

tion is run up much higher and the labor is just as great as where a good one is fed.

Pure bred sires of some dairy breed should be chosen. The calf will acquire the characteristics of the sire. A sire of the same breed should be used a second time as the good results will be spoiled if the blood is mixed. If they are crossed for two or three generations, they will be almost as good as pure bred. The process of culling should be started at once by means of the scales and the Babcock test. An average production of 300 or 350 lbs. of butter a year should be taken as the standard for the herd.

Rotation of Crops

The reasons for adopting some regular crop rotation on every farm; are numerous, and important. A proper crop rotation helps in maintaining soil fertility, in renovating impoverished soils, in the destruction of insects, and weed pests, and in the more economical distribution of labor throughout the year, thus increasing the profits.

A proper system of rotation is essential to continued success in farming, and yet there are more farmers to-day who are farming without any regular crop rotation, than are farming with one. There is not a farm, however, that would not be benefited by some system of rotation.

The rotation to be adopted on different farms will vary with the nature of the soil, the kind of farming followed, the markets, and other considerations. It is impossible, therefore, to lay down any one system, which every farmer could adopt, and carry out successfully. At the recent dairymen's conventions Mr. J. H. Grisdale, of the Central Experimental Farm, Ottawa, gave a system of rotation well adapted for dairy farming. This has appeared recent issues of The Canadian Dairyman and Farming World.

Where a farm is so situated that manure cannot be applied regularly, a three year rotation of grain, clover, hay, pasture, in succession, would work well. A three year rotation, corn and roots, grain and clover hay, is well suited for a farm, where it is desired to keep a large number of cattle, and where there is more or

less broken land to serve as pasture. For the average farmer, who is engaged in general farming, a four year rotation, consisting of corn and roots, potatoes or peas, the first year; grain the second year, followed by clover, hay, and hay or pasture, the next two years, is well suited.

A five year rotation—grain, with 10 pounds of clover seed to plow down for fertilizer; corn, roots, potatoes, or peas, grain; clover hay, hay or pasture, sown in succession, may be followed with some advantage, where there is a moist climate. Where climatic conditions permit of a good growth after the corn crop is harvested, clover is very profitable to plow down as a fertilizer. Another five year rotation—Grain; clover, hay or pasture; corn, potatoes, roots or peas; grain; clover, hay or pasture, is perhaps better adapted for the average farmer anxious to quickly put his farm in good heart, and keep it in that condition.

In the recent dairy farms competition, held in York County, a number of the competitors lost points, because the judges found that they did not have any system of crop rotation. In other words, they were not maintaining the fertility of their soil. Farm this year, as though you were going to enter a good farm competition. Adopt some system of crop rotation.

Cow Paths That Lead Far Apart

Mr. W. F. Stephen, associate editor of The Canadian Dairyman and Farming World, exhibited a chart at the recent dairymen's convention at Huntington, Que., which he called "Cow Paths that lead far apart." The average production of the cows of Canada is 3,000 lbs. of milk, and 115 lbs. butter a year. This, at 22 cents a pound, gives \$25.30. Estimating the cost of feed at \$25, it leaves a loss of 70 cents a cow. He cited a case in his locality where in 1905 a herd of 28 cows averaged over 7,000 lbs. of milk, and 221.6 lbs. of butter, which at 22 cents a pound, gave \$70.75. Deducting cost of feed for the year, \$38.00, a cow gave a profit of \$32.75 a cow. The best cow in the herd gave 8,044 lbs. of milk and 427 lbs. of butter, worth \$93.94, while the poorest gave 4,635 lbs. of milk, yield-

ing 245 lbs. butter, having a value of \$84.50. It is needless to say that the owner of this herd had paid great attention to breeding Scotch animals from high producing families. He also paid great attention to the feeding of his herd, and when they did not come up to the standard they were sent to the butcher. The speaker emphasized the value of milk records to the dairyman. They took so little time, and proved of great value in determining the unprofitable cows. He considered far spring balance scale and Babcock test a necessity in his stable, and would discard other things before he would let these go.

Alfalfa; Food and Fertilizer.

Throughout the Dominion, Alfalfa is now recognized as the most profitable crop the dairy-farmer can grow. No other plant can equal it as a flesh-forming and "Milk-Producing" food. Animals pastured on it show a rapid gain in condition, especially milch cows and hogs. After the first season it will yield three heavy crops each season for many years, and that of a food proven by analysis to bear nearly equal to bran in nutriment.

Alfalfa can be grown in any part of Canada where red clover will grow. An expert authority advocates that the seed be sown only after the surface soil has become warmed, generally speaking, about the first of June, as cold and damp kills off the germination. Alfalfa will require no cultivation for years excepting a coat of farm manure every winter to make up for the vegetable matter that has been taken off with the crop.

But it is as a fertilizer that Alfalfa is so remarkably valuable. It extracts immense quantities of nitrogen from the air, and thus furnishes the soil in a natural way with large quantities of the richest fertilizer. The roots of Alfalfa penetrate deeply into the subsoil bringing to the surface rich mineral food that could never be reached by any other plant. Its deep rooting habit opens up the subsoil, allowing free access to air and water which sweeten and renovate the land.

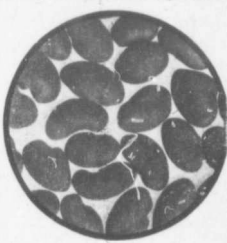
Alfalfa is certainly destined to revolutionize farming in this country. Its food values, abundant yielding properties, and rare fertilizing action render it the most valuable plant known to Agricultural Science.

Judging Dairy Cattle

"The main feature in judging dairy cattle from the farmer's standpoint is that the dairy cow should represent a perfectly working machine that will convert cheap roughage into high class milk products. She is a creature of habits and takes only a certain type which has been established on certain clearly defined lines to the satisfaction of all stockmen."

This opinion of the dairy cow from the standpoint of the farmer, was expressed by Prof. W. J. Rutherford of the M. A. C. at the recent Manitoba Dairymen's Convention. Continuing on this question of judging dairy cattle, he said that hereditarily, the dairy cow might be all right, but in time, she would become completely spoiled by the ignorance or neglect of the dairyman. She must have a large digestive organ, a large ruminating capacity so that she might "digest the good" out of the shape of butter, and milk, in the course of a day, and amount to many times her own weight.

In securing a cow it was necessary that every one should be taken to find out whether her ancestry carried a record that left no doubt as to purity and ability to do the work expected. Unless her dam and grand dams were good milk producers, and unless her sire was without reproach, it was not to be expected that she would become a profitable boarder.



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