

Perhaps you have two small fields under cultivation that might as well be one. If so, remove the fence dividing them this fall and get some firewood from it against the cold winter nights. You will not only get the use of the little strip of land which has so far borne no crop, but you will save much time on the longer furrow made possible. The time wasted in turning about on each side of that fence could well be turned to account in plowing a few extra furrows or in feeding an extra brood sow. It is the man with the big field and the 16-foot harrow that is able to grow grain cheaply.

Before housing the implements for winter, all polished parts should be coated thickly with mineral lubricant to prevent rusting. It is not only the machinery that stands out under the pine tree or in the fence corner that rusts. Machinery even under cover may often rust enough in a single winter to greatly impair the efficiency of the machine the next summer. Wooden parts of the machinery will last longer if kept clean. These things should be looked to when the machines are being put away.

This is the time when the harness and others buildings should be fixed up. All broken lights in the windows of the cow barn or horse stable should be replaced before the cold winter winds get a chance to give your animals colds. Sweep the cobwebs out of the cattle barn and give it a coat of whitewash. If your horse stable is dark, cut a window in it and get a sash with glass in before stormy weather comes.

Plan to do as much work as possible during the winter season which might otherwise be pushed aside until next summer. Winter is the time when all implements should be gone over and repaired. This will do away with tinkering in the rush season next year. By starting in early there will be plenty of time to order repairs necessary, and also time to do a thorough job. Plan to clean your seed grain early. Oil and repair harness and grind all edged tools, including mower, sickles. Sharp edges can be kept on by coating the sickles with oil after grinding. What about a gasoline engine? Would it help you in your work? In making plans for more efficient farming, everything that will cut down labor, without adding too greatly to the cost, should be considered. And the time for beginning improvements is right after plowing is stopped by the frost.—S. R. N. H.

## Protect Fruit Trees from Mice

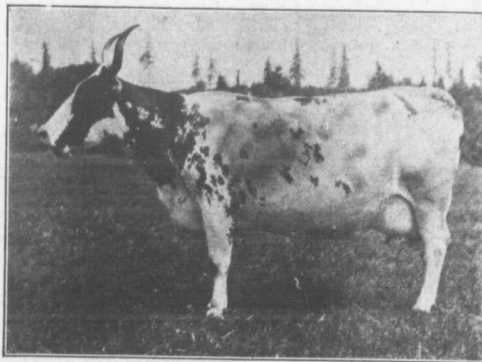
### Methods Used at the Experimental Farms

THE annual loss of fruit trees in Canada from mice is very great. Some years they are much more destructive than in others, while in a certain year they may be very destructive in one part of Canada and do little or no damage in another. The scarcity or abundance of food, the number of mice which are in the vicinity when winter sets in, and the character of the winter, all have an influence on the amount of injury which is done. Where the orchard is in soil of where there is rubbish about in which mice can harbor, the injury to trees, if unprotected, is liable to be much greater than where the orchard has been under clean cultivation or even where a cover crop is sown the previous summer.

It frequently happens that orchards which have escaped much injury from mice for several years from the time of planting, will be badly injured, if not ruined, just when the first crop is expected. There is nothing more discouraging to a farmer or

fruit grower than to have an orchard destroyed in this way after he has sared for it for a number of years, and there must be many instances in Canada where farmers, after a loss of this kind, do not re-plant.

Although it is not every year that mice are troublesome, trees should be protected from them every year until about six inches in diameter, and even a tree of this size will sometimes be partly girdled. If the protection is neglected for one year, that may be the year when mice are abundant and much injury will be done. The mice usually are looking for, or feeding on, seeds close to the ground under the snow and when they come to a tree they are likely to begin to gnaw the bark if it is unprotected, and before they have finished the tree may be completely girdled to a height of 12 to 18 inches above the ground, which usually causes its death, although it may remain alive for most of the summer following.



Springhill Miss Wallace, a Coming Ayrshire Producer.

