

# Large-scale farming with a conscience

## Holsum Dairies in Calumet County win national sustainability award

By Jim Lundstrom

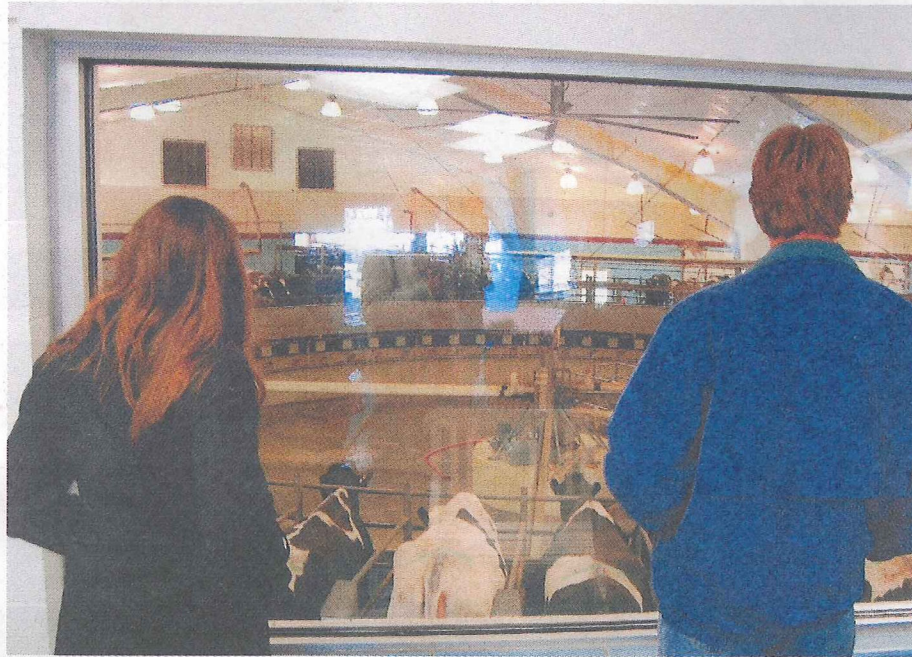
Megafarm.

The word conjures up images of cramped quarters and an unholy stink arising from the tons of waste produced by the thousands of stressed, pooping animals confined to a factory farm.

But it doesn't have to be that way. Two dairies in Calumet County are proving that profitability and sustainability can go hand-in-hand.

"It's easy to drive by these facilities and look at it as an eyesore, the Walmart of dairy farms," said Kirk Vander Dussen, manager of Holsum Irish Dairy in the town of Rantoul, where more than 3,000 cows are milked three times a day in a state-of-the-art 72-slot rotary milking parlor.

But the Holsum Irish Dairy and its younger sister operation on Elm Road in the Town of Chilton, where 3,600 cows are milked three times daily in an 80-slot milking carousel, are not your stereotypical megafarms, and they have a U.S. Dairy Sustainability Award from the Innovation Center for U.S. Dairy to prove it. They were one of three dairies



Members of the Holsum Elm Dairy tour group check out the 80-stall rotary milking parlor from the company conference room.

in the country to be given the inaugural sustainability award this year.

The dairy employs Dr. Tom Myers, DVM, as

its environmental steward and is a member of the DNR's Green Tier program.

