

# CreamLine

a new voice for little dairies

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## The Road Less Traveled: Dexter Cows and Kefir Cheese by Rose Marie Belforti

After two years of very intense planning and construction, we finally have a Dexter dairy. Although there are a few Dexter dairies in the British Isles, Australia, New Zealand and Canada, we are not aware of any at this time in the United States. Our hope is that Dexter cattle will be a solution to renewed interest in alternative ways to farm as we begin to trend back to local family-run operations and away from large corporate factory farming. People are demanding fresh wholesome foods, and the local small-scale dairy can provide for these needs. Our small cattle have a lot of work power, and we think it is time for them to show off a bit. Our dairy has grown out of a passion for “the little mountain cow,” and love for their rich, high butterfat milk.

I first found out about Dexters while surfing the web in 1997. At that time I was a city dweller and was looking for my perfect farm. My children were leaving the nest, and I was ready to move back to the country. Dexters became the preferred bovine as I began dreaming what I wanted to do with this farm idea. When I finally moved to our sweet little farm I bought my first Dexter from a woman not so far away from me in New York, but they were still hard to find at the time. That was 1999. My little dun heifer came home with us in the back of our pickup truck! One cow led to one more, and with the help of my neighborly A.I. technician, we had a few calves before too long, and then you know how it goes!! We A.I. all our gals and try to choose the best genetics we can find for our breeding program. We have a small herd of eight Dexters presently, and will keep that number below twelve.

At this time we have decided to concentrate on making cheese rather than selling milk. After working extremely closely with our New York State Agriculture and Markets Milk Division on rules and regulations for building a dairy, we received our legal producer status in November 2006. It has been a long haul! There is a very big learning curve to starting up a dairy for those of us with no previous experience. Each step of the way we consulted with the inspectors concerning our building plans. It is better to get it right the first time than to have to go back and do it again. We did not have a previous dairy building on our property so we had to start from scratch, from designing the

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ditching and waste control, to placement of the milk parlor, milk cool room, holding area for the cows, and the cheese making room. Once built, getting to know the correct sanitation procedures has been the biggest challenge. Clean has a new meaning! We call it “the art of cleaning.”

We originally started hand-milking one cow. Now there are three. We are still milking by hand, and love the relationship with our cows, but will have to begin using the milking machine this spring as we add one more cow to the operation. We plan to milk a maximum of six cows. We purchased a 1940s Surge milking machine and assembled the entire unit from new and used parts we acquired from retired dairies in the area. The equipment we needed for the milk cooling room and the cheese room took an entire year to assemble because many of the things needed were just not readily available. With the help of some small dairy equipment dealers and finding items on eBay, we managed to put it all together under close scrutiny of the inspectors. We use a refrigerator for a bulk tank. With such a small amount of milk it works just fine. In order to get our milk cooled down to 45 degrees within two hours, we put it in the freezer, and then move it down to the fridge when it achieves the 45 degrees. How quaint! In the cheese room we are using two refrigerators to age the cheese, and will have to plan for a bigger space this coming summer. We have two very old jacketed steam kettles that we use for warming the milk to start the kefir culture. The kettles have been converted to hot water. We were very blessed to have ingenious plumbers, who designed a system even though they had no clue about it when they started. But they were inspired to plumb a tiny cheese factory, something they had never done before.

We have been called Finger Lakes Dexter Cattle for the past seven years, but now we are Finger Lakes Dexter Creamery (our web site is [www.fingerlakesdextercreamery.com](http://www.fingerlakesdextercreamery.com)). Our farm consists of twelve acres, about seven acres for pasture, in the Finger Lakes region of New York on the east side of Cayuga Lake. We are one mile off the Scenic Route 90 Wine Trail and hope that our location will attract tourists that are here for the culinary delights the area has to offer.

The other very exciting aspect of our new venture is our brand new cheese. We are making an aged raw milk kefir cheese. We applied for a Sustainable Agriculture

Research and Education (SARE) producer’s grant in 2005 and received funding for our project in July of 2006. The plan was to upscale a home recipe to a commercial process for kefir cheese using authentic living kefir grains. In cooperation with the Cornell University Food Processing & Development Laboratory, we set out to establish a standard for the new kefir cheese. We are very fortunate to have the expertise at Cornell to help put our new recipe together.

