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LUMBER GRADES FROM YOUNG-GROWTH DOUGLAS-FIR

by

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Young Douglas-fir timber is known to produce much No. 1 Common and Better lumber but little or no clear lumber. The volume of lumber produced from young-growth timber has become a sizeable part of the cut from the Douglas-fir region of Oregon and Washington. No exact figures are available, but it is estimated that more than one-fourth of the lumber produced from this region is cut from young growth. As the volume of old growth decreases, more and more reliance will have to be placed on young growth, so both timber growers and wood industries need more information on the kind of lumber to be expected from this timber.

During the past few years the Pacific Northwest Forest and Range Experiment Station has made two studies^{1/} of lumber grade recovery from young-growth timber. The first study covered four circular mills in southwestern Washington which cut timber from 50 to 80 years of age. A later study was made at a round-log gang mill in Oregon which cut 90-year-old timber. Results of both these studies have been published. In this report lumber-recovery data for the two have been combined and are shown in Table 1. Lumber recovery averaged 32 percent Select Structural and Select Merchantable, 54 percent No. 1, 12 percent No. 2, and two percent No. 3.

These studies indicate that practically all Douglas-fir logs cut from timber up to 100 years old will produce at least 65 percent No. 1 Common or Better lumber. These logs, therefore, should be graded as No. 2 sawmill logs if they meet the size requirement. No clear grades of lumber can be expected from Douglas-fir up to 100 years old, however, unless the timber stands receive some cultural practices such as pruning.

^{1/} Matson, E. E., and Rapraeger, H. A. Fall Creek second-growth Douglas-fir thinning study. Pac. N. W. Forest & Range Expt. Sta. Research Note No. 70, 13 p. Portland, Ore., Nov. 1950.

Worthington, N. P. Lumber grade recovery and milling cost from second growth Douglas-fir of central-western Washington. Timberman 50 (11): 58, 60, 62, 64, 66. Sept. 1949.

As the supply of old-growth timber decreases, the spread in price between clear lumber and common lumber should become wider. Therefore, forest practices that will improve the quality of the timber should become increasingly more profitable.

Table 1.--Grade recoveries in percent of lumber, green chain tally
(young-growth Douglas-fir, Oregon and Washington)

Log diameter (inches)	No. of logs	Scribner log scale	Lumber tally	Lumber grade recovery			
				Select struc. ^{1/}	No. 1	No. 2	No. 3
		bd. ft.	bd. ft.				
8	185	4,515	5,486	24.9	67.8	5.6	1.7
9	186	6,554	7,442	27.3	63.3	7.7	1.7
10	220	10,391	11,106	29.5	59.2	9.5	1.8
11	236	13,254	14,593	31.3	55.5	11.2	2.0
12	204	14,000	15,040	32.9	52.2	12.8	2.1
13	173	13,864	14,582	34.3	49.3	14.2	2.2
14	156	15,090	15,837	35.4	46.8	15.5	2.3
15	107	12,552	12,888	36.4	44.7	16.3	2.6
16	72	9,678	10,074	37.0	42.9	17.2	2.9
17	49	6,757	6,936	37.2	41.8	17.8	3.2
18	40	6,588	6,868	37.4	40.9	18.1	3.6
19	26	5,245	5,528	37.2	40.3	18.5	4.0
20	26	5,472	5,501	36.7	40.5	18.4	4.4
21	13	3,413	3,585	35.8	40.8	18.6	4.8
Total	1,693	127,373	135,466				
Average percent				31.9	53.8	12.1	2.2

^{1/} Includes Select Merchantable.