

possible buyer when he visits the stable to see the stock. A lot of breeders do not appear to recognize that they could get more for their stock were they to keep their animals in nice, bright stables. It is just as important that we should keep our cattle in light stables, so that we may show them off to advantage, as it is that a merchant shall have a big well lighted window in which to show his goods."

#### THE COMPETITION DID GOOD.

Mr. Hicks lives in the section where The Dairyman and Farming World last year conducted its dairy farm competition. "I believe that competition did good," said Mr. Hicks, "and I was glad to see a farmer like Mr. Geo. McKenzie of Thornhill, win the first place. There is nothing exceptional about Mr. McKenzie's farm except that it is unusually well managed. His buildings are not too expensive, but are just well suited for the purpose for which they are required. I think that the competition showed a good many farmers that a man's ability as a farmer cannot be determined by the size of his barns or house. His ability is shown instead by the manner in which his whole farm is managed."

Mr. Hicks is one of those farmers who does not farm by guess work. He has a reason for everything he does, and his reason, when you get it, you find is good. He is developing a splendid herd of Holstein Friesian cattle, and in a few years is likely to be known as one of Canada's leading breeders.—H. B. C.

#### Cover Crops for Our Orchards

J. M. Love, Durham Co., Ont.

On most of our Ontario farms we find what is or what at one time was called an orchard. In many instances orchards have been much neglected. Yet, the same orchards with very little labor and care will return to the farmer, profit seldom equalled by any other area of similar size on the farm. Of course this applies to orchards of the improved varieties; not the old natural fruit which are of little use aside from perpetuating the numerous diseases and insects that the fruit grower has now to combat. During the past few years many have spent more labor on their orchards. Some have turned down the old sod, but have allowed the weeds to grow, through lack of cultivation.

To insure the crop for another year, as the growth for this year is nearly completed excepting the fruit, we sow about the last week in July what is called the orchard cover crop. The orchard should have had clean cultivation up to this time to keep down the weeds and to conserve the soil moisture. The disc harrow accomplishes this very nicely. The abundance of moisture stimulates the growth of the trees and increases the size of the fruit up to the present. Then why not later? Having caused the tree to grow so rapidly there is a large growth of new sappy wood that we must mature or harden before the heavy freezing of winter. Besides we want the fruit to ripen and color soon in order to harvest it at the proper time. The cover crop as soon as it is growing is pumping out of the soil the moisture that we conserved in the early part of the season. This hastens ripening of the wood and fruit. The time of sowing this cover crop varies two or three weeks according to the state of the season, also, as to latitude. The middle of July in the northern part of Ontario to the first week in August for the southern parts.

#### ADVANTAGES OF COVER CROPS

The advantages of the cover crop are numerous and well marked. Probably the most important is the addition of soil fertility to the orchard, that it may set and mature more fruit of better quality, and also to increase the growth and vigor of the trees. If followed up year after year this annual addition of fertility has far better effect than the irregular manuring that some

orchards get. The orchard needs very little rape more than this except when it is repeatedly yielding very heavy crops. Next to fertility is the moisture. Here the cover crop is the very thing needed. It obstructs and holds the snow during the winter, thus preventing the frost from penetrating too deeply and thereby injuring the roots. Such injury was common several winters ago. Where cover crops are made use of the frost leaves the ground more slowly in the spring and retards the too early swelling of the buds, which later may otherwise sometimes get nipped by a late frost. The snow being held up on the orchard it increases the amount of moisture for the soil as it thaws, as the frost goes out more slowly where cover crops are grown, most of this finds its way into the ground immediately below where we want it. As the cover crop is plowed down early in the spring the moisture is held and the fertility added. By frequent cultivation after this, until July, a dust blanket is formed which keeps the moisture below the depth to which we work. There the feeding roots of the trees use it when required. The weeds also are destroyed and kept in check.

What will we sow for a cover crop? There are many crops which would prove useful. Probably the most useful are the legumes. Then come the cereals and grasses with rape added.

