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A Survey of Areas Offering Industrial Possibilities

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H. A. Leverin[x]

In the Province of New Brunswick are two main areas where deposits of peat moss, more or less suitable for the production of peat litter, are found; (1) on the south shore between St. Stephen and the city of Saint John, and (2) Northumberland and Gloucester Counties east of Chatham on both shores of the Miramichi Bay extending north on the coast of the Gulf of St. Lawrence to the extreme end of the mainland, and on the Shippigan and Miscou Islands.

An exploratory investigation of these areas, was made in October and November, 1939. Twelve bogs were investigated and composite samples of peat moss were collected, made up of samples from each 2½-feet in depth. The purpose of the investigation was to select bogs, which, because of the quality of the moss, the area workable, and proximity to shipping, would be suitable for development of a peat-moss industry.

Twelve deposits were examined, the Pennfield, Seely Cove, Pocologan, Musquash, and Todd bogs in the southern area and the

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Eel River, Escuminac and Tabusintac in Northumberland county and Shippigan, Lamek, Pokemouche and Green Point in Gloucester county.

The following is a brief description of these deposits.

Pennfield Bog

This bog is situated east of St. George in a small basin of an approximate area of three-quarters of a mile by half a mile. Small old workings were noticed at the north end of the bog, about 10 x 10 feet in size, apparently resulting from the production of peat fuel. The bog is flat and the growth is mostly sphagnum moss. Four samples were taken with a bore-hole auger to a depth of 5 feet. The moss consists mainly of a mixture of humified peat (fuel peat) and peat moss and is of a decidedly dark colour. The area of the bog and the quality of the peat would hardly justify the erection of even a small plant for the manufacture of peat litter. It can be approached only at the north end from the highway by a small, rough and boggy path about one mile long.

Seely Cove Bog

This deposit is about one mile north of Seely Cove Settlement and three miles northeast of Black Harbour. The bog can be easily reached by a good country road. It is a high bog with two dome-shaped hillocks, the larger of which slopes towards the west where it becomes low, of inconsiderable depth, and the peat moss is strongly intermixed with humified peat. Three samples were taken 500 feet apart at a depth of 5 feet in a line running north and south over the highest point of the larger dome. The moss is sphagnum, somewhat dark in colour, and at greater depth becomes intermixed with humified peat.

The bog can be easily drained and might be worked on a small scale for producing peat suitable as a filler and deodorizer in manufacturing fish waste fertilizer, or compost for market gardening.

Pocologan Bog

The Pocologan bog is eight miles from St. George, and stretches northeast to southwest between the old Saint John highway and the Canadian Pacific railway, which crosses its southern part. The workable parts of the bog are not easily accessible except from the railway. If a peat-moss plant be erected, account will have to be taken of a wide brook between the railway and the main part of the bog.

The surface of the bog is much broken by islands of spruce, by shallow bog land, and by a winding creek tributary to the Pocologan river. The quality of the deposit is variable. Large areas consist of humified peat (fuel peat), but three dome-shaped hills contain peat moss. The samples taken from the hillocks were medium dark in colour.

Six samples were taken at a depth of 5 feet, three from the east end of the bog 600 feet apart, in an east and west direction. Another line was run north and south 1000 feet west of the end of this line, at the point of maximum width, and three samples were collected at 800 and 900 feet apart.

Musquash Bog

The Musquash bog is favourably situated, being close to the main highway and two miles east from Prince of Wales railway station, thus easily accessible by rail and by road.

The bog has been worked and two rather large excavations towards the south end have produced an appreciable quantity of peat moss. Four drainage ditches at the south end drain to the southwest into a small lake, which in turn drains into Spruce Lake. Eight samples were collected, five of which were from the main part of the bog on a line run north to south from the highway by way of the old workings. The distances apart were :- 600 feet from the highway to bore hole #1 then 600, 800, 800, and 600 feet. One sample was collected from the hillock in the centre of the southwest arm 800 feet from bore hole #5, and two samples from the northwest arm on a line across the centre, one under the power line and the other 400 feet south.

The moss consists mainly of sphagnum peat, somewhat dark in colour and intermixed with humified peat.

Todd Bog

The Todd bog is near the highway four miles north of St. Stephen. A waggon road runs across the north end parallel to the drainage ditch, where there are several old workings. The bog was worked experimentally several years ago, when a small plant was erected for de-watering the raw peat by means of a pressing process.

Five samples were taken along the main drainage ditch 600 feet apart, and three samples from a line across the high part of the south part of the bog. This moss is of a dark colour, mostly sphagnum.

Summary

The peat deposits in the southern part of the Province

are generally small and some are inaccessible to transportation. Much of the peat moss is intermixed with humified peat. The prevailing damp atmosphere may so hamper the rate of drying that not enough dry sods would be available to keep a baling factory going.

Peat moss deposits in Northumberland and Gloucester Counties

Eel River Bog

The Eel River bog is a large bog southeast of Bay St. Ann. The main part extends about a mile and one-half from Bay St. Ann into Kent County, branching out in two arms running east and west to the Gulf of St. Lawrence. The bog is largely cut up by small lakes and rivers but is generally clear of obstruction and can be easily worked. Brooks with tributaries run through the three sections of the bog and through them drainage can be effected both to the Gulf of St. Lawrence and Bay St. Ann.

Five samples were taken from the main part of the bog on a line run from the middle of the north end to Coffee Island. The samples represent a good quality of peat moss of light colour.

The bog is not easily accessible and can only be approached from the north by a path about a mile long from Hardwood Settlement.

