

# Daviscope



Fall 2010 Volume 16 Number 2  
Davisco Foods International, Inc. Newsletter

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## Employees Take a Healthy Approach

**“W**e want to open up our facilities and educate and inform the public about how we make milk,” says Bruce Wenner, business manager at Davis Family Dairies (DFD). He was referring to the open house at DFD’s New Sweden Dairy in rural Nicollet County, Minn., not far from Davisco’s Le Sueur Cheese plant. “It’s our day to show them that in animal agriculture we are proud of what we do,” he says. About 1400 attended the event held in June.

### Responsibility to Inform

The event was held to boost public confidence in how the dairy operates to produce quality milk by caring for both cows and the land. “Animal agriculture is one of the most sustainable businesses you can be involved in,” says Mitch Davis, general manager of DFD, which includes Northern Plains Dairy, also located in Nicollet County. “We want people to understand that animal care and husbandry are what drive our business economically,” he explains.

### Facts Tell Scope of Operation

**Cows’ Growth Cycle** » There are 7,000 adult animals, including dry cows and heifers, between the New Sweden and Northern Plains dairies. Cows from both facilities give birth in the special needs barn at New Sweden and are milked there in early lactation.

Calves from birth to two months are housed at the New Sweden site and then moved off-site to a contract grower until they are five or six months old. They are then moved to a heifer grower until they are about 20 months old and returned to New Sweden to give birth to their own calves.

**Milk Production** » Lactating cows at New Sweden are milked on a 72-stall rotary parlor. Every seven seconds a cow steps onto a rotating deck and into an individual stall. A radio frequency identification tag in her ear identifies each cow and tracks milking information that dairy managers use to monitor milking procedures and cow health. Each cow is milked three times a day; milk harvest takes about five to six minutes per cow. Milk is filtered and cooled to 37 degrees Fahrenheit and pumped into tanker trucks for transport to the Le Sueur Cheese plant.

Milk production at New Sweden is 58 to 60 pounds of milk per cow per day, which yields about seven pounds of cheese a day. The two Davis family dairies combined 350,000 pounds of milk shipped each day provides for about 17 percent of Le Sueur Cheese plants daily cheese making schedule.

**Nutrition from Local Suppliers** » Cows are fed once per day utilizing a total mixed ration, which incorporates the necessary nutrients. Each cow eats approximately 80 pounds of feed per day; fresh water is always available. No drugs or hormones are fed to cows.

The dairy buys commodities grown locally, regionally and even nationally based on how suitable, available, and economical they are, says Davis. DFD utilizes corn, corn silage, soybean meal, hay, and straw from more than 16,000 acres each year.

Local farms are especially important to DFD because they supply all corn and corn silage, and each year DFD contracts with area growers to secure the herd’s needs. “Close to \$800,000 worth of feed is fed each month and most of that money goes directly to neighbors growing the crops,” says Davis. At the same time, cost of delivery is reduced for DFD and negative impact from transportation on infrastructure and the environment is minimized.

**W**eight control and exercise impact health, a belief that Davisco Foods is reinforcing in its workplace every day. “What we’re doing is slowly integrating a proactive plan to improve the health of our employees,” says Jon Davis, Davisco’s Chief Operating Officer.

The company helps employees with personal health issues by providing physical exams, health reports, and general information. By addressing health on an individual level, obesity and heart disease resulting from lifestyle choices can be greatly reduced, Davis explains.

Employees are making changes to markedly improve their health.

### Noethlich Drops Pounds, Realizes Benefits

Mike Noethlich embarked on a weight loss program, shedding 52 pounds since last September. The contract processing manager at Lake Norden Cheese Co., Lake Norden, S.D., Noethlich started a diet regimen after receiving cholesterol and blood pressure test results from an in-house health screening. “I got concerned and started reading a lot about nutrition,” he says.

Noethlich also started exercising. Now he runs 3 to 4 days a week, does resistance training, and bikes. This July he and a friend participated in a triathlon; Noethlich completed the biking and canoeing portions, his friend the running. Exercise and diet have paid off: Noethlich’s cholesterol dropped from 258 to 216 and his blood pressure from 144/88 to 120/80. “There are lots of advantages [to losing excess weight and exercising],” he says. “I’m looking forward to next year’s triathlon!”



