



# Excellent cow care leads to repro success

Focusing on overall cow health and fertility paid big dividends for the six Platinum winners of the Dairy Cattle Reproduction Council's Reproduction Award competition.

**I**T'S about doing the little things well. That is what you will learn after reading comments from the top dairy farm managers in the world as they share insight on how they get cows safely in calf. This year's winners hailed from Indiana, Iowa and Wisconsin along with international honorees from Great Britain and China. Detailed responses from the American dairy farmers can be found on the three pages of this Round Table, while highlights on our global herds are found on page 737. To learn more about each farm, go to Dairyman's Extras at [www.hoards.com/dairymanextras](http://www.hoards.com/dairymanextras).

### How do you manage postfresh cows to optimize breeding success?

**Dutchland Dairy:** We believe our postfresh performance is tied directly to how we take care of cows during the dry period. We try to remain understocked in the cows-to-headlocks ratio in both the postfresh and prefresh pens. We feed Diamond V YC (yeast culture) to our postfresh cows.

We also have very few calving problems. We contribute this to three things:

1. Our high straw/low energy close-up diet.
2. We keep our cows on a compost pack in the calving area. The compost stays very soft and level because we rototill it twice daily. Cows stay calm in the pack when they do not have to be moved to a separate calving area, enabling them to almost always calve on their own.
3. Crossbred cows provide hybrid vigor and seem to move through the calving process better. If cows come through the calving process well, we have few problems maintaining body condition score.

**Holmesville Dairy:** Once our cows calve, we drench them as soon as we can . . . but always within 24 hours. Our drench contains calcium, alfalfa meal, 12 ounces of propylene glycol all mixed with 5 gallons of lukewarm water. We give each cow vitamin B12 and oxytocin to help prevent retained placenta. If we have a cow that has a retained placenta after

12 hours, we use Excenel for three to four days to ward off metritis. We also monitor fresh cows daily for those off-feed. Cows are vaccinated two weeks after calving with Bovi-Shield Gold FP 5 L5 HB.

We also dry off cows with twin pregnancies earlier to try and achieve a longer 70-day dry cow period and help maintain their body condition.

**New Dawn Dairy:** We observe cows daily. Each day we routinely check for fever, ketosis, D.A.s (displaced abomasums), and so forth.

**Schilling Farms:** Fresh cows are monitored in the lockups each morning for the first 20 days after calving. Temperature, attitude and appetite are closely watched for signs of illness. Early detection and treatment are key in preventing serious fresh cow disease and uterine infections which influence conception rates down the road.

All fresh cows are pumped with a fresh cow drench mix which includes calcium propionate, alfalfa meal and probiotics mixed in lukewarm water. Cows are also checked at 5 and 11 DIM (days in milk) for BHBA (postpartum beta-hydroxybutyrate) using an Abbott Precision Xtra meter. If we detect an issue in BHBA levels, cows are treated for ketosis. Prostaglandin (Lutalyse) is given at 10 and 21 DIM to help with uterine involution. Cows are vaccinated with Bovi-Shield Gold FP 5 L5 HB on Day 21 to maximize immunity to reproductive diseases prior to breeding.

NEFAs (nonesterified fatty acids) are periodically monitored in the prefresh group to assess body condition loss before calving. If NEFAs are high, rations are checked and adjusted. DMI (dry matter intakes) are monitored with the Feed-Watch feed tracking system daily in order to make sure that we are maximizing our feed intakes in the prefresh and postfresh groups.

### Prebreeding — When does breeding start?

**Dutchland Dairy:** We breed cows, of all lactations and all production levels, starting at 60 days. We currently breed heifers starting at 13 months. We bred at 12 months for several years but our

heifers milked better if we waited until 13 months. We still average under 23 months at first calving with a 13 month waiting period on heifers.

**Holmesville Dairy:** All of our cows are bred at 68 days whether they are first lactation or are producing high volumes of milk. We recently raised this voluntary waiting period (VWP) by 10 days to try and improve our peak milk. For the heifers, they are bred at 13 months of age and we use sexed semen on the first two breedings. If they don't get pregnant to the first two services, then we use conventional semen.

**New Dawn Dairy:** The voluntary waiting period is 60 days for cows and first-calf heifers. We begin breeding heifers at 13 months of age.

