

The prairie, which begins a few miles east of Winnipeg, has been subdivided into three zones, known as the first, second and third "prairie steppes." These steppes are rather indefinite, botanically speaking, and they have one thing in common as far as the vegetation is concerned. The luxuriance and general appearance of their flora are to a conspicuous degree dependent on the rain and snowfall. In the case of the spring vegetation, the rainfall during the previous year and the snowfall during the preceding winter are dominant factors, so much so that, in the event of lack of sufficient precipitation, the spring flora may in certain years be either very poorly represented or even almost entirely absent. The summer and fall vegetation are to an equal extent dependent on the present season's precipitation and thus it may happen that a district which one year displays a luxuriant growth, rich in species and individuals, may in a following year appear almost barren of flowering plants. Lack of precipitation is also largely responsible for the fact that in some seasons the grass vegetation, so characteristic of the prairie, may remain practically at a standstill without heads or seeds being formed.

*First Prairie Steppe.*—This area includes "the low plain of Manitoba, bounded by a line of elevated country, which commences at the international boundary at a point some distance west of Emerson, and extends northwestwardly under the names of Pembina, Riding, Duck, Porcupine and Pas mountains."

The southeastern part of the area so defined differs from the true prairie in that it is characterized by many woodland plants which have their home east of the Great Lakes but which occur rarely, if at all, between lake Huron and the Manitoba border. Among these plants may be mentioned nettle tree, basswood, wild plum, hawthorn, Virginia creeper, moonseed, bloodroot, columbine, hog peanut, tick trefoil, prickly cucumber, species of gentian, lousewort, Indian paint-brush, ox-eye and cone-flower. The flora of this region is distinct from those of the areas farther to the northwest.

The prairie proper of the first prairie steppe is confined chiefly to what is known as the Red River valley, i.e., the low, flat plains south and west of Winnipeg. In this region trees are met with only in narrow fringes along the rivers, oak, elm, poplar, and Manitoba maple being the most abundant. Away from the borders of streams the prairie is treeless. It is covered with an abundance of herbaceous plants, the most widely represented families being the composite family (asters, golden rods, etc.), the rose family, the pea family, the grass family, and the sedge family, but the species representing them can hardly be said to be characteristic of the zone, as practically all of them are found in suitable localities farther west.

*Second Prairie Steppe.*—This central region extends westward from the first prairie steppe to a line running approximately from the international boundary at longitude 103° 30' in a northwesterly direction to Battleford.

The flora is rather diversified and several very different plant associations are met with. In the north, where the prairie and the sub-arctic forest meet, the flora is composed of species characteristic of both zones, as is also the flora of the northern parts of the third prairie steppe. In the southwestern part of the second prairie steppe, i.e., the country southwest of the Moose mountain, in Saskatchewan, the vegetation is in many respects similar to that of the drier sections of the third prairie steppe. The grass is very short and the vegetation in general of a type adapted to regions with a scant precipitation. In places, large sandy tracts exist which are covered with a profusion of cactus, and in others there is no vegetation except that peculiar to arid land. Considerable broken or park-like country is found near the hills forming the boundary between the first and second prairie steppes,