

## FLORA OF CANADA.

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."

*First Prairie Steppe.*—This, as defined by Professor John Macoun, 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 occur rarely, if at all, between Lake Huron and the Manitoba border, for instance, Nettle Tree (*Celtis occidentalis*), Basswood (*Tilia americana*), Wild Plum (*Prunus americana*), Hawthorn (*Crataegus* species), Virginia Creeper (*Psedera quinquefolia*), Climbing Bitter-Sweet (*Celastrus scandens*), Wild Grape (*Vitis vulpina*), Moonseed (*Menispermum canadense*), Bloodroot (*Sanguinaria canadensis*), Columbine (*Aquilegia canadensis*), Hog Peanut (*Amphicarpa monoica*), Tick Trefoil (*Desmodium canadense*), "Prickly Cucumber" (*Echinocystis lobata*), Gentian (*Gentiana procera*), Lousewort (*Pedicularis canadensis*), Indian Paint Brush (*Castilleja coccinea*), Ox-eye (*Helianthus scabra*), Cone-flower (*Rudbeckia laciniata*), etc.

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 as forming narrow fringes along the rivers. Elm (*Ulmus americana*), Oak (*Quercus macrocarpa*), Poplar (*Populus tremuloides*, *P. balsamifera*), Ashleaved Maple (*Acer Negundo*) are the most abundant. Away from the immediate borders of the streams the prairie is treeless. It is covered with an abundance of herbaceous plants, growing in the greatest profusion. The most widely represented families are *Compositæ*, *Rosaceæ*, *Leguminosæ*, *Gramineæ*, and *Cyperaceæ*, but the species representing them cannot be said to be characteristic of the zone, as practically all of them are found in suitable localities further west.

*Second Prairie Steppe.*—This extends westward to a line running approximately from the international boundary at long. 103°-30' in a northwesterly direction to Battleford. The flora of this zone is rather diversified, and several very different types of 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. This is also true of the northern part of the third prairie steppe.

In the southwestern part of the zone, i.e., the country southwest of Moose mountains in Saskatchewan, the vegetation is in many respects closely related to that of the dry belt of the third prairie steppe. The grass is very short and the vegetation in general decidedly xerophile in character. In places, large sandy tracts exist which are covered with a profusion of cactus (*Mamillaria vivipara*), and in others there is no vegetation except that peculiar to arid soil.