To show off its highly sustainable approach

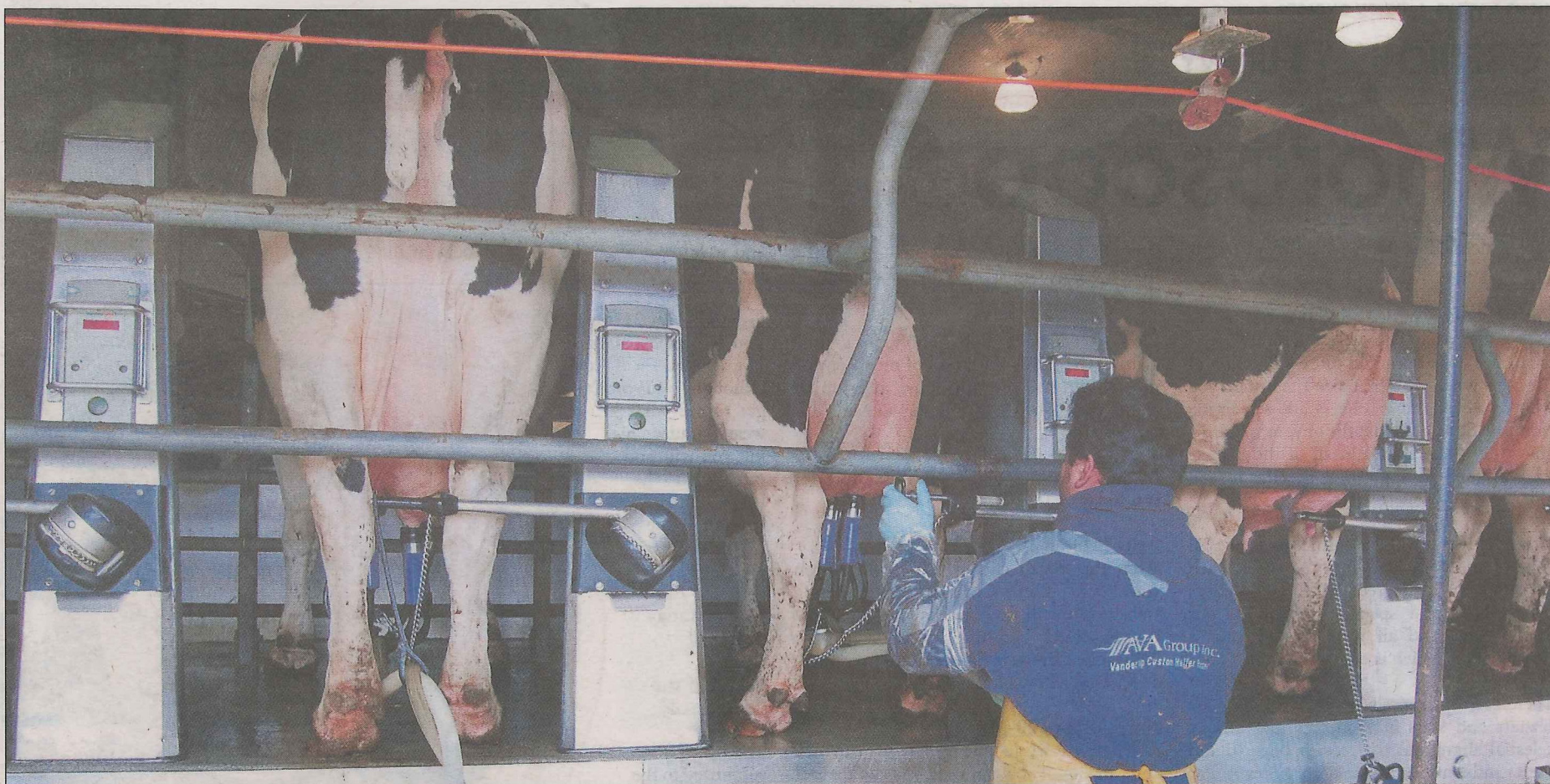
to large-scale dairy farming, Vander Dussen and Dr. Bob Nagel, DVM, manager of the Holsum Elm Dairy, gave a tour of the Elm Road dairy last month that was organized by the Wisconsin Green Building Alliance.

The dairies are run by the three Rs principle: Reduce/Reuse/Recycle. Traditional concepts were left by the wayside for innovative and energy-efficient means of high-volume dairy farming.

The dairies don't reek of manure because the manure goes into a 1,200 kw anaerobic digester designed and manufactured by DVO, Inc., of Chilton (formerly GHD), a U.S. leader in anaerobic digesting systems. The manure is mixed and heated with bacteria, and a breakdown takes place that creates anaerobic digest gas (which is 60% to 80% methane and the rest carbon dioxide). The ADG powers two 600kw engines. The power generated is sold to Wisconsin Public Service.

The heat from the electricity production is recovered in the form of hot water, which is used to maintain the required temperature of the digester and supply hot water for the farm's needs, which include hot water in-floor heating of the milking parlor and

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➔The Holsum Elm Dairy milks 3,600 cows three times a day on this 80-slot milking carousel. Each animal spends about 8 1/2 minutes on the carousel for a milking session.

several other areas.

The digester turns the manure into an odorless effluent, which then goes into a machine that separates liquid from solid. The liquid goes into the farm's storage lagoon and is used by local farms as high-yield manure on their fields, and about 91% of that is distributed through lines rather than by truck.

Forty area farms within a seven-mile radius of the farm supply the dairy with forage and use the dairy's processed liquid manure on their cropland.

"We want their crops. They want our fertilizer. It's a great relationship," Vander Dussen said.

