The National Dairy Quality Award winners

These six families produce the highest quality milk in the land simply by being detail oriented, having a passion for cow welfare and comfort, and putting in place those systems that help to ensure success day after day.

WELL, here they are. The best of the best. These six families (some with a number of employees) were judged to have produced milk of the highest quality during the past year. That's according to a team of milk quality experts serving as officials for the National Dairy Quality Award program.

Selection of these six Platinum winners started last summer when the industry was invited to submit information about potential winners using a one-page nomination form. (See the July 2006 and August 10, 2006 issues of Hoard's Dairyman later this year for nomination forms.) Nearly 160 nomination forms were received at the office of the National Mastitis Council in September. Of those, 37 were selected to submit a more detailed application. The judges used those applications to select the six Platinum winners featured here, as well as 10 Gold and 17 Silver winners. (See previous page, 12 A.)

Last year, there were seven Platinum winners, five of which also had been Platinum winners the year before. According to NDQA rules, farms that received top awards two years in a row are not eligible to compete for two years.

Here is how this year's "Q award" winners get the job done:

Describe your milking procedures.

Brokish: Predip, foremilk, dry teats with disposable cotton towels, attach, and postdip. I wear gloves while milking.

Davenport: Most, but not all, of the 10 people who milk wear gloves. We foremilk, predip, dry teats with single-service white paper towel, attach, and postdip.

Disch: We have a written milking procedure. We strip, dip, dry with household paper towels, attach after 30 to 60 seconds, and postdip.

Feldbruegge: Even though just two family members milk, we have a written procedure. We strip out foremilk, predip, dry teats with paper towels, attach, and postdip.

Rothenberger: Nine different people milk, including seven employees. We have a written procedure and wear gloves. The procedure is brush sawdust from udder, predip leaving contact time, clean teats (especially teat ends), foremilk, dry teats with single-service dairy paper towel, attach, hand check quarters after milking, and postdip.

Speirs: Seventeen different nonfamily employees milked last year. All wore gloves and followed a written procedure. It is: strip, predip, dry with cloth towels, attach, and postdip.

How do you maintain healthy teat ends?

Brokish: I use a 1 percent iodine-10 percent glycerin dip both pre- and post-. I check our digital CFM gauge daily and have monthly milk pump and regulator checks by our Westfalia-Surge dealer.

Davenport: Our pulsation ratio is 60/40, and we are careful about proper attachment and positioning of machines. We stress trying to avoid overmilking. Inflations are changed every 1,200 milkings, and we have monthly checks on the vacuum pump and pulsator timing, clean and replace filters as needed, and check our vacuum level gauge frequently.

Disch: Keeping cows and bedding clean and dry helps a lot. We make sure we remove milking units on time and maintain proper vacuum. Inflations are changed, and the regulator is cleaned every two months. All other milking equipment is checked every six months.

Feldbruegge: We use teat dip and udder balm whenever teats are dry or chapped. Vacuum controllers are cleaned and checked once a month, and take-offs are checked out yearly. We replace inflations every three months and other rubber parts as needed.

Rothenberger: It takes constant maintenance of milkers and constant vigilance while milking to make sure milkers are not hanging on too long, even with our automatic take-offs. We have a yearly, full-service contract for equipment checks and do periodic checks as needed.