## **Getting and Fulfilling a Grant**

*I asked Rose to elaborate on what it takes to get such a grant, since many people ask how they can get one to start up a creamery.*

There are lots of grants out there, but the most important thing about choosing a grant to apply for is to really make sure it matches what you intend to do. Each grant has very specific ideas on what kinds of projects it wants to fund, and if your project or idea does not fit with what the organization is seeking, it may be a waste of time to apply. Read the grant information very carefully to see if what you want to do fits what the grant funder is targeting. If you think you have a pretty good fit, the next step is to read the instructions as carefully as you can. Grant proposals need to meet several requirements and they are spelled out in detail in the instructions. As you plan your outline for meeting the requirements for the grant, make lots of notes, make sure you answer questions very specifically, and write very clear and concise sentences that answer the questions they are asking.

I cannot emphasize enough that the applicant must answer all the questions asked, and have a strong intent to meet what the funders want to know in each question. Spend a lot of time writing the proposal and then revise it several times, and have a friend or two read it through for you. If you have a technical advisor, work with that person and have them read it through for you often before you submit it.

When you receive a grant, you will be expected to meet certain obligations, which will depend on what grant you are applying for. Whatever you tell them you are going to accomplish, you should expect that you will have to do it; that is why it is important to be honest, practical, realistic and sensible, and make sure you can fulfill what you tell them you will do. Be careful what you promise, because they will hold you to it!

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*Editor's Note: It is possible to change your grant project somewhat mid-stream, and it's not a bad idea to write into your proposal a feedback loop that allows you to change course if things aren't going well or new circumstances arise. For example, the Hometown Creamery Revival project was initially supposed to help five farmers get started in dairy processing. Once we were a couple years into the project, however, it was clear that three of them were not going to be able to make the transition by the end of the project due to personal and financial circumstances. So we changed the project to include more workshops and training for farmers outside the project, and also started up CreamLine and the "smalldairy" web site, which were not part of the original proposal. In this way, the project ultimately benefited way more farmers and potential processors, which our funders were enthusiastic about.*

Most grants are not going to fund the purchase of equipment or start-up endeavors, such as in the case of the Sustainable Agricultural Research Grant. These grants are for testing new ideas and techniques, or for educational purposes to inform farmers of new ways to do things. In my case, my cheese is unique and has never been standardized. I convinced them that kefir grains are a sustainable way to make cultured milk and cheese, and that other farmers could use this method as well. I was told by one of the readers for the SARE grant that my grant was chosen because I did a very good job writing the proposal, and that my outreach to other farmers was exemplary. A side note here: I told them I would accomplish several things, and I was thinking at the time I wrote it that I would take my sweet time fulfilling these obligations. Well, I recently found out that I have to meet all my outreach obligations before they will give me the final check, which is half the amount of the total grant! Needless to say, I am boogying!!!

## **Kefir Cheese**

Kefir grains are a mixture of living microbial lactic bacterium and yeasts. They have been used for centuries to culture milk by traditional peoples, promoting good health and longevity. Kefir grains propagate naturally when immersed in milk, making them an ideal sustainable natural resource. They have been nurtured and passed down for generations, and recently have become available in the U.S. They have never been applied

to commercial cheese production that we know of. Although there are kefir products on the market, they are not made with kefir grains and do not include the unique array of beneficial probiotic bacteria inherent in the kefir grains. If you are interested in using kefir grains for home use, please visit our website at [www.kefircheese.com](http://www.kefircheese.com) and go to our links page. There you will find "Dom's Kefir Site" and you can learn all you ever wanted to know, and then some, from Dom. He has built a wonderfully fun and informative website.

We are just coming to the end of our project with Cornell and have established a very nice raw milk kefir cheese aged for 60 days or more. We use full cream in our cheese! With Dexter milk that means a lot of luscious, rich cream. Our new cheese is called Wild Man Kefir cheese, which we began selling this past Spring.

