

give authentic information as to the real value of each cow in the herd for milk and butter-fat production. Weigh the feed occasionally in order to gain some idea as to what it actually costs to keep each cow and thus enable one to figure out the profit. A little experimental work may also be done. Increase the concentrate ration a trifle and see if it makes any difference in the milk yield. Very often it will be found to pay to increase the amount of grain fed to some cows and to decrease the amount fed to others. It is only by keeping records that a dairyman is enabled to really know his cows.

Always Breed to Improve the Herd.

From the appearance of many herds the owners have for years been working along the line of least resistance. They have placed sires at the head of the herds, and there has been an increase in numbers, but a lack of a definite ideal. The individuals in many herds are little better than their ancestors were twenty-five years ago. This is indicated by the very slow rise in the average production of milk and butter-fat per cow. Not over an increase of 1,000 pounds in that time looks like slow improvement. However, alongside these average herds are some that were similar in type, conformation and production 25 years ago, but to-day the net returns are more than double that of the average cow. Why the vast difference in production? It is largely due to the one breeder having an ideal and ever breeding to reach it. Bulls that had the desired type and conformation and were backed by producing ancestors were placed at the head of the herd. The result has been that the progeny was generally superior to the sire and dam. Those that were not were weeded out. There was no place for boarders or "off" type animals in the herd. The other breeder thought more of the dollar in the hand than of the far reaching influence of a good sire. While the herd increased in numbers the same as the neighbors there was very little improvement in quality or production. The one looked at the breeding business through a long distance lens, and could see the results of always using sires that came up to a certain standard. He aimed at having a herd averaging so many thousand pounds of milk per year. It was considered too expensive to purchase these high producing females, hence the desired results were attained by breeding the cows he had to the best sire available. It took longer to reach the ideal over the route chosen, but it was a satisfaction to know that each generation was better than the previous one. The breeder who saw only the immediate outlay and returns still has an average herd. During the 25 years his animals consumed as much of the same kind of roughage as his neighbors and now they cost as much to feed, but barely return a profit.

These same types of men exist to-day, but it is time that all stockmen realized the value of deciding on breeding one class of stock and constantly improving it through the sire used. It must be remembered that all registered stock is not necessarily good stock. There are cull pure-breds as well as cull grades. Along with the breeding must always be considered the individuality of the animal.

When purchasing a sire to place at the head of the herd it is folly to allow a few dollars to stand in the way of securing one that has the backing and individuality that should improve the herd. Twenty, fifty or even a hundred dollars extra for a bull of the right stamp may pay big dividends by the increased value of the calves produced. It is almost impossible to estimate the value of a good sire. He either improves the quality of the herd or gives it a set back, not only for one year but for years to come. Every breeder should study pedigrees and know the points to look for when selecting an animal to place in the herd.

The price asked for a high quality bull may exceed the amount an individual breeder cares to invest in one animal. In this case the difficulty has been overcome by two or three breeders in one neighborhood co-operating in the purchase. The production of many grade herds has been raised from between four and five thousand pounds of milk to between seven and eight thousand pounds by using only sires of the right type, quality and breeding. Breeders of grade cattle as well as breeders of pure-bred stock should pay more attention to the selection of suitable sires.

HORTICULTURE.

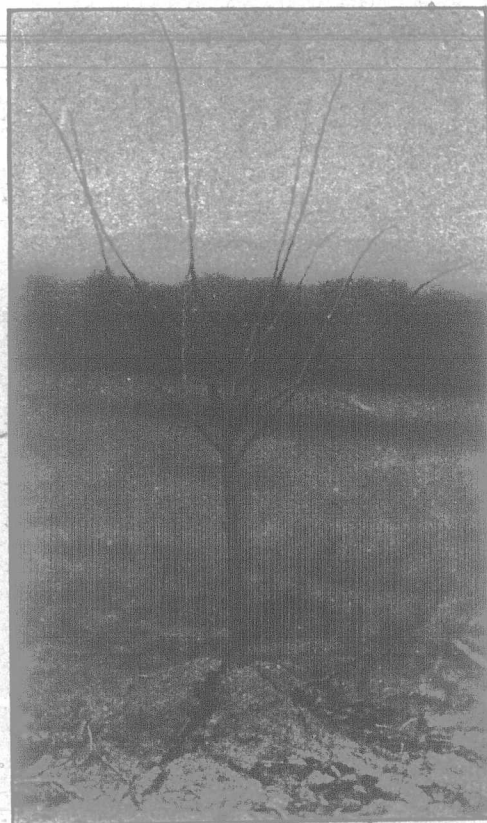
Why so Many "Slacks?"

