

they are filled up with cold water and salt and left to stand several hours. After the butter is packed in, a parchment paper is laid over the butter and salt is put in to fill up the space between the butter and the lid to prevent the butter from shifting. The salt helps to keep the butter cool and absorbs any moisture of the lid.

Lastly and for the third time let it not be forgotten that no separating, ripening of cream or churning of cream or any work connected with creamery or dairy work will ever succeed unless the place is kept scrupulously clean from cellar to garret; both floors, walls, and utensils large and small whatever they are.

N. B. by testing skimmilk one is able to tell exactly what the separator is doing and whether it is being run at a high enough speed and also if it skims close.

THE BABCOCK MILK TEST

Among the many uses to which the Babcock test may be applied, should be mentioned the ease with which the farmer is able to distinguish the profitable from the unprofitable cows in his herd by means of it, as well as its adaptability to the creamery and cheese factory for determining accurately the fat content of the patrons' milk.

In the first place it is imperative to procure a perfectly representative sample of whatever is to be tested. The creamery composite samples, then, should be preserved in air tight bottles so that no evaporation is possible—A preservative should be used to keep the milk in liquid state. The best for the purpose is bichromate of potash, which will preserve the milk in a liquid state for a considerable length of time without changing its keeping properties.

To prove its excellent qualities as a preservative, an experiment was made at the Wisconsin Dairy School where a sample was taken and tested every day for 1 year; and the sample tested the same on the 31 st. of Dec. as it did on Jan. 1 st. of the previous year.

In the manipulation of the test the following points should be observed.

1. **The mixing and temperature of the sample.** The sample must be well shaken up and should be about 75° F.

2. **Strength, temperature and quantity of the acid.** The specific gravity should be 1.83 the temperature should range from 70° to 75° F.; 17.5 c. c. is the quantity of acid required.

3. **Adding the acid.** The bottle should be held slantingly, when the acid is added so as to wash down the milk or cream left on the sides of the long neck. If the acid drops on the milk direct, the fat in the milk which is adhering the neck of the bottle will not be included in the final results.

4. **Mixing the milk and acid in the bottle.** This should be done slantingly also. It should be whirled in the hand with a rotary motion till the casein is completely broken up and the liquid is clear.

5. **First whirling in the centrifuge.** This takes at least 5 minutes to complete. The number of revolutions per minute is from 700 to 900, according to the machine.

6. **Adding the water.** The best water for this purpose is soft or rain water. It **must** be boiling. Fill the bottle half way up the neck, if filled too full some fat may fly out of the top of the bottle.

7. **Whirling 2nd. time**—This is done for fully one minute to cause all the fat to rise.