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THE MARSH LANDS OF NOVA SCOTIA

A. Hector Cutten, Inglewood Farm, Colchester County, N.S.

These lands are extremely fertile and are of great value for producing hay. The soil from these marshes is frequently used in conjunction with barnyard manure as a fertilizer for the uplands.

NOVA SCOTIA is noted particularly for its large, inexhaustible, fertile, dyked marsh lands, that from time to time have been reclaimed from the sea, from away back in the French Acadian days, up to the present time. We quote here from Longfellow's *Evangeline*. "In the Acadian land, on the shores of the basin of Minas, distant, secluded, still, the little village of Grand Pre lay in the peaceful valley. Vast meadows stretched to the eastward, giving the village its name, and pasture to flocks without number. Dikes, that the hands of the farmers had raised with labor incessant, shut out the turbulent



A. Hector Cutten

tides; but at stated seasons the floodgates opened, and welcomed the sea to wander at will over the meadows."

It will thus be seen that some of these marsh lands have been growing hay continuously since early in the eighteenth century or for about 200 years. From time to time these marshes are opened to the sea, and the alluvial deposits make the land almost as good as new.

WHERE THEY ARE FOUND

This marsh land is to be found on all the many bays, tributaries and estuaries of the Bay of Fundy. The counties of Annapolis, Colchester, Cumberland, Hants and Kings have long been noted for their rich marshes. The I. C. R. from Sackville to Amherst crosses the great Tantaram marsh. Almost as far as the eye can reach on either side of the railroad will be seen thousands of hay stacks and barns, all of which testify to the fertility of the soil. A good view of the famous Grand Pre marshes referred to in the first part of this article can be had from the D. A. R. train as she passes through this romantic spot.

Growing as they do from two to four tons of hay an acre annually, and affording fall pasturage for thousands of cattle, it will readily be seen how valuable these lands are to the farmers in these counties.

The water in all the bays and inlets where marsh is found is of a dark red color, giving rise to the phrase, "Fundy's murky tides." This is caused by the wearing action of incoming and outgoing tides, on the bottom and sides of the bays.

There are two kinds of marshes. That which is called red marsh and which grows a better

quality of hay and will last longer than the blue marsh. Much of it compares favorably with the most celebrated alluvial soils of the old and new worlds. The analysis on page 4, taken from a government experimental farm blue book will serve to show the composition of this kind of soil.

In the analysis, it will be observed that all the substances contained in fertile soils are present. This marsh mud is not only a valuable soil, but is carted on uplands at the rate of 150 to 160 loads per acre, with excellent effect as a manure.

THE BLUE OR INNER MARSH

The second kind is called blue marsh, inner marsh, corky dyke, etc. This forms the subsoil of the red marsh, and generally occurs in a belt along the inner margin, next to the upland, where the surface is lower than the outer edges in consequence of the tides depositing the coarser muds near the channels, and finer mud and smaller

only one other place in the world where the tide rises as it does in the bays and tributaries of the Bay of Fundy. That is in Tsing Tang in China.

THE APPROACH OF THE TIDE

The first idea one has of the incoming tide is a dull, booming sound from a far distant point. As the tide comes nearer the sound grows more distinct, until finally it is seen coming, a giant wave; this is the "bore." It varies in height from one to four feet according to the width of the channel up which it is forcing its way, extending across the bed of the river crescent shaped, with its convex side advancing forward and its ends following within short distance from the shore. This first great wave flows on followed by smaller waves, until in an hour or two, what was an empty channel is a mighty sea of water.

The swiftness with which it flows in is what causes it to become so red in color, stirring up as it does the mud in the bed of the channel, and the flats over which it flows. The wearing action on the sides of the cliffs, banks, etc, all help to give



Hay Making on the Famous Marsh Lands of the Bay of Fundy

The marshlands of Nova Scotia are beautiful to look upon, and there hovers over them the charm of history and romance. They are a part of the ancient Acadia. Their part in the Nova Scotia of to-day, and of the future is equally interesting and important.

quantity near the upland. The blue mud contains more vegetable matter than the red, and while it has the appearance of being a rich soil, it is not nearly as rich as the other, although in its natural state it grows large crops of coarse grass, such as broad leaf. Of late years an attempt has been made to reclaim large tracts of blue marsh by cutting canals and allowing the tides to flow in and thus build it up into new marsh.

It may not be generally known that there is

it its color. As the tide nears its ebb, it becomes calmer. It flows out much slower than it rises. Thus the sediment is deposited wherever its waves have reached. If, after the tide has gone out one examines the mud it will be found in layers about $\frac{1}{4}$ inch in thickness. This is the "Simon Pure," and is the best timothy or clover hay grower in existence. At certain times in the year (as a rule the fall tides are highest), the tide rises to the height of from 40 to 60 feet.

*In Longfellow's glossary note the meaning of the following words: (Grand Pre)—Pre, ground, great, and pre, meadow; (Dykes)—Mounds of earth raised to prevent the sea from overflowing the country; (Floodgates)—Gates in the dykes for the inlet and outlet of the water.