

To fish biologist Dave Vetrano, a cow with its nose deep in clover on a managed pasture is an ally for Wisconsin trout streams — not a threat. To fourth generation dairy farmer Larry Wilkinson, it's a proven pathway to a better life for himself, his wife, and their livestock.

And to Dick Cates, a beef cattle producer and founder of a University of Wisconsin program for beginning livestock and dairy farmers, it's the future. "We think in the long run that it's going to be the viable means for family farms to survive," he says.

Managed grazing, once the Rodney Dangerfield of the agricultural world, is getting more respect.

A growing chorus of farmers, agricultural agents and academics advocate putting livestock out to pasture instead of feeding them stored corn or some other forage year-round. They say it's better for the farmer, the livestock, the consumer and the environment — and a growing body of research backs them up. The UW-Madison Center for Dairy Profitability recently found that grazing farms in Wisconsin retained 26 percent of their business earnings, compared to 14 percent for confinement farms and 21 percent for organic farms. Farmers managing grass-based systems reported significantly higher satisfaction with their lives than most other dairy farmers, another UW-Madison study found.

Most importantly, farmers are voting with their feet. Now, nearly one quarter of Wisconsin dairy farms use managed grazing, one of the highest rates in the nation. Fully 50 percent of new farm start-ups in dairying are managed grazing operations.

They are spurred, in part, by the rising costs of feed, fertilizer and fuel, aided by growing state and federal infrastructure to provide farmers the technical help, research and education they need, and lured by markets eager to capitalize on a growing public appetite for grass-fed and organic products.

"We were attracted to rotational grazing because it looked economically preferable and certainly a better way to manage a dairy herd," says Mike

Profitable for farmers, consumers and the land

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*Story by Lisa Gaumnitz
Photos by Michael Kienitz*

Gingrich, who partners with his wife and another couple in a grazing farm that produces its own specialty cheese. "We feel it is a much better way to produce milk. It's easier on the land, easier on the animal, and easier on the farmer. Neither Dan nor I are enamored of equipment. So this suits us very well."

Taking the leap and loving it

Conventional farming methods popular since the end of World War II typically involve the farmer growing, storing and hauling feed to livestock confined to a barn or barnyard for the most part. Unless the farmer purchases

all or most of the feed, he invests in a lot of machinery.

In a managed grazing system, farmers bring the livestock to the food — a buffet of lush, seasonal grasses the animals graze on for a day or two before moving them to another field. Farmers let the cow chips fall where they may, the animals sleep under the stars, and each pasture gets 20 to 30 days of growth and rest before the next dinner bell.

Larry Wilkinson switched to managed grazing in 2000 after careful study, tutelage through the Wisconsin School for Beginning Dairy and Livestock



Dick Cates shows dairy and livestock farmers by example how putting cows out to pasture is less costly, uses less energy, takes less machinery, makes less work and is better for the land while producing healthy products that consumers prize.

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Grazing dairy and beef cattle on grass meadows is lighter on the farmer, the herd, the land and the wallet.

Farmers, and seeing operations of farmers who had successfully made the leap. But what really sold him was the chance to quit being a personal valet to 35 to 40 dairy cows.

"I had to carry all the feed to them and haul the manure out afterwards," says Wilkinson. "With a managed grazing system, the cows could all of a

sudden feed themselves, and I didn't have to take a shovel and clean up after them after they were done."

On a recent late summer day, Wilkinson demonstrated his labor- and back-saving routine at his Loganville farm nestled among the rolling hills of Sauk County. The sun was setting as 18 dairy heifers grazed on a mix of orchard

grass, rye and clover in the first of a series of 50 x 150 foot fields separated by movable electric fencing.

Wilkinson grabbed a bucket of feed and poured it in a trough in the middle of the field with the cows, saying, "I gotta keep the animals busy so they don't bother me. I have about five minutes to move the wire."

He strode the length of one fence, pulling out the temporary guides that held the electric wire in place and then let the wire retract into its holder before hanging the spool on a fencepost. On the opposite side, he picked up another wire spool, started to wind it and then



Simple fencing lets the herd feed on grass for a day or so before it is moved to a fresh paddock.

threaded it through the guides he placed every 30 feet or so apart.

