



DAIRY CATTLE REPRODUCTION COUNCIL

Top Reproductive Performance Defines these Dairies

Meet the 2010 Dairy Cattle Reproduction Council Reproduction Award Winners

In 2009 the Dairy Cattle Reproduction Council (DCRC) created the Reproduction Awards program to recognize leading dairy producers who have successfully implemented management procedures to achieve high reproductive efficiency. In its second year, 94 dairies from 22 states and Mexico were nominated for the award by allied industry professionals.

These nominees were narrowed to a semifinalist group by a panel of four industry judges, and those dairies provided in-depth information on every cow that calved between January 1, 2009, and December 31, 2009. The raw data was then analyzed in an independent analytical program to compare reproductive performance on the dairies. Based on the data submitted, finalists were ranked on 18 reproductive parameters and the sum of these rankings helped index reproduction programs from highest to lowest.

From this analysis judges selected four levels of awards—Platinum, Gold, Silver and Honorable Mention. In 2010 15 dairies have been recognized for their herd's reproductive efforts. The top five herds received platinum honors and will participate in a panel discussion at the 2010 DCRC annual meeting, November 11 and 12, in St. Paul, Minn.

Blanchard Family Dairy 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's dairy in this location. The herd consists of 780 cows, 80 percent crossbreds and 20 percent Holsteins. The dairy has been crossbreeding for 11 years. Their rolling herd average is 26,600 pounds.



Crosswind Jerseys, located in Elkton, S.D., is owned by Ernst, Ursula, Stefan and Juliette Temperli. The eight-year-old dairy is home to approximately 1,030 Jersey cows. They have 13 full-time employees, and Jose Delgado is the main herdsman. The dairy maintains a rolling herd average of 21,500 pounds.

Curtin Brothers Dairy, located in Cassville, New York, is owned by Jack, Robert and Dan Curtin. The 10-year-old facility is managed by Dennis Yousey. Greg Shaw is the herd manager. The 3,000-Holstein-cow dairy employs 43 people. The Curtins have approximately 2,500 heifers that are raised off-farm by heifer growers. They have a rolling herd average of 28,900 pounds and also farm 5,000 acres of corn and alfalfa hay.





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Henk Knevelbaard Dairy is a 950-milking-cow operation located in Fremont, Michigan. The dairy is owned and operated by Henk Knevelbaard and is home to Holsteins and crossbreds. The herd is milked twice a day and does not use rBST. The rolling herd average is 24,000 pounds/year with 3.9 percent butterfat, 3.2 percent protein and a somatic cell count of 54,000.

Majestic Meadows Dairy is located in Sheboygan Falls, Wisconsin, and is owned by Ed, Darin and Dean Strauss and Bob Radloff. Noe Ruiz is the herdsman. The 875-cow dairy has been in operation for 12 years, and its rolling herd average is approximately 23,500 pounds. Majestic Meadows' employs nine people and farms 1,600 acres.



Tell us about your reproductive program.

Blanchard Family Dairy: 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.

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 on the dairy.

Crosswind Jerseys: Our reproductive program starts in the fresh pen. I (Stefan) do not have one particular established program for the entire herd. If cows in the fresh pen struggle or have any type of metritis or discharge, they are enrolled into a PreSynch/Ovsynch program. About 20 percent of the herd usually falls into Presynch/Ovsynch. Once the other 80 percent pass the 60-day voluntary waiting period, we wait for standing heat to breed. When the cows are pregnancy-checked, about two-thirds of the herd go into an Ovsynch protocol or CIDR®-synch if they are cystic or do not have a nice corpus luteum. The remaining cows receive prostaglandin and are bred off of heat detection. We raise our heifers up to one year of age then they go to a heifer grower. Breeding is conducted at the heifer growers.

