

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

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DOUGLAS-FIR THINNING - SCOTCH METHOD

The Scotch method of thinning is a simple technique of selecting 100 evenly spaced "crop" trees per acre and releasing them from competition one to two sides at a time. This is carried out over the life of the stand until the there remains at final harvest, 100 well formed, high value trees.

The largest competitors are removed at periodic intervals, the first removal being the most important. The remaining non-select trees are left around as "trainers" or "shaders" to keep the 100 select trees growing straight and well pruned. Although not as efficient as a complete thinning, the Scotch method provides a quick way of covering many acres. It can be used instead of standard thinning procedures when a landowner does not wish to invest time and money in a more thorough job.

In November 1957, the Scotch method of thinning was employed on one acre in a 20-year old stand of Douglas-fir on what was formerly the Joe Wilcut property at Greenleaf, Oregon. The soil is mapped as Blachly with a site index of 165 (100-year base age tables; 125, 50-year base age tables).

One hundred and one crop trees were selected and released. The selected trees averaged 7.3 inches diameter breast high (dbh) and 29 square feet of basal area. In 1959 the average dbh had increased to 8.2 inches and the basal area had increased to 37 square feet.

In the fall of 1971, the crop trees averaged 12.4 inches dbh, with a basal area of 85 square feet. Their volume was calculated at 11,800 board feet Scribner rule. This data does not include the "shaders" or "trainers". This compares favorably with a normal stand of Douglas-fir, site index 165, which contains 6,250 board feet per acre at age 35.

The land was sold and the trees cut in 1987 without a chance for SCS follow-up. However, it can be seen from the above data that the Scotch method of thinning is a reasonable alternative when considering extensive stand management of young existing fir stands for wood crop production.