



# MOOOOOOVE OVER, MAINE AND NEW HAMPSHIRE: CSU CHICO'S ORGANIC DAIRY

BY CAROL ALBRECHT

The College of Agriculture at CSU Chico has embarked upon a bold new venture. An organic dairy there has been certified with a goal, according to the university, to provide a hands-on, sustainable teaching and research facility so that students and also the local dairy community and industry can benefit from their applied research and findings. At the grand opening, last April, many gathered for a festive event, three days of educational and inaugural meetings meant to serve those in organic dairy production. The three days of workshops presaged future collaborations, and, as a grass-finisher of beef and sheep, though not a dairyman, I was pleased to be invited to take part.

Pulling into the College farm was not a new experience. The site of many an agricultural event, the farm feels very comfortable to those in the local farming community. Nevertheless, this event felt different right from the start. In the parking lot, rather than the most up-to-date pickup trucks, sat a collection of mostly humble vehicles. Inside the building, a gorgeous buffet of breakfast treats, fruits, and organic products bedecked tables. Around the buffet milled a group of dairymen and women. Their voices rose and fell with a muted excitement as they shared ideas and stories and took notes on each other's conversations. As I wandered about listening to snatches of conversation here and there, I realized that this was a different breed of farmer, organic farmers. They were not locked into the prison of commodity prices, huge confinement facilities, and the latest expensive drugs.

Instead they were free to try different forages, herbs, homeopathy, strategies Grandpa used to use. From this sprung hope. These people actually enjoyed farming. Instead of spending hours on heavy equipment scraping manure-filled pens, they walked their pastures and worked with their cows. I began to be very glad I had come.

On the workshop schedule, Will Winter from Minnesota was the first speaker. A holistic veterinarian, he explained his goal: no vaccines, no wormers, no drugs for animals, period. This happens through nutrition. By mineralizing, feeding, and managing the pastures, farmers nourish the cattle to health. He had many examples to share. Attendees also told of their successes, and the skeptical of the group began to take notice. Will led us into the pastures, and we had our first up close and personal visit with the cows.

I have been around cattle since infancy but never cattle like these. The peace of these animals amazed me. Small in stature and fine boned, these cattle are just plain mellow, with no high heads or raised tails. We felt at ease. They meandered up to us as we examined the forages, tested for sugar and minerals, and discussed ways of getting the cattle to eat different weed species. Fascinated with the hat of a producer from the Fresno area, the cows were intent on licking it, as other producers scratched and patted them.

In the afternoon workshop, Sarah Flack from Vermont, an organic grazing specialist, presented a grazing school. Our group learned to manage pastures to improve the nutritional

Photos by Cindy Daley

content so that grain feeding would not be needed, with the goal of milk produced completely from raw forages. No rumen-burning, high-carbon-impact grains for these cows—even if the grains are organic. The group understood the value of quality pastures to the health of both cows and consumers drinking the milk.

On day two, we met Jerry Brunetti, a holistic animal nutritionist from Pennsylvania, who has been formulating holistic animal remedies since the 1970s, before many of us knew what the word holistic meant. In Jerry's approach, if the soil is healthy then the pastures are healthy, and if the pastures are healthy then so are the animals. Some in the group had utilized Jerry's techniques for mineralizing and nourishing the soil and were able to explain firsthand the benefits to the animals. Again we headed out to the pastures, this time to count earthworms and dung beetles, indicators of soil health, and discuss their care and reproduction.

These three workshops during the opening days of the dairy indicate CSU Chico's plans for a future that will benefit the organic dairy industry and agriculture as a whole. Research in both production and marketing areas will help farmers to meet their goals of becoming sustainable. Dr. Cindy Daley and Chico State students evinced consistent rationale in the hard work that led up to the conference.

To produce its milk, Chico State's organic dairy is currently feeding its cows the relatively small amount of twelve pounds of grain per cow per day. For this to be possible, Dr. Daley and the students had to revitalize pastures with organic fertilizers and plenty of water. An entirely new irrigation system was installed using several different types of equipment depending on the terrain of the pasture. Eventually, the cows will feed only on pasture. Research into this transition will help farmers.

Currently, high demand for organic grains, high fuel and transportation costs, and high corn prices have increased the cost for both organic and non-organic grains to an unsustainable price point. Grass-based dairies may not have the high yields that grain-based dairies experience, but in uncertain grain and milk markets, they offer the relief of drastically lowered input costs and stable expenses that can weather fluctuating markets. Grass-based dairies also require much less in the way of buildings. Instead of huge free stall barns that tie the dairyman and his family to their payments, we have acres

of clean grass that can be converted to another enterprise with the changing of a market or a generation, thus allowing flexibility not possible in conventional dairying.

Consumers also benefit from grass-based dairies. Cattle grazing on quickly growing, quality grasses provide milk of much higher quality than milk from grain-based dairies. Grass-based dairies yield cleaner milk measured in lower somatic cell counts and healthier milk measured in conjugated linoleic acid content and higher brix scores. The healthier the pasture, the healthier the milk.

Many consumers also see grass pasturing as a win for the cattle. Cattle on pasture have lower stress levels and higher functioning immune systems, which reduce health problems. One could say that happy cows are pastured cows. The majority of dairy cattle spend their day in pens or barns and never eat a mouthful of grass. Dr. Daley and the students at Chico State have chosen not to do this and to emphasize the pasture instead.

Research at the Chico State dairy has already begun. Soil sampling has led to a remineralization program. Soil samples and forage samples are correlated with milk samples so that healthiest ways to produce milk for both the cows and the consumer can be discovered and broadcast.

Other studies are underway with regard to marketing of agricultural products. Many farmers who direct-market will be learning the most effective ways to market their agricultural products. This information may allow farmers to step around the middleman, increasing their profits and providing even more market insulation.

Graduates of CSU Chico College of Agriculture with this exposure to the world of organic and sustainable farming will never look back. They will have knowledge and paradigms that agriculture students at other colleges and universities will take decades to discover and adopt.

The future of the organic dairy at CSU Chico's College of Agriculture is bright. Most research on organics in dairying is coming from the Eastern part of the U.S., notably the University of Maine and University of New Hampshire. I'm excited about Dr. Daley's bold move in opening an organic dairy at CSU Chico and doing it the right way for the students, the land, the animals, the farmer, and the consumer. Count me in on Dr. Daley's future conferences! ❧



*Jerry Burnetti (left) instructs at the workshop*