Curtin Brothers Dairy: We keep it simple. Our cows are on an Ovsynch program with a voluntary waiting period of 71 days. We administer the first prostaglandin dose at 35 days and the second dose at 49 days. Then, around day 60 – 61, the cows go into the Ovsynch program. Cows are bred at around the 71-day voluntary waiting period. We pregnancy check at 42 days; cows checked open go into a CIDR-synch program. Our heat detection rates for the last 12 months are around 80 percent. We have about a 49 – 52 percent first-service conception rate. With a high heat detection rate, we are able to have 80 percent of the herd pregnant by 155 days in milk.

Knevelbaard Dairy: We utilize a modified PreSynch/Ovsynch program. For the PreSynch portion cows receive two doses of prostaglandin 14 days apart on Mondays starting at 23 days in milk (DIM). Ovsynch starts on the Monday 14 days after the last dose of prostaglandin. GnRH is given Monday morning. Up to this point the program is a typical PreSynch/Ovsynch program, but after this point our program is unique. On Wednesday morning—48 hours after prostaglandin is administered—cows receive GnRH. We double breed cows. The first insemination happens Wednesday afternoon and the second Thursday morning.



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Our voluntary waiting period is 60 days. After this time we do heat detect and breed any cows we see in heat. We make extensive use of both Ovsynch and heat detection. Ovsynch makes sure we get all the cows bred. Heat detection helps us find the cows that for some reason are off their Ovsynch schedule. We breed animals twice a day so we can more accurately breed cows when they are in heat.

Majestic Meadows: We use a PreSynch/Ovsynch protocol alongside basic tail-chalking for heat detection. Our protocol is set up to administer the first dose of prostaglandin between 31 and 37 days in milk, and the second dose between 45 and 51 days in milk. Then cows are enrolled into the Ovsynch program between 59 – 66 days in milk. If we have open cows, they are reenrolled into the Ovsynch program. Our heifers are raised by a hired heifer grower, but we breed all virgin heifers at our farm through a tail-checking program with very little prostaglandin used.

What is the key to the success of your reproductive program?

Blanchard Family Dairy: Whole herd success in all areas, whether it is dry cows, prefresh or postfresh. Breeding is easy when everything on the dairy is going well. We had a very successful breeding program last year, and it hasn't changed. If you have a cow that cleans, she's going to breed, and if you have a cow that doesn't clean, she's not going to breed. You don't have to fix a successful program.

Crosswind Jerseys: Our reproductive success starts in the dry cow pen. Maintaining an excellent ration for our close-up cows is critical. Because close-up cows have additional nutritional requirements, we maintain the proper stocking density and prevent overcrowding. Proper nutrition sets the dry cows up for a great lactation. When our fresh cows calve we pay close attention to their needs. Getting fresh cows off to the right start and having a good, balanced ration are the primary aspects to our dairy's reproductive success. When fresh cows are set up and managed correctly, they will breed back easily.

Curtin Brothers Dairy: Many factors are critical for the success of our program.

- Focused employees
- Keeping it simple
- Good record keeping
- Communication
- Sound nutrition
- The right vaccination protocol
- Heat detection
- Excellent cow comfort
- Healthy cows

The Curtins are great people to work for, and we all have our reproduction goals in line. I have an entourage of people I keep around me who are all farm people and individuals I trust, from our nutritionist to our veterinarians and to our consultants. The important thing to understand is that cows like it boring, and our employees understand that. We try to keep a quiet atmosphere.

Knevelbaard Dairy: There are so many details that go into the success of a reproductive program. The commitment of the employees to the reproductive program is very important to our success. The chain is only as strong as its weakest link, and we know how fundamental this idea is for our reproductive program. Our employees play a critical role in ensuring each cow receives the right doses at the right time.

Majestic Meadows: We have very good ABS breeders, Rick and Ryan Ernst, and they do a phenomenal job. One thing that sets us apart from most dairies is that we implement a lot of crossbreeding through the help of Creative Genetics. We have a mix of Swedish Red, Montbeliarde, Jersey and Holstein crosses. With the two-way and three-way crosses we gain a lot of fertility. The added fertility gives us a big boost in maintaining high conception and pregnancy rates.



