

be made to assist the western farmer in planning his annual operations. Statistically, there appears no proof that sunspots cause weather anomalies but perhaps some common cause produces loosely correlated changes in both sunspots and climatic factors.

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>
Winnipeg, Man.....	-3.1	66.9	108	-54	0.92	3.08	21.19	67	53
Regina, Sask.....	-0.7	64.8	107	-56	0.51	2.38	14.70	59	54
Medicine Hat, Alta.....	12.0	69.3	108	-51	0.63	1.68	12.81	56	45

The Southern Interior Valleys of British Columbia

Temperature.—In the Okanagan Valley the average daily lowest temperature is above the freezing point by March 20 in most of the southern portion and by April 1 at the northern end of Okanagan Lake. It is generally possible to fight occasional frosts by the use of oil-fired or coal-fired heaters spaced through the orchards. As an aid to the fruit-growers, a special frost warning service has been maintained in these valleys so that a prediction may be broadcast by radio stations early in the evening. The most severe frosts, fortunately comparatively rare, accompany the arrival of arctic air by land-route through Yukon and adjoining regions into northern British Columbia and thence into the southern interior valleys. Cases have been noted where about 3 a.m. a drop of six degrees has occurred in an orchard within half-an-hour. In such cases, if more heaters are quickly brought into operation, enough air turbulence may be created to mix this very cold air with the warmer air at treetop level.

The Nicola Valley experiences daily minimum temperatures 3° or 4°F. lower than those of the Okanagan Valley in midsummer and 4° to 7°F. in the winter and early spring. The generally higher elevation of the Nicola Valley is partly responsible for the difference and the valley is best noted for cattle-ranches of very large extent.

In the Kettle Valley, arable lands are 1,750 to 2,500 feet above sea level, and the average length of the period continuously frost-free is too short in most places to encourage the growth of fruit. At Greenwood the average is 76 days, at Rock Creek 96 days, but at Grand Forks it is 134 days. Around Grand Forks there is a district where considerable fruit is grown but Kettle Valley is more subject than the Okanagan Valley to severe cold during short periods in the winter. This has some effect in limiting the varieties of fruit which may be successfully grown. Although the West Kootenay District does not attain quite as high an average temperature during the daytime of midsummer as the Kettle Valley, yet night temperatures in March are 2° to 6°F. higher than in the Kettle Valley and the nights of late September and early October are not so cool.

In the East Kootenay District average daily lowest temperature does not rise above the freezing-point until April 15, or later. At Cranbrook there are only, on the average, 79 days continuously frost-free. Farther north in the vicinity of Lake Windermere the frost-free period averages from 94 to 114 days.