THE BEST OF THE BEST

From 115 applicants, these operations stood out for having produced high-quality milk consistently. Applications were evaluated for measures of quality, systems of monitoring udder health, milking routine, protocols for detection and treatment of clinical and subclinical cases of mastitis, and strategies for overall herd health and welfare.

PLATINUM WINNERS

Recipient: Neil Christianson, Shiiocton, Wis.  
Nominator: Jolynne Schroeper, Sartori Company

Recipient: Andy Tiefen, Reedsdale, Wis.  
Nominator: Emma Hembel, Land O’Lakes, Inc.

Recipient: The Gerrits Family, Greenleaf, Wis.  
Nominator: Jolynne Schroeper, Sartori Company

ART AND LORI MEINHOLZ, MIDDLETON, WIS.  
BRENT, NANCY, TYLER, AND BEN WILSON, CARSON CITY, MICH.  
JULYNE SCHROEPER, SARTORI COMPANY

GOLD WINNERS

Nominator: Lyndsay Earl, ***MMPA

Recipient: Bill and Betsy Bullard, Turner, Maine  
Nominator: Audrey Slattery, **DFA

Recipient: Brad, Mark, and Larry Crandall, Battle Creek, Mich.  
Nominator: Joe Packard, ***MMPA

Recipient: Jim and Karen Davenport, Ancramdale, N.Y.  
Nominator: Ruth McKin, Agri-Mark, Inc.

Recipient: Gary, Nancy, and Tyler Endres, Waunakee, Wis.  
Nominator: Bill Mueller, Grande Cheese Co.

Recipient: Jeff, Steve, and Randy Endres, Waunakee, Wis.  
Nominator: Bill Mueller, Grande Cheese Co.

Recipient: Steve and Kim Fischer, Manitowoc, Wis.  
Nominator: JR Neu, Sartori Company

Recipient: Eric, Carol, and Evan Hillan, Ladyshmith, Wis.  
Nominator: Emma Hembel, Land O’Lakes, Inc.

Recipient: James, Louanne, Evan, and Harrison Kiko, Paris, Ohio  
Nominator: Will Moore, SmithFoods Orrville, Inc.

Nominator: Lyndsay Earl, ***MMPA

Recipient: Scott Martin, Quarryville, Pa.  
Nominator: Ashley Lansdowne, Land O’Lakes, Inc.

Recipient: Mark and Sara Ann Miller, Millersburg, Ohio  
Nominator: Will Moore, SmithFoods Orrville, Inc.

Recipient: Dennis, Brenda, and Mike Raterink, Zeeland, Mich.  
Nominator: Lyndsay Earl, ***MMPA

Recipient: Andy Schmitt and Jessica Tekippe, Fort Atkinson, Iowa  
Nominator: Leroy Messler, Wapsie Valley Creamery

Recipient: Valley Acres Dairy Farm #1, Lewiston, Minn.  
Nominator: Dale Heintz, Ag Partners Cooperative

Recipient: Valley Acres Dairy Farm #2, Lewiston, Minn.  
Nominator: Dale Heintz, Ag Partners Cooperative

Recipient: Jonathon Theisen, Campbellsport, Wis.  
Nominator: JR Neu, Sartori Company

Recipient: Ken, Duane, Laurie, Mike, and Beth VanPole, Marion, Mich.  
Nominator: Lyndsay Earl, ***MMPA

Nominator: Britni Tucker, ***MMPA

SILVER WINNERS

Recipient: Michael Bosscher, McBain, Mich.  
Nominator: Deb Gingrich, ***MMPA

Nominator: Deb Gingrich, ***MMPA

Recipient: John Christian and Rhoda Chupp, Sugarcreek, Ohio.  
Nominator: Will Moore, SmithFoods Orrville, Inc.

Recipient: Eric and Shelly Clemens, West Branch, Mich.  
Nominator: Steve and Kim Fischer, Manitowoc, Wis.  
Nominator: JR Neu, Sartori Company

Recipient: Cory and Maria Dorner, Luxemburg, Wisc.  
Nominator: Ryan VandenPlas, Total Dairy Service LLC

Recipient: Dave Geiser, Deb Reinhart, and Manuel Valenzuela, New Holstein, Wis.  
Nominator: Emma Hembel, Land O’Lakes, Inc.

