

not see any difference when I installed the machine, and one is not depending on hired help to do the milking. I cannot say exactly how much the herd averaged last year. I only keep my cows about nine or ten months and sell them again. My last cheque was \$274, and the May cheque was \$247, so it may be seen what one man can do alone if he has a milker.

Middlesex Co., Ont.

R. J. CLIFFORD.

Profit in New Brunswick Dairying.

Editor of "The Farmer's Advocate":

What is the reason that the dairy business is declining so rapidly in central New Brunswick? It seems almost incredible with butter selling at the present tempting prices as is cheese and cream, yet it is a deplorable fact that such is the case, and can be attributed only to one reason, the scarcity of help. There is no province in the Dominion more suitable than New Brunswick for the industry at the present time, as the farms are large and productive and the magnificent grazing lands for cattle in the summer, in many sections now are growing up to scrubby wilderness, or if it is fit for tillage is in crops which is thought to pay better than to use for pasture for cattle, especially a dairy herd. Five years ago I decided to start a dairy herd, and having at that time eight cows, of common breed, I then bought eight pure-bred Jerseys that fall, making sixteen. I had been getting my stables fixed up in as a sanitary a condition as possible, and had built a small dairy house, and bought a new separator, and was then ready to start in the business with delight and high hopes of success. About a week after I bought my cows I met an old gentleman, a friend of my father's, who I knew was, or had been, keeping as many as thirty cows, and I thought "Here is my chance to find out something about dairying, he is old in the business and I'm a beginner, so it is up to me to learn all I can from those experienced."

After a short talk I said, "How many cows do you keep now, Mr. H—?" "Two," was the reply, "just enough to supply our own milk and butter." "Why, I thought you kept twenty or thirty and made a speciality of dairying." "Yes, I used to keep thirty, but sold them all off two years ago. I can make more money raising potatoes and grain for sale with less work than bothering with cows," replied Mr. H—. "But," says I, "I'm just starting in with cows. I bought eight pure-bred Jerseys last week, now making me sixteen. I fixed my stables over during the summer, built a milk-house, and bought a cream separator, and will have feed enough to feed in good shape through the winter, surely I ought to realize a fair profit at least. Do you consider the high price of butter and cream, the milk for feeding purposes, and the manure of a well-fed herd as fertilizer?" "I do," he replied, "consider it all, and I say there is no money to be made out of cows. I know what I'm talking about, for I was in the business seven years." "But how do you keep up the fertility of your farm if you don't keep stock?—or perhaps you're in the beef business? You certainly can't raise and sell much pork if you don't keep cows?" "I keep up the fertility of my farm by buying fertilizers and sowing, which I can do cheaper and easier than keeping stock and hauling out manure. As for hogs," he says with a laugh, "I raise more and have more to feed them since I got rid of my cows. I feed them ground feed in the form of a slop. You as well as many other men, are mistaken if you think one must keep cows if they keep hogs. Take my advice," continued the old man, "sell those Jerseys you have bought and go in for something else, for I tested the dairy business seven years, and I know what I'm talking about. There's no money in cows." As may be supposed, I went home in a rather thoughtful mood. I had been to considerable expense in getting fixed up for the business, to say nothing of buying the eight Jerseys, and only four of them were paid for, as I had arranged to pay for the others with the proceeds derived from the butter. I talked the matter over with my wife that evening (who is much wiser than I) and she says, "We'll try it for a year, surely we can't go behind much in that time, and because Mr. H— made a failure of it, it is no reason we will. You say Mr. H— talked of milking and caring for cows as drudgery. Now, as we both like it and take pride in our cows we may succeed better on account of it. So we attended the cows, being particular to feed, water, and milk them regularly. I wanted to hire a boy to help me in the winter at other work and to assist with the milking, but my wife says 'You attend to the work if you can, and I'll help you milk and take care of the cows, and we'll save by it.' So we did the milking that winter ourselves, but the following spring as the rush of farm work came on I hired a man. I will not go into the details of feeding the cows, as it would take up too much space, only to say that winter I fed buckwheat, bran, and mashed oats mixed at night,

about two quarts to each cow. Turnips every morning after milking, and a few at noon. I did not measure the turnips, as I had a lot of them I fed plenty or just enough so the milk would not be flavored. Gave them salt every other day and watered them twice each day. I fed hay night and morning and oat straw at noon all they would eat up clean. Late years I feed more ground feed than I did that first winter, but I was only a beginner then, and thought I was running things very carefully, but now I can see where I could have made a hundred dollars more out of my cows that year had I understood feeding to a better advantage.

In the summer, when the pasture was good I did not feed them any ground feed, but as the feed began to dry up and the flies to bother them, I used to put them in the pasture at night, and then put them in the stable about ten o'clock, give some mashed feed and all the hay they would eat up clean. I found this such a good practice that I continue it every summer and the cows will always come now to the barn when it is hot and the flies began to appear.

We sold three hundred and eighty dollars worth of butter the first year, beside supplying our house for a family of four. I sold six hundred dollars worth of pork that year and am sure the profit derived from that was two hundred dollars more on account of feeding milk, than if I had taken Mr. H—'s plan and had no milk to feed. I also raised four Jersey calves mostly on milk.

We have not decided in the five years we have been in the dairy business that there is no money in it by any means. On the contrary, we know there is lots of money in it, for we have proved it. Our herd now numbers twenty-five, and our profits increased accordingly. I visited Mr. H— a few weeks ago, and he is still growing potatoes and some grain, and still buying the bulk of his fertilizer. If I am any judge of fertility his farm is not in as good cultivation as it was several years ago when his chief fertilizer was manure.

I just wish to add that I don't believe that one can make money on a farm without plenty of good manure to keep his land in a high state of fertility.