"This is enough to feed the cows for 24 hours," Wilkinson says. The rule of thumb is you need one acre of pasture for one cow for one year. His cows graze from May 1 to early October and stay on the pasture until late November before wintering in a barnyard, then they eat the hay and corn Wilkinson grows to cover the winter months. He uses a similar number of acres that a more conventional farmer would use for raising feed.

"Tomorrow, I'll move the wire behind us. That way they won't eat the new growth off of the field we just took them off of."

By now, one cow had turned away from the trough to the fresh greens. Her bovine brethren followed, pushing their noses deep into the grass, filling the twilight with the sounds of contented chewing.

"Look how peaceful it is," Wilkinson says. "This is my way of going green. You don't smell any diesel and I use few if any chemicals. Instead of bringing machines across the ground, I'm bringing the animals."

Managed grazing has reduced the pressure of constant deadlines, of being on time to plant, harvest and store at the right time to produce high quality rations. "You kind of let nature do a little bit more of the work," he says. "Years ago, I'd see a cornfield with quack grass and I'd want to get rid of the grass. If I see it now, rather than fighting it, I turn the cows out there."

He's also had to change how he views the profitability of his operation. His grazing cows don't produce as

much milk per cow, in part because he's switched to breeds that do better on grasses but tend to produce less milk. However his production costs have decreased significantly and he no longer has to replace cows as frequently as he did. Their "culling" rate is now 15 to 20 percent, compared to 30 percent, when he replaced one of three cows every year.

The farm's financial success has brought other benefits. "It's made it a lot less stressful because I don't have to work off the farm," says Tina Wilkinson, Larry's wife. "Before, I was working third shift. When you work 40 hours and have an hour driving each way to Middleton (for the job), that's 50 hours a week before you get home and have to help out on the farm."

They sell their milk into the conventional market and could switch to the organic market pretty easily to get a higher premium, Wilkinson says. But they're happy with what they're doing, and have been able to double their herd to 80 cows. They plan to expand even more in coming years, an encouraging sign in a state that loses typically 1,000 family farms a year.

"I think this is a very good time to be a grazing farmer," Wilkinson says.

Down the road a piece, Mike and Carol Gingrich and Dan and Jeanne Patenaude would be hard pressed to argue.

After raising their children on conventional dairy farms in Iowa County, they pooled resources in 1995 to buy a larger farm near Dodgeville. They wanted to expand more fully into managed grazing, which Dan had been pursuing on a small scale after being in-

spired by the success and research of his brother-in-law in Vermont, and figured they needed more land and more animals to reach the "sweet spot."

The couples quickly found that even with more cows and land, they had less work and "were kind of tripping over ourselves on every management decision," Gingrich says.

"I thought we had some special flavor properties in our milk that we could take advantage of using in some value-added product, like cheese. We had just been putting it on a truck with everybody else's milk and the flavors were being diluted away."

The partners decided to divide up the duties, with the Patenaudes continuing to run the grazing operation and the Gingriches taking on cheesemaking. They started making cheese in 2000, first using the facilities at Cedar Grove and then building their own plant on the farm in 2004. In their first year of commercial production, they won "Best of Show" from the American Cheese Society, propelling them to instant national fame and onto the shelves of top chefs and high-end stores.

"We do a number of things in the interest of maximizing the complexity and intensity of flavor," Gingrich says. Within minutes of milking the last cow in the morning, Gingrich is making cheese, and he only makes it when the milk is in peak condition because the cows have a lot of different grasses to choose from. The Gingriches don't pasteurize the milk. They wash and turn the cheeses daily, and they keep the cheese in "caves," rooms that are kept at high humidity to enhance and accelerate the aging process.

Sold under the Pleasant Ridge Reserve label, their cheese is now found all over the United States, as is the cheese that other Wisconsin specialty cheese makers produce from their milk.

Pleasant Ridge Reserve has made 60,000 pounds a year in recent years, significantly less than their capacity of 100,000 pounds, and a sign of the drought that has plagued south central Wisconsin in recent years. Their pastures have dried up and become less than optimal earlier in the summer.

