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HARDWOOD LOG GRADES and Lumber Grade Yields for Factory Lumber Logs



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Abstract

The USDA Forest Service Standard Grades for Hardwood Factory Lumber Logs are described, and lumber grade yields for 16 species and 2 species groups are presented by log grade and log diameter. The grades enable foresters, log buyers, and log sellers to select and grade those logs suitable for conversion into standard factory grade lumber. By using the appropriate lumber grade yields, log buyers and sellers can appraise the logs in terms of expected lumber grade volume and value. This report supersedes an earlier report on hardwood log grading, Forest Service Research Paper FPL 63.

INTRODUCTION

SAWMILL OPERATORS learned long ago that small, knotty logs are less valuable than large, clear ones. Hardwood sawlog grading systems were first developed in the early 1900's to assist buyers and sellers when logs were being appraised. Through the years, the supply of high-quality timber has decreased while demand and price have increased. Thus, the significance of evaluating quality during the production, harvesting, and processing of sawlogs has never been more important. Log grades are a tool that can help maximize the potential yield of high-value products from the timber resource.

BACKGROUND

The hardwood log grade specifications presented here were originally published in 1949 by the USDA Forest Service's Forest Products Laboratory. This system enables foresters, timber sellers, and timber buyers to separate, from woods-run hardwood logs, those logs that are suitable for manufacture into factory grade lumber, and to rank the logs into categories of high-, medium-, and low-quality yields. In 1952 the grades were adopted as the official hardwood log grades for use by the Forest Service. Lumber grade yields accompanied the earlier report that was revised in 1966 (Vaughan et al. 1966). The yields are tabulated by species, log grade, and diameter class and represent the percentage of total lumber tally for each class that was assigned to the National Hardwood Lumber Association's (NHLA) lumber grades. Additional information on lumber grade yield has been collected in recent years and is combined with the previously reported yields. Yields for 16 individual species and two groups of lowland oak species are presented. These yields, when coupled with lumber prices, provide a means for estimating the value of lumber that can be sawed from graded logs.

LOG GRADE SPECIFICATIONS

A log grading system can be defined as a set of specifications that is used to segregate a given lot of cut logs into two or more log grades.¹ To that definition has been added the requirement that there be significant differences in unit value or in end product yield between the log grades.

During the development of the hardwood log grade specifications, many of the variables studied were discarded because they were not reliable in segregating logs into distinct groups. The following are the variables that were included in the specifications.

Log diameter

Log diameter inside bark (dib) at the small end is the single most important variable related to lumber grade yield and log value. The lumber grade yields in this paper are tabulated by log grade and scaling diameter so that diameter functions as a continuous grading factor within the log grades.

Large logs are more valuable than small logs because they contain more lumber, and the lumber often is worth more per board foot. Large logs typically contain more defect-free wood than small logs, so more high-grade lumber is produced. This is a result of natural pruning followed by clear wood being laid down over the central core of knots. Large logs also result in the production of wider boards; and as board width increases, lumber grade also increases.

Log length

Log length is a grading factor for grade 1 logs. A minimum length of 10 feet is imposed, whereas grade 2 and 3 logs may be as short as 8 feet. Loggers who sell graded logs should buck high-quality logs into

¹Newport, Carl A., C.R. Lockard, and C.L. Vaughn. 1958. Log and tree grading as a means of measuring quality. USDA Forest Service report of the National Log Grade committee. 31 p.

lengths of 10 feet or more. The 10-foot minimum length for grade 1 logs relates to length specifications found in the NHLA rules for grading hardwood lumber. The NHLA rules limit the proportion of short lumber permitted in a shipment of the better grades.

Log position

Whether a log is a butt or an upper log is a grading factor for grade 1 logs. Both types of logs are permitted in grade 1. However, butt logs may be as small as 13 inches dib, whereas upper logs must scale at least 16 inches dib.

Clear cuttings

As part of the grading procedure, the log's surface is visually divided into four equal faces. High-quality sawlogs are characterized by faces with long, defect-free areas called clear cuttings. Sawlogs of low quality have shorter clear cuttings. The rules related to clear cuttings (Fig. 1) were derived from NHLA rules for grading lumber, and the similarity is obvious when comparisons are made. The number and length of clear cuttings and the proportion of a board that is clear are considered when grading a board. The faces of a log are graded much like a board, so these same items are considered for each face.

Figure 1.—Forest Service Standard Grades for Hardwood Factory Lumber Logs.^a

Grading factors		Log grades							
		F1			F2				F3
Position in tree		Butt only	Butts & uppers		Butts & uppers				Butts & uppers
Scaling diameter, inches		13-15 ^b	16-19	20 +	11 + ^c	12 +			8 +
Length without trim, feet		10 +			10 +	8-9	10-11	12 +	8 +
Required clear cuttings ^d on each of 3 best faces ^e	Min. length, feet	7	5	3	3	3	3	3	2
	Max. number	2	2	2	2	2	2	3	No limit
	Min. proportion of log length required in clear cutting	5/6	5/6	5/6	2/3	3/4	2/3	2/3	1/2
Maximum sweep & crook allowance	For logs with less than 1/4 of end in sound defects	15%			30%				50%
	For logs with more than 1/4 of end in sound defects	10%			20%				35%
Maximum scaling deduction		40% ^f			50% ^g				50%
End defect:		See special instructions (page 18)							

^a From Rast et al. 1979, revised.

