The slabs and edging from the mill have been burned at a safe distance from the mill and lumber yard, but the disposal of sawdust has been rather unsatisfactory. The mill is run by water power, so the sawdust cannot be burned under boilers as is sometimes done. The sawdust is carried from the saw in a ditch of running water and spreads out over the ground at a distance from the mill on the cutting area of a former sale. The sawdust lies here two feet deep, through which young yellow pine trees six to eight feet tall stand. What the effect of this will be on the young trees is not possible to state at present, but that it prevents any further reproduction is self evident. On all sides of the area thus covered with sawdust stand seedling pine one or two years old; while on this area such seedlings have either been buried or the seeds have been prevented from germinating. At a previous time sawdust has been spread upon the county road which runs up the Tucannon, and this has improved the road bed. Why some such disposal of sawdust can not be effected, or if this were impracticable, why it should not be burned with the slabs or brush, is difficult to see. It doubtless would entail an added expense, but the expense would not be excessive while the present disposal injures the reproductive capacity of the forest besides menacing it with possible fire. I think it would be well in future sawmill contracts to have some definite agreement as to the disposal of sawdust and other refuse.

Other than as affected by this disposal of sawdust, the effect of cutting seems to stimulate reproduction, and the species of the new generation seem to correspond closely with the proportion of species of the old trees removed. On this area yellow pine predominates largely in the second growth, with a lesser proportion of red fir, and in the gulch where logging has been carried on in this last sale, though it is too early as yet for reproduction to become established, it seems probable that there will be a still greater proportion of red fir with some tamarack. My reason for so concluding is that young fir and tamarack and yellow pine a few feet tall were already established before cutting in the numerical order as named, while the removal of the old trees will probably not affect the composition of the future stand since it was rather open before cutting. The proportion of species of the second growth after cutting, is therefore seen to be about the same as of the original stand. There seems to be very little danger on this reserve that after logging there will not be ample reproduction, and reproduction of the more valuable species.

Planting

I have not given this subject careful consideration as yet, but from what I have seen I think we may largely rely upon natural restocking of forest lands upon the reserve, for in all parts I have noticed that after logging or fire and in blanks caused by the decay and falling of one or more overmature trees, the ground is soon restocked with a dense stand. There is some danger that less valuable species such as lodgepole pine may exclude the more valuable species, but this danger is not great or widespread.

Some slopes, particularly hot, dry, southern slopes with shallow soil, are treeless and it may be possible by planting to create a scrubby forest in such situations, which although it were valueless as timber would be of value as protecting the soil and watershed. The difficulty on such slopes would be owing to the shallow soil and the presence of talus rock with which the slopes are often strewn or covered.

(Foster, H. D., Tech. Asst., Wenaha National Forest, Wash., Rept. for August, 1906.)

Blocks

The accompanying map of the Wenaha Forest Reserve is divided into five blocks or divisions, the boundaries of which are marked in red crayon. These blocks divide the reserve into watersheds, and the watersheds control the logging possibilities. Thus Block No. 1 embraces the benches along the Grande Ronde River and the lower reaches of the streams which are tributary to it. Block No. 2 comprises the watershed from the main divide of the mountains from Table Mountain east through the Oregon Buttes to Saddlehorn Butte, and embraces the forks of Asotin, Pataha, Cummings, Tucannon, Patit, and Touchet creeks. Block No. 3 comprises the western slopes drained by Mill creek and the Walla Walla and Umatilla rivers. Block No. 4 is located in the interior mountains and includes the headwaters of the affluents of the Grande Ronde. Block No. 5 includes the southern portion of the reserve and is drained to the south by Meacham and Five Points creeks.

Forest Description

Block No. 1 contains the largest part of the best timber of the reserve. It is not, however, one unbroken forest of even density. There are numerous meadows or parks comprised within the area, and the timber varies very largely in proportion of species, in density, and condition. On the more exposed ridges in Township 4 N., Range 40 E., and 7 N., Range 43 E., the timber is largely of white fir and spruce of small size and branchy. In the first named township there is a very little sugar pine of good proportion, and some areas will yield 25,000 feet of tamarack to the acre. The usual run of timber over the whole of the block will not average but 5,000 to 10,000 feet, however. On the benches above the Grande Ronde River there is a very fair stand of yellow pine. Much of this timber is mature, and nearly all the old trees show signs of degeneration. The trees stand in open formation, while the forest floor is occupied by "pine grass" of little use for grazing. The reproduction, considering the openness of the forest, is less than might be hoped for; but in openings made by windfalls and even in old roads, the ground is quickly occupied by a dense stand of young yellow pine. The lumber that might be sawed from this block would grade as commons. Its principal defect is the presence of small knots in the heartwood. Some of the trees are shaky, and many are degenerating from overmaturity.

The forest of Block No. 2 is commercially of inferior grade and species. Tamarack, red fir, spruce, white fir, yellow pine, and lodgepole pine occur in varying mixtures on the mountains. Near the northern boundary, tamarack occurs in patches of pure forest, while in the burned areas the tendency is for either tamarack or lodgepole pine to occupy the position to the exclusion of other species. There is some fair sawlog material of yellow pine, but it is scattering and generally inferior to the timber of Block No. 1. There is, however, a considerable amount of material which will doubtless be in demand for posts, fencing, and cordwood.

In Block No. 3 there is but little merchantable sawtimber. The forest has been largely culled and burned over, while the timber of the higher ridges is inaccessible and of poor quality. There will, however, be some local demand in the future for fencing and posts and rough lumber.

Block No. 4 comprises the higher mountain regions; and what little merchantable timber there is, is inaccessible. However, in Townships 3 and 4 N., Range 39 E., there is considerable merchantable yellow pine, in quality and silvicultural character similar to that in Block No. 1.

Block No. 5, comprising the southern extremity of the reserve, is forested with sawlog material similar to Block No. 1.

(Foster, H. D., Forest Cond., Wenaha National Forest, 1905)