The commercial fertilizers are certainly good, but the high price deducts, or I might say, takes all the profit, but a little used with manure gives much more satisfactory and lasting results. If anyone is thinking of going into the dairy business by all means do so. The profits are fair and the work a pleasure to those who like it. But if one goes at it in a hap-hazard way, taking no pride in his cows and the quality of their butter he can't expect to make a success of it.

New Brunswick.

DAIRYMAN.

Selecting Dairy Cattle.

Practical men always recognize the importance of obtaining really first-class dairy stock. In the production of cattle for dairy purposes, one of the chief objects to be kept in view is the purpose for which the milk is being produced.

It may be said that there are three purposes to which the farmer can apply his milk.

It can be applied for milk selling, when his object will be to obtain a large quantity of milk of fairly good quality for sale purposes.

2.—It can be applied for butter production, when the quantity produced will not be of so much importance as its richness in fat, for it is this connection.

3.—It can be applied for cheese-making. When the object is to obtain plenty of milk which is of good quality, for in the production of uniform high-class cheeses quality in the milk is imperative. If manufactured with butter at those times of the year when cheese-making is not carried on, such milk will yield a satisfactory amount of butter.

There are many milk sellers whose object is to find a cow either a pure or cross-bred, that will give milk ample in quantity and good in quality, and it is important in purchasing cross-bred animals to ascertain the ancestry on the part of the sire and the dam. The animal that will yield thousand to ten thousand pounds of milk per year is most valuable. If the milk is of the desired good quality when milk is realizing a low price, it may be kept at home and turned either butter or sold for cheese. While cows which will yield the quantity of milk specified may be bred or bought, the average quantity of milk yielded per cow in Ontario dairy farms, would amount to only between 3,000 and 4,000 pounds. Cows yielding large quantities of milk cost little, if any more for keep and labor than those yielding small quantities, while the returns obtained are sufficient to make the difference between a substantial profit and a loss.

Another point to be taken into consideration in selecting an animal for the dairy, is, that a cow, after her milking days are finished, should be able to put on flesh and be saleable as beef. Dual-purpose cattle or those which will milk well

and afterwards produce good beef, and which will raise calves of a fairly good beef type are much desired; but there is a difficulty in finding any breed which combines in the highest degree the best milking and feeding qualities. Probably the carefully-bred dairy Shorthorn is the nearest approach to an ideal dual-purpose cow, and this cow as well as the Ayrshires, and the Red Polls, are especially adapted for milk selling. For butter-making, the Channel Island breeds are undoubtedly the most suitable.

Shorthorns are both milk and beef producers, although is some degree milking properties have been sacrificed to beef. Some of the highest-bred Shorthorns give but little milk, but it is a breed capable of producing dairy cows of value. Probably by far the greatest number of the dairy cattle and fat cattle in Great Britain at the present time are the result of crossing with Shorthorns. The Ayrshire is exceptionally well suited for cheese production, and is an animal which will thrive on poor pastures as well as good lands. The special value of the Jersey and Guernsey cattle lies in the extreme richness in butter fats of their milk, and the natural deep yellow color of the butter.

Wentworth Co., Ont.

B. C. TILLET.

A \$50,000 creamery and dairy, promised to be the most modern and one of the finest in the West, is being erected at Prince Albert, Sask.

HORTICULTURE.

Plant a Variety of Shade Trees.

In view of the wide and serious injury to shade trees by many different insects, says a Cornell bulletin, it becomes pertinent to discuss some general principles of control of such pests. In the first place, it is unwise to depend almost entirely on one species of tree for shade or ornament. The very existence of the American elm, for example, in the Eastern United States at least is threatened by two serious pests, the elm leaf-beetle and the leopard moth. Probably the elm leaf-beetle could be controlled if every owner of elm trees would spray. It is quite probable that the leopard moth cannot be controlled and that eventually the elms will succumb to these two pests. The trees have already disappeared from the Harvard Yard as a result of the ravages of these insects. The sugar maples are becoming more and more subject to serious injuries from borers. Many fine trees are dying each year. The graceful white birches are going one by one and there seems to be no help for the situation, as a result of the ravages of the bronze birch borer, while the hickories are hard beset by the hickory bark-borer.

With these facts in mind, it is important to give careful and thoughtful consideration of the question of the wise selection and planting of shade trees. A city in which the streets are planted only to elm and maples is liable to be without shade trees in the near future. The wide planting of one kind of tree over considerable territory forms ideal conditions for the increase and spread of an extended outbreak of an injurious species of insect. On the other hand, if adjacent streets are planted to different varieties of shade trees an outbreak of any single pest can be checked and controlled much more easily. Elms and maples can well be supplanted in many cases by oaks, especially the pin oak and the red oak, or by the ginkgo tree—a handsome, but rather slow-growing tree, and one remarkably free from pests. The Norway maples make fine shade trees, and so do the linden, the horse-chestnut, and the American ash.

Truck Farming in Essex.

Editor of "The Farmer's Advocate":

Very few of The Farmer's Advocate readers are aware to what an extent truck farming is carried on in this southern county. In fact, many people residing in Essex are almost entirely ignorant of what a valuable asset we have in the fruit and vegetable growing section. Almost all classes and grades of fruit and vegetables common to the temperate zones, and some introduced from even more Southern climes, are grown here. A drive through the Leamington, Kingsville, and Harrow neighborhoods amply repays the traveller by revealing something of possibilities as well as realities discoverable there. This is more especially true of the newer and rapidly growing famous district of Point Pelee. Here are returns for labor expended which sound more incredible. At present the harvesting of pickling onions is under way. The area for the special grade is of necessity limited, but those who have attempted are well pleased with their remuneration.

L. Campbell, Mr. Roach and Mr. Ross are among the largest producers.

The first-mentioned has seven and a half acres