"Green Mountain Chronicles"
Oral History Transcriptions, 1981-1989 (bulk: 1987-1988)
MSA 199 & 200

Introduction

This transcription is one of approximately 42 transcriptions of interviews with individuals conducted primarily in 1987 and 1988 in preparation for a radio program sponsored by the Vermont Historical Society entitled "Green Mountain Chronicles."

Scope and Content

The transcriptions in this collection represent interviews of approximately 42 individuals conducted primarily in 1987 and 1988 by Mark Greenberg, Mary Kasamatsu, Eleanor Ott, and Tom Davis in preparation for a radio series entitled "Green Mountain Chronicles." The series of 52 five-minute programs was broadcast by commercial and public radio stations throughout the state in late 1988 and early 1989. The earliest interview in the collection was conducted in 1981; the latest was in 1989.

The interviewers spoke with well known Vermonters such as Governors Philip Hoff, Deane Davis, and Madeleine Kunin; lesser known personalities such as Catherine Robbins Clifford, one of the first women to hike the entire length of the Long Trail; and historians such as Weston Cate. The following inventory of the collection highlights the major theme(s) of each interview. The following list of program tapes gives the title of each radio program.

The goal of the radio series was to tell the history of Vermont in the twentieth century using archival sound recordings and recent interviews. The project was undertaken by the VHS in celebration of its 150th anniversary in 1988 and was funded by a $14,000 grant from the Vermont Council on the Humanities and Public Issues with additional support from New England Telephone Company.

MSA 199, Folder 0 contains background information on the project. The VHS website at www.vermonthistory.org/gmchronicles contains a list of the Green Mountain Chronicles radio broadcasts and audio files of those broadcasts.

Donald George
November 8, 1988

Mark Greenberg
Interviewer

MG What is today, November 8th, Election Day, 1988. Speaking with Donald George for the Green Mountain Chronicles. We want to talk about bulk tanks. I guess what I need to know, let me see, break this down into nice small pieces, you started telling me on the phone yesterday about when bulk tanks first started appearing in Vermont. So let's start with that.

DG Okay, I think the first bulk tanks went into Vermont about 1954. They were in the Addison County area and I'm not really sure if it was a dairy farmer shipping to H. B. Hood or if it was a dairy farmer shipping to Brocksderry that had the honor of being picked up first by a bulk milk truck. I do know that the first bulk tank was installed on a farm shipping to H. B. Hood, but at the time H. B. Hood had not purchased a bulk milk collection truck yet and so they were cooling the milk in the bulk tank and then drawing it off in cans and shipping to the creamery in cans. Now about that same time, Brocksderry from Methuen, Mass. who purchased milk in Vermont was also changing their producers over to bulk tank pick-up so they may have had the honor of being picked up first by a bulk milk truck but I believe a producer by the name of Wright and I don't have the first name was probably the first farmer in Vermont to put in a bulk milk tank. Most of the early bulk tanks were sort of a half cylindrical with flat covers type of tank and they prevailed for quite a number of years. As we began to get into larger and larger bulk tanks, in order to get the stability built into the bulk tank they had to go to a complete cylindrical type bulk tank and I think 100% of the tanks that go in today are cylindrical and they don't have covers, they have what they call a manhole entrance. It's just a cover that's big enough so that if a person has to get inside the tank to do something, they can open it and crawl into the tank. The average size of the tanks going in today or at least during 1987 were about 900 gallons. The largest bulk tank that we have in the state is 6,000 gallons. We only have one 6,000 gallon tank. We have several 5,000 gallon tanks and they pick up in numbers as you go smaller.

MG These are on farms?

DG These are all on dairy farms.

MG How often does a 6,000 gallon get emptied?

DG Our Vermont regulations state that these tanks must be emptied and cleaned at least once every 48 hours. And most of the tanks that go in are made for every other day pick-up. And when I say made for that, they have a cooling capacity that is geared to accept only one-eighth of the amount that the tank will hold in any one milking. And so there are some tanks that are geared for every day pick-up, have a much larger cooling capacity on them. As time goes on, some of the bulk tanks that are being installed today have no cooling capacity whatsoever. The milk is cooled prior to going into the bulk tank. Farmers are finding that with the use of heat exchangers, they are saving money by cooling the milk through a heat exchanger and where the real savings is is not in cooling of the milk, but in warming the water that they're going to use for some other purpose. They may use that water to feed a boiler, to feed their hot water heater or to feed the cows.

MG So whether it was the Massachusetts dairy or H. G. Hood, the first tank was at the instigation of the dairy, the milk handler or did the farmer decide to do this on his own?