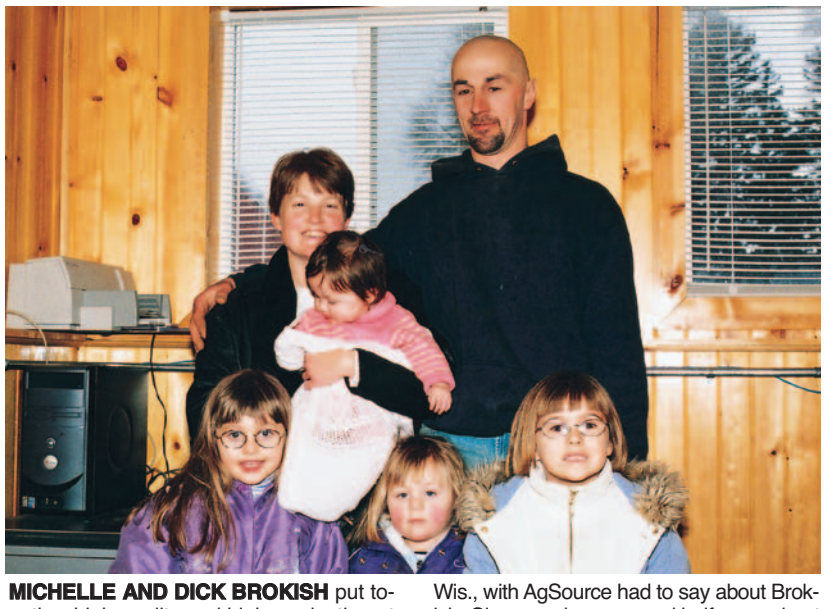
Speirs: Correct udder prep, proper vacuum, and fast-milking inflations are important. Every Wednesday, Lisowe Dairy Service is on our farm to look after all scheduled maintenance; plus they do our emergency work as needed.

How are cows kept clean and comfortable?

Brokish: Our barn has 63 tie stalls with Pasture Mats. I use 1/2-inch-long chopped straw on top of the mattresses, and the stalls are cleaned daily. There are three, 48-inch Acme barn fans for ventilation. I also have 43 free stalls in a sand-bedded barn that is scraped every other day. I keep dry cows on an eight-acre pasture area year around.

Davenport: We have large comfort stalls with rubber mattresses and properly adjusted cow trainers. Stalls are bedded each day with about 0.7 cubic foot of low-dust, kiln-dried pine sawdust and 0.35 pound of hydrated lime per stall. We clean gutter grates and hoe back wet and dirty bedding at least six times a day. We really make sure that cows can lay on clean, dry bedding, especially right after milking. Our winter ventilation system keeps the barn dry and cool (around 45 to 50 degrees). During summer, we use overhead fans to keep a 3- to 4-mph breeze around the cows.

Dry cows have access to 48- by 92-inch free



MICHELLE AND DICK BROKISH put together high quality and high production at Fun-Run Dairy, Hollandale, Wis. They are shown with their daughters from left, Natalie, Corina, Halle, and Rachel. The farm's rolling herd average is approaching 25,000 milk on 85 head. "No one in Iowa County (Wis.) has been this consistent . . . other farmers can't imagine how he does it," was what nominator Ron Lewis, Dodgeville, Wis., with AgSource had to say about Brokish. Close-up dry cows and heifers are kept on sand-free stalls. The herd is on Pasture Mats topped with chopped straw. All fresh cows are CMT'd. Brokish has monthly dealer checks on his vacuum pump and regulator and checks his digital vacuum gauge daily. He uses gloves during milking and takes culture samples so he can target treatments.

KAREN AND JIM DAVENPORT (at center shown with daughters Laura, left, and Kristen) at Tollgate Farm near Ancramdale, N.Y., have a long record of high quality. They have received the top quality award for their Agri-Mark co-op region nine times and the co-op's top honors twice. Ten different people milk the 76-cow Tollgate herd, including four employees, which is testament to strict adherence to a written milking procedure. Their nominator, Jim Kinch, Plainville, Conn., with Agri-Mark, credits the Davenports with "amazing" attention to detail. The farm's tie stalls are bedded with low-dust, kiln-dried sawdust and hydrated lime and are cleaned six times a day. Inflations are changed every 1,200 milkings. As much treatment of mastitis as possible is done with oxytocin therapy. Antibiotics are used only on severe cases based on culture results.

LARRY DISCH, New Glarus, Wis., shown with his wife, Linda, and grandson Trenten, had an average somatic cell count of just 53,000 and had just one clinical case in his 39-cow herd (less than 3 percent of his cows). According to nominator Randy Hardyman with Grande Milk Marketing, Disch has had only one month during the past 15 years when average cell count was over 100,000. The tie stalls at Shan-Tell Farm have sand bedding. The sand is raked daily, and new sand is added every two weeks. Heifers receive dry cow treatment to cut down on heifer mastitis. He has a digital read-out for his bulk tank to closely monitor cooling temperatures. All fresh cows are tested for drugs with a Delvo test.

