

Become an Artisan Cheesemaker

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Recently I had the opportunity to participate in a workshop for beginning dairy graziers at American Farmland Trust's Cove Mountain Farm in Pennsylvania. The two days were filled with the mechanics of milking parlors, fencing and grass management (and a little bit about pasture ecology from me), but the most intriguing presentation was the very last one by Jonathan White, a master cheesemaker from New Jersey.

Jonathan comes at grass-based dairying from a unique perspective. Trained as an engineer, he abandoned that career 10 years ago to pursue the art and science of cheesemaking. His exploration of cheesemaking techniques has taken him as far as Tibet to learn how to make cheese from Yak milk. He says that the biggest challenge is transportation. If the milk's brought in on horseback or motorcycle, there's no hope. It's butter by the time it gets there. Transporting the milk on yakback, on the other hand, provides a smooth ride for the milk and allows it to arrive in perfect condition for cheesemaking. Bringing it inside the yak, of course, would be even better.

Jonathan does not use anything more exotic than Guernsey cows to make his artisan cheeses here in the states. He's found that Guernseys produce milk with an ideal ratio of components for making excellent cheese. I agree. The white cheddar and ricotta he brought for us to taste were delicious!

The other thing Jonathan's convinced of is that grass-fed cows produce better cheese. These qualities are what he feels make his products unique and worth the \$15 per pound he regularly receives for his cheese. He sells it at farmers markets, and via mail order/internet sales, and from a newly opened on-farm store.

Aside from making some of the best cheese I've ever tasted, Jonathan introduced our group to his unique approach to on-farm milk processing. A number of small, single operation or cooperative processors have sprung up in the last few years. Most of what I've heard when such operations are discussed are equipment set up and costs and the logistics of marketing, both critically important to the success of the business.

Here's where Jonathan's presentation was different. Jonathan's ideas reflect his experience as a cheesemaker first and foremost. He's setting up his farm and facilities with a focus on what's best for the cheese.

Jonathan figures he'll end up with about 25 cows, because they'll produce the right amount of milk to make a batch of 250 pounds of cheese a day (the ratio is 1 pound of cheese for every 10 pounds of milk). He'll make cheese seven days a week.

He's making a batch a day because he wants to use only fresh milk. Storage involves refrigerating the milk and temperature changes reduce its quality for cheesemaking. He won't use milk from other farms either, because transporting the milk, and especially the agitation used to keep the milk from separating in the milk truck, affects its quality as well. In spite of potential food safety concerns, he's not interested in pasturizing or homogenizing the milk either for most of his cheeses. He'll settle for nothing less than the fresh, raw product.

The milk from the evening milking is put directly into the cheese vat and cultured. The morning milking, warm from the cows, is mixed with last night's milk and brings the batch to the proper temperature for starting the cheese.

Cheesemaking is a simple process, Jon tells us. It's about helping the good bugs overwhelm the bad bugs. It is a fermentation process that occurs naturally with the help of certain types of bacteria. To tip the odds in favor of the right bacteria and against those that would simply spoil the milk, you add starter. It's ecology in action. The milk provides enough food for a certain number of individual bacterial cells. When we add starter, we're filling those 'niches' with the bacteria that we want, crowding out the others that would spoil the milk.

You can actually try this at home in your own kitchen. For a small batch, you can either buy starter or use a fresh package of a dairy product containing live culture (yogurt, buttermilk, or sour cream—just make sure it says 'cultured' on the package). This mixture stands for an hour.

The other ingredient that makes cheese work is rennet. This is added next and mixed in. The milk is allowed to stand for another 30 to 60 minutes. By this time, it should be what Jon calls 'milk jello'. It's then cut into 1/4 inch cubes, heated gently, and allowed to stand again. The whey is poured off and the cheese is poured into a mold. The whole process takes only a few hours.

That recipe will make a plain, 'farmer' type cheese. Modifications are required to end up with the various types of cheese, many of which require aging. Jonathan makes the following kinds of cheeses including cheddar, ricotta, soft-ripened, blue, mozzarella, yoghurt, butter, creme fraiche, and ale-washed. And of course there are many others that you can try.

A good source of information is the book 'Cheesemaking Made Easy' by Ricki Carroll, who also sells cheesemaking supplies at www.cheesemaking.com. There are many other books and internet resources available as well.

Another difference between Jonathan's operation and most others I've seen is facilities. He says, 'Keep them simple.' Facilities don't need to be complicated or expensive. Although some of the complete on-farm processing systems I've seen cost upwards of \$300,000, Jonathan's cheese kitchen cost him little more than \$20,000: \$15,000 for the vat and the rest for molds and other equipment. He's remodeled a small existing shed on the farm for his workspace.

Although that's OK in New Jersey, it may not be elsewhere. Each state has its own regulations governing cheesemaking and you'll want to investigate before you get started. For more information on Wisconsin food processing rules, contact the Wisconsin Department of Agriculture Trade and Consumer Protection at 1-800-942-2474 or http://datcp.state.wi.us/fs/business/food/publications/index.html#fact_sheets

The goal of this article is not to minimize the complexity and financial risk involved in starting up an artisan cheesemaking business. What I liked about Jonathan's approach was the opportunity it presents for any farmer to explore the potential for an artisan cheesemaking business without a major initial investment. You CAN start small and make it work.

The operation Jonathan's set up, with its 25 cows, \$20,000 worth of cheesemaking equipment, and one or two part-time staff won't make him rich, but his numbers tell him that he and his family will be able to live comfortably. They lease the 500 acre farm from a landowner who's not interested in selling but wants the land used sustainably. A grass-based dairy was an easy sell. He's also in a good location to capitalize on the ag tourism market. The artisan cheese and Jonathan's home baked breads make the farm a draw for visitors all year round. Add a glass of wine and it sounds like a winner to me.

Visit Jonathan's operation on the web at www.cowsoutside.com.