A third of the digested solids are used for the farm's own bedding needs, and the rest is sold to area dairy farmers for bedding.

On top of the manure from the dairy, both Irish and Elm dairies keep millions of pounds of waste out of area treatment plants by digesting waste from area businesses.

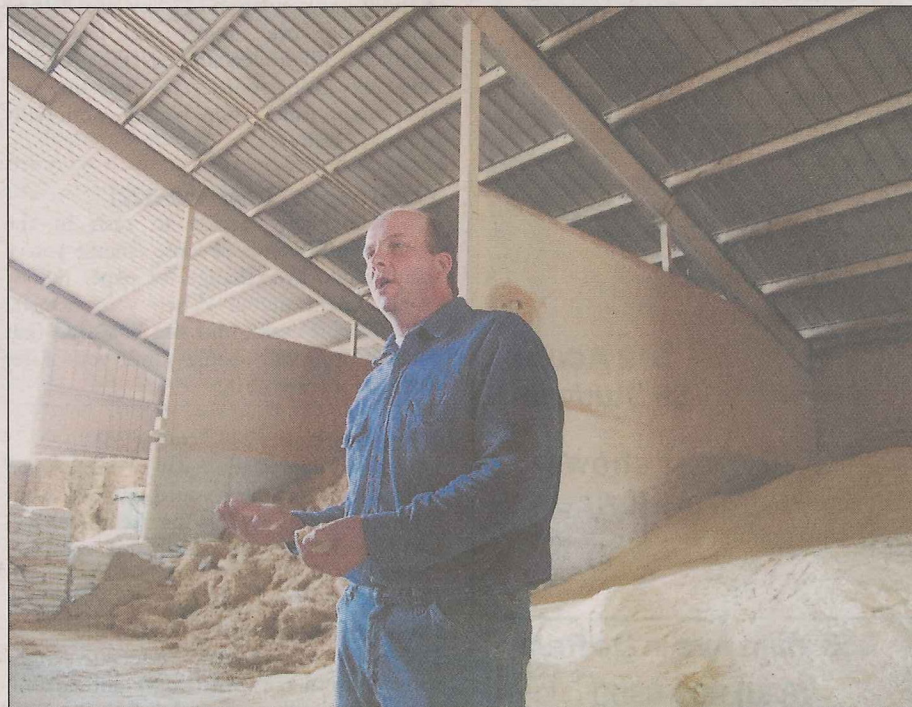
"These dairies were designed from an energy efficient standpoint," Vander Dussen said. In fact, representatives from the design firm Bayland attended the open house tour, including designer Eric Thiel, who said he enjoyed working on the Elm Road dairy because of the attention paid to sustainability.

But, first come the cows, said Dr. Nagel, who

was a chemist before he was a veterinarian.

"We're all about cows. We definitely look at it from the cow's perspective," he said.

The Elm Road dairy has about 4,200 cows, with 3,600 being milked three times daily.



➔Dr. Bob Nagel, DVM, manager of the Holsum Elm Dairy, shows the tour group the storehouse of alternative foods that are fed to the cows, including spent grains from Briess Malting in Chilton, as well as cotton seed left over from making cotton fiber and whey from Milk Products of New Hosltein.

Their three-time-a-day ride on the milking carousel takes 8 minutes each time. Each cow produces about 84 pounds of milk a day, for a total of about 35,000 gallons of milk per day, or a total of 70,000 gallons daily at the two dairies. All of that milk goes to a Grande Cheese Co. plant in southern

Wisconsin, where it is converted into soft white cheeses (mozzarella and ricotta) for high-end East Coast restaurants.

The dairy has been designed as a smooth-running, sustainable machine. The proof that the two Holsum dairies were doing things right came in 2009 when the perfect storm of high feed prices and low milk prices hurt so many dairies.

"We made money," Vander Dussen said. "The worst year ever, we were profitable. We focused on the bottom line, knowing that milk prices will never get below our break even line."

Both dairy managers said the credit for the green dairies should go to Dr. Kenn Buelow, founder and single largest owner of the two Holsum dairies.

"He is the person to credit with setting the tone, culture and the path for the dairies," Nagel said. "At the heart, Kenn Buelow is an environmentalist. I don't think there was much of a choice there."

"Kenn Buelow was instrumental in putting that culture in place, and that culture permeates our organization," Vander Dussen agreed.

"We view it as a commitment to the community as well," Nagel said of the green operation. "We need out community more than they need us. We understand that. That's an important relationship." ■