

Released on receipt
but intended for use
September 2, 1926

A Science Service Feature

? WHY THE WEATHER ?

Mailed August 26, 1926

By Dr. Charles F. Brooks
of Clark University

PRECIPITATION OF WESTERN CANADA

Those who are familiar with the readily available detailed map of the precipitation in different parts of the United States may have wondered what the rainfall conditions are in the blank area across the northern border. In fact, many of us have become so used to that blank that Canada seems hardly to exist. It becomes very illuminating, therefore, to delve into the records of the Meteorological Service of Canada and, by group effort, to make a new map of the precipitation of this great region.

The precipitation of western Canada is amazing in its contrasts. The western seacoast has an average of over 100 inches a year; in fact, opposite the gap between Vancouver Island and the Queen Charlotte Islands the precipitation rises to 180 inches a year. This means that much air of considerable vapor content is cooled along this coast by being forced to rise over the mountains. The cooling so reduces the vapor that as soon as the air stops rising the amount of rainfall very greatly decreases. In fact, the descent of air on the leeward slopes has just the opposite effect of the ascent on the windward ones. Thus the rainfall of Victoria, on the east shore of Vancouver Island, is only about 30 inches, while that at Kamloops in the Plateau of British Columbia and in the "rain shadow" of still another wet range of mountains east of Victoria has less than 10 inches annually.

Even the dry air from the plateau is forced to yield more rain and snow on the west slopes of the high Canadian Rockies, where the precipitation rises to more than 40 inches, the snowfall being 30 or 40 feet a year and feeding the great glaciers that add such beauty to this region. On the east slope, however, as in British Columbia, the precipitation decreases to less than 20, even to below 15 inches.

(All rights reserved by Science Service, Inc.)

SCIENCE SERVICE,
21st and B Sts.,
Washington, D.C.