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What are your herd’s reproductive statistics?*

Farm	Herd Size	Voluntary Waiting Period	Days to First Breeding	Pregnancy Rate (%)	Conception Rate (%)
Blanchard	780	79	83	39.1	42.8
Crosswind	1030	54	69	39	46.5
Curtin	3000	70	74	36.9	37.6
Knevelbaard	950	55	68	40.2	47.9
Majestic Meadows	875	68	72	34	38.6

*Information taken from data set analyzed in independent analytical program.

What role does your nutrition program play in reproductive health?

Crosswind Jerseys: Nutrition is a huge part of the equation when it comes to managing transition cows. We really focus on the close-up ration to keep the potassium low, preferably below 1.3 percent dry matter. A low potassium level without anionic salt seems to be a huge part of the success for reproductive health.

Curtin Brothers Dairy: Nutrition is critical for excellent reproductive health. Our rations are geared to keep cows healthy. I tweak rations; I don’t change rations. Forage quality drives our nutrition program and the farm does a great good job of making excellent quality forage. Forage quality is part of the foundation for everything we do on the dairy. A solid nutrition program ensures our herd has the energy needed to perform reproductively and yield high volumes of milk.

Knevelbaard Dairy: I believe in the Hepatic Oxidation Theory (HOT) proposed by researchers at MSU. We have been successful in transitioning cows and then maximizing production by paying attention to the starch and fermentability of the ration through the phases of her lactation. Water treatment has also played an important role in removing high levels of iron and manganese.

- **Far-off dry cows.** We try to keep energy intakes low, around 15 Mcal/day. I try to keep intakes in this pen around 27 – 28 pounds of dry matter. The starch is very close to zero.
- **Close-up dry cows** receive more dietary starch and energy than in the far-off pen, but starch is still less than 10 percent of ration dry matter and energy is kept under 17 Mcal/day. We want a palatable ration that will help prepare cows for calving and the milking herd. We are trying an experiment this year with earless corn silage to help minimize potassium. This is especially important for preventing milk fevers and for controlling the starch and energy level of the ration, helping to prevent ketosis and displaced abomasums (DAs).
- **Milking cows.** We feed three lactating cow rations: a high-forage fresh cow ration, a highly fermentable high-cow ration and a lower fermentable maintenance ration for animals in late lactation.

How was pregnancy rate calculated?

- For the DCRC Reproduction Awards program, pregnancy rate is calculated using an actuarial technique.
- All cows are organized by days in milk at last insemination and categorized in 21-day windows from the VWP.
- A pregnancy rate is calculated for each 21-day window as the number of cows that got pregnant divided by the number of cows available to be inseminated. Then a weighted average is taken of all the 21-day windows to come up with an overall Pregnancy Rate.



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How do you manage the transition period, and how important are transition cows to the success of your reproduction program?

Curtin Brothers Dairy: We have two transition groups. One is mature cows that have had at least one calf, and the second group is heifers calving for the first time. Splitting the group eliminates competition, since heifers need different diets. Cows are given a 60-day dry period. At least 21 days prior to calving, cows and heifers are moved into prefresh pens where they are vaccinated and dewormed. We try to do urine pH tests every two weeks. We feed an anionic diet to prefresh cows, which makes it easier to keep urine pH levels between 5.5 and 6.0. Because of pH-level testing, our postcalving metabolic problems are minimal.

Transition cows are the most important cows on the farm. As a manager I monitor these cows more than any other cows on the farm. Our transition cow management dictates the future of the dairy. We try to calve cows correctly, with minimal metabolic problems the first 10 days in milk. When postcalving metabolic problems are at a minimum, the cows will achieve a positive energy balance more quickly. This allows us to reach milk peaks faster and have better reproduction.

Majestic Meadows: We don't have many problems, mainly because of our implementation of crossbreeding. Our transition cows and fresh cows require very little management; however, we still utilize a 10-day temperature process to monitor cows that have high temperatures in our close-fresh pen. A lot of our calving issues have been greatly reduced, and we currently have a three percent dead on arrival at calving. We have minimal assisting and/or pulling, and therefore the uterus remains in much better shape for future reproductive performance.

