TIMBER AND SOIL CONDITIONS IN SOUTHEASTERN MANITOBA.

an average annual precipitation of 15 to 20 inches, it is still well suited to the growth of all cultivated plants common to this country, with the possible exception of the harger fruits, such as apples, etc. One characteristic of the elimate which is extremely favourable to growth conditions is that 75 per cent of the precipitation takes place during the six months from April to September.

Nationality of Settlers in Vicinity of Country Examined.—From Ste. Anne, south and east to the United States boundary, the settlers are nearly all French and French half-breeds. Along the Whitemouth and Birch rivers south of the Grand Trunk Pacific railway the land is occupied exclusively by Galicians. Ruthenians and Poles. The country in the vicinity of Whitemouth is a German settlement, while St. George, on the Winnipeg river, is peopled altogether by French Canadians who settled there about 1887.

Classification of Country.—This region may be divided into three distinct distriets according to soil conditions and the concomitant timber conditions. These are us follows:—

I. Prairie Region.

H. Transition Aren.

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III. Laurentian Region.

PRAIRIE REGION.

Topography and Drainage.—As shown on the map, the eastern boundary of the prairie lies approximately in the vicinity of the Brokenhead river. From here the prairie stretches westward. Along its eastern edge it is slightly rolling, but it rapidly levels down, forming part of the great inland plain. The plains are drained by rivers and creeks decidedly less numerous than in the rough rolling Laurentian country, and differing from them in their almost imperceptible current and meandering course. The valleys of these streams vary in width and depth according to the size of the streams, while the banks are usually steep and clean cut.

Geology and Soil.—The prairies are underlaid with beds of sandstone and limestone deposited in the great inland sea during the Cretaceous period. Covering this is a mantle of boulder-elay and gravel, which was formed during the Lee Age, when that great glacier slowly moved sonthward, grinding down hills, scooping out hollows and depositing the acquired till when its progress was retarded by the tempering of the elimate.

The top layer of sand and clay, which is the subsoil of this district, was then formed by the overworking of these boulder-clays. As the great glacier receded, a large body of water (Lake Agassiz) was formed along its front, which covered the greater part of Manitoba and a large part of Minnesota. Through the action of running water these boulder-clays were sorted and then deposited in the quiet waters of that lake as gravel, sand and elay. The essential or distinguishing characteristic of the prairie soils is the large proportion of vegetable matter and the concomitant nitrogen which they possess. This is due to the growth, fall and decay of the rank vegetation, which flourished there for many generations.

The inestimable value of the prairies as an agricultural resource is known the world over, and need not be dwelt on here.

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