

In the Dairy

Don't Make Fodder Cheese

The Montreal Produce Merchants' Association has issued its annual circular to the dairymen of Canada, repeating and emphasizing its former objection: "That the manufacture of fodder cheese is detrimental to the interests of all and should be discontinued."

The circular then continues: "The experience of the past has shown that for the most part cheese made from fodder milk is not of a quality good enough to enhance the reputation of Canadian cheese or increase its consumption by the British public. Further, it has been found that on the average the quantity of cheese produced during our grass season is about as much as can be consumed at prices profitable to the producer."

"The Association appreciates the fact that the disposal of milk produced before the opening and after the close of the cheese season is an important question, but in view of the improved methods introduced in the manufacture of butter in recent years, and the superior quality now produced from fodder milk with increased demand at remunerative prices, the Association confidently recommends that wherever possible butter should be manufactured instead of cheese during the winter season, or say from the 15th November to the 1st of May."

The Farm Separator Pays

That the farm separator pays is well shown by J. F. Breen, a well known Wisconsin dairyman. He makes the following comparative statement as to receipts from the whole milk and farm separator system:

"In the spring of 1901 we had on our farm a herd of grass cows, and standard cows here given us for the month of June of that year for milk taken to a creamery in comparison with the same month in 1902 for cream from a hand separator. For the month of June, 1901, our six cows gave an average of 172 pounds of milk per day, or 5,160 pounds for the month. This milk tested 4.2, which gave us 216.72 pounds of butter, which sold at 20 cents a pound, bringing an income of \$43.34 for the month, of \$7.22 per cow. For making and selling the butter the creamery company charged 2 cents per pound and the over run.

"In June, 1902, we had the same herd of cows that gave an average of the same amount of milk, i.e., 172 pounds daily, or 5,160 pounds for the month. This we separated with a separator, skimming out 17 pounds of hundred, or 872 pounds of cream for the month. We sent the cream to the same creamery where we had sent the milk the year before. This they made into butter and sold for the over run, a saving of 2 cents a pound. The cream testing 30, giving us 263.1 pounds of butter, or 46.44 pounds more butter than was made from the same quantity of milk the year before. This increase, if sold at 20 cents, the price of the year before, would give us \$9.28; but because of the saving of 2 cents per pound in making, sold for 22 cents, another saving on the 263.1 pounds of butter of \$5.26, making a total saving of \$14.54 for the month; or, in other words, those six cows made for us in the month of June, 1901, without a separator, \$43.34, and in June, 1902, with a separator, \$57.88, or an increase of \$14.54 per cow. That is, the separator made our income increase in our income of 35 per cent."

This is only the money received from butter alone. When the difference in

the feeding value of the skimmed milk when fed right from the separator, warm and sweet, and milk that has stood in a sour, dirty tank, and then drawn several miles on a hot day, we must add another sum to the farm separator's credit.

Care of Milk in Winter

If the cow be kept clean and the milk be drawn in a cleanly manner into a clean pail by a clean person and be removed shortly after straining from the barn, there is no reason why winter milk should have a "cowy odor." This "cowy odor" is usually caused by filth which drops into the milk during the milking, or is absorbed by the milk from the foul air in the stable.

Milk should be removed from the stable before it cools to the temperature of the stable air; otherwise it will absorb taints rapidly.

After straining the milk does not usually require any special cooling other than that which takes place from the cold air, if it be stirred occasionally to prevent the cream rising and to insure uniform cooling throughout the whole mass of milk. It is also necessary to prevent the milk freezing in order to obtain the best results.

If sent to a winter creamery, it should be delivered as least three times a week. If manufactured on the farm, it should be made into butter as soon as possible after it is drawn from the cow. The longer that milk is kept before being made into butter, the poorer will be the product.—Prof. H. H. Dean, O.A.C., Guelph.

Guelph Dairy School Notes

During the school term we aim to conduct a limited number of experiments chiefly for the benefit of the students. In February a number were conducted that are of interest to dairymen.

IN THE DAIRY STABLE

The experiments with cows receiving 4, 8 and 12 lbs. of meal per day will not finish until the end of March, but the general results indicate that about 8 lbs. of meal per day is sufficient for the average cow giving three to four gallons of milk daily.

Two calves on hay, silage, skim milk, bran, oats and oil cake gained 101 pounds in 21 days during February. Two other calves fed on a similar ration except that the oats and oil cake were replaced with "Blatchford's Calf Meal," gained 76 pounds in 21 days.

IN THE TESTING ROOM

The use of an 18 c.c. pipette for sampling cream produces relatively lower results in ripe than in sweet cream. Where the Babcock test is used it places a premium on sweet cream.

There is a strong desire on the part

of owners of cream gathering creameries to have the spring balance made a legal scale. We have used one of these for weighing milk in the dairy stable for about fourteen years. In a recent test it was only once ounce short on twenty pounds. So far as we can see there is no objection to its use.

CHEESE MAKING

In cutting curds at different stages of firmness we found that cutting a curd very carefully when slightly tender gives the best results.

Three brands of cheese color were tested and found to be all of equal strength and the general results were alike, so far as could be determined by examining the curds. The cheese are too green for testing at this date.

FACTORY BUTTER

Pasteurization of ripened cream at 185 degrees F. vs. heating of similar cream to 130 degrees F. The cream was a mixture of cream-gathered and that obtained from whole milk. It contained 35 per cent. fat. The cream was allowed to ripen naturally for 24 hours. The acidity was .54 per cent. and the flavor was poor and typical of this class of ripening. Half of the cream was pasteurized at 185 degrees F. and the other half was heated to 130 degrees F. The Farrington Pasteurizer was used in both cases and the covers were left off. The flavor was improved in each case by the heating. The cream was cooled to 52 degrees and churned 18 hours after this treatment. No culture was added and practically no further development of acid took place in either cream.

When the butter was examined a few days after being made there was a difference of opinion as to which was of better quality. When examined again in about two weeks' time there was still a difference of opinion as to the relative value of the two samples. Most of the judges thought the butter made from heating to 185 degrees F. was "cleaner" in flavor. Both lots were inferior butters.

FARM DAIRY

Several trials were made, comparing temperatures of 75 degrees F. and 95 degrees F. for separating milk with the hand machines and it was found that the loss of fat in skim milk was nearly double by running the milk through at the lower temperature. In most cases the milk was "old" and the loss greater than would be the case with fresh milk. However, these tests indicate the importance of having the milk at a temperature of 85 to 95 degrees in winter for good results.

From experiments conducted Miss Rose is of the opinion that the ripening of cream is not an important factor in the length of time required for churning, and if the churning temperature be properly controlled very little extra loss of butter is obtained in the butter-milk.—Prof. H. H. Dean.

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