Recipient: Michael Kleinhaus, Kiel, Wis.  
Nominator: Emma Hembel, Land O’Lakes, Inc.

Nominator: Lyndsay Earl, ***MMPA

Recipient: David and Kat Mageean, Anni Arbor, Mich.  
Nominator: Joe Packard, ***MMPA

Recipient: Michigan State University, Lansing, Mich.  
Nominator: Lindsay Green, ***MMPA

Recipient: The Ohio State University, Wooster, Ohio  
Nominator: Will Moore, SmithFoods Orrville, Inc.

Recipient: Thomas and Rosalie Noyes, Russel and Cherry King, Creston, Ohio  
Nominator: Will Moore, SmithFoods Orrville, Inc.

Nominator: Christy Dinsmore, ***MMPA

Recipient: Melvin and Patricia Pittman, Plum City, Wis.  
Nominator: Tim Nelson, *AMPI

Nominator: Frank Brazeau, ***MMPA

Recipient: Daniel and Michael Schroeder, Calendonia, Minn.  
Nominator: Katie Brown, Land O’Lakes, Inc.

Recipient: Leslie, Lewis, and Lynn Siegmund, Kewaunee, Wis.  
Nominator: Tom McCaulley, Land O’Lakes, Inc.

Recipient: Doug and Mark Sperry, Coldwater, Mich.  
Nominator: Ashley DeWitt, **DFA

Recipient: Tim, Paul, and Marcus Witmer, Goshen, Ind.  
Nominator: Ashley DeWitt, **DFA

Recipient: Tim Young, Woodstock, Conn.  
Nominator: Kim Abell, Agri-Mark

*Associated Milk Producers Inc.
**Dairy Farmers of America
***Michigan Milk Producers Association

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Milk quality is an everyday endeavor

Persistent attention to detail, stringent adherence to milking protocols, and constant pursuit of clean and comfortable cows is a focus on these farms.

The always innovative Blue Star Dairy implemented selective dry cow treatment on their 700-plus cow dairy. Cows with somatic cell counts (SCC) under 100,000 cells per milliliter only receive a teat sealant at dry-off. Cows with an SCC over the 100,000 threshold receive both an antibiotic-based dry cow treatment and a teat sealant. “Blue Star Dairy does an outstanding job with their cows,” said nominator Bill Mueller with Grande Cheese. “Everyday they are consistent with their milk quality and procedures. The farm’s SCC average has been under 80,000 since October 2017.” The Blue Star team, Middleton, Wis., includes (L to R): Joel Palaio; Carolina Pinzon, Fort Dairy Consulting; Isaiah Sanga; Cristian Corrales; Geena Kubertanz; Julio Guevara; Art and Lori Meinholz; Ramon Hernandez; Jeremy, Ben, and Lee Meinholz; and Jose Guevara. Missing is Kateilyn Pongratz.

A small but dedicated team makes milk quality a priority at Christop Fanns located near Shiocton, Wis. “Neil Christianson is an outstanding example of what cow care and thorough training with employees can have for results on a dairy farm,” said nominator Jolynne Schroepfer with Sartori Cheese. “Neil also seeks out help from a trusted team, which includes his veterinarian and nutritionist, to continue to educate himself. He has made a farm that focuses on cow comfort and care, and the result is quality milk and cows that thrive,” she went on to say about the Christop Farms team that includes Isaac Aeros, Elias Vargas, Neil Christianson, and Jeff McFarlane, D.V.M., with Advanced Veterinary Services, shown left to right. “Since cows thrive at Christop Farms, the farm is able to sell over a quarter of their ‘culls’ as dairy replacements,” continued Schroepfer.

Milk cows are kept in a tunnel-ventilated freestall barn with 38 4-foot pusher fans and 10 6-foot exhaust fans. All stalls have DCC Dual Chamber 180 waterbeds. The waterbeds are bedded lightly two times a week with kiln-dried sawdust. Each bed is thoroughly cleaned during each milking, removing manure and moisture, then each bed has Western-hydrated barn lime laid down on top. Sawdust is moved around the stall to keep the stalls dry. Every hour, alley scrapers push manure into the drop site in the middle of the barn, and then it gravity flows into the manure pit. Freestall mattresses are groomed during each milking, removing manure solids three times a week. Scraped manure is distributed on the back quarter of the stall bed. Scrape alleys are cleaned with a skid loader three times per day. Each quadrant contains four 52-inch ventilation fans on a thermostat. Cow brushes are available in each pen. Cow udders are singed a couple times during the lactation.