THE FELDBRUEGGES, Mary Ann and Richard, Abbotsford, Wis., "Always have had low cell counts," according to their veterinarian and nominator Ron Shiffler. The Feldbruegges have 40 Holsteins in a tie stall barn. Their stalls have rubber mats bedded with freshly chopped hay. They keep shovels handy around the barn for convenient stall cleaning. All quarters of all cows are dry treated, and then those cows are marked clearly with a paint stick. The Feldbruegges run an antibiotic test on all fresh cows before their milk is put in the tank. Mastitis treatment histories are part of DHI records and also are recorded in a notebook. Herd culling rate averages a low 22.5 percent.

stalls with big, open-loop dividers. The stalls have a brisket board and rubber-filled mattresses and are bedded with kiln-dried sawdust. The stalls are hoed off twice a day. During about seven months of the year, dry cows also have access to a three-acre, grassy exercise area.

Disch: We use sand-bedded tie stalls year around. Sand is raked daily, and more is added every two weeks. We have a year-around ventilation system.

Feldbruegge: Our tie stalls have rubber mats and are bedded daily with freshly chopped straw. Walkways are swept and limed daily for good traction. We have shovels handy to make it easy to clean stalls. Cleaning water bowls regularly and proper use of cow trainers and gutter grates helps cow comfort. We also comb cows to keep them cleaner. During summer, cows have access to grazing.

Rothenberger: Our free stall aisles are scraped, and stalls are cleaned three times daily. We put grit on alley floors for traction. About half the stalls are filled with clay; half with mattresses (with shredded rubber). We bed with kiln-dried sawdust after each cleaning, and we put hydrated lime on the stalls once a day to help prevent bacteria growth and absorb moisture. We have ventilation fans and misters in the barn for hot weather.

Dry cows are in a free stall-like area without the stall partitions. It other words, it is a long, narrow, bedded pack area with a feed alley on one side. The pack area has mattresses topped with kiln-dried sawdust. The mats and aisles are cleaned twice a day.

Speirs: Our sand-bedded free stalls are filled once a week and are hand-raked during each milking (three times a day). Also, alleys are scraped with a skid-steer three times a day. Three times a week, the stalls are power raked. Our barn has open sidewalls for natural ventilation, with cooling fans and sprinklers for summer.

How do you detect subclinical mastitis?

Brokish: CMT paddle and DHI SCC results.

Davenport: DHI SCC reports and then CMT to identify the guilty quarters.

Disch: We use a strip cup on and CMT cows over 200,000 based on DHI reports.

Feldbruegge: CMT and DHI reports.

Rothenberger: CMT and DHI test reports.

Speirs: DHI SCC reports.

What is your definition of clinical mastitis?

Brokish: Any case that does not subside after 48 hours.

Davenport: Anything that shows up in a strip cup or on the CMT paddle.

Disch: Cows that go off feed and those that do not respond to treatment.

Feldbruegge: Lumps or flakes and swollen quarters. Also, sometimes just by cow behavior.

Rothenberger: When the cow has flakes, discolored milk, or a sensitive quarter.

Speirs: A cell count of 800,000 or higher, a visibly hard quarter, or abnormal milk.

How do you detect clinical mastitis?

Brokish: Use of CMT paddle.

Davenport: Strip cup and CMT.

Disch: Enlarged quarter and CMT, watery milk.

Feldbruegge: Strip cup, CMT, DHI, hard or swollen quarters.

Rothenberger: We forestrip every cow before milking to check for it.

Speirs: Visual exam on prestrip by milkers/parlor manager.

Describe fresh-cow monitoring.

Brokish: At three days postpartum, all cows and heifers are checked with CMT paddle.

Davenport: Visual observation of udders of springing heifers and cows. Strip cup and careful scrutiny of colostrum.

Disch: All fresh cows are CMT'd. If a fresh cow has a high cell count, she is treated.

Feldbruegge: Checked with strip cup and CMT. Antibiotic test is run on them. We withhold milk from the tank for the required number of milkings using a fresh cow bucket. During that period, cows are regularly checked with strip cup and CMT and pre- and postdipped.