^b Ash and basswood butts can be 12 inches if they otherwise meet requirements for small #1's.

^c Ten-inch logs of all species can be #2 if they otherwise meet requirements for small #1's.

^d A clear cutting is a portion of a face, extending the width of the face, that is free of defects.

^e A face is 1/4 of the surface of the log as divided lengthwise.

^f Otherwise #1 logs with 41-60% deductions can be #2.

^g Otherwise #2 logs with 51-60% deductions can be #3.

Some of the defects that limit clear cuttings include limbs, overgrown knots, bumps, holes, and bird pecks. These are discussed in detail in "A Guide to Hardwood Log Grading" (Rast et al. 1979). Seams that extend from the surface to a depth less than one-fifth the diameter of the log at that point are not considered defects.

Sweep and crook

The volume lost due to sweep and crook is estimated when scaling a sawlog. Excess curvature results in a decrease of both lumber volume and lumber grade yield. See Rast et al. (1979) for a discussion of how to estimate percent deduction due to sweep and crook. Because sweep and crook affect lumber grade yield as well as lumber volume, the estimated percent deduction is a grading factor.

Scalable defect

Scalable defects include rot and shake as well as sweep and crook. The total deduction is limited in low-quality logs because minimum requirements must be present for a log to qualify as a factory lumber log. The amount of scalable defect is limited in high-quality logs because the overall quality of lumber is reduced in logs with large proportions of these defects.

Sound end defect

Sound end defects include gum spots, bird pecks, bark pockets, and stain. For a complete discussion of these defects, see Rast et al. (1979) and Lockard et al. (1963). The overall frequency of these defects is low, but isolated occurrences may be intense, resulting in significant damage to the potentially high-grade lumber. It is necessary to be alert for such defects because their oversight may be critical.

PROCEDURE

Data used in this study were collected over a period of 40 years. Much of the original work was carried out under the direction of the Forest Products Laboratory. In recent

years, the work has been under the direction of the Northeastern Forest Experiment Station. However, the procedures have remained consistent through the years.

Log selection, diagraming, and scaling

During the first 20 years of the study, the logs were selected at mill yards. Since 1959, it has been possible to reference the log to the tree. Each log's surface and end characteristics were diagramed to provide a photolike description of the type and size of all abnormalities that could be identified.

Each log was scaled using both the International 1/4-inch and Scribner Decimal C log rules.

Sawing and lumber grading

The nearly 20,000 logs were sawed at more than 75 sawmills throughout the Eastern United States. As each log was sawed, the resulting boards were numbered so that all lumber could be referenced to the log from which it was sawed.

Each board was graded shortly after sawing, and a tally was maintained that included log number, board thickness, surface measure, and grade. For logs sawed since 1959, all boards were regraded and measured after air drying.

Log grading and log yields

The log diagrams were graded by specifications of the Forest Service Standard Grades for Hardwood Factory Lumber Logs (Fig. 1).

The lumber tally data were processed by log so that total lumber tally could be partitioned by lumber grade and thickness class. Much of the green yield data collected before 1959 were converted to dry yields by conversion factors developed by Gammon (1971).

Lumber grade yields

For each species and log grade, we determined the percentage lumber grade yields by diameter class. Lumber grade yields for the following 12 species represent dry yields (Tables 1-36). Species included are:

basswood	black oak
paper birch	chestnut oak
yellow birch	northern red oak
black cherry	scarlet oak
red maple	white oak
sugar maple	yellow-poplar

Green yields are presented for beech, cottonwood, elm, sap gum, lowland white oak, and lowland red oak (Tables 37–54). Green to air-dry conversion factors were not available for these species.

The yields for all diameters are shown in the bottom row of each yield table. These averages should not be used for a specific group of graded logs unless the diameter distribution of the group closely matches that of the logs from the table.

To better use the lumber sawed from chestnut oak logs, the boards are often graded and sold under specifications combining the term “worm holes no defect” (WHND) with the names of standard grades such as Firsts and Seconds. We followed this procedure. If you wish to estimate the yields of lumber graded by the standard lumber grades, we suggest the following conversion from tabular grades to standard grades:

<i>Tabular Lumber Grade</i>	<i>Standard Lumber Grade</i>
FAS – WHND	1C
F1F – WHND	2C
SEL – WHND	2C
1C – WHND	2C

The lumber thickness distributions by species and log grade are presented along with the yield tables. Use of the thickness distributions when determining log value is discussed below.

Overruns

Overrun is the percentage difference between net log scale and lumber tally. Overrun values for both the International 1/4-inch and Scribner Decimal C log rules accompany the lumber grade yields (Tables 1–54).

