

New standards for large herd reproductive efficiency

Reproductive management continues to be a challenge for dairies of all sizes across the country. Especially in large herds, the need to identify open cows and resubmit them for breeding is a critical component of not only reproductive success, but the dairy's profitability as a whole. Research has shown that every day breeding is delayed beyond 100 days costs producers \$1.50 to \$2 per cow per day. For high producing cows, the cost is even greater. Even still, the average pregnancy rate of U.S. dairies is around 14 to 16 percent.

One 3,200-cow Washington dairy has developed a systematic approach to reproductive management consisting of a synchronized breeding program coupled with an early blood pregnancy test performed by on-farm staff. The results are that 92 percent of cows conceive to an A.I. service and a consistent A.I. pregnancy rate of 20 percent.



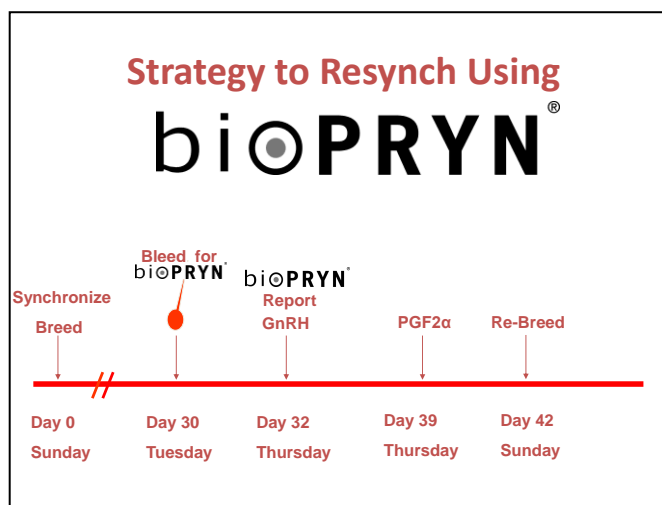
Jason Sheehan is the manager of J & K Dairy and Tony Veiga Dairy, both of which are located near Sunnyside, Washington. The dairies consist of 3,200 cows with approximately 2,900 milking at any one time. Herd average is 27,500 pounds on 3 times-a-day milking. Cows are first set-up with a prostaglandin (PG) injection at 33 days in milk and bred off the 2nd and 3rd PG shots at 47 and 61 days in milk. At day 71, Ovsynch is initiated following the Presynch protocol for all cows not yet bred. First breeding is around day 50 and days to first service averages 67.

Early and accurate preg checking

A key component to the success of Jason's reproductive strategy is pregnancy testing using BioPRYN, a blood pregnancy test, 30 days post-breeding. He began using the product nearly six years ago at the recommendation of his veterinarians, Dr. Mike Wedam and Dr. Fred Muller, from Ag Health Laboratories, Inc. The Sunnyside, Wash., clinic was one of the first organizations to affiliate with BioTracking, LLC, and run the pregnancy test in their laboratory.

The figure shows the program that Jason uses on his dairies. Blood samples are taken from all cows at least 30 days post-breeding on Tuesday of each week and delivered to the lab which is nearby. RFID equipment is used to make the process more efficient and to reduce any human error from labeling samples.

Results are e-mailed out on Wednesday afternoon which Jason can seamlessly download into DairyComp305 and develop injection lists from for the following day. All open cows are administered GnRH at 32 days post-breeding (Thursday) to initiate a Resynch protocol.



The accuracy of the blood pregnancy test allows Jason to utilize this tight turn-around time. In university research trials, the test has been proven to be 99 percent accurate in identifying open, non-pregnant cows. This high level of accuracy gives Jason the confidence to Resynch these cows. Jason confirmed, "BioPRYN has been very accurate in identifying open cows."

A week after the first GnRH injection of the Resynch is administered, prostaglandin is given at 39 days post breeding (Thursday) and cows are bred again by 42 days from the initial breeding. For cows that don't settle to the first service, this protocol allows them to be inseminated twice by the time they reach 102 days in milk.

Jason commented, "BioPRYN has allowed us to do weekly pregnancy checks without involving a vet every week. We can continue to A.I. cows at all three dairy sites and pregnancy check all cows weekly without a vet visit. We are able to Resynch cows as early as 32 days since last heat and be assured that only the cows that are open need to be Resynched."

Cows are bred artificially until they reach 200 days in milk. Those that do not conceive are put in with clean-up bulls.

Flexible for cows and people

Jason added that he appreciates the flexibility that this type of pregnancy testing brings to his cow and people flow. Cows are only locked up for one hour each day and labor can be spread out more throughout the week, as opposed to long stints when the veterinarian was on-farm to palpate cows. Jason still does utilize his practitioner to recheck all pregnancies at 50 days post-breeding. The biggest advantage of the test has been a deepened relationship between Jason and his veterinarians.

Dr. Muller said, "When working with herds like Jason's I now have the time to be involved in the dairy's management and work with the milkers or calf crew or review their DairyComp records."

A reproductive management program utilizing synchronization protocols and early pregnancy detection is working wonders for Jason Sheehan. Non-pregnant cows are identified quickly and resubmitted for breeding a week earlier than a similar system utilizing rectal palpation for pregnancy checking. "The BioPRYN test may not be for everyone," Jason said. "But is sure has helped us in streamlining and making our pregnancy testing more efficient and accurate."

Below find a photo display of the process of drawing blood for BioPRYN.



1. Cows are identified using RFID



2. Eligible cows are marked from the front with red paint



3. Blood samples are taken from eligible cows that were marked with paint



4. After samples are taken, they are labeled immediately to ensure accuracy