

Award recognizes Washington farm's sustainability efforts



Andy Werkhoven pauses in his work to check the health of a calf that will one day join the milking herd at Werkhoven Dairy, Inc., located near Monroe, Wash. Werkhoven and his brother, Jim, along with their wives, Gloria and Dolores, milk 1,000 cows on the dairy. (Photo submitted)

Werkhovens milk 1,000, help conserve resources

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MONROE, Wash - "Sustainability" has been a popular buzzword for several years. But at Werkhoven Dairy, Inc., near Monroe, Wash., sustainability is more than a feel-good concept. It is reality, and an integral part of the farm. That's why the Werkhovens - brothers Jim and Andy, and their wives, Dolores and Gloria - were recently among a handful of recipients for the first U.S. Dairy Sustainability Awards. The honors, bestowed by the Innovation Center for U.S. Dairy, recognizes "leadership in meeting consumer demand" for dairy products "while finding new ways to preserve our planet's precious resources," according to the center.

The Werkhovens milk 1,000 Holsteins and farm 800 acres 25 miles northeast of Seattle, Wash. Their farm lies in the Snohomish River valley, on the west side of the Cascade Mountains.

It was a decade or so ago that the Werkhovens began working with other dairy and beef farmers in the Sno/Sky Ag Alliance. The alliance takes its name from two of the major rivers in the area, the Snohomish and the Skykomish. Also involved in this partnership is Northwest Chinook Recovery, whose focus is restoring salmon habitat. The 3,500-member Tulalip Tribe is another integral part.

Together, they decided to find and tap opportunities to conserve resources. They wound up forming Qualco Energy. It's an appropriate name, for, in the language of the Native Americans, it means "where two rivers come together." Qualco Energy is a nonprofit organization. It collects cow manure from the Werkhoven farm, along with food waste, and processes it in an anaerobic digester at Werkhoven Dairy. The methane that's produced powers a 450-kilowatt generator that creates enough electricity to power 300 homes, Andy Werkhoven explained.

At the same time, the project helps keep the air and water clean, protecting the salmon streams. It also produces compost that the Werkhovens use as fertilizer on their fields and share with neighbors.

The manure digester began operating in 2008. The added food waste gives the bacteria more substrate to digest, aiding gas production.

Andy said so much methane is produced that they've been flaring off the excess. With the right setup, he said, Qualco Energy could probably double its electricity generation.

"We had no idea we could get so good at making gas as we have been," Andy said. "Flaring the excess really does seem like a shame. We need to harness that."

One way to use the excess methane is to power grain dryers or convert it into compressed natural gas. But to do those, the methane needs to have some of its impurities scrubbed out.

With gas cleaning technology improving fast, Qualco Energy needs to "pick the point where it makes sense to jump into the water," Andy said. "We're getting a lot closer."

Working with the Tulalip to build Qualco wasn't just about managing manure and generating electricity. In addition, the effort was aimed at "keeping dairies successful in this area when you have urban sprawl."

Since the Werkhovens farm so close to Seattle, they're affected by some of the pressures that megabusinesses such as Boeing and Microsoft bring. Along with their taste for BMWs and Starbucks coffee, some corporate employees have an attraction for land and houses outside the city limits.

"It's like an urban setting," where the Werkhovens farm, Andy said. "You don't have to go far at all. Monroe is a bedroom community to Seattle."

A saving grace for Werkhoven Dairy is its location in a floodplain. That has, so far, prevented development. "That's a big reason we got to working with the Tulalip Tribe," Andy said. "They had a theory that cows were better than condos, and they wanted to keep agriculture strong in the river valley."

The Werkhovens' drive for sustainability had led them to take steps other than helping form Qualco Energy. It has impacted the very way they farm - like accepting lower milk production.

Andy said the cows are averaging 78 to 80 pounds of milk each per day. That works out to about 24,000 pounds of milk annually.

"We used to have a very high rolling herd average - like 33,000-pounds. But, philosophically, we changed the way we ran our dairy," he said.

"We let BST (bovine somatotropin) go. That was one thing we were forced to let go," Andy said. "We went to a lower proportion of grain and much higher levels of forage in the ration."

The Werkhovens feed more homegrown forages now and are pleased with their "much lower" input costs, Andy said. Their shift toward lower costs was emphasized during 2008 and 2009.

"The West Coast was strongly driven in '08 by extremely low milk prices, to have to get our costs down," Andy said. "You can't overstate how difficult it was on the whole West Coast in '08 and '09."

Milk prices are a concern again. Andy said, "We're in the mid-\$17s right now. But we're battening down the hatches. We're thinking we could get to \$15 or \$16 milk," he said.

Werkhoven Dairy has a break-even milk price at about \$17.50, according to Andy. This past February, the farm was paid in the upper range of \$17, with premiums factored in.

Driving costs higher in the Evergreen State is corn at more than \$300 a ton and alfalfa hay at \$310 a ton. The Werkhovens have trimmed their hay feeding to eight pounds per cow, per day, from 20 pounds a day. As for corn, they feed just five pounds per cow, per day.

"We've gone to every kind of by-product feed we can find," Andy said.

That includes grain screenings from Canada, whey, corn distiller's grains, and a bit of "every kind of beverage" that is outdated. A nearby company "decontainerizes" beverages that are past their "pull date," Andy explained. The drinks include soda, whisky and wine. Some goes into the ration and some goes into the digester.

Washington has perhaps 260 dairy farms remaining, and maybe 30 in Snohomish County, Andy figured. Some dairy farmers moved, in recent years, to Wisconsin, Texas Idaho and eastern Washington, he said. Some left due to urban sprawl and increasing regulations.

"We had a lot of water issues here 15 years ago," Andy said. "I was stubborn enough, I guess. We fought." As for processors, the "big boy," according to Andy, is Darigold, whose board Jim Werkhoven chairs. Much of Werkhoven Dairy's milk goes to the fluid market, although Idaho's cheese factories are within reach of the co-op.

Jim and Andy are the fourth generation in dairying, but just the second in Washington. Their father moved from Minnesota in 1959 and bought 40 acres and 23 cows. His parents and his wife's parents were Dutch immigrants. The farm has evolved with "slow, incremental growth," said Andy. Jim and he took it from 75 cows to the present 1,000.

That brings up what Andy calls the "biggest issue" Werkhoven Dairy faces: "How to continually grow. I do think you need a slow, steady state of growth to remain profitable," he said.

Profitability by itself is not good enough, Andy believes. Sustainability must be part of the equation - or even a large share of the equation.

Andy said, "Sustainability isn't a cherry on top of your sundae. It's the bowl you put your ice cream in."