Rothenberger: We do a CMT the first time we milk them and closely monitor any positive quarters. (All positive quarters are written on a board in the parlor to inform all milkers.) We periodically flame udders to help keep udders cleaner, maintain a clean environment and constant vigilance — just paying attention to the cows in the parlor (watch milk, temperature, and so forth) and out in the barn (watch eating habits, and so forth).

Speirs: All fresh cows are lab cultured for con-

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	Brokish	Davenport	Disch	Feldbruegge	Rothenberger	Speirs
Cows	85	76	39	40	104	853
Breed	Holstein	Holstein/Ayrshire	Holstein	Holstein	Holstein	Holstein
Milk (lbs.)	24,846	23,898/18,321	20,484	23,452	28,303	24,936
Fat (%)	3.68	3.9/4.1	3.55	3.87	3.22	3.58
Protein (%)	3.02	3.10/3.00	2.94	3.09	3.00	3.02
SCC avg.	55,000	86,000	53,000	82,750	39,500	81,000
SPC avg.	2,400	1,166	4,000	2,080	1,500	1,000
Cows with clinical cases (%)	11.8	14.5	2.6	12.5	12.5	12.4
Cows leaving the herd (all reasons) (%)	9.4	34.2	25.6	22.5	40.4	25.2
Mastitis culls (%)	3.5	3.9	7.7	7.5	2.9	2.1

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tagious mastitis and are monitored closely by the herdsman. All cows that leave the hospital pen are Delvo tested and lab cultured before being moved.

What steps do you take at dry-off?

Brokish: All cows, regardless of SCC, are treated with Quartermaster, as well as Orbeseal.

Davenport: Cows are put on low-quality hay, and we wait until manure is like horse manure and production is less than 20 pounds per day. Then we alcohol pad each teat and treat with Quartermaster and postdip well. After that, cows stay in the stall barn at least four hours before going to the dry cow barn.

Disch: Dry cows are dry treated right after last milking with Tomorrow and dipped. Then we monitor cows during the dry period for any problems . . . which are very rare.

Feldbruegge: Reduce grain one week prior to dry-off. Dry treat all quarters. Dip teats with iodine dip. Mark with paint stick, and hang dry cards above and record in notebook, observe during dry period for any abnormal quarter swelling.

Rothenberger: Only one person does the dry treating. We do a CMT test, and, if there's a bad quarter, we'll culture it. The cow is then milked (using a specified procedure), then we alcohol our hands (wearing gloves), alcohol the teats, dry teats with an individual towel, clean each teat end with an individual alcohol pad, alcohol the tips of treatment tubes before inserting the tube (we use Tomorrow) and then insert Orbeseal.

Speirs: Cows are milked to 225 "days carrying calf" and have their hooves trimmed two to four weeks prior to dry-off. All cows get dry tubes (Quartermaster) and Orbeseal. We check CMT and SCC at dry-off. If high, a second treatment may be done. We vaccinate with J5, Scourguard, and ALPHA 7.

What pathogens are most troublesome?

Brokish: The environmentals. To combat them, I just try to keep cows as clean, dry, and comfortable as possible.

Davenport: Klebsiella. We aggressively dry treat. No lactating-cow therapy seems to work.

Disch: There isn't really one that stands out.

Feldbruegge: Environmental streps. We try to keep cows as clean as possible, supplement vitamins A, D, and E, and use a quarter milker on those cows that have problems.

Rothenberger: No special problems.

Speirs: Environmentals, staphs, and streps. We stress proper milking procedures, identify the pathogen involved with clinical mastitis cases, and treat accordingly.

Describe your treatment procedures.

For mild cases:

Brokish: Aspirin and oxytocin for 48 hours.

Davenport: Oxytocin therapy.

Disch: Treat for four milkings. Cows over 200,000 SCC two months in a row are treated to prevent bigger problems.

Feldbruegge: Use quarter milker and intramuscular (IM) injections of vitamins A, D, and E.

Rothenberger: The milker will inform the herdsman of the cow's condition, and then he (and only he) will determine if and with what the cow should be treated. He will factor in the severity and type of mastitis and which cow it is (her history . . . Is that quarter a problem? Has it happened before? How did she respond to certain treatments?, and so forth). The treatments are all relevant to the cow, but our standard procedure is in how we analyze the problem.

