

several hours after being well washed reduced the germ content of the machine-drawn milk to about one-half that of hand-drawn milk.

In the state of Nebraska 11 dairy farms operating milking machines supplied answers to a number of questions put to them by officials of the Agricultural Experiment Station of that State.

Ten of the farms used gasoline engines for power. The herds milked ran from 10 to 70 head. Most of the owners claim that an operator requires to be above the average hired farm hand to operate a milking machine satisfactorily. Stripping after the machine was considered necessary by eight farmers. One man sells cows that refuse to give down their milk freely to the machine.

The author of the bulletin, which reports fully upon exhaustive tests made with the machine as compared with hand milking, concludes that the milking machine is fitted for large herds rather than small ones. The minimum herd is priced at 30 cows milked the year round.

Prepare now for Winter Dairying

F. K. Elgin Co., Ont.

A study of agricultural conditions down here in Elgin county shows that silos and winter dairying go together. Of the advantages of winter dairying there can be no dispute. Our winter dairymen are making more money than summer dairymen for their milk is produced at the season of the year when it is worth most. Winter dairying also offers the best solution of the hired help question. If then silos are necessary to winter dairying it is up to all of us who would improve our condition financially to build silos.

In West Elgin silos are not plentiful. Farmers go in more for summer dairying and creameries close down in the fall. Consequently, the farmers in that section of our county are not so prosperous financially as are those in the eastern section.

Now is the time to prepare for winter dairying. Erect a silo. It does not matter what style, if it will preserve the silage free from the contact of air. Down here we have cement silos, stave silos, square silos and round silos, and all styles are giving satisfaction. And we note that after a man has used one silo for a few years he soon erects another one. Starting out with Aylmer as a centre, you can find dozens of dairymen who have twin silos, grow lots of corn, practice winter dairying, and claim that they are making more money in the winter from their cows than they ever did in the summer before they "got wise" to the merits of ensilage. It will be a grand day for dairying in this country when we all get wise to the value of the silo.

The Timothy Seed Harvest

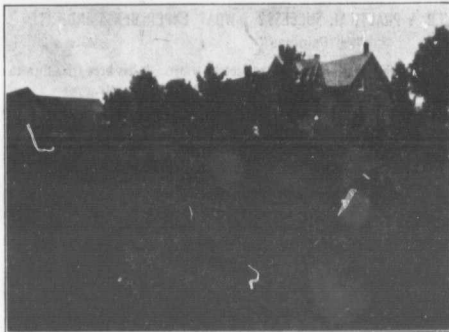
T. G. Raynor, Seed Division, Ottawa

All of our farmers who have a piece of timothy meadow should be able to procure enough clean seed for their own use, at least, even if it is an exceptionally busy time to look after weeds. The time is nearing for making timothy hay. Now that the timothy is in head, a small area of from one half acre to an acre, may be picked out in the field wherever it is the cleanest and headed out the best. If Ox-Eye Daisy, Mustard, Catchfly or other noxious or common weeds are present, now is the time to remove them before they go to seed.

The timothy seed is usually fit to cut at fall wheat and barley harvest. One of the best ways is to cut the stubble high with a binder. It should not be left until too ripe before cutting as a lot of the seed will shake out of the heads and the

birds will take quite a toll when it shells easily. It may be cut with a cradle or reaping machine and bound by hand. In this case it should be cut when damp with dew. After standing in the shock a few days it may be hauled in and stored. If very ripe at the time of cutting it may be hauled in almost immediately after cutting.

The threshing is usually done with the ordinary threshers. If the seed be very ripe and dry when cut a good deal of the hulls shell off. The clover huller should never be used in threshing timothy seed as it hulls it too badly. Flail



This Farmer Does not Need to Buy Bran. He Grows its Equivalent

Mr. M. J. McKay, Otago, N.Z., whose alfalfa field is here shown, with his buildings in the background, has been growing alfalfa for three years. He finds that there is nothing to equal it for milk production. Last year Mr. McKay cut it tons of alfalfa hay from four acres in two cuttings.

threshed timothy produces fancy show seed and usually brings the fancy prices.

