



## **Conversations with Fresh Milk Dairy Farmers**

**An Educational Program of the Farm to Consumer Foundation**

### **Dairy Farmer Interview #2      Deb and Scott Smith**

The Farm to Consumer Foundation is dedicated to encouraging the right of consumers to choose fresh nutritious foods and promote farming practices that focus on supplying these consumers with the products they prefer. There has been a very large increase in the number of families that want their milk, fresh, unpasteurized and unhomogenized (unprocessed). We are impressed with the variety of farming practices that have emerged to supply this product to those families. The Foundation is aware that there is no single model for fresh unprocessed milk production.

This interview is the second in what we hope will be a series of opportunities to talk with dairy producers across the USA that have been producing fresh unprocessed milk to their neighbors. Through these interviews we hope to highlight the diversity of operations and business models, the practical aspects of fresh milk production, and the enthusiasm these farmers have in their daily work. There are also other business models, many different versions of State oversight, differing consumer preferences, and very different geographies.

We continue this series with Deb and Scott Smith who operate a dairy in Ohio. Some of the responses here are from Dan, Deb's bother. Dan manages the farm store and is the agent for the farm's herd share program as well as selling other foods that he and other local farmer's supply at the farm store.



FTCF: Good morning! Thanks for meeting with me. Let's start.

Where are the dairy and farm store located?

Dan: About an hour northwest of Dayton, Ohio.

FTCF: I know your dad had a dairy, Deb. Did he get out of dairying before you started producing raw milk?

Deb: Well, I hadn't done any dairy for almost 30 years, because my dad did get out of it in about 1996, '97. When I was young and unmarried, I wanted to marry a farmer. But time passes and it's like, man, I don't wanna be a farmer. For two and a half years I milked one cow by hand just for me and my brother Dan.

Scott: I got laid off and Deb's brother had been trying to get us to do raw milk. One day I came home, and I just said, "Deb we're gonna milk cows." Deb thought I was nuts. We didn't even have a milk parlor yet. I was thinking, I'm probably not gonna find me a contractor to build a milk parlor. And then just out of the blue, a contractor called me. He said he just had a house cancel, and did I have any work for him? And I said, "You bet I do." Within a week or two they were digging holes and putting it up.

FTCF: You mentioned that your dad started with Holsteins, and you have Jerseys now. How did that transition from Holsteins to Jersey take place?

Dan: Dad's goal with Holsteins was "clean and green," but that was to maximize the quantity of milk. Whereas our goal with the Jerseys is to maximize fat content, because Jersey milk has a higher fat content than Holstein milk. This means that, with Holsteins, there's more milk, but it's not as creamy. A Jersey gives less milk per day—for example, if a Jersey gives four gallons of milk per day, a Holstein will give five gallons—but the fat content in the day's milk would be the same for both.

Deb: When we started, we got one Jersey from a neighbor. The Jerseys were much smaller, friendlier, and they give better butter fat. They're just nice cows.

Scott: We wanted the cream. Plus, we had our kids out there, and Jerseys are a smaller cow, real easy to manage. They have a neat personality, they have a stubborn side too, but generally, they're pretty easy going.

FTCF: How many herdshares do you have and how many families are involved today?

Dan: A Jersey cow gives about 30 gallons a week. And so out of the 15 or so cows that we're currently milking, half of their milk is left raw. So that's about 200 gallons

of milk a week, which satisfies about 150 families or so. The other half of the milk is pasteurized, here on the farm

Scott: I market the pasteurized milk; I wholesale all of it to small grocery stores in the area. It is clean milk and it's pastured milk, organic, but it's pasteurized.

FTCF: I understand that it's "lightly" pasteurized. Is it just enough to meet the minimum heat requirement for pasteurization?

Scott: Correct. The milk is raised to 145 degrees F instead of the usual 161 degrees. This process is a lot more gentle with the milk. On the other hand, we do not homogenize this milk. I think Sally Fallon would argue that with homogenization you are doing lots of damage to milk proteins, and milk fats.

FTCF: The cows are on pasture, right?

Dan: That's correct.

FTCF: How many acres of pasture land does the herd use today versus when your Dad had the dairy?