Wilson Centennial: Milk cows are kept in two-row freestall barns with sand bedding. Fresh-washed sand bedding is changed once a week, row naturally ventilated, curtain sidewall free-stall barns with high-volume, low-speed fans over the feed aisles and circulating fans over the stalls. All pens have temperature-controlled misters, and the holding area has exhaust and circulating fans.

All stalls have pasture mats with screened sand bedding applied to the top surface. Mats are hand-rolled three times daily at each milking shift, and any soiled sand is removed while fresh sand is raked back to provide a clean, dry, and level place for the cows to lie. Sand is added with a sandshooter twice weekly. We find that less sand added more often keeps sand fresher and cleaner, keeping bacteria levels low. Sand also adds traction in the alleys and around corners, which helps reduce the risk of injury. Freestall alleys, crosswalks, and lanes are cleaned three times daily during milking shifts as well, and the three-row pen has alley scrapers while the two-row pens are cleaned with a rubber tire on a skid loader.

In the summer, curtains are partially closed to create a dark environment free from direct sunlight and radiant heat on outside rows of the stalls in the freestall barn. Lights are timed to turn off during the day as well. We stress clean drinking water in all pens, and scrub brushes are frequently located near each waterer to promote routine cleaning.

UW Marshfield: Milk cow stalls are bedded with dried manure solids three times a week. Stalls are manually cleaned three times daily. Twice a week, hydrant lines are manually moved around the barn to keep the sand fresher and cleaner, keeping bacteria levels low. Sand is added with a sandshooter twice weekly.

Milk is stripped out of the foremilk, predipped, dried with cloth towels, attached with milking units, and postdipped. Milkers always wear gloves.

Wilson Centennial: Our protocol includes: predip, forestrip, dry teats with microfiber towels, attach the milking units, and postdip. Milk- ers wear gloves during milking. They change gloves after each group or if they leave to do another task and then return to the parlor.

How do you keep cows comfortable?

Blue Star: Freestall mattresses are groomed and bedded with very fine wood sanding dust three times a day. One barn has an alley scraper that scrapes every 2-1/2 hours. The other barn is scraped three times a day.

Christop: For the milking cows, deep-bedded sand freestalls are groomed three times per day, and sand is added weekly to keep stalls full and encourage cows to lay in stalls appropriately. Stalls are sized appropriately for the size of our cows, both length and width, to keep cows comfortable and both the cows and stalls clean. Alleys are scraped three times per day. Sidewall cur- tains allow for good airflow. Fifty-two-inch fans over the stalls are set on a thermostat.

Country Aire: Milk cows are kept in a tunnel-ventilated freestall barn with 38 4-foot pusher fans and 10 6-foot exhaust fans. All stalls have DCC Dual Chamber 180 waterbeds. The waterbeds are bedded three times a week with kiln-dried sawdust. Each bed is thoroughly cleaned during each milking, removing manure and moisture, then each bed has Western-hydrated barn lime laid down on top. Sawdust is moved around the stall to keep the stalls dry. Every hour, alley scrapers push manure into the drop site in the middle of the barn, and then it gravity flows into the manure pit.

Riverside: In order to keep milking cows clean and comfortable, we house them in two and three-
and we do bed the front end of the freestall deeper for better cow comfort. We scrape the alleys three times a day and put down hydrated lime on stall surfaces once a day on areas of high moisture.

Barns are naturally ventilated, with fans every 40 feet and misters overhead that are temperature controlled, turning on at over 64°F. We have made our freestalls wider to accommodate larger-bodied cows. The stalls are 55 inches wide with 8-foot headlocks. We also have 3/4-inch rubber mats at the feedbunk to provide comfort while cows are standing and eating. All stalls are maintained and fixed as needed.

What steps do you take at dry-off?

