

Miller Brothers Farm

A NOFA-NY Certified Dairy

Stu McCarty

Cooperstown, at the foot of Otsego Lake, is the well-known destination for vacationers visiting the Baseball Hall of Fame, Farmer's Museum, and the Fenimore Art Museum. Tourism brings wealth to the area, and the manicured lawns, fences, stone walls, golf courses and buildings give the area the look of a prosperous 19th century village. The Miller Brothers farm lies just a few miles west of the North end of Otsego Lake, where the landscape looks more like that of upstate New York where in Herkimer County over half the dairy farms have gone out in the last 25 years.

Brothers Les and Jim Miller with the help of their father Warner, operate a NOFA-NY Certified Organic Dairy, milking 50 Holsteins year round and shipping the milk to Horizon Dairy. Warner Miller operated a dairy in partnership with his brother Paul until 1958, selling out when Les was 6 and Jim was 4. They bought this farm in 1972 and it now supports 3 families, with some assistance from off-farm income. Jim has three children and Les has two, and none of them is currently interested in dairy farming. Les "wouldn't encourage anyone to go into it right off. It is quite a commitment—a long hard haul with lots of ups and downs."

The farm has been certified organic since 1997 and Les joined the dairy standards committee this year. He is concerned that under the Federal Rule, it will be more difficult for farms seeking certification. He recalls that "NOFA-NY Certification was really helpful when we first started the certification process. We used to board our heifers out. NOFA required that we manage the heifers on our own farm as soon as we could build a barn for them. NOFA could see that we were working towards compliance. Under the federal rules, such a transition wouldn't be possible. Each farm will be required to come into full compliance right away."

Les says that starting certified organic farming was a challenge. Since organic grain wasn't readily available, they decided to rent more ground in order to grow



The milking herd heads out to pasture on a late summer morning.

more of their own. There are still a large number of active farms in the immediate area, so the only land available was 4½ miles away, making it hard to get manure to those fields. Also, some of the available land was idle for a good reason—the soils were depleted and less productive.

Milk production initially suffered when they switched to organic management. They had to sell some of their best quality hay because it wasn't certified, and they couldn't get the grains needed to keep the cows in good condition. Since they've started growing more of their own grains, milk production is about equal to what it was previously, without the peaks and valleys experienced under conventional management.

Jim and Les started moving away from chemical farming practices in the mid 80s. The biggest hurdle in starting the transition to organic is finding good information. They say that the conventional farmers can't be blamed for using chemicals as that is what the experts and salesmen advise. Nearly all research and new developments continue to benefit the chemical industry. Les consistently praised conventional farmers in his area, most of whom rotate their crops and pasture their cows.

Organic farming is working with nature to improve productivity. They could

see their soil tilth improve when they stopped using chemicals and chemical fertilizers. The initial use of bacterial soil inoculants and fish emulsions helped improve the microbial activity. A compost system is currently being developed with the hope of further increasing soil life.

Les explains "that being certified organic has given us a little bit more income so we can afford to start addressing some other problems. We are on limestone, so the background pH is mid 6s to 7. We are short magnesium, and the high calcium readings are misleading because the soils are out of balance." When the calcium/magnesium ratio was addressed, the clovers came back in the pastures. The next effort will be to control burdock and quackgrass by using gypsum, a remedy picked up from *The Acres USA Primer* and their fertilizer dealer.

On the early September morning we visited the farm, the cows were grazing a small pasture that was too steep to crop. Grass was only regrowing in the shaded areas, so hay stored from last year's abundant harvest supplemented the dry pasture. Grass stored as hay evens out the forage production from wet years to dry.

Just above the pasture was a corn field co-planted with soybeans. Deer pressure doesn't allow them to grow soybeans

alone but combined with corn, the damage is less severe. This corn/soy combination increases silage protein levels from the 8 to 9% range to the 10.5 to 12% range. The ratio planted of soy to corn is 4.5 to 1. The previous crop was winter triticale interseeded with red clover which provided an excellent green manure plowdown, and even with the dryness, the corn combined with the soybeans looked lush and green.

Just below this pasture was another field of corn, with a companion crop of sunflowers. It was a heavily manured sod the previous year and the corn here had a good color too. This experiment to increase silage quality wasn't entirely successful due to a late frost killing off the first sunflowers to germinate. Although originally planted to nearly 20% sunflowers and 80% corn, the remaining crop had less than 5% sunflower. The sunflower/corn combination is thought to raise the lysine content of the silage.

Les further explained that organic management "takes more time and we have taken on 80 to 90 more acres of rented ground in order to grow more grains in our rotation. We are spread a little thin since we only hire day help for haying." Even with the increased acreage Jim says that going certified organic has made farming fun again.

"The most important crop in this world is grass. Grass doesn't have the obvious problems of tillage and potential soil erosion. It grows nearly everywhere and a good sod is very beneficial to soil life. It not only protects the soil but helps build it as well. Many areas are too steep to crop, and should be used only for pasture."

Organic certification requires "adequate pasture," which their heifers, dry cows and dairy herd all have. "In years of adequate moisture, pasture grows well all season and requires minimal supplementation. In dry years such as this, pasture is supplemented with hay and green-chopped grass. Cows not only harvest grass and convert it to something humans can eat, but they also recycle nutrients. Cows on a forage-based, non-GMO diet have a healthy manure. As soon as it hits the ground, it starts the carbon/nitrogen cycle. The bacteria in the rumen and the manure acts as an inoculant in itself and helps to keep the soil vibrant and productive."