Speirs: We culture. For gram negatives, there is no treatment, and we just observe . . . and possibly use oxytocin. Gram positives get Cefa-Lak three to five days.

For moderate cases:

Brokish: I use Aspirin and oxytocin for 96 hours, as well as handstripping the infected quarter throughout the day.

Davenport: Oxytocin therapy and use quarter milker. We culture and check for antibiotic sensitivity.

Disch: Treat for six to eight milkings.

Feldbruegge: Use quarter milker and give intramuscular injection of vitamins A, D, and E. If there is no improvement, we treat with Today mastitis treatment and withhold milk.

Rothenberger: The milker will inform the herdsman of the cow's condition, and then he (and only he) will determine if and with what the cow should be treated. As before, the herdsman bases treatment decisions on the cow's history. We have a standard procedure to analyze such problems.

Speirs: We culture. Gram negatives get oxytocin, hypertonic saline, Banamine, and we observe their progress. On gram positives, we use Cefa-Lak, Dari-Clox, or Spectra Mast.

For severe cases:

Brokish: All of the above, as well as the use of antibiotics.

Davenport: Oxytocin therapy, and we sample milk for culture and antibiotic sensitivity. We treat with OTC drugs that I think have the best chance of working until culture and sensitivity results arrive.

Disch: We treat for eight or more milkings.

Feldbruegge: Treat with Today, inject ADE, handstrip the quarter regularly. If there's no improvement, dry up quarter or sell cow.

Rothenberger: We handle severe cases the same way we handle mild and moderate cases. Only the herdsman makes treatment decisions, and we have a set protocol for how to approach those decisions.

Speirs: We culture them. Gram negatives get oxytocin, Banamine, and hypertonic saline. Gram positives get Oxytet with Cefa-Lak. If treatment is not working, we use a different lactating tube, try oxytocin, and then IV Oxytet.

How are treated cows identified?

Brokish: By use of chalk on hip, as well as a leg band.

Davenport: Leg band, chalkboard notice, and verbal heads-up mentions.

Disch: They are marked with paint stick.

Feldbruegge: Red card of treatment above cow. Cows are marked a lot with a paint stick.

Rothenberger: Red velcro bands are put on the back legs, and the ID number and treated quarter are written on a board in a parlor.

Speirs: They are moved to the hospital pen. We put red duct tape on both rear legs.

How do you decide when milk may be sold after treatments are completed?

Brokish: Use an antibiotic tester on farm.

Davenport: Delvo test kit.

Disch: First cows are CMT'd to make sure they are cleared, then tested for drugs with Delvo test.

Feldbruegge: Sample is tested at milk plant for antibiotics, and we check with CMT.

Rothenberger: We go by the label withhold time. If there is any question, we'll run a Delvo test until the milk is clear.

Speirs: By normal looking milk and a negative Delvo test.

THE ROTHENBERGER FAMILY, near Landsdale, Pa., had a remarkable average somatic cell count of 39,500. Scott Rothenberger, shown with daughter Jewel, accomplished that with an impressive herd average of more than 28,000 pounds of milk. Nine different people milk at Merrymead Farm, including seven nonfamily employees. Their nominator, Dale C. Streams, D.V.M., cited the farm's "Unquestionable attention to detail and strict instruction to all employees, including sanitation, consistent milking technique, and complete reporting of all abnormal observations from day of birth to day of culling." The Rothenbergers pay close attention to milking unit removal to promote teat end health and flame udders for improved cleanliness.

CATHY AND GORDON SPEIRS, Brillion, Wis., have high production (25,000 milk) and high quality, while milking more than 850 Holsteins. "Respect for employees and concern for the welfare of the livestock are hallmarks of this operation," reported Jonathon August, Grande Milk Marketing, who nominated the Speirs. At their Shiloh Dairy, the Speirs culture all fresh cows and Delvo test every cow that leaves the hospital pen. They use sand in their free stalls which are hand raked three times a day and power raked three times a week. Every Wednesday, Lisowe Dairy Service checks out the milking equipment in their double-16 parallel. For summer, the barns have open sidewalls and fans and sprinklers for cooling.