What do you see as your biggest challenge related to reproduction?

Blanchard Family Dairy: Mother Nature. Other than that, everything is working really well and I don't find anything too challenging.

Crosswind Jerseys: I really feel that apart from nutrition, the key to getting cows bred is breeding the maximum amount of cows when they are in standing heat. Heat detection is our greatest challenge. If we breed cows when they are in heat, we can get more cows bred versus any kind of synchronization program. I know we have Jerseys, and I'm sure they show more signs of standing heat than other breeds. This makes heat detection a little easier, but I definitely believe that when you have highly productive cows, some do not show long signs of heat. We have employees that are excellent heat detectors during the day, but having a good heat detector on our night crew pays big dividends for our dairy.

Curtin Brothers Dairy: Our biggest challenge is not overreacting to one poor pregnancy check and keeping everyone focused every day.

Knevelbaard Dairy: Ensuring every cow receives the proper protocol at the right time. It has been important for my employees to understand that each step of the protocol is just as important as the actual breeding. If one step is not properly followed, the whole protocol can be ineffective.

Majestic Meadows: Our biggest challenge would be finding a way to reduce the incidence of twinning. If a cow throws twins, then she's behind from the start, and we have more challenges trying to get her rebred.



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What advice do you have for other producers looking to improve herd reproduction?

Blanchard Family Dairy: 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 as outlined in the protocols.

Crosswind Jerseys: I suppose everyone's situation is a little different. I have attended dairy conferences and I have heard a lot of producers talk about other dairies. Most producers discuss increasing management standards for transition cows. I think some people may overlook their transition cows. Heat detection is the other aspect producers should focus on improving. I believe managing transition cows and maintaining accurate heat detection will help other dairies improve conception and pregnancy rates.

Curtin Brothers Dairy:

- Identify what's holding you back
- Do the small things, but keep it simple
- Identify your best voluntary waiting period
- Have healthy cows and focused employees

Your reproduction is only as good as the health of your cows, along with the commitment and understanding of the herdspeople implementing your reproductive program.

Knevelbaard Dairy: Keep it simple. The research is out there to help identify which protocols work best and it's important to review the research and know what will work best for each dairy's individual situation. The next step is to choose a protocol and implement it as it was designed.

Some of the protocols can get complex, so work with your veterinarian, nutritionist, semen provider, university extension and management software company to make the tasks simple. We use Dairy Comp 305® to make automatic "To Do" lists. The lists took a lot of up-front thinking, but are now part of our daily routine. While designing the program my consultant team exchanged a lot of e-mails with many different points of view on priorities between cow physiology and practical on-farm application.

Majestic Meadows: For us, the biggest factor is our implementation of crossbreeding, which allows us to raise a more fertile cow. Our breeder has also really helped us; he's put us on the map. I think it all comes back to raising a better, more fertile cow with the help of sound breeders.

Congratulations to the Gold, Silver and Honorable Mention Winners in the 2010 DCRC Reproduction Award Program!

<u>Gold</u>	<u>Silver</u>	<u>Honorable Mention</u>
• Blue Sky Dairy <i>Cleveland, Minnesota</i>	• Darlington Ridge <i>Darlington, Wisconsin</i>	• Kelsay Farms LLC <i>Whiteland, Indiana</i>
• Rock Bottom Dairy <i>Rock Rapids, Iowa</i>	• Golden Dawn Farms <i>Merrill, Wisconsin</i>	• Prairie View Dairy LLC <i>Delton, Michigan</i>
• University of Illinois Dairy Cattle Unit, <i>Urbana, Illinois</i>	• Green Mountain Dairy <i>Sheldon, Vermont</i>	
• Van Ryn Jerseys <i>Hartley, Texas</i>	• Norwiss Farms, Inc. <i>Rice Lake, Wisconsin</i>	