



Earth Angels

Three American cheesemakers turn green practices into environmental gold

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MAKING GREAT CHEESE is an accomplishment in itself; making it using environmentally sustainable methods seems downright heroic. But many cheesemakers will tell you these goals are actually one and the same; by taking care of nature you safeguard the raw materials of the creamery. Cheese is all the better for it. The three artisanal cheesemakers profiled below exemplify this holistic philosophy, each in their own way. Think Walden Pond with a large dose of twenty-first-century technology.

The Scientist

Sarah Hoffmann once treated medically underserved people as a physician in this country and as a Peace Corps volunteer in West Africa, back when her fascination with microbiological “bugs” drove her to doctoring. But today she’s more of a chemist, and her challenges with serendipitous wild molds allow her to tweak the award-winning French-style farmstead cheeses she produces.

Under Hoffmann’s watchful eye, 180 ewes (each of whom she can practically call by name) roam on nearly half of Green Dirt Farm, the 150-acre parcel that’s home and work for Hoffmann, her husband, John Spertus, and their three children. The low-slung, recycled metal creamery and the family’s modern, angular, net-zero-energy home sit on the farm’s gently rolling, rotationally grazed pastures that snug up to the Missouri River Valley in Weston, Missouri. The buildings are standing examples of what government EQIP (Environmental Quality Incentives Program) grants

matched with personal investment and a pro-environment commitment can do.

Green Dirt Farm’s tidy 600-square-foot creamery, built into the farm’s hillside, is below grade on three sides. The milking parlor is completely separate and sits just above the creamery. A milk hose snakes from the parlor to the kitchen, gravity-feeding (at no energy cost) milk into stainless vats. Although Hoffmann’s cheesemaking equipment fits the traditional mold, her approach to almost everything else in the business is cutting-edge eco-smart. “We use a specially beefed-up wastewater handling system called a biofilter that cycles the wastewater numerous times through a large surface area where bacteria can break down the manure and wash chemicals,” she says. The system eliminates the worry about watershed pollution with standard lagoon waste management.

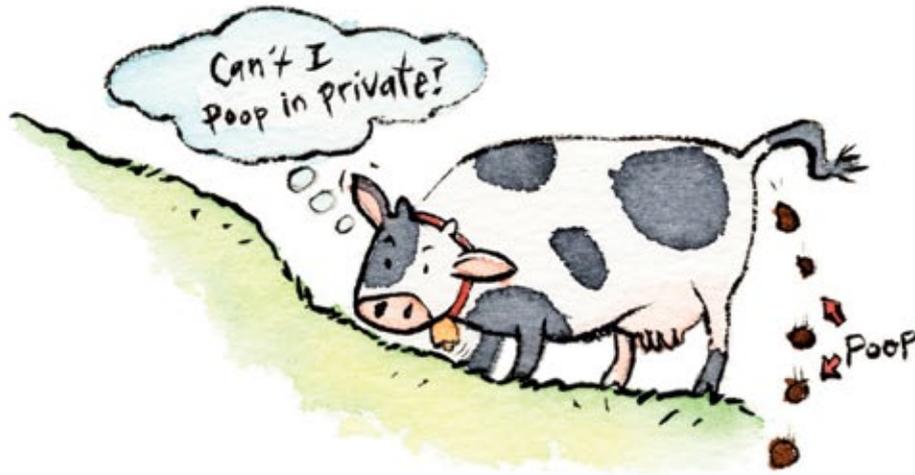
Other details in the farm’s infrastructure reflect Hoffmann’s goal of protecting the environment, from extra ground curbing, which prevents runoff, to a roof over the holding pen to prevent contamination of the rainwater to the use of salvaged pine for the barn and home. “Every little thing helps, like choosing a building site [for the parlor and cheese kitchen] that takes advantage of passive solar heat, very efficient tankless hot water heaters, and energy-efficient light fixtures,” she says. “A few things had modestly higher up-front costs but lower expenses in the long term . . . like vastly improved insulation over what is standard, very efficient HVAC systems, water-conserving faucets, and water- and electricity-conserving appliances.” By tak-

ing advantage of these low- to moderate-cost energy efficiencies, some of the sting is taken out of big-ticket items like the wind turbine that sits atop her property and powers the home.