### Kahnke Runs Marathons

When Sheri Kahnke isn’t managing the lab at Lake Norden Cheese Co., she just might be running. This spring she competed in the Boston Marathon (26.2 miles) and has run in three other marathons. Kahnke’s time of less than three hours and forty minutes in the Sioux City, Iowa marathon qualified her for the Boston Marathon.

Kahnke’s running has likely helped to inspire fellow employees to jump on the health bandwagon. Several from Lake Norden are taking part in the Children’s Miracle Network event this fall, which includes a 5K walk/run, the half marathon, and relay.

“I think that Davisco has certainly played a role in getting employees involved in their health over the last year,” notes Kahnke. “After employees received their individual health packets from health screening, it seems like you always saw different groups of people looking at their reports and talking about the information.”

I think that the screenings and related information put necessary knowledge into the hands of the employee and will help us all become more accountable for our health and the lifestyle choices that we make.”

“I don’t know if it’s a coincidence,” says Davis, “but as you drive around Le Sueur [Minn.] around lunch time, you see a lot of our Davisco employees going on walks. Whether it’s due to the new health initiative or not, it’s a really good thing.”



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# New Sweden Dairy Reaches Out

Open House teaches public about today's dairy industry firsthand.



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Manure Management Benefits Feed Suppliers, Environment » Manure is an important raw material at DFD. Using a unique process, New Sweden converts raw manure into a nutrient-rich liquid. The liquid is then injected (in quantities that supply exactly the nutrients needed) into the same land that produces crops the dairy purchases. "This saves the grower money, reduces the need to import fertilizer, and prevents surplus nutrients from building up in the soil and compromising surfactant and ground water," says Al Larsen, DFD's environmental engineer.



Employees » Together New Sweden and Northern Plains dairies employ 85 employees, who tend to milking, barn care, feeding, baby calf care, herd health, breeding and environmental management. "We are blessed with a really good, competent and well-educated staff," says Davis. "A solid, happy work force is necessary for successful operations."

### University Connection Enhances Information Flow

New Sweden Dairy has a unique affiliation with the University of Minnesota's College of Veterinary Medicine (CVM). The university utilizes the dairy facilities for teaching within its veterinary program, for continuing education of industry professionals, and for researching emerging products and practices. The vet students "live it," Davis says, by studying at a large, commercial dairy.

"We can pretty much count on seeing the routine problems that cows have, and we know we can treat them adequately here," says John Fetrow, CVM professor, about the Dairy Education Center at New Sweden Dairy. "There is no other place that has this scale of activity, this number of cows, [or] the size of this 'city' with its on-site dormitory facilities, classroom facilities, and laboratory facilities really make it ideal for teaching."

This one-of-a-kind educational opportunity is possible because of the public-private partnership that the CVM has with DFD. "Taxpayers and the state did not have to pay to build the dairy or buy the cows, and the university doesn't pay to feed the cows or any of the costs of operating the center," says Fetrow. "But they still get all the academic advantages."

DFD gains by having the university there as a resource to enhance the dairies' performance, says Davis.

BELOW: A) James Ailsby, projects manager explains the milking process. B) Minnesota State Senator Kathy Sheran and Minnesota Commissioner of Agriculture Gene Hugoson visit on the floor of the rotary milking parlor. C) The milk harvest being observed by open house visitors shown from the center of the 72-stall milking carousel. D) Anna Bredl (left) and Erica Kupser, employees of Davisco Foods in the marketing and promotion department, serve up ice cream and other dairy treats. E) Mitch Davis, General Manager of Davis Family Dairies, Mark Davis, CEO of Davisco Foods, International, Frank Cerra, Senior Vice President for Health Sciences at the University of Minnesota and Dean of the Medical School, and John Fetrow, Professor of Dairy Production Medicine at the University of Minnesota College of Veterinary Medicine at the grand opening of New Sweden Dairy, LLC on September 16, 2009.

