

Co-operative Dairying in Hastings Co., Ont.

Editor "The Farmer's Advocate":

Once barley-growing was the subject that occupied the Hastings Co. farmer's mind, but times are changed, and the change was brought about by the American Government imposing a higher duty on that imported grain. Dairying had been carried on to some extent, but not so extensively as it has been since the exportation of that grain was practically prohibited by the increased duty. At the present time, however, the average farmer of 100 acres (which is the size of most of the farms of Hastings Co.) is keeping from ten to fifteen cows, and on that sized farm twelve to fifteen acres are kept for pasture. The grasses grown for pasture are a mixture of red clover, timothy and red top. Lucerne is grown in sections where the land is elevated and well drained. Taking one year with another, about the 20th of May the cows are turned to grass in the day time, and fed hay and grain night and morning, for eight or ten days longer, when the hay is withheld and grain fed for a while. The water is in or adjacent to the pasture, and where it is not a running stream or living spring, is pumped into a large trough by means of an ordinary hand pump or a windmill. Everyone that has to use a trough for watering aims to have those troughs full during the whole day, so that the cows may get a supply at any time. Salt is also kept in troughs in the pasture, or the lane leading to it.

If the pasture becomes dried up before the fodder corn is far enough advanced for feeding, oats and peas and barley and oats are cut green, and fed along with bran. Sometimes clover hay and ensilage are fed with bran; that is, in the case of those who have silos.

A cool, clean stable is considered the most suitable place for milking, and it is done with clean, dry hands. Some good dairymen milk near their milkstand, having a nice grassy plot for that purpose. We consider it more cleanly to milk with dry than with wet hands, and the cows are not so liable to have chapped or sore teats. If cows are uneasy, or kick while milking, kindness and gentleness is the best treatment to give. If the calf has been treated kindly until it has become a cow, it seldom turns out to be a kicker. The same remedy will apply to cows holding up their milk. Cows inclined to leak their milk should be milked at regular times, not too long between milkings. We do not reject the first streams when milking, and find that prolonged stripping pays, as it increases the percentage of butter-fat in the milk, and aids in keeping up the flow. It is seldom that one milker has to milk ten cows on the average farm, as two or more do the work, but if one has to do it, he would require about eighty minutes. The majority of dairymen weigh their milk, and a few sample for Babcock testing. The milk is sold at the cheese factory, so that a cow that gives a large quantity is the most profitable cow. After the milk is drawn from cow it is strained at once, and after milking is finished it is again strained into a milk can, which is placed on a milk stand away from all foul and impure air. Ice or cold water is put in a cooler, and that put in the milk and left until the milk-drawer comes for it the next morning. The morning's milk is usually sent in a separate can.

This being a cheese section, separators are only used spring and fall. Nearly all the factories in Hastings County are owned by joint-stock companies, and actual expenses are only charged the stockholder; any that have not stock are charged $1\frac{1}{2}$ cents per pound of cheese, or about 15 cents per 100 pounds of milk for hauling and making. Hastings County exported more cheese than any county in Ontario last year, and the prospects are for a greater export this year than last. We received over 85 cents per 100 pounds of milk last year. Any good cow will produce 6,000 pounds of milk during the cheese season, which commences the last of April and closes first of November, giving the owner over \$50 for seven months, and 4,500 pounds of whey extra for hog feed. This we consider more profitable than any other branch of farming, as the crop product of the farm is returned to the soil, on account of its all being fed at home. W. A. ESMOND.

Hastings Co., Ont.

Cow-testing at Cowansville.

We give below the results of the fifth period in the Cow-testing Association, at Cowansville, Que.: Five herds test 4.0 per cent. fat, and over, which is the more noticeable, as with herds 20 and 27 it is the average of 25 and 22 cows. While the general average test is 3.6, there seems too many individual cows testing under 3.0 per cent. There is a strong contrast between herds 16 and 24 in the average yield, the difference being over 400 lbs. milk and 15 lbs. fat per cow. The number of cows tested was 373; average yield of milk, 566 lbs.; average test, 3.6; average yield of fat, 20.9 lbs.

The Difference in Dairy Herds.

Prof. W. J. Fraser, Chief of Dairy Husbandry, University of Illinois, writes in Wallace's Farmer of a test of two dairy herds at that station:

Is it clearly understood that some herds do not pay for the feed given them? That other herds pay too small a margin of profit to justify the investment in money and labor? And that still other herds are making their owners big money? Do dairymen in general know that these differences rest on plain causes that may be readily understood, and that a change from the poor herd to the highly profitable herd is a comparatively easy matter, within the reach of any farmer who is able to keep cows at all? For answer, look at the following facts, personally known to members of this department.

The cows in the better herd were picked up here and there at moderate prices. They have been producing milk throughout the year at the rate of eighteen cans to forty-five cows, or two and one-half cows to a can (eight gallons). The latter herd has been yielding at the rate of five and one-third cans to thirty-four cows, or 6.4 cows to the can.

