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DAIRY CATTLE REPRODUCTION COUNCIL

Advancing Dairy Reproduction

The 2009 DCRC Reproduction Award Winners

In 2009 the DCRC created a Reproduction Awards program to recognize and honor dairy producers from across the United States who have successfully implemented management procedures to achieve high reproductive efficiency.

This past spring, 58 dairies were nominated by industry professionals to receive the award. The dairies were narrowed to a semifinal group, and each dairy provided an in-depth reproductive analysis of their herd. Eighteen dairies have been recognized for their herd's reproductive efforts, including four dairies who received the top Platinum honors. These producers will be honored at the 2009 DCRC Regional Meetings and will participate in a panel discussion during the events.

We've taken this opportunity to congratulate the four Platinum winners and have them share more about their dairies and the exceptional reproductive efficiencies they've achieved.

Tell a little about your reproductive program – what protocols do you currently use in your reproductive program?

Blanchard: We PreSynch 100 percent of the cows on the dairy; all animals are then enrolled in an Ovsynch™-56 protocol. Every cow in the herd follows the same protocols.

Kloppe: We begin breeding cows at 55 days in milk and begin breeding heifers at 13 months of age, as long as the animals are healthy and in good condition. We breed primarily on standing heats, using Estrotect® patches as a heat detection aid.

Any cow that is not seen in heat before 60 days in milk is enrolled in a synchronization program that includes two doses of PGF_{2a} 14 days apart. Cows are then bred six to 10 hours after standing heat. If a cow does not come into heat she is given a dose of GnRH 14 days after the second PGF_{2a}, followed by PGF_{2a} seven days later, GnRH two days after that, and bred the next day. Cows are observed for heats three times per day. All cows are bred by artificial insemination.

Myers: We use 100 percent timed artificial insemination (A.I.) for first service using PreSynch + Ovsynch-56. After the voluntary waiting period, cows are observed for heats daily with Detect-Her tail paint. Any cows checked open 36 days postbreeding are enrolled in the Ovsynch-56 protocol.

Blanchard Family Farm is located in Charlotte, Iowa, and is run by Mitzie Blanchard and her five sons, William, Benjamin, Brian, Seth and Brent. They represent the third and fourth generations of their family to dairy in this location. The herd consists of 780 cows, 80 percent crossbreds and 20 percent Holsteins. The dairy has been crossbreeding for 10 years. Their rolling herd average is 26,600 pounds.

Kloppe Dairy is a family-owned and operated dairy in New Haven, Missouri. They milk 360 Jerseys with a rolling herd average of 13,000 pounds, and farm approximately 1,100 acres. They have eight full-time employees—seven of whom are family members—and five part-time employees.

Schilling: First service is primarily synchronized utilizing an Ovsynch-48 program with a 10 – 12 hour interval between the last dose of GnRH and breeding. Cows are ultrasounded for pregnancy weekly. Open cows with a corpus luteum (CL) are resynchronized with Ovsynch. Open cows with small ovarian structures are resynched with Ovsynch the next week. A Genex® representative tail paints and detects heat for return breedings.

How have your current protocols improved your reproductive program?

Blanchard: It's hard to identify how one particular protocol has improved our herd's reproductive performance. As long as I can remember we have implemented protocols to achieve maximum reproductive performance. Over time we have made changes to the program to improve herd performance, but all of these protocols have helped us reach the performance levels we see today.

Kloppe: Since implementing the current protocols five years ago, our average days to first service has decreased by 30 days, services per pregnancy has decreased by 0.5 services, days open has decreased by 50 days and calving interval has decreased by 2.5 months.

Myers: Reproductive efficiency has improved drastically with strict adherence to reproductive protocols. We have come from a 10 percent pregnancy rate in 2003 to a 31 percent pregnancy rate in 2009. We have been able to maintain herd size with replacement heifers born and raised on-farm. We have not purchased any animals since March 2004.

Schilling: The herd was 100 percent bull bred until 2001 when we switched to A.I. In 2001 tail painting was started with Ovsynch. We also switched to weekly herd checks and ultrasound, as well as utilizing a palpation rail in line with expansion of the herd in 2002. The change to A.I. has given us higher-quality heifers and increased milk production to our current rolling herd average of 27,000 pounds. Tail painting and Ovsynch have increased our service rates and improved pregnancy rates. Currently, use of sexed semen in heifers has led to two herd expansions. The improved reproductive programs have led to more pregnant animals, expansion from within and the ability to sell animals for dairy purposes.

Myers Farm is located in Union Grove, North Carolina, about 60 miles north of Charlotte. They currently milk 1,050 cows with the help of 22 employees, which includes six family members. Myers Farm encompasses 1,200 acres that produce two crops each year, 1,200 acres of corn for silage in summer and 1,200 acres of barley and wheat for hay and silage in spring.