## New Sweden Open House a Wonderful Experience

Comments such as "thank you for opening up to the public" and "high technology yet caring for cows in a gentle manner" could be heard as visitors toured New Sweden Dairy. The goal of the June open house at New Sweden was to give neighbors, friends and the public an opportunity to find out how a large dairy operates.

Visitors were transported to the Davis Family Dairies' newest dairy via tour buses that left nearby St. Peter, Minn., every 15 minutes. Forty employee-volunteers and their families from DFD, Davisco Foods and Cambria led tours and answered questions; each tour lasted about 45 minutes. Polly Olson, vice president of business development, sales and marketing for Davisco, noted that she and her staff put 200 to 300 hours into planning the open house.

"The amazement in visitors as they . . . viewed the state-of-the-art dairy was fun to watch," says Olson. "Visitors asked great questions and showed enthusiasm about the dairy and how far technology has evolved."

From the bus, visitors viewed the inside of the barn, where 3,000 lactating cows live. Visitors learned that milk is made into cheese within 18 hours of harvest at nearby Le Sueur Cheese. Buses next drove past the manure treatment site, where visitors learned that manure is transported in the fall from the facility to 2,400 acres that are within a four- to five-mile radius of the dairy. Nutrients provided by manure are injected directly into land where crops for the dairy are produced, which saves the land owners the cost of buying and trucking chemical fertilizer from far-off sources, instead adding value to the land with a renewable resource and spurring local economic activity.

Visitors then walked into the milking parlor viewing area and through the University of Minnesota College of Veterinary Medicine Dairy Education Center classrooms. Through viewing windows, they could see into the special needs barn, where cows give birth.

Tour guides emphasized the importance of cow comfort and how it is addressed at the New Sweden Dairy. For example, air is cooled at the barn's inlet and flows at a velocity of seven miles per hour, cooling cows and exhausting heat and humidity from the barn. Cows are milked regularly, drink fresh well water, have a balanced ration, and receive 24-hour care.

On the return trip to St. Peter, visitors enjoyed ice cream and cheese sticks, compliments of the dairy. They also returned with more understanding about the industry that had just provided their treat.

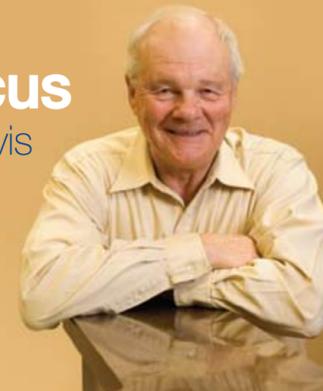
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Davisco Foods International, Inc.  
Quarterly Newsletter  
Fall 2010 Volume 16 Number 2  
Editor: John Velgersdyk  
Design & Copywriting:  
ENVISION: Design that Works, Inc.

DAVISCOPE is a newsletter for employees, their families, milk producers and customers and is published by Davisco Foods International, Inc.  
704 North Main Street, Le Sueur, Minnesota 56058.

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Le Sueur, Minnesota

## InFocus Mark Davis



I hope the New Sweden Dairy tour, as described in this newsletter, will serve as a message and example to the citizens of Minnesota—not just to the 1400 interested persons that took the tour, but, to everyone concerned with economic development in our state.

This private/public partnership is one example of what can be accomplished in Minnesota's vast rural areas, as our considerable agriculture industry evolves into the future.

The resources are evident, if one takes stock of Minnesota's historic leadership in food production. Now the opportunity is ripe to continue the evolution taking place in that vital industry. The economic ripple effect of these types of operations spreads out locally in a value-added manner, both as to the inputs and to the services needed.

No sector of this country's vast economy is better suited to utilize and develop the resources naturally available to residents in rural Minnesota than agriculture, particularly, livestock agriculture. The synergies between crop production and animal husbandry are evident. The opportunity to "feed the world" while addressing environmental and sustainability concerns are nowhere more available than right here in Minnesota.

We must continue to invest in rural Minnesota and the time is now.