This summer I have just begun to get my cheese making off the ground, although it has been very rocky. I have been plagued with almost everything possible! Learning to maintain a mother culture is by far the most challenging, although keeping up appearances for the inspectors has been, shall we say, a learning experience. Bringing a used refrigerator into the cheese make room has caused several weeks worth of headaches, and now marketing concerns add just a tad bit more franticness to the environment. It's got to be done!

One thing I have learned about making a new aged cheese is that one can never have enough patience. From milk to curd to brine to aging room to packaging and getting the cheese out the door, it is a long wait to the final product. When I started out with just an idea to make cheese, it was all rather idealistic. Now that I am finally making cheese, it has become very pragmatic

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and scientific. The more I learn, the less I feel I know. I think once the marketing falls into place and the cheese becomes consistent, I will feel as if I am really on the way to becoming a cheese maker. But for now, I am happy with my little successes.

### **Why Dexters?**

My husband and I have a great interest in the promotion and conservation of the Dexter breed, as well as kefir milk culture. We hope to bring awareness to the importance of raising and farming with Dexter cattle. Our small cattle can do important work for sustainable agriculture. There has been an amazing surge over the years in goat ownership, and there are numerous goat cheeses on the market now. The Dexter can have the same acclaim. A contented cow is a joyful thing to behold! Let's hope there is new interest in raising Dexters for the work they can do to bring milk to our tables. We hope that our model for a Dexter dairy will inspire others, and be an example for others to build their own imaginations on. Dexter milk is exquisite, and well worth our efforts.

Reports from individuals who milk a cow for family use suggest that the production level varies with breeding and feed, but is 1.5 to 2.5 gallons per day. The milk has approx. 4.1% butterfat content. Dexter milk is certainly thick and creamy and high in butterfat. When I make kefir-cultured milk from my Dexters for my family, it is very thick! But when my cows are off lactation and I go to my Holstein farmer to buy raw milk, wow, what a difference! When I culture the Holstein milk it is literally like cultured water compared to the Dexter milk. The Dexter's abundant cream comes to the top, and you can scoop it off and save it up until you get a quart or so, pop it in the blender, and give it a whirl! Voila – homemade butter!!! So good!!! And the buttermilk makes great pancakes. A favorite recipe is to soak steel-cut oats overnight in the buttermilk, then cook it up in the morning with cinnamon and raisins and see how good breakfast can taste! A little Dexter gives a wealth of treasured milk that can be used in so many ways!

We grass feed and pasture our cattle, and we use no drugs or other additives in their feed or care. I only feed enough grain to bring my cows into the stall to milk, which is a handful each time they come in. All

other feed is grass hay and alfalfa purchased from neighboring farms.

The milk is as clean and fresh as can be! We love our cows, each one is a friend and very unique. They are part of the family. Their well-being comes first in our thoughts before production concerns. Therefore, we make sure they mother their calves for as long as they can before we wean the calves. Our cattle always have access to pasture and are never confined. On a small scale, one can maintain a humane approach to dairy-



ing, so that the care for the cows is as important as the milk they give. That is very important in a world where dairying seems to forget to value the very one that gives us the treasure she has.

We have discovered a new aspect to raising Dexters, but we have not done it alone. With great appreciation, we thank all those who have helped us get started, and especially we thank the great Beryl Rutherford, who kept 40-60 milking Dexter cows in England for many

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years, and introduced us all to the hope of having a chondrodysplasia-free herd. Although she is in her 80s and retired now, she has, through correspondence, been instrumental in rescuing us at our most chaotic moments when training our cows, tending to the ailments of our cows, and in all aspects of hand milking and dairying. Without her advice and good humor, we would certainly have given up! Oh my, she is an awesome lady! She single-handedly got the chondrodysplasia gene (a lethal gene for dwarfism)\* out of her herd before anyone else by using only long-leg bulls on short females. Before the DNA test, it was all done by sight. But she also brought the height of the Dexter down, without the Dexter becoming a dwarf! Super job she did!!! Now we have the DNA test, we can know what we have in our herds and breed accordingly. As I was training my cows to stand to be milked, to come in to be milked, with all the minutia around the art of milking, Beryl was an email away! She was always getting me out of troubles – I owe her a lot! She has a book out, which can be ordered through the Purebred Dexter Cattle Association, called *My Love Affair With Dexters*. The PDCA web site also has an article on Milking Dexters by Ms. Rutherford. (See contact information in the box on page 7.)