Dan: The pasture, when I was growing up, really wasn't much of a pasture, and there were 10 acres for 60 cows. Today, we have just 15 cows and 15 acres, so one cow per acre. And it's pretty lush pasture, whereas Dad's idea of pasture was just to let the cows roam. He had one alfalfa field that he cut and brought to the cows, and another, low density, weedy one to provide the cows an opportunity to graze in the sun and get some exercise from May 1 through November 1. On Dad's farm there was really no energy or thought that went into having the cows graze.

FTCF: Do you have a pattern for moving the cows around the pastures? Or do you just let them go out, and the pasture is so big that they won't eat up a whole bunch of grass?

Dan: We use rotational grazing, meaning that the cows are fenced into a couple acres at a time. That way, they eat down a couple acres, and then Scott simply moves the fence line and rotates the cows to the next area. They eat down those couple acres, and so on. That works pretty well.

FTCF: Do you use electric fences?

Scott: Yes, and that's a key part of the whole grazing strategy. We have a peripheral fence, high tension, and then we have simple electric ropes to partition off each lot.

FTCF: Now, are all of those fences energized.

Scott: It's all energized, but the dairy cows are mild. Maybe the interior ropes wouldn't have to be energized, but they are.

FTCF: Does the whole herd go out to pasture together?

Scott: Yes. They get milked together, and then they go out together, and then they come in and get milked again together, and then at night go out together. We try to graze them, rotate them. We try to keep them moving on. Last year, we weren't good at moving them around. The grass wasn't that good out there, so I basically let them have the field. But generally, when you've got a good stand of hay, you want to rotate them, not let them chew down the hay too close to the ground, and you move them to another section so you don't kill that grass. With organic, you have so many acres of pasture for a certain size of herd. I've got to maintain that proportion, so we purchased some land behind us. Now I've got a little extra land to work with. So now I have to start thinking about how I'm going to get my pastures back up.

FTCF: In the winter time do the cows stay in the pasture?

Deb: I let them out and they sit outside, but there's no grass to eat out there in the winter. So, my cows can be outside pretty much all year around now and have access to being in the sun.

Scott: In the winter they damage a field. You don't want em out there in the winter time in a hay field.

FTCF: In the barn, about how much space do they take up? Do you have stalls in there or do you just let them mingle together?

Deb: It's a free stall system—they know how to go in and then they just walk in. There's a station for each cow.

Scott: We have what are called free stalls; it's like a garage. Each stall is roughly about 4' x 8'. It's raised up off the barn floor about 6–8 inches, and then it's got limestone, gravel inside the stall, and then we put straw on that. So, when the cows sit in there, their butts hang over the outside which keeps the stalls clean. And they poop out in a lane, and you can just scrape the lane. This gives them a nice clean bed.

FTCF: How does their diet differ from the summer to the winter?

Dan: In the winter, they get fermented hay. We bale the hay in the summer, wet and then wrap it in big plastic bales—some of these bales are 1000 pounds. They get stored in the fall, and then that's what the cows eat for the winter time. One benefit of grazing on pasture is that the cows are biting right off the soil, and there's a lot more probiotics in what they eat. But when you bale hay wet, there's still a certain amount of probiotics as it ferments. There's great benefit to it, because the fermentation allows for efficient digestion to occur in the cow. That way, the cow

doesn't have to expend as much energy on digestion. Plus, they really like it. It smells sweet when you open it up; it's a great product.

FTCF: Where do the bales of hay that you use come from—your pasture or do you buy it?

Scott: I baled the pasture once this year. I usually bale at the first cutting because the hay grows so fast in the spring time. It grows faster than the cows can graze it. That's the only time I bale that field. But now we've got another farm that we basically get our hay from. It grows our hay, our corn, wheat everything's out at the other farm.

FTCF: Is corn normally limited to just when you bring them in to milk them, or is corn more of a major part of their diet?

Scott: No, corn is more like candy for them. We grind it, we have a grinder. We do corn, wheat and then we put supplements in there, mineral supplements, that gives them the minerals that they don't always get in the hay and all. They just get two scoops of it when they come into the milk parlor. It serves two purposes, it gives them nutrition they need, plus it entertains them, like Deb says. And then also, if a cow isn't feeling well, you know right away, because if they don't eat that, you know there's a problem. That's rare, but it's an opportunity to see if something's not going right, and you can address it real quick.

FTCF: How do cows get water in the summertime?

