

## The Makers' Corner

Butter and Cheese Makers are invited to send contributions to this department, to ask questions on matters relating to cheese making and to suggest subjects for discussion.

### Selecting Milk for Starter

Freeman Brown, Grenville Co., Ont.

When selecting milk for starter I make it a point to get the best milk coming to the factory, morning milk preferred if cooled at the farm. I get in milk with one or two men who make it a practice of furnishing good milk to the factory, then make it known to them that I am depending upon their milk for the condition of my starter.

I have two cans for holding starter. The one which has been washed and scalded and left to air for some time is again scalded with dry steam and taken to the weigh stand, into which the milk intended for starter is strained through two thicknesses of cheesecloth direct from the owner's can.

Even after selecting good milk for a starter great care should be exercised in handling it. First, I see that all utensils are perfectly clean, using only clean water for washing and scalding with dry steam if possible. After the milk has been well pasteurized I cool to 70 degrees F., then add culture and try to maintain that temperature if at all possible by placing the can in a tank of water, which will protect it greatly.

I use two glass sealers for holding culture for propagating starter, so that one can be filled with the pasteurized milk before culture is added. The culture does not require to be as heavily seeded as the starter when propagating till later in the day. By following these rules I have carried on the same culture during the whole season with good results.

### Why Cream Tests Vary

C. A. Metcalf, Saltcoats, Sask.

There is probably no one thing in connection with commercial dairying which causes the variation of the test of cream sold to receiving stations and creameries. This variation may be the result in the patron being dissatisfied but also causes the creamery buying the cream uneasiness in holding harmonious relations with the patron.

It has been my experience, first as a cream producer and, second, as a creamery manager, that the complaint of test variation is on account of the patron not having a full understanding of the causes which affect the density of percentage of fat in hand separator cream. It is the policy of all reputable creameries that their agents and employees be very careful to obtain accurate results in sampling and testing. Unbiased samples represent a fair average of the cream delivered, the test, while correct of the sample, will not be a correct test of the cream delivered. Therefore, the fire requisite for a correct test is an accurate sample.

It must be well understood by patrons who have observed the workings of the separator, or who have handled the cream themselves with variation in the percentage of fat in the cream. A variation of from five to eight per cent in test with no change in the cream screw is not at all unusual, and this difference is chargeable to the varying condition of the machine from time to time. But we have known of instances

where there was a variation of from eight to 15 per cent in tests due to the thoughtless and careless handling of the separator, milk, or cream.

The variation of the speed of the bowl of the separator causes a difference of from two to 15 per cent in the test of the cream, depending on the variation of speed. The variation in steadiness of the bowl makes a wide difference. The amount of flush water used makes a difference as great as 10 per cent in extreme cases and from one to five per cent in ordinary cases. The temperature of the milk makes a difference of from one to five per cent, greater variation being caused in extreme cases.

Acid developed in the milk will have an effect on cream density. This is not the case when separating is done at milking time, but when the night's milk is held until morning or vice versa as is the case on some farms. As the separator bowl clogs thicker until the cream will not flow.

Another cause of variation of test is imperfect straining of the milk before separating. The milk should always be strained through a fine wire strainer into cans. Over the receiving can place a piece of close cotton cloth or flour sack should be placed. (For convenience this could be fastened with a string across the can.) This will catch all sediment and will give the separator clean milk.

If the separator is fed unevenly, or at any time during the run the inlet should be clogged by dirt so that the bowl does not take the full inflow of milk, wide variation in test of cream must be expected.

Users of separators may sometimes find that their cream screw has not been changed in years, and that their cream should test now as it did years ago. The fact that the screw has not been changed is good reason why the cream test should not be the same as when the separators were new. With the cream screw wears off and takes the cream further from the centre of the bowl and therefore produces a thinner cream. Thicker cream from the centre of the bowl and thin by drawing from a point nearer the outside.

If the bowl is not washed properly after each operation, this will also effect the test. If the openings are not all clean and free from dirt the capacity is effected. We have been told that some farmers do not wash their separator bowl after each operation. Any farmer or farmer's wife practicing such neglect has no regard for public health. The separator bowl removes substances which no system of straining will remove, and if this matter is allowed to remain in the bowl even an hour after finishing the run, it is an ideal breeding place for millions of the worst kind of bacteria.

It is impractical under farm conditions to operate the separator in such a way as to secure an even density of cream, but the farmer should use every care to secure as even work as possible. The creamery patron can, by testing, and his own satisfaction in his regard for his treatment and also give him insight into many things of inestimable worth. The man who knows the most about his business is always the best satisfied.

Much of the dissatisfaction of patrons with their cream test and monthly cheque is caused by the fact that the separator has been changed next. In such a case a patron cannot get a uniform test. The separator should be changed only at the beginning of the month.—M. J. Lewis, Victoria Co., Ont.

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