"If we have to supplement more



Breeds that are efficient grazers don't produce quite as much milk, but since production costs are much lower and cows that graze on grass are replaced less often, this kind of farming can be more profitable.



Animals grazing pastures harvest their own feed and dispose of their own waste without human intervention, machinery or fossil fuels, notes food policy writer Michael Pollan.

"This is my way of going green," says Larry Wilkinson. "You don't smell any diesel and I use few if any chemicals. Instead of bringing machines across the ground, I'm bringing the animals."

than three to five pounds of hay a cow, we stop making cheese. Usually by mid-August, we get better rains and nice pasture in the fall.”

They looked into irrigating their land, but decided against it. “We’re captive to Mother Nature,” Gingrich says. “When she’s good to us, times are good. [With this system] when she’s not, times are still good.”

What it does to the land is magic

Managed grazing is even better for people who want to get into farming, Cates says. It’s why the Wisconsin School for Beginning Dairy and Livestock Farmers, a program of the Center for Integrated Agricultural Systems he started in 1995 on the Madison campus, emphasizes managed grazing.

“It’s a lower capital approach to farming,” he says. “Young farmers typically have more energy and less equity.”

The challenge for would-be farmers is to understand how to work on their business, not in their business. “Think about what you’re good at, what you like, what are your goals,” he says. “Then you have to find a way to get mentors, or a community of people who care about your future, and partner with those who have the fields you don’t have. Barter, lease, contract — whatever you need to do. And then you have to own the animals.”

There are new market opportunities for organic milk and grass-fed beef, enabling farmers to buck the conventional wisdom that they must get bigger to make money or more money.

The Cates Family Farm near Spring Green is a case in point. Originally owned by his father, a well-respected Madison lawyer, as a place to get away from it all and have his kids learn the value of hard work on neighboring properties, the farm got into Dick Cates’ blood and eventually passed into his hands. After returning in the 1980s from a stint working at the world’s largest dairy farm in Saudi Arabia, Cates, his wife, Kim, and three children, started restoring the farm to pasture. Eventually, the grass-based operation grew to finishing up to 800 beef cattle at farms scattered across several states.

They pared back to 40 to 60 animals



Mike Gingrich tends to rounds of Pleasant Ridge Reserve cheese made from milk of the grass-fed dairy herd managed in partnership with the Patenaude family. The unique, full flavors of their cheeses are winning Best of Show awards and repeat business nationwide.

on the Spring Green farmstead after Kim Cates realized that the operation’s size was only leading to ever more debt, work and stress, even with a grazing system. “Kim is the one who saved my life,” Cates says.

The Cates’ now buy beef and dairy steers from the beginning farmers who have gone through his program, and grow the animals out from about 300-600 pounds to 1,000 pounds on a series of 20 managed paddocks.

“I do very little on the production side; the emphasis is on customer relations and producing a product that the marketplace wants,” Cates says. “We sell to households, stores and restaurants and we get a good price for that.”

As important as the financial and lifestyle benefits managed grazing brings to himself, his family and his students, Cates appreciates what it does for the land.

“Historically, this was grassland. With our industrial mindset and yeoman mentality, we were tillers of the earth. The government, through the Homestead Act, offered individuals 160 acres and said, ‘You till the earth and it will be a Garden of Eden.’ So we went out and turned up the grassland, which was naturally fertilized, burned the organic matter out, and now we have to artificially fertilize it.”

With managed grazing, he’s work-

ing with what this land wants to be.

“Although we don’t have natural fire any more, by moving livestock around from pasture to pasture, we’re mimicking the natural grazing habits of the elk and bison that were here before settlement. We’ve replaced the predators — wolves — with the land manager, me, and replaced wildfire with a mowing machine so we keep woody brush from growing. The way it treats the land is what’s so magic.”

Vetrano, a veteran DNR fish biologist and rock star in the world of trout stream restoration, believes in that magic. He sees it reflected in the streams running through Cates’ farm, the managed pastures in southwestern Wisconsin where he works, and on his own acreage near Bangor, where he raises a dozen beef cattle.

“If we could get more farmers into grass-based farming, most if not all of our concerns would disappear: erosion, manure, pesticide and herbicide runoff, overgrazing — all of that,” says Vetrano, who has managed trout streams in Crawford, Monroe, La Crosse and Vernon counties for the last two decades.

