West Texas air as morning chores continued at Red Rock Dairy. Adrian Medrano (Manager) and his brother Martin (Herdsman) worked their way through the fresh pen, checking cows from behind as another team of three walked along the lockup. With the help of ComfortEar® electronic ear tags and a Tru-Test™ SRS2 portable reader, the team at the front called out alerts while Adrian and Martin evaluated cows and called back new data to enter. For Red Rock Dairy, this is just another day at the farm. For the future of technology in the dairy industry, this is an innovative ecosystem miles ahead of current standards.

This unique ecosystem was not happenstance. Red Rock Dairy, established in Amherst, TX, in 2002, has faced challenges like any other operation in the industry. The increasing difficulty of finding skilled labor, not to mention the day-to-day struggles that come from years of drought, required John Van de Pol (Owner) to look at operations and how to improve efficiency and communication on his farm. At the same time, Manny Salcedo, Founder of Dairy Performance Network (DPN), was looking for early adopters that were open to incorporating data into a new way of doing things. Red Rock Dairy paired up with Dairy Performance Network and BoviSync, and a new dawn of technology was born.

All decisions at Red Rock are data-driven. Currently, daily data collected include activity (steps per hour), milk, fat, protein, and conductivity. These data feed into BoviSync; from there, Dairy Performance Network works within BoviSync to identify patterns.

"All of the data come together to create alerts for the team. When the tag is scanned, the alert tells Adrian and Martin what to look for [i.e. potential problems] so they can evaluate and treat from there," explained Manny. "We can usually fix problems 7 to 10 days before we can even see them."

At the heart of this system, communication is critical to success.

The radio frequency identification (RFID) tags must communicate with the reader, the reader must communicate with the smartphones, the activity sensors must communicate with the antenna, and all of these must communicate with BoviSync. Most importantly, the team in the pens communicates with each other and the data to make informed management decisions.

Prioritizing data has allowed the dairy to improve efficiency and performance. John said "We've decreased input cost [through less antibiotics and more supportive therapies], but the bigger impact is increased cow performance." Both John and Manny note the importance of ensuring they collect good data. Manny explained, "If you're not putting in good data, you won't get good results. We have enough different data points on every cow every day to know when there is a problem."

Integrating technology has allowed John to create this ideal ecosystem: "We have good people which makes the system work," said John. "When you use tools like this, you don't need people that have decades of experience with cows. You can prioritize communication and educate your team on the tools to create a big impact." Adrian, who has worked at the dairy for almost 20 years, added, "Employees, and even owners, often feel scared about

Red Rock Dairy uses Z Tags' matched visual and RFID tags for identification.

data, but they need to be more comfortable with it because it makes the system smoother and more efficient." John goes further to say, "You really need to bring the whole team together. Technology doesn't take less management; it just takes a different approach."

Manny, who was a dairy manager himself before starting DPN, discussed the importance of ease of use. "There are a lot of technologies you can implement, but it takes a lot of detail to see the patterns we can see. Most programs are hard to input data, and when you're collecting this much, the system needs to be easy to use. A lot of companies don't take the time to see what is happening in the pen, which is another factor that makes this system effective. Most

The Tru-Test SRS2 reader sends the electronic ID number to BoviSync to bring up that cow's alerts.
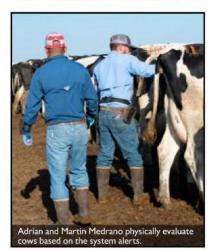
systems will just tell you when you have a problem; our system will tell you what that problem is."

By implementing daily data collection, the team at Red Rock have sustained an industry-leading conception rate and are far below the industry-average in cows lost. "One of the biggest impacts is with transition numbers. On average, transition numbers show around 12% to 15% of cows being culled in less than 60 days in milk. We're currently averaging 3.5% to 4%," explained Manny.

Back in 2017 when John was considering which direction to take the dairy, he looked at multiple options. "When we got started, we didn't have much technology. I felt like we needed to go down the path of more technology. When I was trying to figure out what to use, I found Manny. We vetted a lot of systems and ended up with what we have by experience and trial. I also talked to Adrian and the team about what they thought would work in the pens, so everyone was on board."

