CARE OF MILK.

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The care of milk from a business or money standpoint seems to be little thought of by the average milk producer, judging by the condition in which it is received at many of our creameries and cheese factories. A large proportion of the patrons who are finding fault with their manufacturer do not realize that the most trouble is at the farm end, and many seem to think if they can only get the milk delivered before it gets sour their duty is accomplished and they wonder why it is that their butter maker does not make an article that brings the highest quotations. A really fine article of butter cannot be made at any creamery until the patrons realize that to deliver poor, tainted milk is to steal from the creameries and their fellow patrons. The quality of the butter determines the price received for it and we all know that poor milk makes poor butter. The market quotation today for creamery butter is eighteen to twenty-eight cents, a variation of ten cents per pound. This is probably more difference than the average creamery has, but we will suppose it is two cents, then with the farmer keeping twenty cows, making an average of three hundred pounds a piece, there is a profit of $120.00, and it seems to me a man could afford to do quite a few extra things for that amount. But this is not all. Do we realize that there is no article of human food that will absorb odors as readily as milk, also in which they can be so easily detected?

How ridiculous it is that for the shiftless ways in which we farmers handle our milk, inventors have had to go to work and invent pasteurizers and sterilizers to try to cover up the so-called "cowy" odors and flavors which we have allowed to enter into the product. Did you ever taste milk that had been treated with one of these machines and notice how destitute it was of that nice, delicate milk flavor that we get in milk that has not been contaminated with bad odors and filth? There is no way known to clean dirty milk. How much better then to try to handle it in such a way as to preserve this desirable element in its natural form, not only that, but any artificial means of preserving milk lessens its digestibility, whether by the use of preservatives or the cooking process.

Some Essentials for the Production of First Class Milk.

The first essential for the production of good milk is healthy cows. A first-class article of milk cannot be depended upon from a cow with a weakened constitution. The office work of the lungs in purifying the blood for the manufacture of milk is in such close connection that it gets too near the danger line to use the milk from a tuberculous animal.

Next, the milker should be in perfect health. Germs of disease are thrown off in the breathing and coughing, and epidemics have been known to start in this way. His breath should also be pure and sweet and not contaminated by the use of tobacco.

Foods of all kinds should be sweet and free from must and any abrupt changes in the feed avoided. A great deal of undo criticism is made as to silage feed, but I am sure that where it is made a part of a ration, with other feeds in proportion, the flavor of the milk will be benefited.

Another neglect on the part of us farmers who have large water tanks
Interior view of F. H. Scribner’s cow barn showing Drown stalls, cement floor and milk separator.
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for cattle to drink from, is we are often careless about cleaning them often and allow them to go so long as to get green and slimy and of a very strong odor.

It is one of the most difficult things in dairy management to secure cleanly conditions in a cow stable. About ninety-nine out of every one hundred are not what is called sweet and clean and the offensive odors contaminate the breath, the blood, and the tissue of the animals and consequently a first-class article of milk cannot be produced. The barns should be dusted often and whitewashed at least once a year, not only to give them a good appearance and make the stable lighter, but to purify them and kill any germs of disease that may have collected on walls or ceilings. Whitewash is one of the cheapest disinfectants known and should be a part of the routine practice each year, and by use of a small fruit spray pump the work can be accomplished much quicker and far more effectively than when applied with a brush, as it can be driven into every crack and corner. The lime should be thoroughly slacked and strained through a fine wire screen or cloth and made thin enough to work nicely through the nozzle. A half bushel of lime will make about thirty gallons of whitewash. This should be used while fresh, as it loses its power to kill germ life after standing.

A Model Dairy Barn.

A novel banquet was held at the time of the Illinois State Dairymen's Association, in the dairy barn of the Illinois College of Agriculture. Their stable is arranged similar to the stable at our barn at Madison, two rows of cows facing each other, with a space of about sixteen feet between stalls. Here a long, well-decorated laden table was spread for their guests. The floors, walls, and ceilings were perfectly clean and the cows groomed to perfection. The absolute cleanliness and absence of any odor was the universal remark of all the guests. This goes to show what can be done with a little care and pains.

Influence of Cleanliness.

Now, to me, aside from the cold side of dollars and cents, there is a satisfaction that comes from keeping things in a neat and tidy way that more than pays for the extra labor we expend, and there is a growing demand for the products of herds kept under these conditions.

Nothing has a greater influence on milk and its production than cleanliness and for this reason the milkers' hands and clothes should be kept clean and void of any disagreeable odor. Also the cows must be kept clean and not permitted to lie in the filth. For this reason some of the patent stalls are almost absolutely necessary for the adjusting of the stalls according to the length of the animal, and obliging her to drop all dirt in the trench.

Proper Handling of Utensils.

After all it matters little how much care we take along this line unless the utensils are handled right. A rusty can or pail should be discarded, because it is impossible to clean them as they should be. As convincing an argument of the existence of bacteria would be for every farmer to take a good, strong microscope and then collect some of that dried yellow milk on the inside of the cans or pails and place it under this magnifier and see the multitude of hairy-backed fellows that exist there and which are the cause of a great deal of trouble in milk. I had the tinner solder up the seams around the ears and top of the last milk pails I purchased. It makes them much easier to clean and besides they are a great deal stronger and I consider this outlay of five cents the best investment I have ever made.
Too much pains cannot be taken to keep the milk in an untainted, sweet condition. In washing the cans and pails, first rinse with lukewarm water, then take warm water and gold-dust, or some good grease expeller, and a small scrubbing brush, and give them a good, thorough scrubbing. A brush is far better than a sponge or rag, as the bristles will enter every corner and crease and remove everything that is collected there. Then scald with a plentiful amount of hot water. This ought to remove all germ life and put the utensils in a wholesome condition.