#### CLOVERS MAKE GOOD COVER CROPS

The red clover starts growth early and produces a fine cover for winter. This does not kill down by the frost so much as some other crops, and it holds the snow during the winter. In the spring it starts growth early and when turned under forms the best of green manure. Red clover has the advantages like all the legumes, of taking through its nodule forming bacteria the free nitrogen of the air and giving it to the soil. Nitrogen always increases growth and vigor, and can only be added by means of legumes, barn-yard manure and the commercial fertilizers. To buy nitrogen it costs by far the most of all fertilizing elements, but through the use of legumes it is the most cheaply and easily added of any of the much needed elements of plant food.

Again, many farmers who grow clover seed, always have, when cleaning up the seed for market, some seed, which takes too much time to clean thoroughly to prove profitable, and there are also the sweepings. Such seed can be used to advantage for sowing in the orchard, even if it contains some weed seeds. It is sown so late that few seeds if any will mature before fall, and in the spring they will be plowed down. If clover is sown for a long succession of years it may cause too much wood to grow to the detriment of the tree fruiting. This, however, is yet to be proved. If it does cause such a condition, then the sowing of rye for a year or two will counteract it. Alfalfa would be useful for a cover crop, if the seed was somewhat cheaper and it would make growth more quickly in starting. These disadvantages almost place it out of the list of cover crops.

#### HAIRY VETCH BEST OF ALL

The hairy Vetch probably makes the best cover crop, even if the seed is expensive. It forms a fine heavy growth before fall, and has the advantage of creeping along the ground. It lies so close to the ground that it hinders but little the harvesting of the fruit. Its growth makes a good cushion that protects any falling fruit from becoming bruised. The crimson clover being an annual does not winter, hence it is of no value as a cover crop.

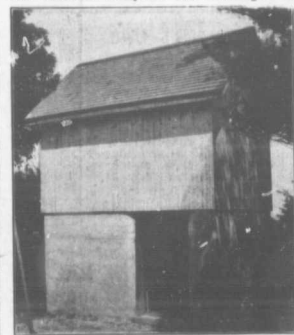
Of the cereals, the winter rye is the best for a cover crop. It can be used in connection with some of the clovers, where there is excessive growth of wood and but little fruiting. Winter rye produces a luxuriant growth in the fall, winters well and is a fine crop to plow down in the spring.

Rape makes an excellent growth as a cover crop, and will furnish food for pigs if they are allowed on it. It is very disagreeable, however, to move about in and it takes more time to pick the fruit in an orchard sown to rape. It holds the snow well in the winter, but there is little left of the rape, except some stalks, when the frost goes out.

Taking all things into consideration we should not expect the soil, especially the orchard soil, to produce more than one crop in a season. Then this one crop should be stimulated to its greatest productiveness. By careful handling of the orchard at least one part of the farm can be made profitable. Having taken an interest in this department it will lead one to more thoroughness in other farming operations.

#### A Milk House that Will Last for Years

The milk house, in the accompanying cut, is on the farm of Mr. George McKenzie, of Thornhill, which won the first prize in the dairy farms competition conducted last year near Toronto by The Canadian Dairyman and Farming World.



Milk House on the Farm of Geo. McKenzie, Thornhill, Ont. See adjoining article.

This is one of the improvements on the farm that attracted the attention of the judges. The house is 10x12 feet and the cement walls are eight feet high. There is a cement tank inside in which water is kept. The milk cans are set in the water up to their necks. An ice house adjoins this milk house. The ice is placed in the water in which the cans stand and thus the milk is kept in excellent condition. In the upper part of the milk house is a tank into which the water used in the stables is pumped by a wind mill. It holds about 500 gals. This milk house cost Mr. McKenzie not quite \$100. The gravel for the cement was drawn about two miles. The lumber was purchased.

#### Fall Wheat on Corn Stubble

Geo. Rice, Oxford Co., Ont.

It is well for most farmers to grow some wheat. We find that it can be grown economically after corn, when the corn is put into the silo on or before the 10th or 12th of September. The ground can be disked up, and the wheat sown on the corn stubble without much labor. Fall wheat generally gives a good quantity of straw, which will come in very handy for bedding where stock is kept.

Wheat is also good to seed down with. At 75 cents or 80 cents a bushel, though it would not give very big returns if grown on summer fallow, as in former years, it yields a fair return. Where summer fallowing is practised, the fall wheat garnered represents all the crop from that particular ground in two years. Besides a great deal of work has been expended on the fallow.