the other hand, a drift of warm air from the lands to the south across this Region may produce fog over the polar waters by rapid condensation of the water-vapour which has been transported from the south, or produce low clouds, or actual precipitation from the lifting of the warmer air over the cold wedge of polar air. The development of summer weather of the type experienced in temperate latitudes cannot, therefore, by expected.

Because of the light and fluffy nature of the snowfall, which renders measurement difficult, the total annual precipitation is not accurately known. Rainfall averages about 2 or 3 inches in the southern portion of the Archipelago, while the water-content of snow and rime may be nearly 4 inches. This total of 6 or 7 inches increases sharply near the Arctic Circle to 10 or 12 inches and to nearly 15 inches in Hudson Strait. Special snow-gauges are necessary for accurate measurement.

Flora and Fauna.—Obviously this Northern Region from the point of view of agriculture is another world where the lessons of experience in the populous regions of Canada are of no avail. It is not a land surrounded by moving ice and devoid of life and vegetation. Life abounds on land and in the water but it is a life with its own peculiar pattern. Technical information regarding the flora and fauna is limited to the reports of a few specialists who have explored this Region. Observers of the Meteorological Division of the Department of Transport have gathered notes, in addition to purely meteorological data, over a period of years which throw valuable light on a fascinating story of existence of a specialized character.

Although much of Baffin Island and of Ellesmere Island was heavily glaciated and there are glaciers still upon the mountains of northern Ellesmere Island, it is not a land of granite. Muskox and caribou can be found in all the interior valleys of Ellesmere and on the many smaller islands which suffered comparatively less from glaciation. Great flocks of birds abound in this area in summer and some types remain in the winter. Crowberries, ground-willow, sedges, and mosses grow on numerous marshes and muskegs. Muskoxen, caribou, and birds can live on these plants. The crowberries bloom and bear fruit very quickly after the Arctic night is over, despite the fact that the root-system is in very cold soil at a temperature of about 43°F. in midsummer. The roots of the sedges and prostrate willows also survive the great cold of the winter and flourish anew early in the period of perpetual sunshine. Lichens on which the muskox feeds, grow in profusion over immense areas which at first sight appear to be stretches of only broken, greyish rock but which, in effect, are pastures of vast extent in summer. In winter, these pastures are covered by light powdery snow which is easily dislodged by high winds to lay bare abundant food. To this sort of flora ordinary rules of agricultural climatology cannot be applied. In the winter the caribou and muskox will paw out the still living roots of such plants when other fodder temporarily fails.

One factor which may account for the flourishing plant and animal life in an atmosphere which averages only 42° or 43°F. in the warmest month of the year, is the comparative dryness of the atmosphere, coupled with continuous sunshine. Absorption of solar energy can raise the temperature of the superstructure of plants, lichens, and mosses much higher than that of the air. In the case of willow and crowberries, this superstructure which exhibits new growth during the polar day appears small in mass compared with the root-system below but presents a large