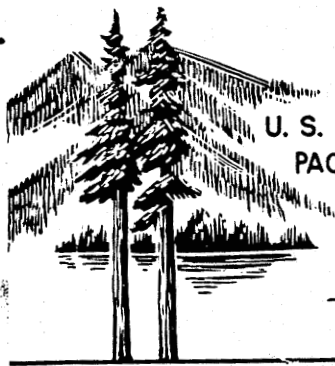




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LUMBER GRADES FROM DOUGLAS-FIR PEELER LOGS

by

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Sawmill companies often must decide whether it is more economical to sort and sell peeler logs than to cut them into lumber. If the mill owners have reliable data on the grade of lumber that can be expected from these logs, they will be better prepared to make the decision. The Pacific Northwest Forest and Range Experiment Station has made several lumber grade recovery studies at mills located in the Eugene area, Coos Bay area, and in southern Oregon. No single study has sufficient logs in the peeler grade to give adequate sampling. Therefore, the data on Douglas-fir peeler logs from four old-growth studies have been combined in this report. The information should prove fairly reliable for peeler logs produced in Oregon.

Average lumber recovery for the three peeler log grades was:

<u>Lumber grade</u>	<u>No. 1 peeler</u>	<u>No. 2 peeler</u>	<u>No. 3 peeler</u>
	(percent)	(percent)	(percent)
B & Btr.	31.1	19.6	10.6
C	22.6	24.3	16.9
D	2.3	1.8	1.7
Sel. Struc. & Sel. Merch.	15.5	20.2	27.8
No. 1	12.3	15.4	22.1
No. 2	6.0	7.3	9.6
No. 3	7.2	9.0	9.0
No. 4	3.0	2.4	2.3
	100	100	100

Combined lumber recovery data by log size and grade for the peeler logs cut at these mills are shown graphically in figures 1, 2, and 3 and in tabular form in tables 1, 2, and 3.

Table 1.--Lumber grade recovery in percent of lumber tally, No. 1 peeler logs

Lumber grade	Percent recovery when log diameter (inches) was --												
	30	31	32	33	34	35	36	37	38	39	40	41	Average
B & Btr	23.5	25.6	27.6	29.5	31.2	32.9	34.5	35.5	36.9	37.8	39.0	40.0	31.1
C	23.3	23.3	23.3	23.3	23.2	23.1	22.9	22.8	22.6	22.3	22.0	21.0	22.6
D	2.0	1.9	1.8	1.8	1.8	2.0	2.2	2.5	2.6	3.4	3.6	4.0	2.3
SS&M ^{1/}	20.1	18.4	16.8	15.3	14.0	12.8	11.7	11.1	10.3	10.5	10.0	10.5	15.5
No. 1	13.3	13.8	14.2	14.1	13.9	13.3	12.4	11.0	9.5	7.2	5.8	4.0	12.3
No. 2	5.6	6.1	6.6	6.7	6.8	6.8	6.5	6.0	5.7	5.2	4.1	3.6	6.0
No. 3	8.7	7.8	7.1	6.8	6.7	6.8	7.4	8.2	9.4	10.1	11.5	11.9	7.2
No. 4	3.5	3.1	2.6	2.5	2.4	2.3	2.4	2.9	3.0	3.5	4.0	5.0	3.0
No. of logs	9	7	1	7	7	5	4	2	2	2	4	2	

^{1/} Select structural and select merchantable.

Table 2.--Lumber grade recovery in percent of lumber tally, No. 2 peeler logs

Lumber grade	Percent recovery when log diameter (inches) was --									
	30	31	32	33	34	35	36	37	38	Average
B & Btr	24.5	20.7	18.0	16.3	15.8	16.2	17.8	20.4	24.1	19.6
C	21.4	23.3	24.9	25.9	26.5	26.7	26.3	25.5	24.2	24.3
D	.8	1.0	1.2	1.4	1.8	2.2	2.7	3.2	3.8	1.8
SS&M ^{1/}	24.2	22.4	20.9	19.6	18.6	17.9	17.4	17.2	17.4	20.2
No. 1	15.2	15.3	15.4	15.3	15.2	15.0	14.7	14.4	13.9	15.4
No. 2	6.0	6.7	7.2	7.7	7.9	8.0	8.0	7.8	7.5	7.3
No. 3	5.7	7.8	9.6	11.0	11.5	11.4	10.6	9.2	7.2	9.0
No. 4	2.2	2.8	2.8	2.8	2.7	2.2	2.2	2.3	1.9	2.4
No. of logs	3	9	8	4	4	7	1	4	4	

^{1/} Select structural and select merchantable.

