The Macdonald College Farm

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The College Farm consists of 387 acres. The crops grown are hay, pasture, corn, potatoes, roots, oats and barley. We have a definite system of rotation. Our system is a four year one. The first year, cultivated crops; the second year grain, seeded with a good mixture of grasses and clover; the third year, hay; fourth year, pasture or hay. Our object is to grow the heaviest crops of the very best quality.

In working out the rotation of crops certain principles must be adhered to in order that the fertility of the soil may not only be retained but increased, and this at the least possible cost. The four year rotation might not be possible in all parts of Canada. One must consider the location, the kind of soil and the number of animals to be provided for. I sometimes advise the three or four year rotation. It is very essential that a crop of clover sod be plowed under every three or four years in addition to applications of farm manure. In this way we can restore the required amount of vegetable matter for the growth of cereal and other crops. It is necessary not only to fill the soil with vegetable matter, but these fertilizing constituents must be available for plant food before the crops can derive any benefit from them. This we accomplish by thorough cultivation.

LAID OUT IN RANGES

The college farm is laid out in four ranges. Each range has different sections. The ranges are one quarter of the farm. The sections are the different fields in the range. On range No. 1 we had a good crop of grain and also secured a splendid catch of grasses and clovers last year. This range was devoted to corn and roots in 1907 the 35 acres gave 622 tons of feed. This field was thoroughly worked before and after the corn was sown. It also received a coating of 18 tons of farmyard manure. After the corn was harvested, the land was thoroughly ploughed, deep as the soil would allow. In the spring time the soil was in a fine state mechanically. We used the cultivator freely, then harrowed with the smoothing harrows before sowing our grains and grasses.

The grain sown on this range was banner oats. These we prefer to other varieties. We also had the Licowo and the Siberian varieties. We sow oats at the rate of two bushels an acre. Barley is also grown, the Mandscheuri and the Mensury varieties, sown one and a quarter bushels an acre. Our grasses are timothy and orchard grass. Our clovers are red, alfalfa and alsike, sown at the rate of 20 pounds an acre. We prefer the mixture of grass as we get a very much larger yield of fodder and have a better second crop from the mixture. It also makes better pasture.

THE HAY CROPS

On range two, sections 1, 2 and 3, we took our first year's hay crop last season, also a second crop from the same range. The first crop would average two and a half to three tons an acre; the second crop, probably one and a half an acre. It would pay farmers to produce more clo[illegible] seed. We had some excellent patch It would have paid farmers to hav[illegible]ome long distances to see these fields and get instructions how to save their clover and grass seed. There need be no cry of expensive clovers and grasses, when farmers can grow and save their own seed. Much of our hay is stored in stacks. We unload by means of a single pole to which are attached three guy ropes. This system is an excellent arrangement and is one that can be put up easily by any farmer. It only requires a single rope and two pulleys. Our stacks are all thatched. This is done with the corn that has been thinned out from our fields. It makes splendid material for thatching.

On range 3, sections 2 and 3, we practised after-harvest cultivation. Visitors saw us ploughing, cultivating, disk-harrowing and dragging on these sections. It was somewhat of a surprise to them. If more summer cultivation was practised after the crop comes off there would be fewer weeds in the country; besides the mechanical condition of the soil would be much improved.

A heavy milking Grade with a Record of 17,170 lbs. in Ten Months

The record of this cow should be an inducement to all dairymen to grade up their stock. This cow gave 81½ pounds per day at two milkings. She proves that good cows may also be grades. She is owned by Edmund Laidlaw & Sons, Elgin Co. Ont.

STICKLERS FOR CULTIVATING

We are sticklers for cultivating. We even prefer to cultivate sod land rather than to plough it. We aim to keep all weeds on the surface and to dry them out in the sun. It is much better than trying to rot them. Later in the autumn, if the land is intended for potatoes or roots the following year, we try, if possible, to get the manure on in the autumn. Then we plow the land as deep as the soil will allow. We find sub-soil ploughing is beneficial for roots. When ploughing we do not turn the furrows over flat. We set them up well on edge so that the manure will be from top to bottom of each furrow. Land intended for roots may be ribbed in the fall.

Range 4, sections 1 and 2 were devoted to roots last year. Our roots in 1907 gave us 22 tons to the acre. The crop last year was even better. We had 11 acres of mangels and five of turnips. We sow the mammoth long red variety of mangles. We also sow a few sugar white and sugar rosy mangles. In turnips we prefer the purple top Swede and Hartley's Bronze top.

HANDLING THE CORN CROP

Our corn was an excellent crop. On August 14th it measured 12½ feet. It was extra well eared. We had 20 acres of the Leaming variety, 5 of Champion White Pearl and 5 acres of Longfellow. I would prefer Mastodon to Champion White Pearl, but I was unable to procure the seed. Our corn land was manured with green manure during the winter. This was ploughed under with a good growth of clover in the spring. The land was well worked before sowing and then planted with the ordinary disk seed drill. After the corn had been sown for 2 or 3 days we put on the harrows. We harrow the land two or three times before the corn comes up; the last harrowing takes place just as some of the plants are appearing. This harrowing means a great saving in hoeing and cultivating. It also forces the growth of the corn just at the right time.

Cultivating should be done frequently, especially in dry weather. Great care must be taken not to cultivate too close to the rows or too deeply when the corn gets three or four feet high as the roots have such a spreading habit. We made this mistake on a few rows last year. They did not yield as much by one or two tons per acre as did the corn that was properly cultivated. It was a good object lesson for students and others.

We cut our corn as soon as it reached the glazing stage. Most people cut their corn too soon. The riper the corn, the sweeter will be the ensilage.

Our potatoes did fairly well but in some few spots they were struck by a blight. The Bordeaux mixture was not strong enough. It should be made of four pounds of lime, six pounds of blue stone 40 gallons of water. It would be better if there were larger openings in the nozzles. The spray appears to be too thin to be effective. Some of the outside rows of the plot kept much greener than others more centrally located. These rows were always done twice over every time the field was sprayed. We plant the Carmans number one and the Delaware varieties.

Want Dog Tax Law Amended

In addressing the Agricultural committee of the Ontario Legislature, with a view towards having the dog tax by-law amended, as reported in Farm and Dairy last week, Mr. John Campbell, one of the members of the deputation, referred to the decline in the sheep industry in Ontario and how the American quarantine against sheep had reduced the value of pure bred flocks by one-half. Sheep-raising, he claimed, was the most profitable of any branch of live stock for the farmer to engage in. Sheep meat, he stated, can be produced at $1 to $2 less a cwt. than can any other meat and it always sells at good prices. But farmers are afraid of dogs, and many have gone out of sheep-raising altogether because of the risk of having their flock destroyed by dogs. He pointed out the increase in the dog tax asked for would be in the interest of those who were breeding pure-bred dogs. It might be advisable to provide for a lower tax for pure bred dogs as they were always well looked after by their owners and caused no trouble.

Mr. Smith stated that the sheep-raiser was at the mercy of the prowling dog. Once worried by dogs a flock never fully recovers and might as well be destroyed. In many townships the revenue from the dog tax