

## DAIRY

### Dairying on the Farm

The subject for discussion this week is expressed in the question: Should cream be sent to a creamery either local or distant, or kept on the farm and be made into butter to be marketed wherever the price is best?

Several contributions on the subject are printed herewith, that of Mr. A. B. Dickson, Man., being awarded first prize and the article of R. J. S., Sask., being taken for second.

This question is one which can be answered in several different ways, the answer depending as much upon a man's circumstances as upon the merits of the method which he has found most remunerative in handling milk on the farm in summer. Mr. Dickson advises cheese factories in preference to creameries and cites his own locality as one in which a cheese factory is successfully operated, and more profitable to patrons than either home butter-making or the sending of cream to a creamery, either local or distant. Others might not agree with him in the matter, but at the cheese prices prevailing for the past few years in the West, this commodity is undoubtedly one of the most profitable one that milk can be manufactured into. We would like to have the returns from some patrons of creameries for comparison.

### Advices Organizing Co-Operative Cheese Factory

EDITOR FARMER'S ADVOCATE:

Most milk at this time of year is testing about 3.5 or 3.6 per cent of butterfat. This means that after deducting losses in manufacture every 100 pounds of milk will make about 4 pounds of butter. Now at the present time dairy butter is selling for no more than 18 cents per pound. Thus 100 pounds of milk is worth to the farmer making his own butter about 72 cents.

Now the creameries in the large towns are at the present time paying about 22 cents per pound of butterfat. Thus milk testing 3.6 per cent butter fat and allowing for a loss of .1 per cent in separating would be worth 77 cents per 100 pounds. Therefore a farmer gets 5 cents more per 100 pounds of milk by shipping cream than by making butter on the farm. But against this extra 5 cents per 100 pounds there is the cost of hauling the cream three times a week to the station so that either system will produce the same result and by whichever method a man chooses to market his cream he will receive no more than 72 cents per 100 pounds of milk, and this is not a very high price.

If the local creamery is a proprietary one, the farmer will receive about the same for his cream as he would if he shipped it to the city, for the butter made at the local creamery will sell for a lower price than that made in the city creameries and hence the proprietor can just about manage to pay the same price per pound of butterfat as the city creamery, owing to the fact that he has to pay no freight on the cream brought to his factory.

By far the best way of disposing of one's milk or cream in the summer is for a number of farmers to co-operate and build either a creamery or a cheese factory. If a creamery is built, each patron will take his milk there, where it will be tested, separated, and churned; he will receive back his share of skim-milk and buttermilk. The butter will be sold and each patron will receive his share of the proceeds after a certain sum has been deducted from each one for the upkeep of the factory and for the cost of manufacture. Thus milk testing 3.6 per cent of butterfat will make 4 pounds of butter, which will sell at 23 cents per pound, hence every 100 pounds of milk is worth 92 cents. From this must be deducted 2 cents per pound for the cost of manufacture, etc., so that the patron will receive 84 cents per 100 pounds of such milk. And not only this but he will also receive back some of the 8 cents deducted for expenses. This, however, for two or three years will go towards paying for the factory and for interest on capital invested. The richer a patron's milk the better it is for him for it will make more butter and hence he will get proportionately higher returns.

It will now be shown that more money can be obtained by shipping milk to a co-operative cheese factory than by any other system previously mentioned. There is such a factory in this district and it is working very satisfactorily. Every 100 pounds of milk makes on an average through out the summer 10 pounds of cheese. The average price obtained last summer for the cheese was 12½ cents per pound. Thus it will be seen that 100 pounds of milk, if shipped to a cheese factory, has a value of 12½ cents. As the charge for making was 2 cents per pound, then 20 cents must be deducted from this sum of 12½ cents. This leaves a clear return of \$1.02½ cents for every 100 pounds of milk sent to the factory. Besides this each patron is entitled to 85 pounds of whey for every 100 pounds of milk brought by him to the factory and this fed in moderate quantity is one of the cheapest foods on which to raise pigs.

Before organizing a co-operative creamery or cheese factory it must be ascertained that enough milk will be brought to the factory, for it costs (with cheese making) practically no more to handle 3500 pounds of milk than it does to handle 2000 pounds; the larger amount, however, brings in a much larger profit to the factory for it takes nearly 1500 pounds of milk before there is any profit at all, although even with this small amount of milk the patrons will receive nearly \$1.00 per 100 pounds, but with over 2000 pounds the sum of \$1.02½ cents can always be had. This is a figure which none of the other systems can touch and one which may be obtained any time between the beginning of May and the end of October. Therefore, I hold that shipping milk to a cheese factory is the best plan that there is to get the highest returns from that milk.

Man.

ALEC B. DICKSON.