**Schilling Farms:** We use a 68-day VWP for cherry-picked heats, but most cows are bred with an ovsynch on the first service between 80 and 86 DIM. We have seen positive results in our conception rates and peak milk by raising our VWP for our ovsynch from 60 to 80 days. Virgin heifers are bred starting at 13 months of age.

### Prebreeding — Do you utilize any presynchronization programs?

**Dutchland Dairy:** We presynch starting at 33 days and administer those protocols on Thursdays when we give the breeding GnRH. So each cow is given Estrumate (prostaglandin) two weeks apart and the ovsynch is started 12 days later.

**Holmesville Dairy:** We use presynch programs and give the first Lutalyse (prostaglandin) at 52 days, and no cows are bred from this protocol. The second Lutalyse is given at 68 days, and if the cow is in heat, we breed.

If not bred, we start the synch program. That involves giving GnRH-Cystorelin 12 days after the second Lutalyse in the morning. Lutalyse is then given seven days after GnRH in the morning. Next, we give GnRH 2-1/2 days after Lutalyse in the afternoon. We breed the next day, midday.

**New Dawn Dairy:** We use a presynch program that starts 34 days postfresh when we give Lu-



"Work with good people who know what they are doing," explained Dave and Dan Duitscher, who along with their father, Dean, own and operate Dutchland Dairy in Rolfe, Iowa. "Be particular with technique when performing A.I.," they went on to say when sharing insight as to what leads to reproduction success on their dairy. "Do everything you can to keep cows healthy. Healthy cows get pregnant," added Dave. Dutchland Dairy consists of 1,150 Holstein and crossbred milk cows that average 24,000 M, 1,022 F and 788 P with a 98,000 SCC on shipped milk last year and a 39 percent pregnancy rate. Shown above are key members of the Dutchland Dairy team (L to R): Crosby Krischel, A.I. technician; Dave Duitscher; herdswomen Kelly Boeckholt and Lynn Plantz; Dan and Dean Duitscher.



"Work with people who can maximize your herd fertility," commented the father-son team of Tim and Travis Holmes. "We feel a successful breeding program is a result of a total team approach from the employees, nutritionists, veterinarian and breeders. Quarterly team meetings have helped our group stay on the same page," noted Tim, who owns the dairy with his wife, Penny, son Travis and daughter-in-law Stephanie. The 500-cow Holstein herd from Argyle, Wis., averages 27,800 M, 936 F and 781 P with a 141,000 SCC and a 30 percent pregnancy rate. Shown above (L to R) are: herdsman Jim Holmes, brother of Tim Holmes, who is next in line; Travis Holmes holding son Hunter; Tim Heiring, Genex technician; and B.J. Jones, D.V.M., Center Hill Veterinary Clinic.



**"Make sure employees know the importance** of adhering to synch protocols, heat detection, semen handling and placement in the uterus," was the advice Henk Knevelbaard shared with us on his herd's award-winning reproductive performance. "All aspects are important, and the entire team needs to know why all aspects are important," said the owner of New Dawn Dairy in Huntington, Ind. The herd of 1,500 crossbred cows, mainly with a Holstein, Montbeliarde and Swedish Red crossing system, maintains a herd average of 27,000 M, 1,016 F and 810 P with a 68,000 SCC and a DCRC contest high 43 percent pregnancy rate. Shown above are (L to R): Alechandro Zavaleta, assistant herdsman; Jose Crozalba, mechanic manager; Marcelo Oberto, nutritionist; Henk Knevelbaard, owner; and Jose Louis Zavaleta, herdsman.



**"We feel cow comfort, foot health, cooling, nutrition** and fresh cow care are essential for reproductive success. All factors depend on each other for a successful breeding program," explained Bill Schilling and his sons Andy and Brian. "In addition, having set protocols and routines for synching and resynching has helped maintain excellent compliance essential to reproductive success." The 625-cow Holstein herd hailing from Darlington, Wis., averages 28,766 M, 1,122 F, 897 P with a 78,000 SCC and a 35 percent pregnancy rate. Shown above are members of the farm team (L to R): Tim Heiring and Dakota Bockenbauer, Genex technicians; Steve Fleming of Investors Community Bank; Brian Schilling; B.J. Jones, D.V.M.; Andy Schilling; John Wienkes, Vita Plus nutritionist; Luke Risser, herd assistant; Mike Van Schyndle, Spensley Feed Sales nutritionist; and Bill Schilling.

talyse. That is followed by prostaglandin on Day 48, Day 55 and GnRH 48 hours later. We breed at 8 hours and 24 hours after we administer GnRH.

