ing in a forest on a misty day will have noticed how the water drips from the leaves, while in the open very little reaches the ground. Observers will also have noticed the almost entire absence of perennial springs and small streams on bare mountain slopes, whereas wooded slopes of similar altitude and other conditions will be dotted with springs.

Kamloops valley, which lies in the midst of these reserves, has an altitude of 1600 feet, while the hills about rise to 6000 and 7000 feet. The valley and lower hills are almost treeless, except for the poplars, willows and alders which grow along the water's edge. At about 2000 feet open park-like stands of bull pine occur and increase in density with the altitude. At about 3000 feet a mixture of Douglas fir occurs with the pine and gradually replaces the pine as the altitude is increased. At 4000 feet black pine becomes prominent and between 5000 and 7000 feet forms the main stand with Douglas fir, Englemann's spruce, black and white poplar as secondary species. The supremacy of the black pine is undoubtedly due to the ability of the cones to protect the seeds from fire, and the density of the black pine reproduction following a fire makes it difficult for other species to compete with it. Most of the black pine stands are young and are evidently replacing the fir and spruce. The bull pine being more tolerant of drouth, succeeds over its competitors at lower altitudes. There is very little undergrowth in these forests and the ground is covered with needles.

Compared with the Coast these reserves do not contain the best quality of timber, but it will be useful for mining supplies and fuel and some for saw material. Very little cutting has yet been done on the area reserved. The quality of the timber is largely due to fires which seem to have run almost everywhere, and have injured to a greater or less extent, even those trees not actually destroyed. Many trees die after a fire, even though the bark is not burned, on account of the heat injuring the tender cambium layer under the bark. Ground-fires decrease the vegetable matter in the soil and remove the mulch of needles which protects the soil moisture, so that the vigor of the tree is decreased.

The chief causes of the fires have been the railway, cattlemen, prospectors, campers and Indians. During construction and since, many fires have been started along the C.P.R., which have destroyed the timber in the vicinity, but now the officials realize the injury to the road from the loss of freight and spoiling of the scenery caused by fires, and are endeavoring to prevent further devastations. Cattlemen are in the habit of burning the forests annually, in order to increase the grazing area and to improve the grass. This short-sighted practice has been very costly to the forest and irrigation interests and must be stopped.