Dan: In summertime, they get their water when they come up to be milked. For the most part, they get milked morning and night, so they fill up on water two times in a day.

FTCF: Do you get your water from a well? Do you have to treat it specially before you use it for cleaning your equipment?

Scott: The water comes from our house well. We take the iron out of it, which was a big, big thing. It keeps the water clean out in the barn, and the cows drink a lot more of it because it tastes better.

Deb: A cow uses a lot of energy to digest iron that's in the water. We could see an increase in milk production when we put the iron filters in.

Scott: A lot of dairies around here are doing that for their water too, because they found the same thing happened. For the equipment, we have a softener in the barn that softens the filtered water that also goes to the house. We also have a series of chemicals that we add to the water we use to wash out the dairy equipment in the barn.

FTCF: What's the process for adding new animals to the herd?

Dan: The process of adding animals is simply that a Jersey cow is going to have a calf once a year. If it's a bull, it is just sold off, and if it's a heifer, it's kept. So theoretically, you have new heifers constantly coming on, and you grow the herd that way. You can also be more selective. If there's a heifer there that is maybe not ideal—you don't like the personality of it, maybe the overall shape of it—then you end up selling it.

FTCF: Do you have bulls, use artificial insemination, or some of both?

Scott: I do both. We've got two bulls out there with our dry cows and heifers right now, but bulls are easy with those type of cows, because you're not with them all the time and it's hard to pick out a heat when they go into heat. For my milk cows, generally I do AI [artificial insemination]. Because I work with them every day, I know when they're coming into heat—you see the signs—and then I call my vet, who does AI, and he comes out and gets them bred.

FTCF: How often do you have to call him?

Deb: Yeah, it seems like we go maybe two or three months without seeing the vet, and then we see him two or three times in a week for AI. And then, whenever we have cows that we want to check how far they are in their pregnancy or if they're pregnant, he'll come. He also dehornes our baby calves for us.

FTCF: Let's talk about milking. How does milking now compare to when you were growing up? Has there been any big change?

Dan: You know what? Surprisingly, it's very similar. Then, we milked four cows at a time. Dad had eight slots but only four milkers. He would milk four cows on one side, and four would wait on the other side. When the first four were done, he would simply move the milkers over to milk the other four. He would let the four on the other side out and bring in another four and continue the process.

FTCF: How would you describe your milking parlor compared to what you used to have?

Dan: We used to have eight stalls, and the current set-up has four. It's a pipeline system, so the milk gets extracted, goes into the pipeline, and the pipeline dumps out into the milk tank. It's quite similar really to what we used to have.

FTCF: How do you get the cows from the pasture to where they're going to be milked? Do they know it's milking time and start to congregate, or do you have to do something special?

Deb: No, they know; they have that sense of wanting to be milked, because their bags start getting full. But it's just a matter of walking out there, and that's their cue that they're to come up.

FTCF: What about your bulk tank?

Scott: Yup. It's about 40 or 50 years old.

FTCF: How big is it?

Scott: 150 gallons.

FTCF: How often do you clean the tank?

Scott: I usually empty it out three times a week. I try to keep to that. I can do four times.

There is an Ohio Department of Agriculture requirement to clean every third day.

I can only keep the milk in there for three days. So, three days, six milkings.

FTCF: And so, then you have to scrub it down or what do you do?

Scott: Empty it out and scrub it down.

FTCF: How many chemicals are involved in cleaning your system out?

Scott: Two. We use an acid cleaner and a detergent cleaner. There's a different one for the bulk tank that I use.

FTCF: How do you determine your herd size? Are you totally being driven by demand or do you have a certain limit that you don't want to exceed? How do you make that decision?

Scott: Well nature does a lot of that for us, because you have to breed the cows when they are in heat, and you don't always get a cow bred when you want. So, nature controls it a little bit, but 20 cows for milking is our limit without me having to really reconfigure my free stalls and my feeding system. We can milk four at a time, so 20 cows would be five rounds. Right now, we're at 15 cows, but it goes up and down.

We've been up to 18. We haven't gotten to 20, but we've been close.

FTCF: Do you ship any milk to the dairy industry?

Scott: No.

FTCF: From the bulk tank how is the milk put into containers?