Now, while a good deal has been said about the importance of keeping utensils perfectly clean, not much is usually said about the cloths and brushes that are used for washing these utensils. Extra care should be taken to keep these in a clean condition, as they make fine breeding places for microbes.

The Best Can.

The best can for carrying milk to the factory is the eight or ten gallon shipping can, with small top. The large, straight-sided can, holding one hundred or one hundred and fifty pounds, with a cover that slides down into the milk, ought to be discarded. The cover soon gets out of repair and perhaps a cloth has to be substituted to keep the milk from slopping, which is almost impossible to keep in a sanitary condition, and besides, in going to the factory the filthy dust of the roads rises and falls on the cover to be mixed with the milk. All cans should be covered with a clean canvas to keep off dust and extreme heat and cold.

Aeration.

Aeration is essential for cooling and to remove animal heat and odors. In an experiment where milk was allowed to stand two hours without cooling, it contained twenty-three times as many germs as when milking was finished, while that which was cooled to fifty-four degrees had only four times as many at the end of two hours. This shows the importance of quick and thorough cooling. Aeration should be done in some good clean place, away from any foreign smell.

The Strainer.

About as good a strainer as I know of is a double one, the top being made of perforated metal, and beneath this cheese cloth about four thicknesses. This cloth can be kept in good condition by washing and boiling.

Results of Proper Care of Milk.

Now, there are a good many up-to-date milk producers in this state who are producing pure, sanitary milk and cream and are getting prices far ahead of those who are going along in the old, slovenly, slip-shod way, and really it takes but little longer to do a thing as it should be done.

I expect some day that inspectors will be appointed for the purpose of going around and looking after us fellows and if they find that we are not producing an article up to the sanitary standard our milk will be condemned and we will not be permitted to put it on the market until proper conditions are met. How much better then for us to forestall this event and furnish an unquestionable article rather than be compelled to by force of law.

DISCUSSION.

Question—What pump do you use in whitewashing?

Mr. Scribner—I have a little spray pump and use an ordinary kerosene barrel, I set this pump on the barrel. It costs about $5.80, and it is one of the best things we have on the farm; we whitewash our whole barn and the hen houses and hog pens and every part of the farm buildings. We mix it thin so it will spray nicely, and
it drives it into every crack and corner, making the job more effectual than where applied with a brush.

Prof. Carlyle—There is a very successful whitewashing machine manufactured by the Ripley Hardware Company, a three-gallon tank, etc.

Question—How should a cow be prepared for milking so that the dirt will not get into the pail?

Mr. Scribner—In the first place, she should have a stable so arranged that she will not be allowed to lie in the dirt. Then we brush the udder, we never have any dirt on our cows. I dare say they are cleaner than the horses are. We remove all dirt and straw from the udder.

Question—Do you curry the cow?

Mr. Scribner—Sure we do, at least twice a week.

Question—In shedding time, aren't you apt to get hairs in the milk?

Mr. Scribner—Oh, yes, a few. I think every man who keeps cows ought to keep a clipper. We clip the cow’s tail and the long hairs on the udder, which helps to keep the hairs out of the milk.

Question—You do not wash the bag?

Mr. Scribner—We do not, we brush it instead.

A Member—I would like to see some legislation enforcing this throughout the state.

Question—Would you advise putting lime in the water tank?

Mr. Scribner—No; I have heard that it will keep that green scum down, but it won’t with me.

Question—If you have a tank tightly covered, isn’t that a good thing to shut it down in the heat of the day?

Mr. Scribner—No, sir. I have probably as ideal a tank as anybody could have. It is made out of cement and holds about ninety barrels. It is cheap and is probably everlasting. It has stood the last two winters without a crack. It is all covered, except one long strip on the side where the cows drink. It is eighteen feet long and we have eighteen feet of surface for drinking; there is a roof over it for shedding off the water, keeping out the dust, etc.

A Member—I built a roof over my tank four years ago and I never have had a particle of green scum. Mr. Johnson—I think it is a mistake to try to have a large tank. I think the running of the water through the tank clarifies it and stirs it up. We all know that where we use the old fashioned well, dipping it up with buckets, we get much better water than where it is pumped.

Mr. Scribner—A man with fifty-five or sixty head of cattle has got to have a supply of water on hand.

Question—What kind of a stall fastener do you use for your cows?

Mr. Scribner—We have a patent stall, called the Drawn stall, and we like it. The principle of it is to regulate the cow, to keep her clean. They can be made for about $3.50, above the floor.

Question—You had to pay a royalty on the patent?

Mr. Scribner—I had to, I guess everybody will. The $3.50 includes the royalty. These men who are kicking against paying a little bit of royalty are cutting off their noses to spite their faces, a cow will pay for the stall every year in the comfort she gets, and the satisfaction we get in having a nice, clean cow is worth a whole lot besides.

Mr. Foster—Do you brush your cows’ udders except at milking time?

Mr. Scribner—We never touch them until just before we sit down to milk. I don’t think we should touch the udder before that. I know some people go on and clean all the udders at once, but I think they make a mistake. It has a tendency to start the milk coming down and we should be ready to take it.