

Agriculture in New Ontario.

Interesting details regarding agriculture in New Ontario were brought out by an offer of prizes by The Weekly Globe for essays telling about conditions under which farming is carried on in that part of Ontario. The first-prize essay was written by F. Kosmack, a seven-year settler, of Milberta, and is as follows:

In discussing "Agriculture in New Ontario," I shall have special reference to the Temiskaming District, of which I have had seven years' experience.

There are two ways of going to this district. First, by Canadian Pacific Railway to Mattawa, thence by branch line to the foot of Lake Temiskaming, and by steamboat to New Liskeard; or by Canadian Pacific Railway or Grand Trunk Railway to North Bay; from there by Temiskaming and Northern Ontario to any station desired on that line. There is no agricultural land worthy of the name on either road till the north end of Lake Temiskaming is reached. From there north and west a most decided change takes place. Two rivers, the Blanche and the Wahbi, enter the lake here, and the drainage area of these two rivers is at least ninety per cent. agricultural land of the first quality. The height of land between the Blanche and the rivers flowing north into James Bay is a scarcely perceptible ridge. Here (across the ridge) the land is also good clay soil. There is next to no settlement there yet, and I have to confine myself to a description of the valleys of the Blanche and Wahbi.

The soil is almost exclusively alluvial-clay, light brown, yellow or white. Beds of gravel are rare, and never deep. Outcroppings of rock seldom occur, but they occur more frequently in the townships next to the height of land. The two rivers flow in deep channels, with banks 20 to 60 feet high. So easily is the clay dissolved in water that the banks are changing yearly. Sometimes, large areas of land, amounting to acres in extent, with the trees on it, slide into the river. Receding from the river, a flat of half to one mile is found. After that comes a rise of 30 to 60 feet; and, lastly, is found tableland, which comprises perhaps 80 per cent. of the total area. Over the clay is a black vegetable mould from 6 to 18 inches deep. The banks of the rivers, for 100 to 500 yards, have the least mould. Then an abrupt rise of two to four feet occurs, which is composed of turfy mould, intermixed with partly-decayed wood, or sphagnum-moss only slightly decayed. Towards the tableland this layer gets deeper, till a depth of eight feet or more is reached. This era is termed "muskeg." From the tableland numerous ravines drain into the muskeg. These never run very far, and leave the tableland an uninterrupted plain for many miles. The tableland has a fairly uniform covering of mould, except where it is burnt off by bush fires or in the process of clearing the land.

COVERED WITH FOREST.

The whole district, in its untouched state, is covered with thick, dark forest. The trees prevail in the following order: Spruce, white and black, are the most numerous; then balsam, poplar, balsam of Gilead, tamarac, white birch, and banksian, white and red pine. Cedars are not plentiful, except near rock outcroppings. The undergrowth consists of swamp alder, moose maple, mountain ash, ground hemlock, raspberries, blueberries and cranberries. The timber is largest near the ravines, and there alone pine is found. The wetter the land, the smaller the timber. In the muskegs, with now and then an exception, only black spruce and small, scrubby tamarac appear, which are three to five inches in diameter. On the tableland, near the ravines, there are white spruce up to thirty inches in diameter, and at 80 feet; yet, eight-inch trees are frequent. Balsams are remarkably sound, and are found up to 18 inches in diameter. Poplars grow to great size and length, but are mostly too old, and are, therefore, faulty. The first impression of the newcomer in the spring, or in rainy weather, is unfavorable. Even the tableland appears to be an endless, dreary swamp, ill-fitted for agriculture, and many people that are easily discouraged are turned back thereby. Those who have stayed have settled invariably near the ravines. It seems strange now that those who had the whole country to choose from took up inferior locations. It was soon discovered that the land everywhere had sufficient fall, and became dry enough when the bush and the fallen trees which blocked the run of the water were removed.

As was stated before, the soil is light brown, yellow or white, but the color seems to make no difference as to its agricultural value. If, in the process of clearing the land, the vegetable mould has not been burnt off unduly, the plow, at first plowing, goes down to the clay only in spots. When the clay is reached, it takes a good team to keep the plow moving, but, if once plowed, the soil keeps open and friable. I have often, with great interest, watched what a field would be like in the spring that had been plowed in the fall. Invariably, I found it in the most favorable condition imaginable for seeding. Any kind of light harrow, with two strokes, would make a perfect

seed-bed. No lumps appeared, and there was no need for a clod-crusher. This would not seem remarkable, as the action of the frost will pulverize almost any kind of clay, but the clay here will crumble down without the help of frost.