The telegraphic reports issued weekly by the Dominion Fruit Commissioner have indicated almost constantly that many of the Ontario and Nova Scotia apples are arriving in the Old Country markets in a slack condition. The reasons for this are not presented and there is no mention made of the boats being longer than usual in making the voyage. We must infer then that the cause lies in the manner in which the apples had been handled, beginning with the picking. There is considerable agitation in the Western States now to encourage the growers there to pay more attention to the picking and handling of their fruit. Competitors have improved their growing methods to such an extent that only by improving on their packages and manner of picking and handling the fruit can they expect to enjoy a

continuance of superiority in the commercial product. There is no doubt about it; growers almost universally have awakened to the great necessity of quality in the apple, and they have improved their cultural and growing methods in order to produce that result. The time will come when he who wishes to have a superior product will be obliged to lay particular emphasis on the picking and handling of his fruit. There are certain stages in the maturity of every variety when it should be taken from the tree, in order to obtain the best possible keeping qualities. Furthermore, the apples must be put into storage of a suitable temperature as soon as picked, for if left in the orchard and subjected to the effects of sun and dew they are sure to deteriorate. Picking and packing methods have been responsible for a good many "slacks" arriving on the European markets, in the past, and since the growers have made such strides in spraying and cultural methods it seems too bad that more attention is not paid to the handling of the fruit after it has been produced, at considerable expense, to obtain a superiority and good keeping qualities.

Remember the Mice.

After last winter's experience many fruit growers, who never considered it seriously before, will provide some protection for their young trees against mice. The damage wrought by this type of vermin was worse in some districts than in others, yet the injury was sufficiently widespread to induce farmers to take more precautions this winter. The circumstances which conducted to this misfortune may not be repeated this season, but still they might. The winter was long, and a considerable blanket of snow covered the ground late last spring when ordinarily the mice could get ample food in the fields. With this supply,



The Mound Protection Against Mice.

to a large extent, cut off, they made channels to the young trees and destroyed thousands by girdling them completely. Many of these trees leaved out, as one would expect, but they began to show evidences of inadequate nutrition by the autumn and when the leaves began to fall they showed unmistakable signs of having stored up very little material to force them into life again next spring. Some trees lost only their outer bark and except for a slight set-back may survive if canker or other diseases do not attack them at that vulnerable spot. Those that are gone should be marked this fall and replaced with young trees in the spring. If we do not learn from experiences like these they constitute serious losses. We can profit by them, however, by adopting preventive measures that will insure against future depredations. Last winter's conditions may not be repeated at once, but in any case it is better to be safe than sorry.

Less trouble results from this source in orchards where clean cultivation is the practice. Even in that case many weeds or a crop grow up in the autumn and encourage the mice to move in search of food, and as the trees are often allowed to stand in a luxuriant growth of vegetation, the mice will find their way to them. We believe it would be advisable, so far as possible, to clean away all weeds or vegetation for a distance of a few feet surrounding each tree, for if the mice when channeling in that direction found no sustenance they would become discouraged and change their course. There are several methods whereby the grower can obtain a fair degree of immunity from vermin of this kind. Where he wishes to expend considerable labor and desires no financial outlay, perhaps the best system is to clean the weeds

and grass away from the tree, and bank it up with soil, free from vegetation, to the height of about one foot. This mound should extend either a foot or a foot and one-half away from the trunk of the tree. The accompanying illustration shows a tree in an orchard near Trenton, Ontario, that was protected last winter in this manner. Unprotected trees in the same orchard suffered considerably, but it was demonstrated there fairly satisfactorily that the mound of earth affords a certain degree of immunity against mice. To make this practice all the more efficient, the snow should be tramped about the tree after each fall, which method seems to discourage the mice from channeling through it.

