

Precipitation

The precipitation that we receive, whether it is rain, mist, sleet, snow or hail, varies across the country according to the topography of the terrain, such as major mountain ranges, vast plains, large lakes and the surrounding oceans. The land cover, such as the forests, the prairie and the tundra, also play a major role in the amount of precipitation and its distribution. For example, the Pacific coast is Canada's wettest area, receiving most of its rain and snow during the winter. The heavy precipitation results from the moisture-bearing winds encountering the Coastal Mountains of British Columbia and the St. Elias Mountains of the southwestern Yukon.

On the east side of the Coastal Mountains, the interior of British Columbia receives less precipitation than the coast. Farther east, the Prairies, which lie in the rain-shadow of the Cordilleran mountainous region, receive even less precipitation. The Western Cordillera acts as a huge barrier that stops the humid surface winds of the Pacific Ocean from entering the interior regions, leaving the moisture on the western flank of the Cordillera.

Precipitation is never abundant in the north, making this region the driest part of Canada. This is due to the cold and dry Arctic air mass over the frozen Arctic Ocean, which only provides a small amount of water vapour.

In the southern part of Ontario, Quebec and the Atlantic Provinces, precipitation occurs regularly throughout the year. The main source for this precipitation is the humidity from the Atlantic Ocean and the Gulf of Mexico.