

must naturally be very slow. The polar front thus tends to run in a general way from northwest to southeast, with spring early in the northwest and late in northern Quebec and the gulf of St. Lawrence region.

With the arrival of warm and moist air in the higher latitudes of the West, the rainy season commences and so is contemporaneous with the warmest part of the year. On the other hand, in the east, on account of the very slow retreat of the polar front, the distribution of precipitation is altered very little from winter to summer, except that with the gradual change in temperature, the precipitation becomes wholly rainfall.

In British Columbia, on the coast, the failing intensity of the interior polar pressure and the increase in the temperature of air from the Pacific system, are contemporaneous with a decrease in the intensity of the precipitation, so that the dry season is on the average the season of warmth.

In the far north, as in the Mackenzie valley, the precipitation increases with the northward penetration of the warm air from more southerly latitudes, as in the spring grain regions, but the time of maximum rainfall is later, as would seem naturally to follow from the considerations already outlined. The time of maximum rainfall in the far northwest, therefore, occurs in late August and early September just before the rapid onset of the winter season, a combination with very poor agricultural possibilities. These regional characteristics are shown on the map (page 43.) In British Columbia, on the coast and in the lower Fraser valley, the maximum precipitation is in November, with the summer comparatively dry. In the interior valleys, where precipitation is much less than on the coast, there is an ill-defined maximum in December or January and another in June.

In Alberta, in the extreme southwest there is a maximum in May or early June, further north and east in June, while in the Edmonton and Peace River regions it is in late June or early July and in the lower Athabasca valley in July or early August. In the southern districts of Saskatchewan and Manitoba the maximum occurs in June but in the northern districts, especially in northeastern Saskatchewan and northern Manitoba, it tends to be later—in July in the districts far enough south to be considered in the grain belt, in August or September as we go north to the Nelson and Churchill rivers. In Manitoba the comparative dryness of the cold half of the year is not so pronounced as in Alberta and Saskatchewan and, as we move east through the region of the lake of the Woods into the country lying north of lake Superior, the contrast between the precipitation of winter and summer becomes noticeably smaller. There still remains a noticeable maximum in summer throughout the whole of northern Ontario, generally occurring in July but with a secondary maximum in September, at the time when the northern cold area is beginning to increase. In Quebec, the distribution of precipitation is very similar to that of northern Ontario, but only those places where records have been taken for a very long period of years show clearly the double maximum. In northern Ontario and Quebec the comparatively dry season is from December to March, but since the precipitation in those months is largely snow and accumulates upon the surface to run off rather suddenly in spring or sometimes in winter thaws, "dry season" is something of a misnomer.

In southern Ontario the longest records show that on the average there is a July and also a September maximum, but the precipitation is so nearly equally distributed throughout the year that for all practical purposes it may be considered that there is no seasonal variation.