**Blue Star:** We do selective dry cow treatment on cows with an SCC greater than 100,000, based on DHIA records. All cows get a teat sealant. We also administer the Spectramast DC (ceftiofur hydrochloride) intramammary, then wipe all four teats again. That is followed up with postdip of Uddergold teat sealant. Three days later, we give 2 cc Endovac-Dairy subcutaneously, plus 2 cc Souncourid 4K intramuscularly. Thirty days prior to calving, cows receive 5 cc Ultracol Clostridium subcutaneously, 8 cc Multimin 90 subcutaneously, and 2 cc Endovac-Dairy intramurally. All needles are single-use to prevent the spread of bovine leukosis.

**Riverside:** To ensure milk quality, we dry cows off at 220 DCC and treat them intramammarily with the Spectramast DC (ceftiofur hydrochloride) and the bismuth subnitrate sealant Orbeoseal. We also administer the Enviracor J-5 (cefotiofur) and the bismuth subnitrate sealant Orbeoseal, and then wipe all four teats again. That is followed up with postdip of Uddergold teat sealant. We use a CMT paddle in

**Country Aire:** Cows at dry-off get teat ends dipped with iodine for sanitation, and then wiped with cloth towels. Alcohol wipes are then used to clean off teat ends, starting with the teat furthest away. Spectramast DC (ceftiofur hydrochloride) is then infused intramammary followed by Orbeoseal (again intramammarily) to seal teat ends and block pathogens or bacteria from entering during the dry period.

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Corey Geiger
Carla Wardin

January 25, 2021
HOARD’S DAIRYMAN

off feed, has a hard quarter, or is sick.
DHIA SCC tests.
ing at the cow’s demeanor and behavior, and
ter consistency are of concern, cows are segregated
quarters, or high SCC. If abnormal milk or quar-

We detect clinical mastitis by forestripping and
UW Marshfield: We check by forestripping and

Our milking technicians are trained to observe for abnormal milk or quarters, especially in the forestrip process. We look for visible signs such as flakes, chunky milk, swollen quarters, or high SCC. If abnormal milk or quarter consistency are of concern, cows are segregated and the herd manager is notified to move the cow to the hospital pen for further evaluation.

Riverside: We detect clinical mastitis by forestripping and visually evaluating the milk, looking at the cow’s demeanor and behavior, and looking at her rumen-fill along with individual DHI SCC tests.

Wilson Centennial: We detect clinical mastitis by observing during prestripping. We look for chunks, blood, a “hot-to-the-touch” quarter, and udder temperatures.

How do you track treated cows?
Blue Star: Treated cows have colored leg bands and are housed in a separate treated pen. We keep a hard copy at cowside and then put it into Dairy Comp 305.

Christop: Treated cows are identified with red duct tape wrapped around each back leg (separately). A desk calendar for cowside information and records is available to all employees, and Dairy Comp 305 is used for permanent record of treatment. All data is entered into Dairy Comp 305.
Country Aire: Treated cows are identified by different colored leg bands and isolated in a separate pen.

A clipboard with the treatment log is kept cowside to document all treatments. Paper copies are then entered into Dairy Comp 305. A permanent copy of the treatment records are kept in a file drawer in the herd manager’s office.

Dairy Comp 305 has all data entered and it has been set up with all SOPs and treatment withdrawal times.

Riverside: Treated cows are identified with a red treated band and red duct tape on their legs. Treated cows are written down in a treatment book in the office for the entire milking staff to view. This is essential for communication when employees take time off and the swing shift worker fills in. Each day the cow is treated it is recorded.

All of this information is also recorded in Dairy Comp 305 and written on a large dry-erase board located just outside of the parlor. We are able to access archive files from previous lactations using Dairy Comp 305, and we also save and store all paper sheets from our treatment logbook.

UW Marshfield: We use visual and electronic methods. Cow identification (ID), date, treatment, quarter, pathogen, and continuous education records are available to all employees, and Dairy Comp 305 has all data entered and it has been set up with all SOPs and treatment withdrawal times.

Wilson Centennial: To identify treated cows, we use bright-red bands, two bands per back leg, along with a red band on the tail if the cow has a high temperature.

All treatments are uploaded to PC Dart. Employees use a pad of paper to write down the cow ID, what they treated with, how much medicine was given, and the date. At the end of the day, those are taken to the house to be put into PC Dart. We can access PC Dart from the computer in the office or on tablets by all employees.