**Schilling Farms:** Every animal is given Lutalyse at 21 to 24 DIM on Tuesdays and Saturdays to help clean up any metritis or endometritis. However, no formal presynchronization program is used on our farm.

### Synchronization — Do you use ovulation or heat synchronization?

**Dutchland Dairy:** All cows except "do not breed" future cull cows are enrolled in a presynch/ovsynch program for their first service. We have thought about switching to a double ovsynch but have had good success with the presynch/ovsynch and do not want the headaches of administering additional protocols on extra days.

With the heifers, we Estrumate all open and age-eligible heifers every two weeks. We utilize tail paint with the heifers because we believe it works better than chalk on them.

**Holmesville Dairy:** All cows are ultrasounded by our veterinarian, B.J. Jones, at 32 and 55 days after breeding. If they are open and have a CL (corpus luteum), cows are resynchronized with an ovsynch protocol where we give GnRH on the day the vet checks, prostaglandin seven days later, GnRH 2-1/2 days after the prostaglandin, then breed the next day. If the cow is open with no CL, we give GnRH and recheck her for a CL the next week at which time she will go through the ovsynch program.

If our heifers are not bred by 13-1/2 months, we will ultrasound them. Heifers with CLs are given Lutalyse, while heifers with no structure are given Cystorelin and checked in one week for a CL.

**New Dawn Dairy:** We use a presynch program described in the second question, then we move to ovsynch. The ovsynch includes GnRH, 67 DIM; prostaglandin, 69 DIM; 69 DIM breed (afternoon); 70 DIM rebreed (morning). All open cows at the time of vet check are enrolled back into the presynch/ovsynch program.

**Schilling Farms:** Heifers are entered in the breeding pen at 13 months of age and are bred by visual inspection of Estroject patches by the Genex A.I. Team. Heifers are ultrasounded at 28 days postinsemination, and if found open with a corpus luteum, are given Lutalyse.

Lactating cows are all bred on an ovsynch 48-hour program for first service. All cows are start-

ed on ovsynch at 70 DIM. Cystorelin (GnRH 1) is given Tuesday morning, Lutalyse 1 (prostaglandin) is given seven days later on Tuesday morning, GnRH 2 is given 48 hours later on Thursday morning. Breeding is done on Thursdays, 8 hours after the morning GnRH. Open cows are resynched with a similar program at herd health. If a corpus luteum (CL) is present, ovsynch is started. If a CL is not present, 2 cc GnRH is given and ovsynch is initiated seven days later.

Our overall pregnancy rate with these methods is currently 37 percent with a 50 percent conception rate. Approximately 54 percent of our breedings are synchronized with a 51 percent conception rate. In addition, 19 percent of our cows are classified as standing heat breeding with a 51 percent conception rate while 27 percent are classified as chalk breedings with a 46 percent conception rate.

### Heat Detection — How are cows observed for heat?

**Dutchland Dairy:** We have tail chalked for several years and have had good success. It is important all the pens get checked daily or you do not know where you are with the chalk. Headlocks are a must for our tail chalk program.

**Holmesville Dairy:** Our Genex A.I. technicians walk through the cows every day while they are locked in headlocks. We use Genex Reveal tail paint to check to see who is in heat. The heifers are bred at outside headlocks and walked daily. Estroject patches are used for heat detection in the virgin heifers.

**New Dawn Dairy:** We use visual heat detection with paint sticks up to 200 DIM. Herdsmen walk pens once in the morning and once in the afternoon to check for heats. Paint is applied at both walk throughs. About 10 minutes is spent per pen in the a.m. and p.m. Heat detection is 75 percent. Herdsmen also look for heats throughout the day while performing regular duties.

**Schilling Farms:** Cows are tail painted with Reveal paint and "walked" every day by the Genex team. Nonlactating heifers have Estroject patches applied prebreeding and then are painted when confirmed pregnant. The heifers are also "walked" while restrained in headlocks once per day.

### Breeding — Describe your handling facilities for breeding.

**Dutchland Dairy:** All the cows and heifers are bred in headlocks.

**Holmesville Dairy:** We have a freestall barn with headlocks in each pen to breed the cows. For our heifers, we have outdoor areas that have headlocks for breeding.