If most or all of the farms carpeting the Driftless Area’s steep terrain switched to managed grazing from conventional dairying or row cropping, Vetrano wouldn’t have faced three major fish kills in four years due to manure



If we could get more farmers into grass-based farming, most if not all of our concerns for waters and trout streams would disappear: erosion, manure, pesticide and herbicide runoff, says DNR Fisheries Biologist Dave Vetrano, who has been managing trout stream programs in western Wisconsin for 20 years.

runoff, nor the constant battle to keep soil on the land and out of Wisconsin trout streams.

“Agriculture considers soil loss of T good,” Vetrano says, referring to the tolerable (T) soil erosion rate, which typically ranges from two to five tons per acre per year, depending on soil type. “But T, from a biological standpoint, should be closer to zero. Just a little sediment entering the system at the time fish are spawning can cover fish eggs in the redds and suffocate them.”

Managed grazing can actually enhance a trout fishery. Controlled for-

aging along a stream can help manage the excessive growth of box elder and willow that otherwise would occur. It keeps the stream corridor open, allowing for easier access by anglers, and better growth of the grasses and forbs that provide insects and other food for the fish. The brush control also keeps downed limbs out of the water, where they can trap sediment. As a result, the streams can become narrower and deeper, allowing water currents and temperatures more favorable to trout.

“The key word is it has to be *managed grazing*,” Vetrano says. “Farmers limit the numbers, the time cattle are grazing. If the grasses aren’t any higher than a half-inch, that’s not a managed pasture.”

Vetrano is so enthusiastic about managed grazing that he serves on the board of directors for The Wisconsin School for Beginning Dairy and Live-stock farmers and proselytizes its benefits to fellow DNR fish managers and staff who work on animal waste and water quality issues.

“We still have a lot of people in the DNR that look at ag, and if they see cows, they think ‘bad.’ No. There are ways you can be in agriculture and not have all the standard issues we normally have. Managed grazing fits in very well with DNR’s mission, and the farmers are maintaining a living and enjoying a better quality of life.”

Lisa Gaumnitz is DNR’s public affairs manager for water and fisheries issues.

SEE HOW IT WORKS FOR YOURSELF

Iowa County UW Extension Agent Rhonda Gildersleeve knows from talking to conventional farmers that some of the biggest barriers to switching to managed grazing are likely in their minds.

Common perceptions are that they won’t be making the money they need to support their families, especially during the transition; that they need more land than they do for managed grazing; and that managed grazing represents a big change in their farming lifestyle; none of which has proven true for those who’ve made the switch.

She shares the experience of Wisconsin grazers and results from studies, including a 2007 study of 38 farmers by the Michael Fields Agricultural Institute, showing that the average debt load of Wisconsin dairy farmers does not limit their ability to switch to managed grazing. They typically do not need more land than they already control, and they actually keep more profit on the farm.

Most importantly, Gildersleeve arranges eight to 12 “pasture walks” a year on managed grazing farms in Iowa, Grant and Lafayette counties. The sessions are led by the farm owners themselves and are never lectures. They are always on-farm discussions that allow farmers to share their experiences and approaches to problems. What works and what does not, she says.

That same “kick the tires” approach permeates the curriculum of the Wisconsin School for Beginning Dairy and Livestock Farmers. The five-month long certificate course provides for on-farm internships, one-on-one mentoring with experienced farmers, and classroom learning that pairs discussion from an academic expert with a farmer reporting how it worked in the field.

That combination has proved very successful. About 270 students have passed through their doors and 75 percent of them are now farming. Of those, half are using managed grazing.

To find a pasture walk near you in 2009, go to Grassworks, a membership association of farmers who promote successful and sustainable farming through the use of managed grazing. grassworks.org

To learn more about the Wisconsin School for New Dairy and Livestock Farmers visit the Center for Integrated Agricultural Systems. cias.wisc.edu/dairysch.html

MEET THESE INNOVATIVE FARMERS

Hear Larry Wilkinson, Dick Cates and Dave Vetrano in their own words and see rotational managed grazing in action in a video on our website, wnrmag.com. Click on this symbol near the listing for our story.