*Mark Davis*



# Jersey Farm and Family Shine with Care

**P**eter and Amy Lou Gieseke put family first on their registered Jersey operation in rural St. James, Minn. — as they are quick to tell you about “the two Cs,” their sons Clay, 9, and Carter, 4. Their yard houses a massive play structure, sand box, and play house for the boys to enjoy. Days at the Giesekes are full, revolving around the boys and their Jersey herd.

Peter’s parents, Bob and Loraine, live nearby. Peter and Amy Lou took over the 90-cow, 100-head of young stock and 300-acre operation in 1992. It is a third-generation farm; the herd has been registered since 1955. Today Bob drives tractor when needed; Loraine watches the boys.

Cows are kept comfortable and clean in a tunnel-ventilated tie-stall barn; the old underground stanchion barn provides comfortable housing for heifers.

In summer, 4-H youth work with Gieseke calves. The kids gain hands-on experience with dairy animals, says Amy Lou, who also organizes school tours of the farm and who heads her county’s Minnesota Agriculture in the Classroom program.

The family also enjoys friendships formed through the Minnesota Jersey Association, attending conventions and hosting a farm tour for a national convention audience. They market their cattle on state and national Jersey sales, with a percentage of the profit from the sale used to support American Jersey Cattle Association youth programs.

### Employees and Professionals Contribute

The Giesekes employ a full-time herdsman and five high school students who milk after school or early mornings, as needed. “We admire their work ethic. It builds their character,” Amy Lou says.

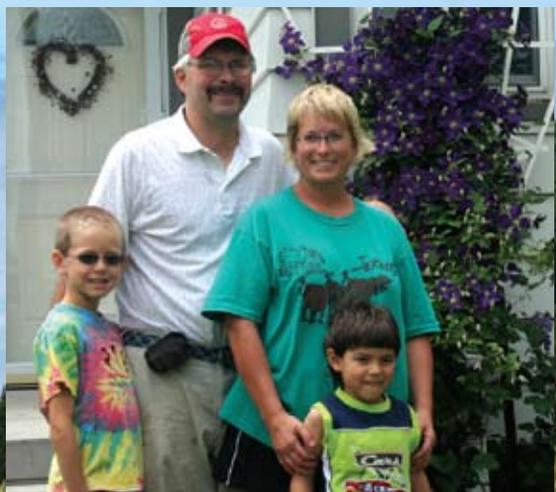
Herdsman Jared Schwichtenberg, a two-year employee, milks, feeds, and breeds cows and handles herd health duties, working well with the part-time high school employees. “Jared’s well-rounded dairy background makes leaving the farm for business trips and family time more enjoyable,” says Amy Lou.

Nutritionist Rick Mages of Form-A-Feed in Stewart, Minn., veterinarian Dr. Robert Ovrebo of Arlington, Minn., and Citizens Bank Minnesota in LaSalle round out the team.

### Award-Winning Jersey Milk

The care the Giesekes put into the operation has paid off. Their herd had a 2009 American Jersey Cattle Association 305-day lactation average of 21,854 pounds of milk, 1,000 pounds of fat and 768 pounds of fat on 96 lactations, ranking them sixth in the nation for milk and protein and ninth for fat. Somatic cell count is less than 200,000 cells per ml. They believe Davisco’s Le Sueur Cheese plant compensates them well for the high fat and protein content in their Jersey milk.

Currently, the Giesekes are exploring ways to finance updated facilities that will increase cow comfort and longevity and that will reduce the labor intensity of their present system, says Peter.



The Giesekes were named Watonwan County Farm Family of the Year in 2008. Peter, Amy Lou and sons, Clay and Carter, are shown at their home.



## Content Cows Produce More and Stay Healthier

**T**hink about how cows act – they lie down, they eat, and they hang out together. These are productive behaviors for dairy cows, along with standing to be milked. Today, facilities and technologies are available to better accommodate these natural behaviors and create a more comfortable environment for the cow.

### What Cows Need

A typical dairy cow's 24-hour time schedule includes 12 hours for laying down, five hours for eating, and the remainder for drinking water, socializing, and being milked.\* That means that seventy percent of a cow's day is spent eating and resting. It's for good reason.