**New Dawn Dairy:** All cows are in headlocks. Heifers are bred in a cattle chute.

**Schilling Farms:** Cows are bred in headlocks on a daily basis. Heifers are bred in outdoor headlocks.

### Pregnancy/open check — How do you confirm pregnant or open cows?

**Dutchland Dairy:** We ultrasound weekly. Dave performs the ultrasounds. We preg check between 30 and 36 days, recheck between 61 and 66 days, and check the cows again at dry-off.

**Holmesville Dairy:** For pregnancy checking, we have our veterinarian, B.J. Jones, ultrasound them once a week on Tuesdays. We ultrasound cows at 32 days after breeding to determine if they are pregnant or open. Pregnant cows are rechecked at Day 55 to confirm the pregnancy and also check for twins and the fetal sex. The heifer groups are also checked weekly at the same intervals.

**New Dawn Dairy:** Ultrasound is used at weekly preg check. That takes place about 35 days since last heat. If found open, cows get rolled back into ovsynch.

**Schilling Farms:** Cows are ultrasounded at 33 days carried calf (DCC) to determine pregnancy. Open cows with a CL are resynched with ovsynch. Open cows without a CL are given 2 cc GnRH and resynched seven days later with the ovsynch protocols. Pregnant cows are re-ultrasounded at 60 DCC to confirm pregnancy, determine fetal sex and to check for twins.

### Breeding — How do you deal with problem cows?

**Dutchland Dairy:** Our Holstein cows are bred to Holstein A.I. bulls on the first breeding and some times the second. After that, they are bred to Jerseys. We seldom breed a cow over 220 days in milk or if they are below 60 pounds of energy-corrected milk.

**Holmesville Dairy:** If a cow is having trouble with getting bred and found open at vet check, we will use the ovsynch programs. Once a cow is over 200 days in milk or under 75 pounds of milk and still open, we discontinue breeding them. We usually run two bulls with our pregnant heifer group for cleanup purposes only.



**New Dawn Dairy:** Open cows start over again with the synchronization program. Cystic cows are examined by the veterinarian and given a CIDR. We have no bulls on the dairy. Any cows more than 200 DIM are placed on a do not breed list and culling is ultimately determined by milk production.

**Schilling Farms:** We try to identify problem cows early and stop investing money in breeding them. Cows are considered for a "do not breed" classification when they are open, over 200 DIM and have lower milk production. When a DNB cow's milk production falls under 70 pounds, she is considered for culling. Cows may be classified DNB earlier in lactation based on age, production, or feet and leg concerns.

### Breeding — What positive changes have you implemented?

**Dutchland Dairy:** We have not made many changes in our program the past few years. I think the consistency of having the same people doing the reproduction for the past several years has contributed to our success. Also, we use sprinklers and fans. Cooling is very important to our reproductive success.

**Holmesville Dairy:** We have made several improvements over the past few years to help our cows and heifers get bred. We have headlocks in all of our milking-cow freestall pens, prefresh and postfresh barns, along with heifers starting at 12 weeks of age.

For heat abatement, we have added misters in the freestall barns along with lots of fans to keep the cows cool. For our animals that need to eat outside at headlocks, we added a shade cloth over the bunks. We have also added in fans for our dry cows and pre-fresh cows. We feel adding sand bedding over mattresses has also led to improved foot and leg health.

**New Dawn Dairy:** Everything is the same, we always use a lot of fans and misters. Cooling is among our most important assets with water and air movement.

**Schilling Farms:** We feel cow cooling is critical to maintain conception rates during the summer. Changes we have made the last several years to improve cow cooling include adding rows of fans over each row of freestalls, feed line water sprinklers and additional water sprinklers in the holding area. In 2014, additional fans were added over cross alleys.

Dry cow cooling is also stressed with fans over the freestalls. Shade cloth has been added for the dry cow outside feeding to help keep them cool. We feel that the improved cooling of our dry cows has helped produce healthier follicles which has led to higher first-service conception rates.

### Nutrition — What role does nutrition play in your program?

**Dutchland Dairy:** Nutrition is one of the pieces for reproductive performance. The most essential part is good-quality feedstuffs. We strive to grow high-quality and digestible forages and also buy quality ingredients. These are the main contributors to having adequate energy in the lactating diet.

We have fed a low-energy dry cow diet for over 15 years, and it has worked extremely well. Metabolic issues are very low. We do feed extra yeast to the fresh groups and also chelated minerals to all groups of cows.

It can be a challenge to make sure that the low-energy feeds for the dry cows are clean and free of molds and toxins. To make this all happen, we work closely with our nutritionist, George Sonnek from Purina.