Scott: I empty and clean the bulk tank 3 times per week. Dan receives orders from the herdshare families. Their orders say, in plastic or glass jars. They return clean glass jars to the store. Containers of milk can be received at the farm store but most are delivered to pickup sites. On Mondays most of the milk goes for by-products. On Tuesdays the milk goes for one of the pickup points, and the residual goes for our pasteurized milk. On Friday the milk is for other pickup points.

FTCF: How about your byproducts? Do you usually have butter and cream available?

Scott: I do butter when I've got extra cream. And then, if milk is tight, I don't have the extra cream.

FTCF: How does the milk move from your bulk tank to the consumer containers?

Deb: I can show you my muscles. We milk the cow, but we're really milk haulers, because once it's out of the cow, you put it in the tank, then you put it in a jar, then you take it to the farm store. So, we haul it all around. But yeah, it's taken directly out of the tank with a hose to the jars.

Scott: We bottle right from the tank for the raw milk, and for the pasteurized milk, we have these five-gallon stainless steel buckets that we put it in and take it to Deb's separate room where she does the pasteurizing.

FTCF: Okay. For a herd share, on average, how much milk do the families take home each week?

Scott: That varies. We probably go through something like two to three hundred gallons a week.

Deb: Yeah, but per family. Would you say it's three gallons?

Scott: It varies, we've got some families that take six, seven gallons at a time.

Deb: Because it lasts them for two weeks, they keep it for that long.

Scott: And others, they just get a gallon or two. It's all over the board.

FTCF: Much is made of A2 milk these days. Have you found the customer appreciates the difference between A2 and non-A2 milk?

Dan: We haven't made an issue of A2 milk. We get customers that ask about it. Our herd is mainly A2, but we aren't able to measure the benefit of that to the customer. We see a lot more benefit from our milk being raw, grass-fed, chemical-free, Jersey, than we do from it being A2, even though, for the most part, Jersey is A2.

FTCF: Let's talk about herd shares for a minute. How did you decide to do herd shares as opposed to any other way of doing raw milk?

Dan: We kind of were, I guess, forced into that. In 2004, we were selling milk as pet food, and that's when the Ohio Department of Agriculture showed up and said, "You can't do that, and we're going to shut you down." At that point, we connected with Pete Kennedy, Weston A. Price Foundation, and Gary Cox, who was the first lawyer at Farm to Consumer Legal Defense Fund. Pete and Gary suggested going the herdshare route. That's how we got in herd shares. But then the Ohio Department of Agriculture was very opposed to that as well. That's when

it went through a two-year court battle, and when the local judge in Darke County ruled in our favor. He actually threw the case out, saying that the ODA did not use due process. He really didn't decide the case on principal, but rather based on the due process thing. That sent a certain message to the ODA—that they were “out of order”.

FTCF: How does your herdshare program work?

Dan: People sign the herd share contract at the farm store, and that determines the agreement we have with our herd share owner. After that, they go on to pay a, usually weekly, boarding fee in exchange for the product. The only way you can get raw or private dairy products in Ohio is through a herd share agreement.

FTCF: What should the customers expect to receive with their herd contract? For example, how much milk would they get, or how much butter or yogurt?

Dan: The contract for a herdshare is \$75 per share. This is a onetime nonrefundable payment. Everything is predicated on that one gallon of milk per week. If the consumer has a herdshare, they can simply choose what type of product they want.

Product with boarding fees that a share provides:

1/2 gallon milk = 1/2 unit @ \$6.00

1 gallon milk = 1 unit @ \$10.50

1/2 lb. butter = 1 unit @ \$10.50

1 pint cream = 1 unit @ \$10.50

1 qt. yogurt = 1 unit @ \$10.50

FTCF: How do you handle losing and gaining shares?

Dan: Well, for gaining shares, customers simply would buy more shares if they like. And then, if they stop getting product, then the contract nullifies, so that contract is no longer in place whenever they stop, because they've stopped their end of the bargain.

FTCF: What would you consider important to retaining shareholders?

Dan: Convenience. Convenience is a higher priority than health for consumers, so if it's not convenient, the customer is not going to get it. It is true that raw milk, is the most efficacious way to build the immune system, but that fact is always balanced with convenience in the mind of the consumer.

FTCF: This interview shows another way that a successful fresh milk dairy can operate.

***Thank you so much for sharing this information and for your time!***

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