

## **NODPA Field Days Visits Butterworks Farm**

By Nat Bacon, NOFA-VT

Field trip:

On Friday afternoon, we toured Butterworks Farm in Westfield, the oldest organic dairy in Vermont. Jack and Anne Lazor have been in business over 20 years, producing certified organic yogurt, cream, cheese, and grains from their 350 acres of land and 40 Jersey cows. Here is a brief history of the farm, from the farm's website ([www.butterworksfarm.com](http://www.butterworksfarm.com)); the website also has a good article about homeopathy from a farmer's perspective, written by Anne Lazor):

**Butterworks Farm began in 1979 when we left our teaching jobs and began making a variety of dairy products from the milk produced by our three family cows. We made butter, yogurt, cottage and farmer's cheese on our kitchen stove, and delivered these products and bottled raw milk to twenty-five families within ten miles of our farm, here in the Northeast Kingdom of Vermont. Our little business evolved gradually to the point where we began selling products to local food co-ops and health food stores. By 1984, we became licensed by the Vermont Department of Agriculture, to process our cows' milk into yogurt and bottled cream in a little "factory" in the upstairs of our barn.**

**During the last twenty years our business has grown steadily. Our herd of Jersey cows has grown from the original three to about forty-five. We have been the "number one" selling yogurt (in quarts) in Vermont for a number of years. Now our distribution has expanded to reach many of the eastern states, through distributors such as United Natural Foods and Northeast Co-operatives.**

The NODPA tour began in the processing room. Jack said the plant runs Monday through Wednesday, with deliveries made on Thursdays. This schedule allows the plant to dry out between runs, and it helps the labor flow. Jack said that yogurt is an efficient product to make, since there is a 100% yield from milk to yogurt. About 20,000 lbs of milk per week is batch-pasteurized, then cooled to 100 degrees, inoculated with a bacterial culture, and incubated for 4-5 hours. Since about 80% of the production goes for nonfat yogurt, the Lazors also sell heavy cream, which Jack said is a profitable sideline. Butterworks Farm products have a good reputation in the marketplace, and on-farm processing has allowed the farm to stay small and make a decent living. In order to meet the legal requirements for shipping products across state lines, the farm has had to invest in a filler/capper machine for the yogurt quarts, as well as several pasteurizers, a cream separator, and other processing equipment

Below the processing room is the old stanchion barn, where the cows are milked but not housed. Their milk is piped upstairs to be stored and processed. Jack said "If we still had the cows in this old barn, I doubt if we would be dairying today." Taking care of the animals is much easier in the new 60 by 120-foot Super Structure solar barn, where all animals are housed during the winter on a straw-bedded pack – no stalls! It's a great

environment for the cows, light and well-ventilated, and feeding round bales is much easier in the new barn. Instead of having to feed round bales by hand in the stanchion barn, hay is put into round bale feeders when the cows are out of the barn during milking time. The barn is divided by portable gates into 6 different groups of animals, after Jack experienced some calving problems by mixing dry cows and heifers, and feeding high-potassium hay to pre-fresh animals.

The barn has a gravel base, with a thick bark mulch layer to prevent digging into the gravel when cleaning out. This barn does take some labor - the animals are bedded with 2-3 round bales of straw daily, during milking. The straw and manure makes for an optimal compost mix, with a good carbon:nitrogen ratio estimated between 20 or 30 to 1.. There is no leaching of manure or urine. Oat straw is best for bedding because of its high absorbency, and costs about \$60/ton delivered out of Canada. Although Jack has turned compost in past years, he doesn't feel turning is really necessary if you give the compost enough time to decompose.

The farm grows all of its own feed for the animals, including hay, barley, soybeans, and corn. Jack puts a big emphasis on building organic matter and raising carbon levels in the soil. Carbon is an often-overlooked element in proper soil fertility, and Jack feels spreading compost has "a certain magic", rejuvenating the soil and growing healthy crops. Generally, compost is spread on grass that is 2-3 inches tall, where it is not baked out by the sun. Applying compost to an older alfalfa piece is "like re-seeding it", Jack says, and cows don't reject hay or pasture that has had well-seasoned compost applied to it. He covers about 100 acres out of his 350 acres every year, applying 6-7 tons per acre. This is the farm's source of fertility, along with cover crops and lime or gypsum (calcium sulfate) to provide calcium and magnesium if needed.

It's been a great year for pasture growth, and the farm's pastures were lush and dense with a lot of alfalfa, clover and bluegrass. Jack makes a real effort to have good calcium/magnesium levels in his soil to grow legumes well. He regularly tests his soil to make sure the cation balance is in line (at least 70% calcium), and that P and K levels are not excessive. Good pasture management also keeps pastures productive through the season. The milking cows are moved to a new pasture every 12 hours, after each milking, and heifers and dry stock are moved every 24 hours. The animals take the pasture down quite close, to around 1 inch, and the pasture re-growth was even and dense without clipping. Jack said he is happy to get 4 grazing rotations per year off his pastures, making sure the pastures have enough time to rest and re-grow between grazings. This is a farm that has had over 20 years of organic dairy experience, and it shows in the care and attention to detail paid to the land, animals, and yogurt.