We love the closeness we have with our herd. I think they like it too! Having quality time with them twice a day, training them to become docile milkers and teaching them polite manners in the milking parlor has been very rewarding. Don't let anyone ever tell you a Dexter cannot be milked! We can tell you, after an entire summer of training one of the most stubborn gals ever...it can be done! Routine is the key to the heart and mind of a Dexter. Do the same thing every day - that is what they like best. After a while, it can be what you like best too. It has been a very rewarding experience for us, and we look forward to many years of enjoyment making our new product and being with our family of milking Dexters. ❖

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\* There is an article about this defect on the PDCA web site that explains it fully. In short, "The Bulldog trait is known as chondrodysplasia, and it is co-dominant in inheritance. This means that an animal that has one Bulldog allele will be 'Affected' with chondrodysplasia and have a slightly disproportionate build and a choppy gait. An animal with two chondrodysplasia alleles is 'Severely Affected' and will be aborted as a very deformed Bulldog calf. Furthermore, 'Affected' Dexters will never breed true; breeding Affected to Affected will produce a mix of Affected, Normal, and Severely Affected calves." (from the web site)

**This article is reprinted from issue #31 of CreamLine, a quarterly newsletter devoted to small commercial dairies and creameries. Please visit [smalldairy.com](http://smalldairy.com) for more information.**

## The History of Dexter Cattle

One tall tale says that Kerry cattle grazing the seaweed along the coast of South Western Ireland mated with sea lions and produced the first Dexters. While the early history of the breed is a pot-pourri of fact and folklore, we do know Dexter cattle originated from that emerald land of Leprechauns. Dexters most likely evolved from the Celtic cattle that populated Ireland and date back to the Stone Age. Like Dexters, most of the Celtic cattle were predominately black although a dun cow was painted in the 1830's by William Shiels to represent Irish Dexter/Kerry cattle. Professor David Low described Dexters in 1845 as being "various colors, as black, brown, and mixed black and white, or black and brown". Mr. Low's publication in 1845 is also sometimes the account used for crediting a Mr. Dexter, an agent for Lord Howarden of Tipperary, for the name. Mr. Dexter is said to have selected from the best of the hardy mountain cattle of the region during the 1750's in the development of the breed. The first herd book listing Dexter and Kerry cattle was issued in 1890.

While there are reports of Dexter cattle being introduced into England earlier, in 1882 Mr. Martin J. Sutton of Kidmore Grange, Oxfordshire purchased 10 Dexters from Mr. James Robertson of La Mancha, Dublin. The breed's popularity grew and ten years later a Dexter/Kerry cattle society was formed. This small hardy breed that was utilized for milk and meat as the "poor man's cow" in its native Ireland, ironically became the adoration of the gentry and thrived on English pastures.

Dexters were also in North America prior to the 1900's. Between 1850 and 1900, Dexters were among some of the breeds of cattle imported to Hawaii. Around 1905, Dexters formed the herds for prominent individuals such as James J. Hill, Howard Gould, and August A. Busch. A herd book published in 1921 by the American Kerry and Dexter Club listed 63 registered Dexter bulls and 260 Dexter cows.

The claim that Dexters traveled on sailing ships to provide a source of milk and fresh meat seems believable given their docile temperament and broad distribution. The Irish Dexter has become the International Dexter with a growing worldwide interest. Pushed aside by larger more specialized breeds of cattle, Dexter cattle are listed as rare by the American Livestock Breeds Conservancy. In recent years their numbers have been rising as this naturally small breed has found favor among small landholders in North America, Britain, Australia, New Zealand, South Africa, Germany, and Holland. Whether it is a frozen tundra or tropical heat this ancient breed has probably been there. Today, this smallest of the European cattle breeds continues to sail into the hearts of everyone and continues to be hardy enough to establish itself everywhere.

*Reprinted from the web site with the kind permission of the Purebred Dexter Cattle Association.*

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