**Holmesville Dairy:** Nutrition is a very important part of our reproductive program. We work both with Vita Plus Dairy nutritionist John Wienkes and our local Vita Plus dealer, Spensley Feeds nutritionist Mike VanSchyndle.

We have one person who feeds all the cows, pre-fresh, postfresh and heifers. We believe this is an important factor to keep a consistent ration. Keeping good-quality and fresh feed in front of the cows has helped us keep the cows eating. We feel feeding both Vita Plus Quick Start pellets after calving and Vital Start and Procell Yeast in the pre- and postfresh rations has helped minimize fresh cow problems and improve our cow health.

Switching our dry cow treatment to Spectramast DC has helped, as has eliminating a pen move during the transition period as it has reduced fresh cow problems by boosting our dry matter intakes.

**New Dawn Dairy:** A good nutritional program in prefresh and postfresh plays a very important part in good reproduction. Our prefresh diet is designed to transition smoothly into postfresh and reduce the cases of ketosis, DAs, retained

placentas and common diseases typically found in fresh cows.

**Schilling Farms:** We feel our nutrition program is a key factor in our reproductive program. We have focused our energies on making high-quality feed, leading to a more highly digestible fiber. That has allowed us to get more energy out of our homegrown feeds.

We always strive for the best and most fresh feed available to maintain the highest dry matter intakes possible. We continue to maintain a consistent diet year in and year out to keep the cows on an even path with minimal body condition loss. We have very few cows that are not cycling by 70 DIM.

We also feel that the Vita Plus Quick Start pellets after calving, and Vital Start and Procell Yeast in the pre- and postfresh rations help to minimize transition cow issues, and keep cows in a positive energy balance.

We have one person who feeds the cows, pre-fresh and postfresh, and heifers which helps keep the diets consistent. We added FeedWatch, a computerized feed management software system, in February 2014, which has allowed us to more closely monitor our dry matter intakes in the pre-fresh and postfresh groups. 🐄

### Additional DCRC Award winners

#### Gold

Columbia River Dairy, Boardman, Ore.  
Darnen Dairy, Morris, Minn.  
District 45 Dairy, Hancock, Minn.

#### Silver

Azienda Agricola Sant'elena Dairy, Italy  
Breitenmosers Family Farm, Merrill, Wis.  
Darlington Ridge Farms, Darlington, Wis.  
Homestead Dairy, Plymouth, Ind.  
Rock Bottom Dairy, Rock Rapids, Iowa  
Weaver Homestead Farm, New Holland, Pa.  
Woodnotch Farms, Inc., Shoreham, Vt.

#### Honorable Mention

Page's Ponderosa, Kewaunee, Wis.  
Paulen Farms, Howard City, Mich.  
Pride-View Dairy, LLC, Randolph, Wis.



**Hailing from northwest England, Moor House Dairy** is one of two international winners. The 250-cow Holstein Friesian herd consistently maintains a 35 to 36 percent pregnancy rate while breeding 81 percent of the herd using chalk-based heat detection. The remainder go through an ovsynch protocol. This dual strategy yields a 75 percent "in-calf" rate at 100 days postfresh. Shown above is the farm team (L to R): Allan and Barb Mawson; Willie Lockhart, who is the farm's veterinarian, with Pendragon Vets; Mark Mawson, the fourth generation to run the dairy; Adam Collantine, the farm's nutritionist, with Dugdale Nutrition; and Matt Davies, the farm's A.I. technician, with Genus ABS. Allan, Barb and Mark are quick to mention that the above team all play a crucial role in the farm's success.



**With a 35 percent pregnancy rate, YuTian2 Dairy** located 70 miles east of Beijing, China, also earned Platinum honors. The 2,577-cow dairy averages 60 pounds a day with a 150,000 SCC. Cows are milked in a double-50 parlor and are housed in freestall barns. Getting cows safe in calf garners a great deal of attention at the Chinese dairy. Tail heads are painted and cows are observed for heat 24 hours a day by farm staff with the aid of an electronic step tracker developed by SCR. Those cows that are not observed in heat go through an ovsynch protocol. Reproductive team members shown above include (L to R): Liuzheng Ao, breeder; Chuanda Zhang, breeding assistant; Sun Wang, trainee; Yulong Jiao, breeder; Xiaochen Yao, breeder; and Yunfei Zhu, breeding supervisor.