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## A 100 ACRE FARM, WELL TILLED, WELL STOCKED

The Possibilities of 100 Acres as Exemplified on a Prize Winning Farm. Three Years with Pure Bred Dairy Cattle.

AN exponent of the small farm well tilled, well stocked and well managed, is Mr. G. A. Brethen, a young farmer of Peterboro County who has already accomplished much and who bids fair to make still greater progress in the future. His success proves that there are undreamed of possibilities in the 100 acre Ontario



farm. It shows that mixed farming, practised intensively and with well defined specialties, will in future, as it does to-day, make for the greatest success of the average Ontario farmer as it is better to till a few acres well than to spread the same energy and labor over a greater area. Mr. Brethen was one of those farmers who entered his farm in the Mr. G. A. Brethen Dairy Farms Competition conducted by Farm and Dairy during 1909. He was awarded fourth place in district No. 2 and in the special Good Farms Competition for Peterboro county he took first prize.

"Hill-Crest Farm," the home of Mr. Brethen, comprises 98½ acres. Half of the farm is sandy loam, the remainder, clay loam. Some years ago, Hill-Crest was purchased by Mr. John Knox, now Mr. Brethen's father-in-law, as a small farm on which to retire. He did much towards improving the property by clearing swampy portions, removing stones and other obstacles. Previous to the ownership by Mr. Knox, the farm had for a considerable time been rented by short term tenants, the effect of whose occupancy is still evident in the recurring problems, such as weeds, which must perennially be faced. Seven years ago, the present owner purchased the farm and assumed control.

### THE PRIME OBJECT.

The farm is run expressly for dairying. The breeding of dairy cattle is the prime purpose. All operations are run in accord with that object. Hence dairying is the main issue,—not a side issue as with so many so-called dairy farmers of to-day.

A considerable portion of the farm is low and badly in need of underdrainage. Advantage has been taken of the assistance rendered by the local representative of the Ontario Department of Agriculture, Mr. H. C. Duff, in having drainage surveys made. Mr. Brethen intends installing complete systems of underdrainage in the near future. These lower lying portions, which have so far been unsuitable for other crops, have been kept in permanent grass. This area includes 35 acres. The balance of the farm is well suited for the growth of corn, clover and roots and any of these cereals, particularly oats, which are suitable for the production of milk.

Corn is possibly the most important crop; clover follows as a close second. Every effort is put forth to secure an abundance of these two crops as well as roots. Other crops, Mr. Brethen says, can be bought if need be. The corn crop is handled for the silo. Early maturing varieties that develop lots of cobs are the kinds sought, the White Cap Yellow Dent being the favorite, it having proven, in Mr. Brethen's experience, the most suitable for the locality.

### PLANTS CORN THINLY

A failing of some dairy farmers is that they sow their corn too thickly. This practice arises probably from the lack of silos. People think that their cattle would not eat the coarse stalks grown when corn is planted thinly. This year Mr. Brethen will sow his corn in drills 42 inches apart. Last year there was only 36 inches between the rows. The rows he considers were much too close. When planted 42 inches apart, cultivation can be continued longer, thus keeping down the weeds and giving development to more and better cobs.

"One does not get the cobs," said Mr. Brethen, "when the rows are close together. More corn of

barley in the proportion, one to one, but since he found that barley was not conducive to milk production, he sows peas in place of barley knowing them to be better for dairy cattle.

All crops are worked into a rotation covering a period of three years. Sixty-six acres—all the land less the low parts previously mentioned—are included in the rotation, which is, first year, clover; second year, corn, roots and peas, or early summer cultivation followed by rape or buckwheat on any land which requires special attention owing to noxious weeds; third year, grain, seeded down without plowing, to clover. A little timothy is seeded with the clover in order to ensure a crop should the clover fail.

Manure is hauled out in winter and piled on the clover sod. In early spring, it is distributed with a manure spreader on those parts which are to grow the corn and roots. The corn land is spring plowed after the grass has gotten up somewhat and is thoroughly cultivated until planting time.

### THE CLEANING YEAR

The second year of the rotation is the cleaning year. Stones, weeds and all obstacles are attacked during this period, while at the same time a crop is taken. This is followed by sowing the ground without plowing. Any land that is not well drained is ribbed up in the fall. Commenting upon



"Hill-Crest," the First Prize Farm in the Peterborough Good Farms Competition

The residence and farm buildings shown in the illustration are those on the farm owned by Mr. G. A. Brethen, which farm in addition to capturing first prize for the county, was awarded fourth in the general score. Read the adjoining article, which deals with Mr. Brethen's farm practice.

better quality is secured from thinner sowing. Last year a neighbor borrowed my drill after I had sown my corn. He set it to sow much more thickly and then placed two tubes into the one hoe. Quality suffered as both cobs and well-nourished stalks were lacking. I consider eight to ten quarts of seed an acre, ample, provided it be of high vitality."

### CLOVER ADVOCATED

Speaking of clover, Mr. Brethen said, "It is just the thing for building up land. There is a great change coming over the average man, even in towns and cities, in regard to clover hay. He now has little or no objection to it and if he keeps cows, he is quite pronounced in its favor."

Oats is the principal grain crop. It is always sown in a mixture with peas. At one time, Mr. Brethen sowed the standard mixture of oats and

this practice, Mr. Brethen said, "I do not wish to undo the results of my year of cleaning the seeded from weeds by bringing up a fresh supply to encumber the succeeding grain crop. In a rotation such as I practise, all weed seeds are sprouted and developed in a crop in which they can be handled. The lack of plowing at the end of the second year, aside from its effect on weeds is to be commended in that it ensures a catch of clover, since it increases the capillary action thus supplying the moisture so much needed by the young clover plants, while fighting for their own amongst the crops of grain. Those advocates of grain farming and of the summer fallow as a means of combating weeds can scarcely stand in an argument against a three-year rotation since on their 100 acre farm, 10 acres of which they devote yearly to the summer fallow, weeds get a start of 10