All vaccinations, diseases, and surgeries are recorded on PC Dart, and those records are available on the office computer or on the tablet. The employee will write down the treatment on paper, bring it to the home computer for input to PC Dart, record the specific quarter treated, what drug was used, and route of administration.

<table>
<thead>
<tr>
<th></th>
<th>Blue Star Dairy</th>
<th>Christop Dairy</th>
<th>Country Aire Farms</th>
<th>Riverside Dairy</th>
<th>UW Marshfield</th>
<th>Wilson Centennial Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cows (milking/dry)</td>
<td>641/91</td>
<td>169/18</td>
<td>597/0</td>
<td>353/75</td>
<td>217/28</td>
<td>872/86</td>
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<tr>
<td>Breed</td>
<td>Holstein</td>
<td>Brown Swiss/Holstein</td>
<td>Holstein</td>
<td>Holstein</td>
<td>Holstein</td>
<td>Holstein</td>
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<tr>
<td>Milk (lbs.)</td>
<td>30,340</td>
<td>29,026</td>
<td>31,500</td>
<td>29,047</td>
<td>27,586</td>
<td>31,526</td>
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<tr>
<td>Fat (%)</td>
<td>3.9</td>
<td>3.9</td>
<td>4.2</td>
<td>3.9</td>
<td>4.2</td>
<td>4.2</td>
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<tr>
<td>Protein (%)</td>
<td>3.1</td>
<td>3.0</td>
<td>3.0</td>
<td>3.1</td>
<td>3.3</td>
<td>3.4</td>
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<tr>
<td>SCC avg.</td>
<td>82,000</td>
<td>76,000</td>
<td>66,000</td>
<td>77,000</td>
<td>67,000</td>
<td>67,500</td>
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<td>Udder health-related culls (%) of culls</td>
<td>6.3</td>
<td>4.2</td>
<td>10.6</td>
<td>10.2</td>
<td>39.1</td>
<td>1.7</td>
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<tr>
<td>Do milkers wear gloves?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Do you use mastitis vaccines?</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Proof that protocols matter can be seen in action at the University of Wisconsin Marshfield Agricultural Research Station. While many of the staffers milking cows in the parlor may have never worked in a parlor prior to their employment at the Stratford, Wis., dairy, the outcome is always excellent quality milk. This is a reflection of both the farm’s management and culture. The staff also takes a great deal of pride in identifying mastitis early, and that helps with the treatment outcomes. Given the COVID-19 pandemic, all staff must wear masks or maintain 6 feet between coworkers . . . that’s why Hoard’s Dairyman captured this photo standing in a lift. Shown from the upper left portion of the “W” and moving right are: Brian Kruger, Pete Sutton, Emmy Sutton, Karl Weichelt, Doug Bolen, Sammy Shaw, Grace Tester, Makayla Weigel, Nancy Esser, Steve Marcis, and Will Cordes.

Prevention is the name of the game at Wilson Centennial Farm, Carson City, Mich. “The measures put in place to maintain cow health on the farm include construction details, vaccination and treatment protocols, and continuous education for employees,” said nominator Sarah Michalek, Michigan Milk Producers Association. They cultered nearly 50 clinical mastitis cases this past year. “Escherichia coli is the most common pathogen on our cultures,” said Brent Wilson. “We work with our veterinarian on the most effective treatment options based on sensitivity.” The team includes (L to R): Kaitlynn Card, Chris Benjamin, Courtney Matthias, D.V.M., Tony and Ben Wilson, Brent and Nancy Wilson, Billamar Alonso-Gomez, Tyler Wilson, Lucerto Alonso-Gomez, Angel Escobar-Ortiz, Aimala Morales-Jose, Tomas Pacheco-Alonso, Alberto Torres-Ramirez, and Reynel GuzmanRamirez.

Table 1: Herd Test Results

Table 2: Treatment Details

Table 3: Deworming Details

Table 4: Vaccination Details

Table 5: Health Management Details

Table 6: Process Archive Details

Table 7: Employee Information

Table 8: Management Information

Table 9: Financial Information

Table 10: Market Information

Table 11: Environmental Information

Table 12: Community Information

Table 13: Future Information

Table 14: Conclusion

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