Schilling Farms, LLC, is located in Darlington, Wisconsin. Schilling Farms is a corporation comprised of Bill and Barb Schilling and their two sons, Andy and Brian. The operation is run by three full-time family members and four hired employees. Schilling Farms is currently milking 425 Holstein cows and cropping 900 acres.

Who is responsible for implementing reproductive protocols? How were they trained for this position?

Blanchard: I (Mitzie) am in charge of the reproductive protocols in our herd. I believe if we are spending the money and committing the time to reproduction, we need to follow through with protocols. Reproduction has always been important to me, so I continue to be responsible for this area of herd management.

Kloppe: Our current protocols were developed by a former employee who graduated with a Bachelor of Science in Animal Sciences from the University of Missouri and also had extensive experience working with large dairy herds. Our current herd manager was trained by him and also attended an A.I. school. She is responsible for carrying out reproductive protocols, including heat detection, shot administration and breeding.

Myers: Ray Nebel and Dave Whitlock of Select Sires have worked with me to implement reproductive protocols. These protocols are followed by our reproductive team.

Schilling: Brian is currently responsible for our Ovsynch protocols. Initial training was done by our A.I. company and herd veterinarian. Genex is responsible for tail painting and heat detection.

What role does your veterinarian play in implementing reproductive protocols?

Blanchard: We have a great working relationship with our veterinarian. When we are making protocol changes we consult our veterinarian to discuss the pros and cons of different protocols and how changes can bring value to our reproductive program. We also rely on a support system of other industry representatives to ensure reproductive protocols are providing the best opportunities for our dairy.

Kloppe: Our veterinarian visits our farm every two weeks. He checks cows that are at 30 days postcalving to make sure they are ready for breeding. He checks for pregnancy at 35 days postbreeding and rechecks at 60 days postbreeding. He advises us on how to treat cows with an enlarged uterus, ovarian cysts and other breeding problems.

Myers: We discuss protocols with our veterinarian and keep him informed on our reproductive statistics.

Schilling: Our veterinarian, BJ Jones from the Center Hill Veterinary Clinic, monitors our reproductive data on Dairy Comp 305®. Based on our herd's reproductive performance he advises us on changes to current protocols. He ultrasounds weekly and determines the correct Resynch protocol for each cow. Current ultrasounds are performed at day 32 with a second ultrasound check at 55 days postbreeding.

How do you breed heifers – age or size? Do you use synchronization programs or breed off of heats?

Blanchard: Heifers are raised at a heifer grower. Breeding decisions are left to the discretion of the heifer raiser.

Kloppe: We breed heifers beginning at 13 months of age, as long as they are healthy and at the appropriate size. If a heifer is too small or in poor health, we wait an extra cycle or two before breeding her. We breed heifers exclusively on standing heats.

Myers: Animals must be one year old and visually appear to be adequate size. We breed heifers on standing heats and synchronize with CIDRs® about 20 heifers per month that are found open at preg check or 14 months old with no breedings.

Schilling: Heifers are bred starting at 14.5 months based on a minimum size of 850 pounds. All heifers are bred based on standing heats and by using Estrotect patches. Heifers are ultrasounded weekly starting at 30 days postbreeding and rechecked after day 55. Pregnant heifers after day 55 are housed with a cleanup bull. Open heifers at pregnancy check with a CL are given LUTALYSE® and bred on standing heat. Sexed semen is used for the first and second service. If more than two services are needed, conventional semen is used.

What is your voluntary waiting period? How did you select this?

Blanchard: Our Voluntary Waiting Period (VWP) is 79 days. We used to have a VWP of 72 days, but cows were not able to reach a 305-day lactation, and we were drying animals off still milking 90 pounds. We first tried this in 2+ lactation cows; it worked so well we used this guideline for all animals.

Kloppe: Our VWP is 55 days. At this point, most of our cows have completely recovered from calving and have cycled at least once.

Myers: Our VWP is 72 days. By conferring with Ray Nebel of Select Sires we determined cows needed this much time to prepare themselves for first insemination.

Schilling: Our current VWP is 70 days. It was changed from 60 days a year ago to try and improve peak milk. Peak milk in our heifers has increased 10 pounds over the past year after implementing the change. Our pregnancy rates have also increased from 26 percent to 30 percent by increasing our VWP.

What role does genetics play in your reproductive program? How do you select A.I. sires?

Blanchard: Since we are a crossbreeding herd we use a three-way cross in our program. We pick the top bulls across all breeds, focusing specifically on type and milk production. Our first cross is always with Holsteins and Jerseys.