### Typical of a Large Class

EDITOR FARMER'S ADVOCATE:

When you ask the question, "How is the best way to handle cream," you touch upon one of the most important problems we have to solve when we keep cows enough to make more milk and butter than is required at home. To make the cream up into butter at home where there is very seldom a cold room to work in is not a very inviting prospect and when it comes to sending the cream to a central factory everything depends upon the train service and the distance to the station, that is, when the express rate is not so high as to totally prohibit sending. In our district, living as we do six miles from the station, the best plan is to send the cream to the local creamery. There is not much to say about our system. We milk six or eight cows, depending upon circumstances, use what milk, cream and butter we require for a family of five, set the milk in a deep can in a water tank through which the water runs to the watering trough, and collect cream in the same kind of a can for two days when it is gathered for the creamery.

This is about the simplest method we have ever had of handling our cream, but of course, it is open to a serious objection. In the first place where farmers send so little to the creamery the proportionate expense of collecting it is too high and then it is only gathered every other day, which is not often enough. With the small amount produced on each farm and the farms as far apart as they are here the collector has to drive from 30 to 40 miles to get a small load and in July and August it does the cream no good to haul it so far.

In the winter the creamery closes up then we let most of our cows go dry. This is another serious defect in the system of dairying as we practice it here. If we are ever going to make money out of cows we will have to keep the creamery going the year around or have better facilities for collecting and shipping to the larger centres.

I have not outlined our system because I think it one of the best, but because there are so many here doing as I have described. I believe there are men in some districts who make more of a specialty of dairying, who probably have a system of caring for cream and marketing the year around and from these I would like to hear.

Qu'Appelle District, Sask.

R. J. S.

### Sending to Creamery Most Satisfactory Method

EDITOR FARMER'S ADVOCATE:

In reply to your question whether cream should be sent to a creamery or churned at home and marketed wherever the price is best, I would like to give the result of my experience: Years ago the farmers of this district formed an association and with the help of the government built and operated a creamery in Grenfell. Before the creamery started we used to sell our home-made butter at the local stores at from seven to ten cents per pound, during the warm weather in the summer, but as soon as the majority of the farmers began sending their cream to the creamery, the stores could not get enough butter from the farmers to supply their town trade. In consequence, the price of butter went up at the stores above what the creamery could pay. Many short-sighted farmers dropped out of the creamery and began making their butter at home again. The ruin of our creamery began from that time. Want of proper co-operation among the farmers,—themselves the principal shareholders—was the cause of it. Our creamery held out, scarcely more than paying its way, as long as the government managed it. After it was turned over to the management of the Grenfell Creamery Association it soon "fizzled out." Those of us who patronized the creamery as long as it was running kept the price of butter up, so benefitting not only ourselves, but all the buttermakers in the community.

Since the local creamery closed we have shipped our cream to the Qu'Appelle creamery in cans containing about 100 pounds, whenever we had sufficient cream to ship. The year 1907 was the last year we made all our butter at home. This was an exceptionally good year for dairying, as, owing to abundant rainfall, the pasturage was good all season, and the price of butter was exceptionally high. We sold all our butter locally, averaging 21½ cents per pound for the six months from June 1 to Dec. 1.

During 1908, we sent our cream to the Qu'Appelle creamery. The season dated from April 29 to Oct. 31, six months, we may say. We received in cash for butter made from our cream an average of 21½ cents per pound. This, of course, was clear of all expense, unless we count it an expense to deliver the cans at the station once a week. Farmers, as a rule, go to town at least once a week anyway, so we do not count it. Owing to the excessive drouth during July and August 1908, pasturage dried up considerably, consequently the cows fell off in their milk much earlier than during the year 1907. Therefore a comparison of these two years is unduly in favor of the former.

While the price received for the home-made product compares very favorably with the price received from the creamery I must point out that it is not all profit to make butter at home. There is the time and trouble of making it. This, I may say, is no small item if the output runs to 40 or 50 or more pounds per week. Generally, the all-enduring "women folks" do it for nothing, but we find it more satisfactory to pay the creamery 4 cents per pound for making the butter. This includes cost of butter boxes or tubs, and salt, which should be deducted from the price received for the home-made butter. Instead of 21½ cents it would be nearer the mark to say 20 cents clear.

Where one has every convenience for making butter at home it is perhaps possible to do it for a little less than 4 cents per pound but the average farmer will not effect any great saving. Then again, the most of our output when made at home has to be "traded" at the local stores, and everyone knows that cash goes further and is much more satisfactory than "trade."

In conclusion, I would say that those who have not plenty of help, considerable experience in butter-making, every convenience for making and handling the butter, and a ready cash market for their product, would do better by sending their cream, in as clear and sweet a condition as possible, as often as possible, to the nearest creamery. For myself, I am at least practicing what I preach by sending to Qu'Appelle again this season.