CLAY THAT CRUMBLES.

I give the following incident of my own experience: Our land is on a Government road; the road ditch is two and one-half feet deep. In the first year I determined to have at least some garden. I made beds six feet wide, with narrow ditches between. The first spade depth was black vegetable mould; the second brown clay. The clay resembled putty, and it was impossible to break it up. The more you worked it, the tougher it got. In disgust, I despaired to have a garden that year, and went at some other work. The weather was fine and warm, and to my astonishment, I found, within three days, the lumps of clay crumbling down, not baking, as I expected, to a solid lump. At the end of the week I was able to rake the mould and clay into a garden-bed that could not be excelled the world over. I may perhaps right here give the results of that and subsequent years in gardening. Peas always did best; onions, carrots, parsnips, lettuce, fair; blood and sugar beets, not so well; turnips and cabbage, medium at first. Leguminous plants do best; they are the most independent of the nitrogen in the soil, not by any means that the soil is deficient in nitrogen, but the land needs cultivation before the nitrogen becomes available for plant food. That is confirmed by the largely-increased crops after a few years of cultivation. We grow now any kind of vegetables, even without manure. Celery does well, but we must strive to get it planted earlier than we have so far. It is very pleasant to do gardening, as the surface never bakes nor cracks. Native weeds may be said not to exist. Fern roots and wild aster give some trouble, but are easily conquered. Of the grasses, blue-joint and brome grass are springing up, if after a burn the land is not quickly taken into cultivation. So will strawberries and raspberries.

FARMING OPERATIONS.

In coming to farming, it will not surprise anyone, after what has been already said, that peas and clover, red or alsike, grow pre-eminently luxuriously. Timothy also does well. Wheat, oats and barley need a crop of peas to precede them to do best, except when the land has been heavily burnt over. It is to be regretted that this leads many people to seek a heavy burn for the sake of a good first crop, which is secured at the expense of the future. Experience leads me to commend the following course: A light burn, removing only the moss, leaves and rotten wood from the surface, not the decayed black mould. A crop of peas, followed by oats, and seeded with clover and timothy, then left in meadow, as it will grow luxuriously for many years. Clover and timothy hay are the most remunerative crops. This will be easily understood when I state that three tons to the acre are common, and hay is worth from \$20 to \$30 a ton. This course will leave the settler free to devote all his time to the clearing of more land, preserving the fertility of the older land. There is no temptation here to grow wheat after wheat, and rob the soil of fertility stored up since the creation of the world, till it is exhausted, and then move on, as our Yankee friends are doing in the West.

MARKETING FACILITIES.

At present, on account of the great activity in prospecting, mining and timbering, the price of all farm and garden produce is very high. The settler needs to seek no market. Milk, butter, eggs, garden stuff, hay, hen feed and oats are eagerly sought at his house. The demand cannot to any extent be supplied, and much has to be imported, especially meat. At present, the production of beef does not receive the attention that would seem desirable, because it can be imported cheaper than produced here. There is no money in feeding a steer on hay worth \$30 a ton; roots at 75 cents to \$1 a bag; peas at \$1.50 a bushel, or shorts at \$1.75 per 100 pounds. The time when this country becomes an exporting country—that is, when it will seek the market on the seaboard—is not near, because the new settlement farther north, on the extension of the Temiskaming and Northern Ontario and the Transcontinental railways will absorb all that can be produced. When the time does come, this cannot fail to be the champion country for beef, butter and cheese production. The land being all good, settlement is continuous.

The roads are excellent, and the farm buildings are, in most cases, near the road, which make an ideal condition for creamery or cheese factory. Cattle are not yet plentiful, but what there are are mostly pure-breds of all breeds. Settlers are coming in from every county in Ontario, and each brings what prevails in his neighborhood. Cows brought in here scarcely ever do well the first year. Pasture, although plentiful in most localities, is not of the quality of that of cultivated grasses. As the pasture is a crown in the shadow of the forest, and the trees are mostly uncut and

to it. Mosquitoes, black flies and deer flies are so troublesome that cattle will not go into the woods till fly-time is past.

