

They bring the parlor to the cows

At Organic Pasture Dairy, this California dairy uses a mobile parlor to keep cows grazing more often.

by Richard Triumpho

WHEN your pasture is 400 acres of alfalfa, why make the cows walk miles every day to and from the barn for milking? Instead, why not roll the milking barn out to the pasture? This concept brings the mobile milking parlor to the cows at this new pasture-based dairy in Fresno County, California.

Organic Pastures Dairy is located south of Madera, near the village of Kerman. It is a new venture for McAfee Farms, a family partnership.



It began as a way to diversify their organic apple, almond, and alfalfa farming operation. The manager, Mark McAfee, explains the recent venture into dairying:

"We started our organic dairy three years ago following about two years of research. There are four of us McAfee brothers; I am the only active partner. The other brothers don't actually live around here, but they are investors and participants in our partnership," he says. "We have been growing organic alfalfa for awhile and selling it to organic dairymen. We felt that, if we got our own cows here and fed them our own organic hay, we could be that much closer to the consumer in terms of the food chain — vertical development."

The more Mark got involved in the planning stage for the dairy operation, the more he realized that, although he wanted the value-added that organic is bringing, he didn't want to have a **conventional** organic dairy. He was no stranger to dairying. In his younger days, he milked for a neighbor, so he knew what pitfalls he wanted to avoid.

"I didn't want to have all the problems that a conventional dairy design has — with the concrete, the permits, the waste water management, the lagoons, and the stanchion system.

Idea from another country . . .

Mark did some research "thinking outside the box" and he re-engineered the way he was going to do dairying. His inspiration came from a discovery of how dairying is handled in the Azores. A friend of his who visited those islands in the Atlantic west of Portugal described a typical dairy there.

"He told me that, in the Azores, a farm will have a central area where they store the milk, and sometimes they may even milk the cows there. But as forage is consumed around that area the cows go farther down the road or up in the mountains, and they simply take the milking machines out to the cows and haul the milk back to the central storage," he recalled. "When I heard that, a light bulb went off in my brain, and I realized there was a real opportunity for the redesign of a dairy for organic milk production," recalls McAfee.

"Most all of the organic dairymen I know are conventional dairymen who have converted to or-

ganic; they either add pasture or buy organic feed, but they continue to use their conventional facilities. Ours is an organic dairy that started from scratch and designed itself to support the cow in a natural environment.

"And what we did was, we took 400 acres of pasture and alfalfa and simply decentralized the dairy barn. Instead of having it the central focus, we allow the cows to progressively graze, and then we take our mobile milking barn out to the pasture and move it behind the cows. We move the barn once a week or so, and the cows can be in a natural clean and dry environment, and their hooves stay in good shape."

Organic Pastures Dairy milks 300 cows, but Mark says he would feel comfortable milking up to 450 cows. The mostly Holstein herd is aiming for an Ayrshire-Holstein cross.

A perimeter fence consisting of five strands of hi-tensile wire encloses the 400 acres of pasture. That is subdivided into paddocks of about 30 acres; using hot tape as a break fence, each paddock is portioned in increments of a couple hundred feet of pasture

every few days. There is a separate paddock for dry cows; it includes an area for close-up cows. Calves are sent to a heifer ranch to be raised.

Divided into two groups . . .

The milking herd is divided into two groups — a high-production group and a low-production group. McAfee says, "The high-production group also includes cows less than 120 days in milk and cows with low body condition; this high group, in addition to alfalfa pasture, gets supplementary chopped alfalfa hay in a portable pasture bunk. This portable bunk feeder has headlocks, so we use it for vet checks, too. We had to work closely with a machinery manufacturer to modify the feeder so that the feed would be going into the bunk over the top of the rack instead of the front of the rack."

The first cows came to the farm in June of 2000. They mainly came from the Midwest. They were certified organic springing heifers; they came out of a place in Missouri where they had been on organic pasture. "We got our certifier, C.C.O.F., to acknowledge the certification. We brought 320 in over a period of about six months, from June to November, and we freshened those animals in during a five-month period, milking at a neighbor's farm for a couple of months until our facilities were completed. Our grand opening was in February 2001, and we started milking here," he says.

Milk 20 cows at a time . . .

The portable milking barn is a 75-foot long trailer, a self-contained parlor on wheels. It holds 20 cows at a time and can milk 90 to 100 cows an hour. It's a parallel system. The cows walk in at ground level; they're indexed into an exit gate system, facing outward. Then the cow platform is raised up by a hydraulic lift system, and the milking claws are attached from behind. One man does the milking (with automatic take-offs); the cows are dropped back down, and they all exit at the same time (rapid exit) through gates adapted from a racehorse starting gate.

The mobile parlor has its own diesel generator, water heating system, and chilling system. The milk comes out of the cow and, within 45 seconds, it's chilled to 36°. The chiller is a 450-gallon tank

kept at 27 or 28°; water from the tank goes through chiller plates. Milk goes through the plates in a heat exchanger system and then is pumped into a 1,300-gallon transport tank alongside the mobile parlor barn. The transport tank then hauls the milk back to the central silo storage.

Started bottling milk . . .


On December 1, 2001, Organic Pastures Dairy will begin the next giant step in its venture: bottling its own organic "Guaranteed Raw Milk." There are three classes of raw milk that are delineated and identified as standards by the California Department of Food and Agriculture: Certified Raw Milk, Grade A Raw Milk, and Guaranteed Raw Milk.

There's no standard for Certified Raw Milk," McAfee says, "the reason being that it was set up 80 years ago by individual milk commissions or physicians on a county-by-county basis. This process doesn't exist anymore, so Certified Raw Milk is actually a misnomer. For Grade A Raw Milk, the standard is at or below 15,000 colony-forming units per plate count. Guaranteed Raw Milk must be at or below 10,000 standard plate count. Our goal, as the label on our bottle shows, is to always be below the 10,000 level. We are running at 2,215 right now. Our somatic cell count is around 160,000.

"We are going one step farther, and it's a quantum leap. All of our milk that we bottle ourselves (we still send some off to our organic handler) will be tested with our own micro-testing unit here on-site. We're buying a fairly expensive piece of equipment — \$30,000 — it's called a Micro-Foss; it's an analytical device. We can put four or five samples in at the same time, and, within five hours, we get a reading telling us the total count of **viable** bacteria which is more accurate than standard plate count, and we will not bottle any milk that is above the 10,000 level. There will be a lot number on the



bottle, correlated to data on our web site, showing the SPC meeting or below the 10,000 standard. The consumer will be able to get on the internet and check the data on a weekly update. Our web site will also have nutritional links to CLA values at university sites; there will be stuff on pasturing, and so on," says McAfee.

It's apparent in talking to McAfee that he is market driven. "I believe in listening to consumers. It's something I learned in my 12 years as a paramedic where in 90 seconds I had to build a close relationship with a person I never met before. And so, building relationships, trust, and listening is easy for me. Our value-added attitude here at Organic Pastures Dairy is to understand what the consumer niche is all about — what they want, why they want it, and when they want it. That's what has really driven us in a different direction, to focus on the core organic consumers who want organic raw milk." 

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