

In winter, the general trend of the valleys from north to south frequently allows quite cold air from northern British Columbia to flow southward. In the most eastern valleys, there are occasions when extremely cold air may enter from the Prairies either by passage directly through the passes of the Rockies or subsidence of the higher levels of the western face of a cold wave from the Prairies.

Precipitation.—The Southern Interior Valleys of British Columbia suffer from scanty rainfall so that there is no marked seasonal variation except that of temperature. In general, the Coast Range prevents the moist lowest layers of air off the Pacific Ocean from reaching the interior, except in a much modified condition. Principally, the drier high levels of Pacific air cross the coastal mountains and descend by a complex and very variable process into these Interior Valleys. Much of the comparatively small amount of water-vapour available for precipitation is as snow, deposited on the interior mountain ridges during the rainy season of the coast. By conservation of the run-off in summer from melting snow of the mountains, in storage-lakes and reservoirs, irrigation by gravity-systems is widely practised in the valleys. Where gravity-systems are not feasible, electric power may be developed from the fall of streams issuing from storage-lakes and this power can be used to pump water from lakes on the valley-floor to agricultural lands on fertile benches along the mountain slopes. On the whole, with ingenious use of the orographical features of the mountainous interior, the scarcity of rainfall may be overcome and even made advantageous. In this Region, summer heat may reach scorching proportions in the daytime, especially when dry air has travelled northward through the interior valleys of the Pacific lands of the United States to enter southern British Columbia.

In the valleys of the interior of this Region the annual precipitation is subject to wide variations at different locations. It varies between an average of 8 inches in the Okanagan Valley to 17 inches in the West Kootenay District and 19 inches at Salmon Arm.

The following statement gives typical temperatures and precipitation of this Region:—

<i>Station</i>	TEMPERATURES (Fahrenheit)				TOTAL PRECIPITATION				
	<i>Mean</i>		<i>Highest</i>	<i>Lowest</i>	<i>Average in Inches</i>			<i>Average Number Days</i>	
	<i>Jan.</i>	<i>July</i>	<i>on Record</i>		<i>Jan.</i>	<i>July</i>	<i>Annual</i>	<i>Rain</i>	<i>Snow</i>
Kamloops, B.C.....	21.9	69.9	107	−31	1.04	0.99	10.20	67	23
Nelson, B.C.....	24.4	66.4	103	−17	3.47	1.62	27.77	102	32
Penticton, B.C.....	26.8	68.3	105	−12	0.98	0.79	10.85	83	22

The Pacific Coast and Coastal Valleys

Temperatures.—In the Pacific Coast and Coastal Valleys Region the period continuously free of frost on the outer coast as far north as the most northern portion of Vancouver Island is generally 220 to 230 days. Northward along the coast the period shortens to 170 to 200 days. Where the inlet, however, runs far inland or where the observing point is in the lee of a low coastal ridge, the period varies considerably. Much depends upon the local air-drainage; for instance, in the Queen Charlotte Islands, Ikeda Bay has, on the average, 218 days continuously frost-free while Massett, which is inland a short distance, has an average of only