CLEARING THE LAND.

With regard to the clearing of the land, it must be divided into two classes, namely, tamarac and poplar land. Under the former class, I understand, is land on which tamarac predominates, mixed with spruce; the latter, where poplar (white wood) predominates, mixed with birch, balsam and banksian pine. The tamarac land is covered with 12 to 18 inches sphagnum-moss. In this alone the trees stand. When the moss is burnt off, the stumps sit on top of the ground, not only the tamarac, which are all dry, but the green spruce, also. The stumps must be drawn off, used for temporary fences, or burnt. No machinery is required; one good horse is sufficient. The stumps must come off, because the wide-spreading roots forbid the use of plow and narrow. Two years ago we had a dry summer, most favorable for the work. My son, with one horse, cleared an acre in three to five days, ready for mower and binder. With poplar land, the process must of necessity be different. No machine will pull out a big poplar stump. Dynamite, also, besides being costly, will not make good work. The intermixed balsam and pine also have a firm hold in the ground. The roots not spreading on the top of the ground, it is possible to cultivate between the stumps. The practice in that case is to get the land quickly into hay, and leave it so till the poplar stumps are well decayed. Then use a team, with block and line, or a capstan machine, for the final pulling of the stumps.

CLIMATIC CONDITIONS.

The winter is cold. For three or four months the thermometer never rises above freezing, but it is just as likely to be below zero as above. Clear, cold, calm weather prevails. Snow falls to the depth of two to four feet, and is almost always of a feathery lightness, so that a horse may walk right through it. No crust may be expected till March. Winter in earnest comes between the middle of November and the first of December, and the break-up about the first of April. The change is usually quick and decided. In summer it gets hot, often reaching 100 degrees F. in the shade. The nights are usually cool, but we have nights when a mosquito netting (a canopy of cheese-cloth) is all the covering required. It is pleasant to lie peacefully under such netting and listen to the concert given by a multitude of hungry musicians which would like to taste human blood. Summer frosts occur, and must be expected under the present conditions. The thick, dark forest covers perhaps 90 per cent. of the land; seldom a ray of the sun steals down to the ground. The snow is not all gone in the forest depths when vegetation is well started. Every night a great volume of cold rises out of the woods from melting snow or evaporating moisture, and as cold, like water, always seeks the lowest level, it falls into the as yet small clearings. As the percentage of bush to cleared land reverses, this condition will be more and more remedied.

The social conditions are good. Of course, there are cases where a pioneer of the pioneers penetrates ahead of the rest into the silent forest, and his brave wife (if he has one) may feel lonesome at times, but these instances are the exceptions.

EARLY SOURCES OF INCOME.

How does the new settler support himself and his family till the produce of his land is sufficient for his wants? The timber on his land is his, with the exception of the white pine. He sells tamarac, flat for railway ties, square for bridge timber; spruce and balsam as boards for pulp. Ties were 26 cents last winter; green lumber, on board car, \$13.50 to \$14 a thousand; 4-foot pulp spruce, \$5; balsam, \$3 per cord on the Temiskaming & Northern Ontario Railway track. For 16-foot pulp on the streams, \$3.25 per cord is paid. Sawmills are numerous. It is seldom necessary to draw the logs more than two miles to a mill, and the boards two to four miles to the car. Incredible quantities of pulp and logs were taken out last winter, which benefits the country in three ways: The settler has remunerative work in winter; the cutting and removing of the timber make the clearing of the land easier, and the letting in of the sun helps to prevent summer frost. Large sums are granted to make roads, and a settler may earn \$1.75 a day making a road for himself. It is no pleasure to stand to your ankles and dreer in water, throwing out clay that will not leave the shovel; but the reward, besides the pay, is a good road, and improved drainage of your land.

OPPORTUNITIES IN NEW COUNTRY.

Now, then, in conclusion, to the question: Does it pay to come here and make a farm? I say, most emphatically, "Yes." I say "Yes," although we hear the statement made very often that it does not pay; that it pays better to work for the good wages which prevail. The ex-