

ST

District, Marking.

February 28, 1912.

INSTRUCTIONS FOR MARKING TIMBER
IN THE YELLOW PINE REGION,
DISTRICT VI. ¹

- - -

East of the Cascade Mountains in Oregon and Washington, the commercial forests consist largely of yellow pine, either in pure stands or in mixed stands with Douglas fir, white and grand fir, western larch and lodgepole pine.

Since these forests are primarily uneven-aged, they should be managed by the selection system (or a modified form of the selection system). It should be the aim, therefore, to cut over each portion of these forests periodically. From the data now at hand, it is evident that the period between cuttings (the cutting cycle) should be about 60 years and that no trees should be cut until they are 180 years old, i.e., the rotation should be 180 years.

The following general principles should govern the marking of timber in forests of this region.

GENERAL PRINCIPLES FOR ALL TYPES

1. The cutting should be fundamentally an improvement cutting, and the officer who is marking the timber should decide first what is to be left and then mark for cutting what is not reserved. His aim should be to leave the forest in the best condition for development during the coming cutting cycle so that it will produce a good crop in the next cutting.
2. Aim to mark for cutting the thoroughly mature trees of all species and all those which will not survive and make good growth until the next cutting, 60 years hence.
3. Aim to reserve as the basis for the next crop a well distributed stand of thrifty saplings, poles and young standards, each of which is capable of living and growing until the next cutting. The trees which are reserved should be considered not as "seed trees." But as the nucleus of a later cutting.
4. On the average from 20 to 25 per cent of the estimated volume of the trees over 12" in diameter should be reserved. Where most of the timber is thoroughly mature or decadent, it may be wisdom to leave a smaller percentage; where most of the timber is young and thrifty, a much larger proportion should be reserved. In general, make the cutting as light as is consistent with allowing the logger to do practical, profitable logging, aiming thereby to extend the improvement cutting over a larger area, instead of making it a heavy cutting on only a small area.

¹ This document was transcribed from a photocopy of the original, which is located in the Supervisor's Office Silviculture Library Archives. To the greatest extent possible, this version is an exact duplicate of the original text.

5. An area should not be included within the limits of a timber sale in which there is not enough mature timber to make it worth the while of the logger to go into that area for the mature timber alone, thereby necessitating marking immature timber in order to make the logging profitable.
6. Do not hesitate to make the marking somewhat groupwise, if all the trees over a certain area are thoroughly ripe, except in exposed situations where gaps in the forest canopy are not desirable or where there is danger that the reproduction will be endangered. Yellow pine occurs to some extent even-aged in groups, and it will be necessary often to remove the old group in their entirety. Avoid, however, making a clearance over an area larger than an acre.
7. Mark for cutting the following classes of trees of all species throughout the region, in the following order of preference:

(a) All spike topped, seriously fire-scarred, lightning-struck, or otherwise defective yet merchantable trees. Do not, however, consider that every tree that has a fire scar or a thin crown or some other deformity has got to be removed. Few perfect trees are to be found, and small basal scars or similar injuries in no way impair the health of the trees.

(b) All insect-infested trees

(c) All suppressed trees which apparently would not thrive and make good growth even if released.

(d) All thoroughly mature trees of all species which apparently will not survive until the next cutting.

8. In general, the species should be favored in marking in the following order of preference: Western yellow pine, sugar pine, western larch, Douglas fir, white (or grand) fir and lodgepole pine. The last two species should be considered forest weeds, and always marked heavily where better species are present.

The forests of this region may be, for the convenience of discussion, grouped into three classes: (A) Practically pure stands of yellow pine; (B) mixed stands in which there is a good deal of yellow pines; (C) mixed stands in which there is little or no yellow pine. The marking in each type involves some considerations peculiar to that type.

A. Practically pure stands of yellow, pine.²

This classification occurs on the slope type of the region east of the Cascades, and includes most of the commercial timber of this region. In addition to the kinds of trees mentioned above, in this type the following classes of yellow pines should also be removed:

1. Such of the mature yellow pines as would probably survive until the next cutting, when there is a superabundance of such trees to leave as the basis for the next cutting and to insure reproduction.
2. Young yellow pines, "bull pines", where the thinning out of a congested group is advisable.

B. Mixed stands with some yellow pine.

This is the kind of timber that is characteristic of the north slope subtype in the Blue Mountains. This class of land is well adapted to the growth of yellow pine and, therefore, this species should be favored in marking in preference to all other species. Yet the species of secondary importance, Douglas fir and western larch, should not be marked heavily except where by so doing young yellow pines

² *Since sugar pine so closely resembles yellow pine in value and silvical requirement, it is adapted to the same method of treatment as the yellow pine with which it is associated.

already in the stand will be directly benefited. This practice is advisable for two reasons, - (1) at the present time Douglas fir and western larch in yellow pine sales are undesirable to the purchaser and do not bring a price commensurate with what they will be worth in the future, and (2) it seems better to mark these secondary species lightly now and have the assurance of an early second cut than to make a heavy cutting now and as a result, not obtain a second until the remote future, even though by the heavier cutting more yellow pine might be gotten into the future stand.

In other words, do not sacrifice now any thrifty Douglas fir and larch unless the silvicultural conditions and composition of the forest is going to be directly benefited. The marking, therefore, should conform to the following principles, supplementing those under "General Principles:"

1. Consider white fir, grand fir and lodgepole pine as forest weeds to be marked to as low a diameter as is consistent with the terms of the timber sale contract and justice to the purchaser, both in order to strive to decrease the proportion of these species in the forest and to give place to more desirable species.
2. Consider Douglas fir and western larch not as undesirable species, but as species of secondary value.

Therefore, mark only such thrifty Douglas fir and larch as are in active competition with good yellow pines, or with superior Douglas firs and larches. For example, where a Douglas fir (or larch) and a yellow pine, both thrifty and of the same character, are growing side by side, one to be reserved and the other removed, the yellow pine should be reserved and the species of secondary value cut. In choosing between a Douglas fir and a larch, preference should be shown the larch except in situations not well adapted to this species.

C. Stands with little or no yellow pine.

This is the kind of timber which is typical of the transition type. Since in this type there is practically no yellow pine, stands of this character are ordinarily not included in the timber sales in the yellow pine region except in cases where some of this type forms an inseparable part of the logging unit.

In general the procedure in marking should be the same as under "General Principles" and under "B" with these provisions:

1. Mark the inferior species – white fir, grand fir, and lodgepole pine to a low diameter limit, except that where these inferior species compose practically the whole stand, leave the thrifty trees of these species in preference to making a clearance.
2. Mark only such trees of the desirable species as would not thrive for the next 60 years, and such as are a detriment to their superior associates.

#####