Perhaps the best way to protect the trees is to wrap them with wooden veneer, which comes very cheaply and is easily applied. An air space should be left between the veneer and the tree and the former should be secured with twine or some kind of cord. This material also affords considerable protection against sun scald. Ordinary building paper, which does not cost a great deal, is very serviceable. This also should be tied loosely, and the bottom made firm with a slight mound of earth. Tar paper will keep the mice away but injury to the trunks of trees has resulted from its use. It often pays well to invest in wire netting, which can be wrapped around the trunk where it will stand for years. Formerly this cost about seven cents per tree but during recent years the value of all kinds of wire has increased and the cost would probably be eleven or twelve cents at this time.

The mound of earth, the timely tramping of the snow, and the clearing away of all vegetation are preventive measures that will cost nothing but the labor involved, and they are quite effective. Veneer, and ordinary building paper, perhaps incur more expense but they are slightly more efficient.

A Grower's Views on Co-operation.

EDITOR "THE FARMER'S ADVOCATE":

May I congratulate the writer of that article about the United Fruit Companies of Nova Scotia Ltd., in the issue of August 12, on the fairminded way in which he presents the situation in Nova Scotia? I have been in this movement for nine years, but this year I have lost faith in the principle. I have come to the conclusion that co-operation at its best, means control by the majority, with majority standards, and majority methods. I conclude the grower of very poor fruit will do better out of the co-operative movement as his fruit requires a middle man who specializes in such a quality. It might be said he needs a separate co-operative company which could handle such low-grade stuff to advantage, only, as he is of less-developed mental capacity, he would probably make a mess of his organization. The very good grower may be better out of a company such as the present as their standards, while including his fruit, do not return a proportionate increase in price, for its extra quality. The medium quality grower is the best to unite, and the easiest to satisfy. His difficulty in the successful running of a co-operative company is, that abuses grow from such small beginnings. The average men, who are the vast majority in such a co-operative company, dislike to be conspicuous, are opposed to all disturbers of their peace, and allow such abuses to get their growth before attacking them. Their methods of reform are inefficient.

I believe co-operation is an effort to cure the wrong distribution of wealth. The evil is that all progress concentrates itself in the increase of land values, which belong to the public, but which at present go to the private owners of land. I believe Single Tax the best way to free the land for the use of the people and lessen the strain in competing for a living.

Kings Co., N. S.

JOHN BUCHANAN.

Peach Growing in Ontario.

Peach growing in Ontario has been a costly experiment for many, and a profitable investment for some. While there are certain areas in this Province which will produce luscious peaches in great abundance, these areas are limited. Furthermore, within those same districts there are certain farms and small sections where it would not be profitable to plant peaches. There are pockets where the frost is likely to injure the trees or destroy the crop, and in the other places the atmospheric conditions are such that a peach tree will not prosper. Apples will grow over a much larger area and conditions for the same are not necessarily so closely defined, but the peach is a semi-tropical fruit and there are many things which must be taken into consideration before launching heavily into the production of this crop. A bulletin entitled "Peach Growing in Ontario" has recently been published by the Ontario Department of Agriculture. It was compiled by F. M. Clement and A. G. Harris, formerly Director and Pomologist respectively at the Horticultural Experiment Station at Vineland. The beginner should study this work before venturing upon an enterprise which requires considerable experience, and the grower of long-standing can derive considerable benefit from it, especially from those departments dealing with the production, packing and shipping of high-class fruit. Peach growing is by no means a fool-proof enterprise, especially in this country; it requires considerable study and thought before success will accrue to anyone engaged in it.