Dairy Performance Network was an idea that came to Manny in 2016. As an assistant dairy manager at the time, Manny saw dairies using consultants for things like nutrition and reproduction, but not many were using data. By considering various data points and how he could use those to inform decisions, Manny created a unique management approach, and the DPN was formed. Now almost five years later, DPN has expanded into a full-fledged consulting company. Chris Cunningham, the General Manager of DPN, has helped the company grow in the Midwest and Western regions of the United States. Now, Manny and Chris serve dairies in nine different states.

Chris has had success specifically in the Pacific Northwest and in Wisconsin. "A lot of dairies have management programs, but

Adrian and Martin Medrano physically evaluate cows based on the system alerts.

they only use 10 to 20% of the program's capacity. We are reducing reproductive shots while increasing conception and pregnancy rates. We are always working to make the dairy better," explained Chris.

While DPN promotes data collection and use, the data all have to feed into a central system, which is where BoviSync comes into the picture. Manny uses BoviSync to make his dairies efficient and compliant. Clay Reese, Director of Operations at BoviSync, explained further: "BoviSync is a solution-based software system. BoviSync is for dairies that want to utilize data in their management. We streamline workflows, incorporate RFID wands, and more."

"Ideally, the farm incorporates all work activities that involve cows into BoviSync using the mobile app," said Clay. The mobile app works with the Tru-Test reader to alert the Red Rock team when a cow needs a chore completed. "Our job is to make farms meet their management challenges. Our tools provide the work lists and data to make sure that's happening."

"Red Rock Dairy is going to push the envelope. They want to engage their team in how they can improve. BoviSync is the tool to do that," said Clay.

Manny Salcedo checks the system alerts with Adrian and Martin Medrano.

Using RFID technology has been key to the success and efficiency of the program. "Without RFID, we would move much slower. Since we use the electronic tags and reader, there is less room for error and less data lost," said Manny. Clay also praised RFID tools from Datamars Livestock. "We need equipment that is reliable and easy to support in the field. Tru-Test wands are the best on the market. They are easy to support and very durable," explained Clay.

Looking forward, John and the Red Rock team are open to considering other technologies that can improve operations and the herd overall. Right now, they are starting to use genetic testing to inform reproduction decisions. John said, "Genomic testing will allow us to decide what type of animal we want to produce moving forward." Manny added, "We'll be able to build better cows faster."

While dairies continue to face a multitude of pressures, from a need to produce more milk with less labor and resource, to how to remain independent in an ever-consolidating market, farms like Red Rock that embrace technology will remain productive and profitable and will continue to thrive amidst adversity.

About Red Rock Dairy

The Van de Pols moved to the Texas panhandle in the early 2000s, which was a growing dairy area at the time. Nearly 20 years later, John runs a closed herd of 2,800 cows. John currently farms with his wife Jill, and children Anneke, Ava, and John. They have been successful at shows around the nation, winning prestigious awards like Senior & Grand Champion of the Wisconsin Championship Junior Holstein Show, Nehls-Valley Arch Angel co-owned with Troy, Sarah, Grady, and Lane Wendorf. The family also enjoys going to the lake in their spare time and looks forward to continuing their multigenerational farm in the future.

About Dairy Performance Network

Dairy Performance Network is a consulting company focused on assisting the dairyman in making their dairy a more profitable operation through technology and training. Focusing on connecting people, cows, and technology. For more information, visit dairyperformancenetwork.com.

About BoviSync

Founder Dr. David Cook started BoviSync with a vision of combining robust technology and tools to make the best software system to manage dairies. BoviSync is an employee-owned company dedicated to allowing producers to lead with data. BoviSync engages operators and technicians to improve performance by making tasks easier. Clearer, more straightforward decision-making enhances

A team member scans the RFID tags from the front to call out alerts to the Manager and Herdsman.

performance and efficiency. Clay Reese explained, "As long as dairies have work to do, BoviSync has a future in helping them." For more information, visit bovisync.com.

About Datamars Livestock

A business division of Datamars, Datamars Livestock is a global leader in animal identification products, farm infrastructure products, animal performance and monitoring, and animal health delivery products. Datamars Livestock includes globally recognized brands Z Tags, Tru-Test, Speedrite, Patriot, and NJ Phillips. This combination enables animal health, precision livestock management, and improved protein production. For more information, visit livestock.datamars.com. ∎

Cows line up in the stanchion for morning chores.

The Van de Pol family showing at the Wisconsin Championship Junior Holstein Show.