DG No, this was mostly the milk handler that was looking for a more efficient way to pick up milk. It was costing the handler too much money to receive milk in cans and to collect and receive milk in cans. So they were looking for a more efficient way and it also is a energy savings to the dairy farmer because they can cool milk in a bulk tank much more efficiently than they could in cans. So it was a benefit to both, the farmer and the handler.

MG Okay, can you explain a little more detailed for someone who doesn't know anything about this, why it was more efficient from the milk handler's point of view for farmers to use bulk tanks?

DG Well the real savings was in the energy used to cool the milk. When we were cooling milk in cans, it was indirect cooling. We were either setting the cans in a water tank and then cooling the water around them or we were spraying water on the cans which was cooled previously. When putting milk into a farm bulk tank, we are cooling the milk directly on cooling plates. Instead of cooling water to then cool the milk, we're cooling the milk what they call direct expansion. So the cooling plates are built into the bottom and sides of the tank. So therefore, it was much more efficient there and the milk handler picking up the milk now has to clean one farm bulk tank pick-up

truck, where before he had to clean hundreds or even thousands of milk cans. So it was much more efficient for both the farmer and the milk handler.

MG When the milk cans were still being used, the milk handler would come around and pick them up or the farmer would take them to the handler?

DG That happened in both ways. I think in the very early days, most of the farmers delivered their own milk if they were in any close proximity to the creamery and there was two benefits in that. This was the way the farmer communicated with all of his neighboring farmers. It was quite an ordeal at the creamery each morning when they gathered to line up their vehicles and wait their turn. There was a lot of chit chat that went on about dairy farming and other things. But as time went on and farmers got larger and larger, they became more of a business that needed their full attention and so they began hiring other people to pick up their cans of milk and deliver them to the creamery.

MG When the creamery picked up the cans, did they take the individual cans or did they pour cans into a tank and then drive off?

DG No, they took the individual cans. Each farmer would have two sets of cans. One which was on its way to the creamery and coming back and when the truck driver picked up one set of cans, he left an empty set for the next days milk. Cans were delivered into the creamery, full cans going in one door and being dumped, cleaned and coming back out, put right back on the truck for the next days delivery.

MG After this first farmer in Addison County got his bulk tank, how did the, how did it develop, how did it progress to the state it is today?

DG Quite rapidly. I would say over a period of approximately ten years it took for all of the various creameries to move to big bulk tank method of collecting milk. I believe that Cabot Co-op was the last milk handler to enforce and use big bulk tank method. It probably put quite a few farmers out of business because some of the farmers that were extremely small decided that they couldn't afford to buy a bulk tank and did go out of business. During the late '50's and the early '60's, we were losing about 400 farms a year because of the advent of the bulk tank. But in most cases, these bulk tanks were put into a certain farm and then that farmer would

buy up land from the neighboring farmer and he would get larger. So it really changed our farming around considerably from the small farm to what is considered a much larger farm today.

MG A second, so again, what you were saying about the effect on the small farmers.

DG Yea, I think that over that ten year period, we were losing farms. I remember some years as many as 400 a year. It changed our farms considerably in that many of the smaller farmers went out of business because they couldn't afford to go purchase the bulk tanks, but that enticed neighboring farmers to get larger. And so I think we have quite an evolvement there of farmers getting quite a lot larger during that period of time. I don't think that really has changed much since. They have continued to get larger, but driven by economics rather than a movement of change of type of equipment more since then.

MG What would be, what sizes are we talking about when we say get larger?

DG I think that back in the '50's there were...

MG We have to watch the chair creaking okay.

DG In the '50's, right off the top of my head, I would say that the average family farm was probably something 30 cows or less. Today that family farm is 70 - 80 cows. So they have more than doubled since the '50's. Probably initially might have increased a fair number of farms but a lot of that increase in size has been driven by economics rather than a change of equipment such as it was for the bulk tanks.

MG But yet it sounded like the bulk tank contributed to that economic impact?

DG Ah, it did at the time because it was a tremendous expense for a dairy farmer to lay out for that particular piece of equipment. But since that time, I think that during the '70's when we saw double digit inflation, that certainly had a tremendous affect on dairy farms. They had to continue to put out more volume to be able to keep up with the inflation. And I think probably that drove them to increasing their size even more than the bulk tank did.

MG The move to bulk tanks though was really at the, because of the milk handlers? Is that right?