Escuminac Bog

This deposit is without doubt one of the most important potential sources of supply for a future peat moss industry in the Province. It is two miles northeast of Eel River, covering

the peninsula to the extreme end of Point Escuminac, where exposures of peat can be seen. A waggon road runs across the bog in an east to west direction. The main part of the bog is open and free from such obstructions as lakes, spruce islands and depressions. It can be drained into the Gulf of St. Lawrence. Ten samples, 1000 feet apart, were taken to a depth of 14 feet along a line north of and parallel to the road. They represent a good quality of sphagnum moss, light in colour.

As regards shipping facilities, the Escuminac and the Eel river bogs are not favourably situated. The small fishing harbours are too shallow for ships taking a cargo of 300 tons or more. The nearest railway is twenty-eight miles west of the bog at Loggieville, which is also the nearest point for deep sea shipping.

Tabusintac Bog

This bog is close to the highway and extends to the edge of the sea shore, where peat from 3 to 7 feet thick is exposed for about seven miles. The best part lies toward the east end. A line was run over the height of land 4500 feet from the extreme south point of the bog, and nine samples were collected, all below 14 feet, except at a depression in the centre of the bog, where a creek empties into the Gulf of St. Lawrence. The bog can consequently be easily drained towards the sea. The samples collected are somewhat darker in colour than those of the two preceding bogs, which would indicate a higher degree of humification.

Shipping facilities are poor. The Tabusintac lagoon is shallow and has no facilities for loading; even small vessels would have to anchor off shore and be loaded from scows, and this would

not be economical. Products from this bog would have to be shipped by truck 35 miles to Newcastle, the nearest point for shipping by rail or by sea.

Shippigan Bog

The Shippigan bog is one mile south of Shippigan station. It is a large high bog of wide expanse, free from obstructions, lakes, spruce islands and creeks, and can be easily drained. A line was run southeast over the height of land, and 9 samples were collected at 14 feet, except three from a depression in the middle of and at the edge of the bog, where the bog was shallow and humified peat was found. Elsewhere the peat is good quality peat moss of light colour.

The bog is well situated as regards shipping facilities both by rail and water. The railway station is somewhat less than three-quarters of a mile distant from the edge of the bog. Half a mile further lies Shippigan harbour, which accommodates ocean going vessels. A good road encircles the bog.

Lamek Bog

This is a large deposit on Shippigan Island, extending over five miles east to west, and is of considerable depth. The peat is sphagnum moss, light in colour. No humified peat was found except in a depression between the two domes at the west end and towards the north edge of that part of the bog. A line was run northeast by east from the highway crossing the bog over the height of land along which seven samples were collected and two from another line at right angles running almost true north. The main

part of the bog is free from obstruction, spruce islands and creeks. Small lakes lie in the depressions, but may not be permanent and may disappear during the summer or if drained. The bog is well situated for shipping, but is at some disadvantage as compared with the Shippigan bog, because a factory near the highway would have to ship its product by truck, and ferry it over to Shippigan harbour or Shippigan railway station.

Pokemouche Bog

The Pokemouche deposit is a small bog four miles south-west of Shippigan with two dome-shaped elevations, the eastern of which forms the main part of the bog, about one mile in length and half a mile wide. The Canadian National railway and a good road running parallel traverse the main part of the bog, which consequently is well situated as regards shipping facilities. The bog is partly drained by one ditch parallel with the road and another at right angles to it, both draining a lake in a depression of the bog northwards into St. Simons inlet. Five samples at a depth of 14 feet were collected 1000 feet apart along a line 500 feet south of and parallel to the road. The peat moss, mostly sphagnum, is of good quality, slightly darker in colour than that from the other Gloucester county bogs.

The Green Point Bog

This bog lies one and one-half miles south of Inkerman station. A good road touches its east end. It is a fair sized high-moor bog with several dome-shaped elevations, and contains mainly sphagnum moss. Four samples at a depth of 14 feet were collected on a line across the height of land east to west. As

the bog at the time of examination was impassable beyond 4000 feet from the road, further sampling was impossible. The moss is sphagnum and of good quality and light in colour.

Summary

The bogs in the Northumberland and Gloucester counties form an important asset to the natural resources of the Province. Some of those examined compare favourably with European bogs that produce peat moss on a large scale.

As a source of peat moss, the Tabusintac bog may be disregarded for the present, owing to its unfavourable situation for shipping. Of the other bogs the Escuminac and the Shippigan are very good prospects; both are large, with open spaces, and extensive areas unobstructed by spruce islands, lakes or creeks. They can be easily drained and from cursory examination the peat appears to be of good quality. At the time of writing, analysis of the samples collected has not been completed. Of the two, the Shippigan bog is the better situated being close to rail, deep sea, and highway, whereas the Escuminac bog lies twenty-eight miles from the nearest shipping point. The Eel River bog is less accessible than the Escuminac, but might serve as a valuable reserve of raw material should the Escuminac bog become a producer of peat moss, and the same may be said of the other bogs in the Shippigan district.

Manufacturers of peat moss in Europe encourage small farmers living near peat bogs to dig the moss, dry the sods, and deliver them to the baling plant. In many cases as high as 50 per cent of the production is obtained this way. A higher percentage is not advisable, as it would make the manufacturer too dependent

on a production over which he has no control. By this method the manufacturer is relieved of a large part of the operation of his bog and the transportation of sods to the factory.

According to information obtained in Gloucester and Northumberland counties climatic conditions are favourable for drying; the weather is seldom foggy, winds are high, and moderately warm summers prevail.