The more a cow rests, the more her mammary blood flow increases; the more she consumes feed, ruminates and utilizes the nutrients from feed, the more milk she produces. High milk-producing cows rest 13.5 hours a day and eat six hours.\* A herd manager's challenge is to provide cows with enough time and other resources to perform these activities.

### What Herd Managers Need to Provide

If facilities are inadequate, and a cow can't do her job of laying down and eating so she can produce milk, stress is a result. Furthermore, when a cow's normal routine and environment are interrupted or changed, such as when she is moved into a new pen and must re-socialize or when she must stand for a long period of time for, say, a health procedure, she

is also predisposed to stress. Stress compromises a cow's immune response, risking a decline to her health.

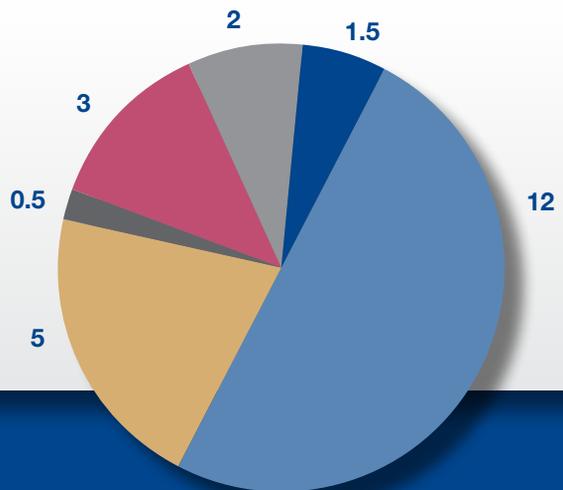
Herd managers need to look at design flaws in facilities and overcrowding of barns, assessing the limits cows face in engaging in their natural productive behaviors. Cow needs are well documented in dairy science research and include unlimited access to feed and water, comfortable lying areas for rest, proper flooring for sure-footedness, shelter from weather, and adequate ventilation to remove humidity and noxious gases. Making sure cows are cooled properly with fans and sprinklers during sustained high temperature and humidity is also important. That's because cows stand more if they are hot, says Dr. Mike Hodgman, technical veterinarian, Elanco Animal Health, which has global headquarters in Greenfield, Ind.

Hodgman also recommends:

- Removing the neck rail or moving it forward if cows aren't lying in their stalls, but are standing with front legs in stalls and rear legs in the alley
- Providing a soft cushion by using deep bedding in stalls, whether tie-stall or free-stall housing
- Looking at recommendations for stall design and planning changes with a trusted consultant



### TYPICAL COW 24-HOUR TIME BUDGET<sup>1</sup>



### COW COMFORT WEBSITES:

- Michigan Dairy Review: <http://www.msu.edu/~mdr>
- University of Minnesota Extension: [http://www.extension.org/pages/Taking\\_Advantage\\_of\\_Natural\\_Behavior\\_Improves\\_Dairy\\_Cow\\_Performance](http://www.extension.org/pages/Taking_Advantage_of_Natural_Behavior_Improves_Dairy_Cow_Performance)
- Advances in Dairy Technology: [http://www.wcds.afns.ualberta.ca/Proceedings/2003/PDFs/Manuscripts/Chapter\\_07\\_Anderson.pdf](http://www.wcds.afns.ualberta.ca/Proceedings/2003/PDFs/Manuscripts/Chapter_07_Anderson.pdf)
- Ontario: Ministry of Agriculture Food & Rural Affairs: [http://www.omafra.gov.on.ca/english/livestock/dairy/facts/info\\_cowbehave.htm](http://www.omafra.gov.on.ca/english/livestock/dairy/facts/info_cowbehave.htm)

<sup>1</sup>Information taken from R. Grant, 2007 Western Dairy Management Conference. Used with permission.  
<sup>2</sup>Adapted from Grant, 2007 Western Dairy Management Conference; Ric Grant, Miner Institute, Chazy, N.Y.