When milk sells at \$1.15 per 100 pounds, this means that the average cow in the better herd produces $29\frac{1}{2}$ cents' worth of milk per day, or \$88.50 worth as the total for a year of ten months. The poorer herd yields $11\frac{1}{2}$ cents' worth of milk per cow per day, or \$34.50 for the year. There is some difference between these cows and their incomes.

If it costs \$32 per cow for feed in the poorer herd, just \$2.50 per head is left as the profit for one year. But if the better herd is fed at \$40 per cow, it leaves \$48.50 per head as profit. Here is a difference of \$46 in clear gain, or, in other words, it takes nineteen cows of the one kind to equal one cow of the other kind. In a herd of 40 cows this difference would amount to \$1,840.

If a man desired to make \$1,000 per year profit in the dairy business, he would have to keep 400 of these poor producers. But he could get the same results with 21 cows like those in the better herd. Truly there is a large and vital difference between these two herds, and one that no dairyman can afford to overlook.

These estimates are conservatively made from the facts known, and do not yet represent the widest extremes in Illinois dairy conditions. It is altogether probable that this poorer herd is kept at an actual loss, and quite possible that the better herd makes more money than is here credited to it. The test shows that for profit, 1 of these cows equals 19 of the other herd; 10 of this kind equals 190 of the other herd; 20 of this kind equals 380 of the other herd; 40 of this kind equals 760 of the other herd; 80 of this kind equals 1,520 of the other herd.

Eighteen dairy herds in another part of the State were tested by this station. For one year the average production of the best six herds was 280.5 pounds butter-fat per cow, and of the poorest six herds 172.7 pounds.

Counting the butter-fat at 25 cents per pound, the best herds made an income of \$70.13 per cow, and the poorest \$43.18. Here is an average difference of \$26.95 per cow. In a herd of 50 this would amount to \$1,347.50.

Granting that it costs \$32 per cow to feed the poorest herds, and \$40 per cow to feed the best herds, the net profit would average \$11.18, in the former, and \$30.13 in the latter; that is, every cow in the best herds earned nearly three times as

much money for the farmer as did the average cow in the poorest herds. Which kind is the best to keep?

To return the dairyman a profit of \$1,000 per year, would require 90 cows like those in the poorest herds, but only 34 of the kind in the best herds. Thirty-four of the best kind, at \$55, would cost \$1,870, but 90 of the other kind at \$35 would cost \$3,150, requiring an investment of \$1,280 more than for an equal herd of the best cows. It is easy to see that it would take more labor and more men to feed and milk 90 cows than it would to care for 34. The 90 poor cows would consume \$2,880 worth of feed, and the 34 good ones \$1,360 worth—\$1,520 in favor of the good cows. Which kind is the more economical?

The average cow in the best herd makes an annual income of \$87.54, and, at \$40 for feed, a profit of \$47.54, while the average cow in the poorest herd makes an income of \$35.51, and, at \$32 for feed, a profit of \$3.51. Here is a difference in profit of \$44.03 per cow, and it takes $13\frac{1}{2}$ cows of the one kind to make their owner as much clear money as one cow of the other kind. To make \$1,000 profit per year, would require a herd of 285 cows like those of the poorest herd, or just 22 cows like those of the best herd. Which kind should the dairyman build up?

The estimates of these twelve herds take note of only the feed and the butter-fat. The calf, the skim milk and the manure will certainly pay for the labor and the interest on investment.

Cheese Instructors Meet.

A meeting of the cheese instructors in Western Ontario was held at the Queen's Hotel, Tillsonburg, on Friday evening, June 15th. The instructors all report the quality of the cheese made up to June 1st as being the finest they have seen any year since the present system of instruction was introduced. The quality of the milk is also finer than ever before. Probably the outstanding feature of improvement reported by all the instructors is the large number of new milk cans purchased by the patrons, and there is no doubt that the improvement in the quality of the milk is due largely to this fact. Another feature is the very great number of wire curd knives that have been purchased by the makers. In some groups half of the factories have purchased wire knives, and in others three-quarters of the factories have them. All are agreed that the wire knife is a decided improvement on the old-style knife.

The most discouraging feature about the work is the indifference on the part of many patrons about keeping their milk in clean places. Farms have been visited by the instructors, and the patrons have promised to move their milk stands, but after one or two weeks' time, the instructors find the milk being kept in the same old place. Just how this feature can be remedied is a difficult problem. The patrons know they are doing wrong, but they will not do the right thing. The greatest fault the instructors report is keeping the milk standing over night in barnyards. In many cases the milk wagon is backed up to the cow-stable door, and the milk left on it all night; those cases would be fit subjects for the Sanitary Inspector.

We are again compelled to report that a number of cases have been found in each group where the milk indicates adulteration by watering or skimming. One would think that patrons would all



In the Good Old Summer Time.