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Find profit-enhancement oppo

Uncovering a dairy's hidden obstacles – from milk quality to reproduction to milk components – may be as simple as reviewing and analyzing DHI records. While the breadth and depth of these records can be overwhelming, use a systematic approach to analyze the data to effectively manage a dairy herd.

Without an organized and efficient method of reviewing DHI records, bottlenecks often go undetected and herd performance never improves. "Removing bottlenecks to yield better herd performance and higher production is one key to operating a highly profitable dairy," stated Bradley Hilty, Penn State Extension information management specialist.

John Ellsworth, a strategic and financial consultant with Success Strategies, Modesto, Calif., noted that he often identifies reproduction as a bottleneck on dairies that are experiencing serious financial problems (prior to the current downturn, where most dairy producers have been suffering). "Often, that is part of what caused the financial problems," he commented. Why? "Cash flow comes from milk; milk comes from fresh cows; fresh cows come from pregnancies; and pregnancies are a direct result of a sound breeding program. Thus, the reproductive information in DHI records is absolutely critical to a producer's financial success."

Earn milk quality premiums

As a field rep for Gossner Foods, Logan, Utah, Alan Udy generally looks at DHI milk quality records to reveal potential bottlenecks. His goal is to help Gossner Foods' milk producers earn milk quality bonuses. He recalled one dairy that struggled with a 600,000 SCC. The dairy changed milking procedures (started using individual paper towels, dipping cows' teats with a better teat dip, and sanitizing milking units between cows). DHI records allowed the dairy producer to evaluate if the changes helped lower bulk tank SCC (BTSCC) and individual cows' SCC. Now, the dairy typically earns a 30¢ per hundredweight premium for producing high quality milk. "The milk quality premium pays for DHI testing, plus a lot

of other expenses," he noted.

Udy shared another example where DHI records helped find and resolve a milk quality challenge. A dairy shipping milk in the 700,000-800,000 SCC range faced not being able to market its milk. Udy reviewed DHI records and evaluated the milking system. Faulty pulsators and inappropriate vacuum caused the elevated SCC. Now, the herd generally markets milk less than 300,000 SCC. "We're (Gossner Foods) getting better quality milk and the dairy producer has more money to put in his pocket."

DHI records also help dairy producers find problem cows, said Udy. "Culling cows that produce high SCC milk improves the bulk tank SCC and prevents them from spreading organisms to other cows."

BTSCC: a 'black box'

Mike Hutjens, University of Illinois dairy science professor, noted that bulk tank test results, provided by the dairy's milk processor or DHI affiliate, can serve as a "black box." However, he encourages producers to test cows individually. These test results can help producers find bottlenecks and/or limitations.

Andrew Holloway, Elanco Animal Health technical consultant in the Northeast, expressed some concern in testing frequency. Every-other-month SCC testing, for example, may limit maintaining and/or reducing SCC. "The frequency of monitoring is directly related to how quickly



Review and analyze DHI records to uncover a dairy's hidden obstacles – from milk quality to reproduction to milk components.

Opportunities in DHI records

intervention can occur. The sooner an issue is identified, the sooner the challenge can be resolved.”

Periodically, Hutjens makes farm visits to “find the 10 pounds of missing milk.” DHI data allow him to “see” the herd before arriving – looking at herd trends, changes in inventory and age, production patterns (milk yield and components in groups of cows – less than 50 days in milk, 50-100 days in milk and 100-200 days in milk), components and milk urea nitrogen (MUN) in subgroups. These “clues” help Hutjens

eliminate/focus on where the missing 10 pounds of milk is occurring. For example, he evaluates days open, breeding success, SCC, culling rate and genetic potential.

“Information is key to making a correct decision,” Hutjens stated. “When management or feeding changes are made, we need information to determine if the change(s) was economically correct.”

Beyond the basics of milk yield, milk components and milk quality, Hutjens often uses 150-day corrected milk or management level milk, which adjusts each cow’s production back to a common base (second lactation, 150 days in milk and milk components standardized) to compare production from month to month, corrected for reproductive changes, new cows entering the milking group, cows drying off, young cows and a shift in milk components. This allows him to “compare apples to apples.”

Records help with investigation

Like Hutjens, Holloway’s available time to visit a dairy is limited. Before speaking to the owner or seeing a cow and the facility, reviewing DHI records ahead of time provides him with a good historical perspective on the dairy’s management and an accurate database of information. This helps him closely investigate the areas with the most potential for improvement. “After I visit the farm and have targeted areas of opportunity for improvement, I can further identify specific areas (again,

with the aid of DHI records) where I can drill down on those issues even further.”

Robert Tigner, farm management field specialist, New Hampton, Iowa, said that when he reviews DHI records, he is most interested in trends – not specific test day numbers. Is milk production trending upward or downward? Is the pregnancy rate improving? Is SCC falling

or rising? For example, the direction of milk quality (falling SCC and fewer cases of mastitis) is more important than milk quality benchmarks. Digging a little deeper, he’ll look at these trends by cow groups.

Holloway takes a similar approach. “I like to closely monitor and evaluate transition cows,” he said. A crucial link to a herd’s success is minimizing the percent of cows leaving in early lactation. Finding bottlenecks/limitations in

the transition cow group can go a long way in optimizing a dairy’s profitability. Monitor fresh cows closely and develop treatment protocols for “abnormal” animals in this group.

Complement herd management software

Hutjens added that the real power in DHI records, complemented by dairy herd management software (for example, PC DART and Dairy Comp 305), is that it allows dairy producers and consultants to slice and dice the data several ways to drill down to specific questions. Which cows have milk protein tests less than 3.0%? When are cows peaking by parity? What are the SCC patterns by days in milk and parity? Do cows (Holsteins less than 50 days in milk) have milk fat tests more than 4.5%?

According to Tigner, on-farm management software complements DHI records. For example, one dairy he worked with identified a reproduction problem by analyzing records. Freestall use dropped. SCC problems increased. The dairy producer hypothesized that adding lime to the back of the freestalls would increase stall use, improve milk quality and enhance the pregnancy rate. By improving cow comfort via adding lime, reproduction and SCC improved. That was the only management change. “DHI records allowed him to conclude that the answer to his herd’s problems was right,” said Tigner.

“DHI data and records are tools dairy producers need to effectively manage their dairies,” Udy concluded. They need to know milk components and milk volume to know which cows are covering their room and board. There’s no reason to feed a bad cow (low volume producer, low components, poor quality milk, poor reproductive performance, disease-prone, etc.). However, you probably won’t know she’s a bad cow without DHI records.”

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