Kloppe: Genetics plays an important role in our reproductive program. We utilize a mating program through CRI/Genex to select our A.I. sires, and also have our cows appraised by the American Jersey Cattle Association. We use a variety of sires from CRI/Genex, ABS and Select Sires to find the bulls that best match our cows. We tend to select more heavily for type traits than production traits, because we believe a cow that is healthy, structurally sound and has greater longevity will be more profitable in the long run.

Myers: We are very selective genetically speaking. A.I. sires are ranked according to our personalized index that puts emphasis on health traits, milk production, udders, and feet and legs.

Schilling: Our A.I. Technician Scott Heinberg with Genex-CRI helps make our sire selections. Bulls are selected in the top 10 percent of lifetime net merit dollars. Among this group, bulls need to be positive for feet and leg composite, daughter pregnancy rate, sire conception rate, over +0.5 on udder composite and +1200 pounds on milk. Low conception rate bulls are avoided. Cows are mated by Genex based on individual pedigrees to avoid inbreeding. Genomic bulls have recently been added as additional mating sires.

Are there any other managerial factors that have helped you achieve reproductive efficiency in your herd?

Blanchard: Employee training has been especially important on our dairy to ensure our staff knows how to properly detect heats. Our employees understand the 21-day cycle and the cost to the dairy when heats are not detected. We hold refresher courses on heat detection every four months to keep everyone on the same page.

Kloppe: We believe we have had such great reproductive success because our cows are very healthy. We make sure our cows are comfortable and well-fed at all times. We maintain a somatic cell count at or below 200,000 cells/ml, we treat very few cows for mastitis and we have very few calving problems. When cows are healthy from the time they calve, reproductive efficiency is much easier to achieve.

Myers: Best management practices for cow health, comfort and nutrition are critical. It's also important to have a labor force that cares about the cows.

Schilling: We believe many additional factors are important, including:

- Quarterly team meetings with consultants, nutritionists, veterinarians and other key management personnel to improve herd reproduction and production
- Fresh cow examination and treatment protocols to monitor cows closely the first 10 days postcalving, making special note of cows with hard calvings, twins and retained placentas.
- A strong vaccination protocol from birth through milking.
- Improved prefresh cow comfort and bunk space.
- Dairy Comp 305 and other herd monitoring of reproductive indexes.

For producers looking to improve reproductive performance in their herd, what advice would you have for them?

Blanchard: Reproduction starts long before the voluntary waiting period lapses. The dry cow, prefresh and fresh cow management is critical to reproductive performance. Our dairy is only as strong as the weakest link. When every area of the dairy is strong, my job of getting cows bred is easy.

It's also important to maintain complete compliance to ensure every cow receives every proper dose at the right time as outlined in the protocols.

Kloppe: Focus on maintaining good records and building a good relationship with your veterinarian to keep cow health top-of-mind.

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Myers: Cows must have clean, comfortable housing; be milked with proper procedures; and receive proper nutrition to insure adequate milk production, low somatic cell counts, adequate body condition, and, finally, good reproductive efficiency. Choose a well-researched reproductive program that everyone can stick to and be consistent.

Schilling: Keep your protocols simple and consistent with one person in charge to strive for 100 percent compliance. Cow comfort is also a key factor, including sand bedding, fans and sprinklers in lactating and prefresh groups. High-quality forages and feed are also very important in our program for getting cows bred. Work closely with your veterinarian and A.I. company on a team approach to determine what protocols will work best for your herd.

Congratulations to the Gold, Silver and Honorable Mention 2009 DCRC Reproduction Award Winners!

Gold Award Winners

- Autumn Vista Dairy
  Falmouth, Michigan
- Cary Dairy
  Battle Creek, Michigan
- Kevin Kruchten
  Lodi, Wisconsin
- Stoneyvale, Inc.
  Exeter, Maine
- T & K Dairy
  Snyder, Texas

Silver Award Winners

- Blue Mound Dairy
  Luverne, Minnesota
- Gary and Nancy Endres
  Waunakee, Wisconsin
- Ripp's Blue Ribbon Dairy
  Dane, Wisconsin
- Sunburst Dairy, LLC
  Belleville, Wisconsin
- Williamson Farms LLC,
  Seymour, Wisconsin

Honorable Mention Award Winners

- Blue Star Dairy
  Deforest, Wisconsin
- Evergreen Farms
  Muleshoe, Texas
- Jeff Knuver
  Fremont, Michigan
- Machia & Sons Dairy
  Sheldon, Vermont

Learn more from the 2009 Platinum DCRC Reproduction Award Winners at the regional meetings, November 12 – 13 in St. Paul, Minnesota and November 19 – 20 in Boise, Idaho.