DG Yea, it was driven by the industry. The State really had no involvement in it other than there was legislation passed which mandated that the bulk tanks would be calibrated so that there would be a conversion chart to change inches in 30 seconds, the depth measurement of the milk from inches in 30 seconds to pounds of milk. And so our job primarily is just calibrating those bulk tanks.

MG And that's the only kind of State regulation other than sanitary regulations?

DG Yes, there are sanitary regulations and cooling regulations that are mandated for these bulk tanks, but that's, that's the only way that we have been involved.

MG Was sanitation a consideration in the dairy's move toward bulk tanks?

DG When the bulk tanks era came along, of course industry and the State as well thought this was the answer to all of our quality problems. We very quickly found out that it didn't really change a whole lot. We probably have better cooling through bulk tanks than we did with the can milk. And that did help, but many of the problems that we have in aspects of quality are prior to the milk getting into the can or into the bulk tank.

MG Do you think that the coming and use of the bulk tank represented a significant shift in Vermont farming?

DG Well I think it, at the time, it was a considerable shift. I think that we we thought we had taken a tremendous giant step. As I look back on it now, I don't think it was that much of a giant step. As I look back on it now, I don't think it was that much of a giant step. When I look at some of the technology that we're using today on the farm with embryo transplants, discussion of reverse osmosis to remove water from the milk prior to shipping it to a processing plant and when I look at some of our modern plants with ultrafiltration, demineralizing plants and making some of the products that we're putting out today, it seems right now that we're taking even a more of a giant step than we did with the advent of bulk tanks.

MG Was one of the factors that maybe affected some of the smaller farmers the, was it more difficult for the bulk tank trucks to get to smaller, more remote farms at the very ends of back roads than it did before?

DG I think that when the bulk tank was first initiated, there wasn't much thought about travelling into the back country so to speak to pick up bulk milk. That has come in more recent times because milk handlers can't afford to put the trucks that they have today back into the mountains where there's the possibility of them going off the road, banging up their rigs and the cost of a bulk truck, you just can't afford to drive a long distance to pick up a small amount of milk. So I think the more modern times have put some farms out of business simply because of their location. If they're not convenient, some milk handlers just won't go and pick them up. And yet in today's market, if a farm is on a main road and they are of a large size, they are commanding a premium price for their milk, a bonus price for their milk just because of their location and their size.

MG Would it, was it possible, would it still be possible for one, a farmer who collects milk in cans simply to dump from the cans into the bulk truck that comes to pick up the milk?

DG No, it wouldn't be possible. The bulk milk it pumped from the tanks onto the truck and although the, the hose could be placed into those cans and it would suck the milk out, it wouldn't do it in a sanitary manner.

MG How did Vermont farmers overall react to this change represented by the bulk tank?

DG I think that many of the farmers accepted it quite readily and increased in size to overcome the additional cost. And probably in the long run, viewing the economic situation today, the pressure that was put on the farmer may have actually benefited him. Because it weeded out those farmers who were not willing to make change and in the period to follow, dairy farmers have had to make many changes to stay in business.

MG You used the word enforced before when you said the dairies, the milk handlers had to enforce the need for bulk tanks and I forget how you put it, but was it just simply, was there some bringing of pressure, how, what was the mechanism by which the farms changed over? Did they just one by one switch to bulk tanks? Or was there actually a deadline given by the dairies, do it by this time or we can't take your milk anymore?

DG Basically, it started with those handlers who were located a distance away from the farm locations, such as Brocksderry who was located in Methuen, Mass. and many other milk handlers who were coming up from our Southern New England markets and collecting milk. Those milk handlers in order to truck the milk to city, at that period of time, were collecting the milk at a central location somewhere here in Vermont, dumping it from cans and then pumping it into tank trucks to deliver to the city. Again, it was an economic move. And those handlers from the city were probably the first ones who notified dairy farmers that they would have to go the bulk tank route if they wanted to continue to ship milk to them. Now at that time there were many farmers who would move markets. They would shift to a different market in order to avoid putting in the bulk tank. But during that ten year period gradually other handlers saw the efficiency of bulk milk tanks and would put notice to their dairy farmers and give them a certain period of time to install these bulk tanks and be ready.

MG Was there any program to help the farmers afford this, any kind of state subsidies or incentives that the milk handlers might have _____?

DG Not that I'm aware of. I don't think that there was any assistance and the handlers certainly didn't offer any additional payment for the milk.

MG Okay, is there anything that you think I should know about, the bulk tank that I haven't or we haven't covered?

DG Um, I think we've, we've pretty well covered it.

MG Okay. Then if we could just sit quietly for about half a minute and let the, let me record some of the sounds of the room. I need that for editing purposes.