The Pragmatist

John Fiscalini’s life’s work has been a 530-acre farm in Modesto, California. Nearing its one hundredth anniversary, it incorporates the same land where five generations of Fiscalinis farmed before him.

He jumped into cheesemaking ten years ago on a visionary instinct that the state’s cheese industry had a golden opportunity to grow, just as its wine industry had in the 1970s. Now producing award-winning cheddars and fresh mozzarella, Fiscalini has always kept an eye toward taking better care of the land. But ten years ago he set out to prove that sustainable practices work for his bottom line, not just the environment. Embracing technology, he installed a methane digester comprising two enormous tanks, each more than 80 feet wide and 24 feet tall, with temperatures set to 101°F—the same as the cows’ body temperature. As manure, whey, and feed waste are cycled through the tanks, the methane gas that’s produced is captured and fuels an engine that makes enough electricity to power the 88,000-square-foot cheese plant and dairy barn. Fiscalini says his multimillion-dollar digester system, operational since June 2009, is already paying for itself. “We make two and a half times the electricity we use on the farm, so we’re able to sell some back to the grid. [The digester] produces a little more revenue each month



than the amount of the [construction] bill to the bank. And we had about 35 percent of it paid for by grants.”

The U.S. Department of Energy and the California Energy Commission are funding studies on Fiscalini Farms’ digester. During installation, state agencies raised concerns about air pollution as a potential by-product, but Fiscalini thinks the numbers will tell a different story. “We disagree with [those concerns] and will collect data for the next two to three years on everything possible to prove our point,” he states. As a boost to profitability, Fiscalini says he hopes to someday feed other waste products into his energy-producing tanks. “It’s currently illegal in California to bring in offsite waste. But if approved, we can use food waste from restaurants [and] leaves off trees or lawn clippings to make electricity, and reduce what goes into landfills in the process.”

The Idealist

When Willi Lehner walks through the double doors into his 1,600-square-foot cave, he says it’s like walking into a temple. But in this sanctuary with old-world ambience and unadorned concrete plaster walls and ceiling, the only things worshipped are rows and rows of beautifully bandaged cheddar cheese. Though deceptively simple-looking, the technology used to build Lehner’s cave is definitely twenty-first century.

“I did a lot of research on underground cheese curing, which is often done in Europe,” says Lehner, the owner of Wisconsin’s Bleu Mont Dairy. Lehner and his partner, Quitas McKnight, went to the United Kingdom on a grant from the Wisconsin Dairy Business Innovation Center to study the art of aging cheeses before looking closer to home. “Mateo Kehler at Jasper Hill Farm in Vermont showed me his [cheese aging] system, and I eventually

used the same type of construction to build my cave.” With plans approved by an engineer and much of the sweat equity paid by Lehner, the curing cave took about a year to build at a cost of \$130,000.

Today, using hormone-free milk collected from local farmers’ cows, Lehner makes cheese in rented factory space and then ages the wheels in his cave, which resembles a giant capsule cut in half lengthwise, with ten feet of dirt on top of it and a center space that is 12 feet tall. With the cave, Lehner says, he’s found a way to offset his carbon demands while doing what he loves. “It’s outstripped my expectations and made the process of affinage more controllable, with stable temperatures and humidity,” he says. Add to this Lehner’s use of solar power since 1992, his use of wind power for nine years, a straw-bale greenhouse, and a well-insulated home and you have a man who walks the talk. “If it has a heater or motor in it, look closely,” Lehner advises. “Those are the energy pigs in your home or business.” 

Linda Meierhoffer writes lifestyle, design, and healthcare features for regional and national magazines. She divides her time between Palm Springs, California, and Leawood, Kansas.