Sask.

JOHN HUBBARD.

### New Idea in Milk Cans

To prevent dealers from adulterating the milk received from producers before it is retailed to consumers in the city, a can has recently been devised, that is said to effectually prevent the introduction of anything after the can is once sealed up.

It is a can with a hermetical seal and an apparatus for drawing off the contents in composite samples of uniform quality by means of sterilized compressed air. Its avowed purpose is "to prevent adulteration and contamination of the contents during transportation and sale."

The can will be filled, sealed, and locked at the dairy where the milk is produced, and will not be unlocked or opened until its return to the same dairy for cleaning and sterilization. The fittings, provided to permit removal of the contents of the can at the places of sale, are light brass piping tinned inside and outside. There are check valves that prevent removal of the contents except at the proper exit, and that prevent adding liquid or other materials to the can ahead of its return to the dairy. If, for instance, water is forced in, the can will refuse to work. It is emptied without opening. Sterilized air under moderate pressure forces out the milk when it is needed. And the application of this air gives a thorough mixture of the milk before any sample is drawn, so that the samples in each part of the can are of uniform quality.

### Cow Progress

The records of the cow testing associations show a large increase in the number of cows whose production, both as regards weight of milk and butterfat, is being noted regularly. It is no wonder that the plan appeals to the progressive dairymen of Canada, because record work must mean substantial improvement, and the improved herd is the herd that produces economically.

Since commencing records many farmers have been enabled to increase the yield of milk and fat per cow considerably, because instead of contentedly saying "so many cows so much milk", each individual is studied, and each member of the herd brought up to a good profit earning capacity. Herds that used to produce only 187 lbs. fat are now up to 220 lbs.; milk production has gone up from 4,850 lbs. to 6,380 lbs. In 1905 one herd averaged 5,374 lbs. milk, but in 1908 the owner had brought all up to 7,240 lbs. milk per cow. One member in 1903 keeping 9 cows obtained only 4,360 lbs. from each, but in 1908 with 11 cows he had an average yield of 7,000 lbs. milk. Cash receipts have increased with another member from \$52 per cow in 1905, to \$76 in 1908.

Instances might be multiplied; these few indicate what it means to the real dairy farmer who seeks improvement. Time spent in weighing and sampling is well spent; definite knowledge is obtained.

May 1909.

C. F. W.

## POULTRY

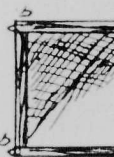
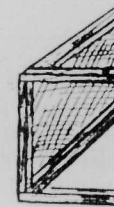
### Hawk-Pit

EDITOR FARMER'S ADVOCATE:

Last year I hatched out incubator but the hawks swooping down and killing full feathered. There are only shelter the chickens in coops and the wood pile hawks but for every one come to the funeral. I intend this year but am not sure.

2. I would like to take empty this summer but time to hunt for same good enough to tell me selection with only a few water not over 20 miles from wood.

When hawks become serious on the poultry yards and w of keeping them away fail not prevent their depredation of frightening them off a poultryman wishes to count only thing left is to raise t This increases the cost of r and where large numbers a impractical, but for a farm struct coops that will be pr hawks, cats, crows, etc., little additional cost of p coop will do that prevents entrance. Stakes may be form a run for the chicks, a sides and covering. Or if convenient form of coop is c will be found satisfactory.



BILL OF STOCK 1  
4 pieces ¾ x 4 inches 12  
inches 5 feet long; 11 pieces  
5 pieces 2-inch furring 5½  
8 good sized staples; 2 piece  
mesh) 18 inches wide, 12 fe  
netting (1-inch mesh) 18 i  
1 piece wire netting (2-incl  
feet long.

Take four of the twelve f  
2-foot pieces, and make two  
Figure 1. Then make two  
Figure 2. Now take the h  
and drill and countersink a  
Figure 4. The house for  
nights is shown, rear view, i  
cut. It is made of ¾ or 1  
2 feet square. Then take thr  
for the walls. Nail the bot  
roof on, being sure not to ge  
floor of coop to peak of roo  
few inches from one end, p  
dicularly. This is to attac  
of the coop so that it can be li

Now take the hook clasps  
of Figure 2, letting them pr  
the staples that are to be d  
Figure 1. After hooking th  
gether put a board on the fro  
just fill the opening, hanging  
top, so that when raised it wi  
a stick 2½ to 3 feet long to th  
to project through the netting  
This is to open and close  
pieces of furring across the t  
end, one at the centre, and c  
space, and nail lightly. Sp  
over, and fasten with staple  
the season when you want  
off top netting with the stick  
the corners, take off house  
sides on the ground, cleats  
the cleats, put other side  
a few nails where they will h  
and the whole thing can be pu