Table 3.--Lumber grade recovery in percent of lumber tally, No. 3 peeler logs

Percent recovery when log diameter (inches) was --																									
Lumber grade	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	Avg.		
E & Btr	11.7	11.7	11.5	11.4	11.3	11.1	10.9	10.7	10.4	10.1	9.8	9.4	9.1	8.7	8.3	7.8	7.3	6.8	6.3	5.7	5.1	4.5	10.6		
C	16.3	17.6	15.9	16.4	16.1	15.8	15.7	15.8	15.9	16.2	16.7	17.3	18.0	18.8	19.8	21.0	22.2	23.6	25.1	26.8	28.6	30.5	16.9		
D	2.0	1.8	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.3	1.4	1.6	1.7	2.0	2.2	2.5	2.8	3.2	3.6	4.0	4.5	5.0	1.7		
SS&SN ^{1/}	33.6	32.6	31.5	30.4	29.3	28.1	26.9	25.7	24.4	23.1	21.6	20.4	19.0	17.5	16.0	14.5	13.0	11.4	9.8	8.2	6.1	4.8	27.8		
No. 1	20.8	21.5	22.2	22.7	23.0	23.3	23.5	23.5	23.4	23.2	22.9	22.5	22.0	21.3	20.6	19.7	18.7	17.5	16.3	15.0	13.5	11.9	22.1		
No. 2	7.2	7.6	8.1	8.5	8.9	9.3	9.7	10.1	10.5	11.0	11.4	11.8	12.3	12.7	13.2	13.6	14.0	14.5	14.9	15.4	15.8	16.3	9.6		
No. 3	5.1	5.6	6.4	7.1	7.8	8.5	9.2	10.0	10.7	11.5	12.3	13.2	14.0	14.9	15.8	16.7	17.6	18.5	19.5	20.5	21.6	22.6	9.0		
No. 4	1.3	1.4	1.7	2.1	2.3	2.7	2.9	3.0	3.4	3.6	3.7	3.8	3.9	4.1	4.1	4.2	4.4	4.4	4.5	4.4	4.8	4.4	2.3		
No. of logs	39	35	37	29	32	28	10	10	5	6	1	1	2	2	1	2	0	0	3	1	1	1			

^{1/} Select structural and select merchantable.

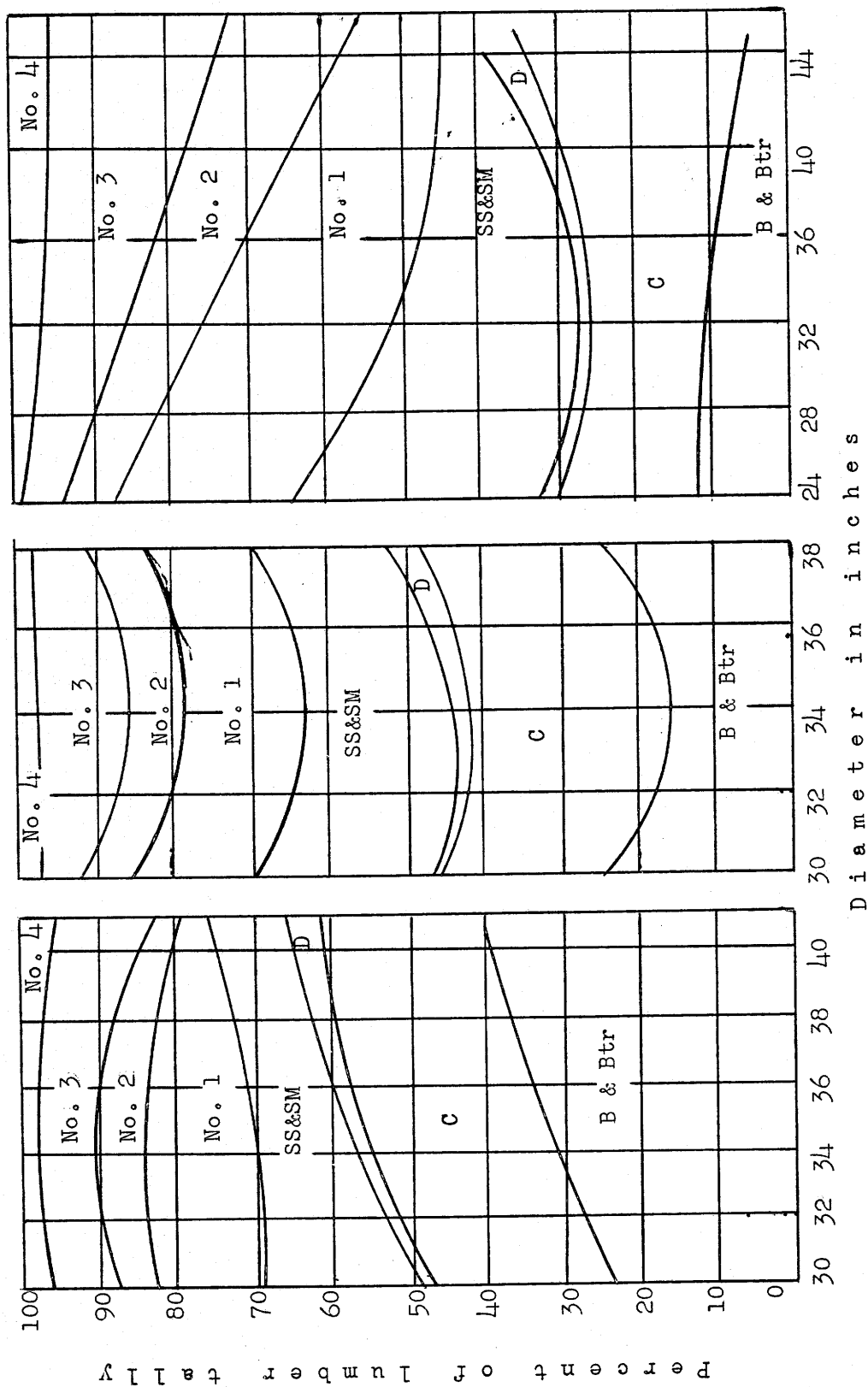


Fig. 1--No. 1 peeler logs Fig. 2--No. 2 peeler logs Fig. 3--No. 3 peeler logs

CUMULATIVE LUMBER GRADE RECOVERY FROM PEELER LOGS