RESEARCH NOTES
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OVERRUNS--SOUTHERN PINE LOGS

Overrun and underrun data were collected for the four major southern pine species during a series of grade yield studies in the late 1950's in Arkansas, Florida, Georgia, Mississippi, and South Carolina. Each of the 1,491 logs was carefully scaled by the Doyle, Scribner Decimal C, and International ¼-inch log rule. All logs were sawed on. circle mills and the variations shown are based on green lumber tallies for each log. Only full scale (sound) log data 'are shown in table 1. The small number of defective logs and their wide variation in overrun militated against their inclusion.

Table 1. --Variations in some log scales compared with green lumber tally of southern yellow pine 1/

Log d. i. b. (inches)	Log rule			Logs
	Doyle	Scribner Decimal c	International ¼ inch	
	Percent			Number
6	+400	+28	-2	89
7	200	26	-2	102
8	180	23	-3	134
9	90	21	-2	162
10	70	19	-4	155
11	SO	17	4	132
12	42	14	-5	167
12	22	12	-5	119
14	26	10	-6	128
15	20	8	-6	85
16	16	5	-7	74
17	12	3	-8	43
18	8	1	-8	42
19	4	-2	-8	22
20	0	4	-0	16
21	-2	-6	-10	8
22	-4	-8	-11	8
2s	-6	-10	-11	3
24	-8	-1s	-12	2
Total				1,491

1/ Results shown are based on green lumber tally of sound logs obtained from log grade studies in 1956 and 1959.

These data were analyzed separately by species, location, log grade, 1/ and size. Log size proved most important from the practical standpoint. The values shown in the table were read from curves developed from regression computations.

Overrun and underrun are greatly influenced at any mill by the width and thickness of the product, the mill efficiency, and the ability of the sawyer. Since these data are the combined averages of several good mills, it is unlikely that any one mill would happen to get the same results. The values shown indicate what might be expected at a "better than average" mill.

1/ This research note should be used in conjunction with a pocket booklet "Forest Service Standard Grading System for Southern Pine Yard Lumber," USDA, Forest Service, 5 pp., 1962, and a separate research note being published concurrently on "Southern Yellow Pine Lumber Grade Yields."

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