

Cutting Green Timber.

Under the present system of logging all or nearly all the trees below 10 inches in diameter are left standing, presumably to grow to a large size for future logging, and to seed up the ground for a future crop. In some districts this regulation is no doubt a wise one, but in the timber of the Crow's Nest valley the results are not in the best interests of the lumber trade or the forest.

After a logging operation in a mixed stand of pine and spruce, there is left a scattered stand of pine and spruce poles from four to ten inches in diameter. If it were certain that these poles would remain without wind-throw or destruction by fire until they were twelve or sixteen inches in diameter it might be profitable to leave them, but, as it is, the spruce, being shallow rooted and suddenly exposed to the fierce gales of the Crow's Nest Pass, is blown over within a few years after the logging operations. The pine, a deeper-rooted tree but not as strong, is broken off. Fire protection will probably be better in the future, but up to the present the greater part of the cut-over land has been burned over within five years after logging. The heavy slash remains inflammable for years and carries a fire that destroys all the trees remaining. It has been the general experience that the small trees left after a lumbering operation are not saved for a future crop but are a dead loss.

If the trees remaining seeded up the ground to a valuable species, they might prove a good investment, but natural production is not especially good on a tract logged to the 10-inch diameter limit. Spruce, pine and fir are the important species. Taking out all the trees to 10 inches diameter opens up the forest to such an extent that the soil is dried out too much and too much light is admitted for a successful spruce reproduction. On the other hand, the duff on the surface of the soil prevents a rapid reproduction of fir and pine. The results would be better for spruce reproduction if the forest were not opened so much and would be better for pine and fir reproduction if it were cut clear, or nearly so, and the brush burned broadcast.

Closer utilization of the timber is possible. The lumber companies are taking logs down to 8 inches or less in the top and would take 10 logs more per acre if they were not deterred by the 10-inch limit. They could take the rest of the green spruce and pine down to a diameter of four to six inches for mining props and thus profitably and beneficially clear up the operation. On all the old operations it is noticeable that they cut the stumps six to eighteen inches higher than is necessary. The cutting is nearly all done when there is very little or no snow on the ground, and when there is no necessity for cutting stumps over 12 inches high. They leave on an average in long tops and in old skidways 20 twelve foot logs, 8 inches or more at the top, on every acre. This waste is due to carelessness by lumber-jacks. It is a waste which many governments are checking by charging dues on the timber left in the woods. Lumbering operations in the Crow's Nest valley leave in the woods in skidways, high stumps and long tops, the following amounts per acre:—

30 mining props	8 ft. x 6 in.
15 logs	12 ft. x 8 in.
150 feet beard measure in high stumps.	

Per square mile there is:—
 161,600 lineal feet mining props.
 288,000 feet B. M. lumber.

In addition there are left in trees under ten inches in diameter, trees which are unlikely to stand until another cutting:—

Per acre:—	
40 mining props	8 ft. x 6 in.
15 logs	12 ft. x 8 in.