Corn co-planted with soybeans prevents deer browsing and increases silage protein levels.

Les says, "without animal manures, you can see soil productivity begin to decrease." The brothers see the same problem with the rented land which is too far from the farm to spread manure.

It becomes more difficult and expensive to restore and maintain soil vitality and fertility without the animal component. They feel that the animals' importance in the cycle of life is poorly understood and its role in agriculture, soil fertility and human nutrition cannot be overem-

phasized.

Les feels that part of his responsibility as a dairy farmer is to try to inform the public that avoidance of whole milk dairy products increases the risk of osteoporosis, skeletal weakness, and related problems. He believes that many contemporary diets are lacking in calcium from the natural sources of dairy products, meat and vegetables. Many food additives and supplements are ground rock such as calcium carbonate and calcium sulfate which are poorly utilized by humans. Dairy products are a much more absorbable source of calcium. He would like to see Horizon and other dairy processors promoting whole milk, since fats are a necessary part of the diet—and dairy fats are probably one of the most important.

"We had a fellow stop by who used to help us with haying and he brought his two sons along. They were fascinated with everything that was going on at the farm and near the end of the day, I asked if they wanted a glass of milk. They asked if it was straight from the cow, which it was. They declined. When asked why, they said that there was too much fat in this milk. Well, their father drank a glassful and so did I. Then they had just a taste, then asked for more. These boys, in the third and fourth grade, are already indoctrinated on this fat issue."

Les has challenged doctors and nurses to tell him how much fat is in whole milk. They don't know, but when forced to guess, one pair said between 10 and 15%. He tells



The Miller Brothers' father, Warren, continues to help with farm work at age 79.



them that “we are paid on a basis of 3.5% fat and whole milk in the store is 3.25%. They were surprised, and yet they are giving dairy products a misleading image because of this fat issue.” Homogenization shatters the fat globules so they stay in suspension in the milk. These smaller particles act differently in the body than if left whole. They pass through the gut wall and into the blood stream and some research indicates that homogenized fats may contribute to heart disease.¹

“Pasteurization is another issue, which is so deeply ingrained that raw milk is considered taboo. Milk was originally pasteurized because some cows carried brucellosis and tuberculosis. This has pretty much been eradicated and modern milking and cooling equipment has also greatly improved sanitation. There is really no reason why all of our milk supply should be pasteurized. Milk is alive with beneficial bacteria and enzymes but pasteurization changes this². If you take raw milk and leave it at room temperature, you get sour milk and cottage cheese. If you leave pasteurized milk unrefrigerated, it goes bad. We have been drinking raw milk every day since we’ve had cows. Milk is not just a beverage, it is probably one of the most healthy foods you can get.³

“Milk from cows on fresh grass contains CLA (conjugated linoleic acid) which has strong anti-cancer properties. Although many cows in this area are still pastured, overall, most are not. Cows on NOFA-NY certified farms are required to have fresh forage in season. Even now with our pas-

tures short from the dry weather, we green chop forage from our more distant fields and bring it to them daily.”⁴

Because there are still many farm families drinking raw milk in the county, Les suggested to Bassett Hospital in Cooperstown and some of the people at NYCAMH (NY Center for Ag Medicine & Health) that they undertake a study comparing bone densities to those of non-milk drinkers. Of course, without funding, the study is stalled in the suggestion box.

Les also brought up another interesting nutritional aspect of the butter and cheese produced today. Up until the 30s and 40s, most of these products were made from the flush of milk coming from cows on spring pastures. This certainly made for a more nutritious and healthier product.

The Miller Brothers farm is run as a integrated unit with much of the fertility for the farm and most of the feed for the cows produced on the farm. To do this they need an impressive array of tractors—“one for everyday of the week”—as well as tillage and harvesting implements. They also run a saw mill for producing the lumber for repair and construction of barns and outbuildings. In this age of specialization and “outsourcing” it is becoming rare to find a functioning whole farm.

The community of local farmers works to even out the work load for special projects. “In this area (southern Herkimer County) we share work back and forth. We built a heifer barn with the help of our neighbors. Also, one-on-one

discussion is really important for sharing information. Farms are so individual that what works for one doesn’t for another.”

The Miller Brothers have been able to bring in ideas from a wide variety of sources and adapt them to their situation to create a farm system that any farmer would do well to emulate.

1. For more information about milk processing issues, read William Campbell Douglass, M.D., *The Milk Book*, ISBN 1-885236-04-2

2. According to *The Milk Book*, the complete destruction of the enzyme phosphatase is one test for complete pasteurization, although this enzyme is essential for the absorption of the calcium in milk.

3 “Milk is one of the best, if not the best single food, since you obtain the minerals rapidly in proportion to the calories. The main thing is to get the daily phosphorus and calcium requirement and sufficient of the vitamins, particularly the fat-soluble vitamins.” Weston Price, DDS, *Letter to his Nieces and Nephews* 1934.

4 For more information on CLA, read *Why Grassfed is Best*, by Jo Robinson, ISBN 0-9678116-0-0. She calls CLA the hidden bonus in grassfed ruminants. In addition to its anti-cancer properties, shows promise for reducing risk of obesity, diabetes and a number of immune disorders. It is host highly concentrated in milk fat—the very fat we have been taught to avoid. Nonfat dairy products have virtually no CLA. Milk from grassfed cows contains as much as five times more CLA than milk from standard, grainfed cows.

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