The Virtues of Corn

A great believer in the virtues of the corn crop for the dairy farmer is Mr. Wm. Stewart, the veteran Ayrshire breeder of Northumberland Co., Ont. Mr. Stewart not only believes in corn but he grows a large acreage of it, feeds it to his high-class herd, and has found it so good a feed that he has no hesitation in recommending it to everyone of his brother dairymen. "I don't know," said he to an editor of Farm and Dairy, "how many men were here last winter and told me that they believed that a crop of corn is as good to fertilize the ground as a crop of clover. They have been led to this conclusion by the size of the crops that they have gotten from the land the year following corn. If there is a spot of land on our own farm from which we can get a good crop it is from the corn field.

"A common idea is that corn is hard on the land. We have a field out back of the barns on which we cannot grow grain for anything except green feed, as the grain lodges. We have grown corn on that field for four or five years in succession, and every crop of corn is better than the one before. We will admit that in the long-run the soil might run out under constant corn cropping, but in our farm practice we return to the land all of the food that is taken from it in the form of manure. If anyone is afraid that corn will lead to a depletion of soil fertility, we would advise the doubting one to try it. If his experience is anything like our own, he will have a bigger acreage in the following year."

No farmer who expects to keep up the fertility of his farm can afford to be without a silo. It is no trouble to grow good crops when plenty of ensilage and clover are fed.

How to Get Food from the Soil

A. Bulter, Haldimand Co., Ont.

We have been told by our scientific experts, the men who should know, that there is enough plant food in the average soil here in Ontario to feed farm crops for the next 100 years, even if we farmers do not return one atom of fertility to the soil. To the uninitiated, then, it would seem that there is no excuse for short crops. Due to a wise provision of nature, however, only a small portion of this great store of fertility is avail-

able each year, and as we farmers neglect to add to that store the amount that is made available each year steadily decreases. I guess Mother Nature understood human nature pretty well. She knew that if she gave us free entrance to her storehouse we would all be robbers.

We can get ahead of Mother Nature to a certain extent. We have found that two factors determine largely the amount of plant food that is made available for the use of plants—the supply of water and the supply of air.

Water is the first essential. It is the greatest solvent of any liquid. It is when dissolved in water that plant food is available to the roots. There is no plant that I know of that can take in solid matter (as, for instance, sodium nitrate) and make it into cattle feed. Air, also, has a large influence in converting nature's stored up plant food into available form. The more air we get into the soil the more food plants will get out of it.

Perhaps I am getting at my point in a very round-about manner. Here it is. We should cultivate early, late and often. By cultivating the soil we let in air. But that is the smallest part of it. We also create ideal conditions, first, for absorbing all the water that falls and then, by further cultivation, for getting it all down into the soil where the plant rootlets will get it.

Of course, we all realize that we must cultivate mangel, turnips and corn, but I would carry cultivation further. I regard the roller as one of the most abused implements on the farm. Practically every farmer in this neighborhood rolls his grain just thing and then stands back and looks at the fine level surface, and feels quite proud of the good-looking job he has done. Really he should be ashamed of it. By compacting that land right up to the surface with the roller he has given the soil moisture every chance to escape.

Here is how I got my lesson. A few years ago we left a harrow out in the middle of an oat field. We sowed all around it, and when the oats were up a couple of inches and the field was showing quite green we went out to rescue that harrow. Right up to the time the oats were cut one could trace where we had drawn that harrow. The oats were better there than any place else in the field. When I got my thinking cap on I could see that it was quite natural. There was more moisture there than any other place in the field. We do not know of any place where we would use a roller to finish off a field. A light harrow for us every time as the finishing agent.

Hay

L. K.

When we speak of curing hay, we mean curing it so that it will be as good as new when we use it. It should be done as soon as possible after it is cut, and it should be done so that it will be as good as new when we use it.



No. 1. We Use

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