The illustration does not do her justice, as Springhill Miss Wallace is one of promising cows in the herd of Shannon Bros., Cloverdale, B.C. She was sired by Leesbrook Burward Lely, and is out of Auchincrain White Rose, a cow sold at the Hunter sale for \$700.

### Methods of Protection.

The cheapest and surest method of protecting trees from mice is to wrap ordinary white building paper around the trunk of the tree. The paper is cut into strips which are the length of the breadth of the roll of paper, the width of the strips depending on the size of the tree. The strips should be just wide enough to lap over, as one thickness of paper is all that is necessary. The paper is wrapped tightly around the tree and tied in two places with twine. A little earth is hoed up about the base after the paper is tied, to cover any opening through which the mice might reach the trunk. Several thousand young trees are wrapped each year at the Experimental Farm in this way, and there have been practically no cases where the mice have gnawed through the paper to get at the tree. Tar paper is also effective, but trees have been injured by using it and it is well to avoid this as building paper will do as well. A small mound of earth from eight to ten inches in height about the base of the tree will often prevent mice from injuring the trees and even snow tramped about the tree has proved quite effective, but one cannot always depend upon it. Fine wire mesh wrapped around the tree or lapped so that it will expand with the growth of the tree, while more expensive at first, is very durable and will protect the trees well.

Mice may be poisoned by making a mixture of one part by weight of arsenic with three parts of corn meal and putting it in runways made by nailing two pieces of board each five or six feet in length and six inches wide to make an in-

verted trough, and putting about a tablespoonful of the poison on a shingle near the middle of the runs, renewing the poison from time to time. Poisoning would, however, be found a rather tedious method for a large orchard.

## The Business Basis of Dairying

### It is Good Cows and Good Crops

By E. L. McCaskey.

AS a writer for the agricultural press, I am sometimes criticised by the neighbors who read my letters in Farm and Dairy of telling all about them, but never anything about myself. Perhaps they are right. At any rate there is not a neighbor up and down the concession for several miles who has not figured at some time or other in the letters that I once sent so regularly to Farm and Dairy. The criticism will not apply this time. I am about to impart the greatest secret I have learned in my 20 or more years of dairy farming. It deals with the business basis of dairying. It is the secret of my success in making a very comfortable living and a competence with 100 acres of only fair land.

For a half dozen or more years, I conducted this farm of mine very much as other farms were conducted in the locality. I grew wheat, grain and hay largely for sale. I hadn't much use for clover in those days. It didn't sell well on the market and we had so little live stock that there was always a large surplus of hay for sale. Timothy was what the livery stables wanted, so that was what we grew. We kept a half dozen cows to eat up unmarketable roughage and give us some winter work. There was not much income from the cows, but such as it was, it was all profit. Then I began to get more interested in cows. My interest dates from the time that I joined one of the first cow-testing associations formed in Canada. I have told before of the results obtained by cow testing in my herd and I will not enlarge on them here. Sufficient is it to say that two of the cows produced as much milk as the other four and the two were only fair cows.

### Improve the Cows But Not the Income.

Then I began to improve. I purchased a pure-bred sire. I began to feed a little better. We actually bought a little meal for the cows that freshened in the fall. The size of the herd was increased and then things did not go so well. Previously the cows had been eating merely the surplus of the farm crops that could not have been sold on the market. Now, they began to draw on the money crops. We began to feed more of the timothy hay and more of the coarse grains at home. The feed bills, too, were larger and a little figuring showed me that the decreased receipts from the sale of cash crops and the increased feed bills, just about counterbalanced the increased checks from the creamery. We were no further ahead. We were handling more money but no more money stayed with us. The only return that we were getting for extra labor was that the fertility of the soil was improving.

In the meantime, as the dairy herd increased and my interest in dairying along with it, I began to take more notice of what the cows liked and what they did best on. I found that there was always more milk when by chance we happened to have some good clover hay, than when we were feeding timothy. I also noticed that when feeding timothy more grain was needed to keep up the milk flow than when feeding clover. The

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