APPLICATION OF THE GRADES AND YIELDS

The factors considered in log grading discussed earlier include log size, position, surface defects, straightness, and soundness. When grading logs, you should develop a system that includes these factors. We suggest the following:

- Measure scaling diameter to the nearest inch.
- Measure log length to the last whole foot.
- Determine whether the log is a butt or an upper log.
- Establish the location of all defect indicators—“stoppers”—on the log’s surface and ends.
- Locate the clear cuttings and the grading face.
- Measure sweep and crook and estimate scalable defect.
- Determine the log’s grade.

Because a log’s grade is equal to the grade of the third best face, it is often advantageous to position the faces so that one face is of lower grade than the others.

The technique of log grading cannot be perfected without actual field instruction and practice. Visits to local sawmills and logging jobs will prove invaluable in becoming acquainted with surface and end defects and how they affect lumber grade. Instruction in log grading is offered by the USDA Forest Service, State and Private Forestry, and by many states and forestry schools. If you are interested in learning how to grade hardwood logs, we encourage you to contact one of these agencies.

Bucking

Proper bucking will provide better lumber grade yields than poor bucking practices. If a sawmill operator purchases graded logs, log buckers will benefit by understanding and applying the grading rules. The same is true where the loggers are employed by the

sawmill. A complete discussion of bucking for grade is included in Petro (1971).

Allocation

The initial allocation of woods-run logs into the various log classes—veneer, construction, local use, pulp, and factory lumber—should be the decision of the buckler. As you have learned, factory lumber logs are divided into log grades 1, 2, and 3. Depending on markets and costs, an operator may choose to saw only certain grade 3 logs; or to sort out the veneer class logs from the grade 1 and 2 logs; or to process grade 1 and 2 logs at a mill different from that used to process grade 3 logs.

Timber cruising

The hardwood log grades have sometimes been applied to logs in standing trees. Problems often are encountered when estimating bucking points, inside-bark diameters, interior cull, and length of clear cuttings. These difficulties are compounded as graders attempt to grade the upper logs.

An alternative to grading logs in standing trees is available. In "Hardwood Tree Grades For Factory Lumber," Hanks (1976) described a system of tree grades requiring the grader to consider only the butt log. The butt log is graded by nearly the same specifications described in this paper, and this grade becomes the tree's grade. Included are yields for 11 species: yellow birch, paper birch, red maple, sugar maple, yellow-poplar, black cherry, basswood, northern red oak, black oak, scarlet oak, white oak, and chestnut oak. Yields for graded aspen trees are presented in "Lumber Grade Yields For Graded Aspen Logs and Trees" (Hanks and Brisbin 1978).

Log valuation

We stated earlier that log grades were developed to assist buyers and sellers when logs are appraised. In the following examples we demonstrate how the lumber grade yields, thickness distributions, and overruns can be used to predict the value of lumber that can be sawed from a log. We used lumber price quotations from the weekly Hardwood Market Report published by Abe Lemsky.

Species: Yellow Birch
Log grade: 1
Scaling diameter: 13 inches

Lumber grade	Predicted yield ^a	Lumber price	
		per thousand board feet	Lumber value
	Percent	----Dollars----	
FAS	16.8	415	69.72
F1F	9.2	405	37.26
SEL	4.6	395	18.17
1 C	29.7	290	86.13
2 C	15.7	185	29.04
3 A	7.5	160	12.00
3 B	16.5	135	22.28
Total			274.60

^aSee table 7.

This figure tells you that 1,000 board feet of 4/4-inch lumber from grade 1, 13 inch yellow birch logs are worth \$274.60. If you want to determine lumber value for the thickness distribution presented in table 7, a weighted price for each lumber grade can be calculated as indicated below for FAS:

Thickness class (inches)	Percent of volume	Lumber price per thousand board feet
Dollars		
3/4	1.1	410
4/4	71.3	415
5/4	12.4	420
6/4	5.6	425
8/4	5.5	440
10/4	4.1	450

FAS weighted price = \$418.94/M bf.

Weighted prices for all lumber grades could be calculated, and used to determine lumber value per M bf of grade 1, 13-inch yellow birch logs.

The next step is to estimate the lumber volume of the log being considered. A 13-inch, 16-foot log scales 115 board feet by the International 1/4-inch log rule. You may wish to adjust that estimate up or down if

you have reliable overrun figures. From Table 7 we see that an underrun of 1.3 percent was obtained after sawing 48 grade 1 logs that scaled 13 inches. If an underrun of 1.3 percent were subtracted from 115 board feet, a reduced volume of 114 board feet would result.

The last step towards estimating lumber value:

$$\text{lumber value} = \frac{\$274.60 \times 114 \text{ board feet}}{1,000 \text{ board feet}}$$

$$\text{lumber value} = \$31.30$$

This figure represents the estimated value of air-dry lumber that can be sawed from a 13-inch, 16-foot, grade 1 yellow birch log. To predict the value of the log at the mill or decked in the woods, subtract the costs of transporting and converting the log into air-dry lumber.

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APPENDIX

Key to Symbols for Tables 1-54

No. logs—actual number of logs sampled

Scale

Int. 1/4-inch rule—International 1/4-inch log rule. Scribner Decimal C rule—Scribner Decimal C log rule. Overrun (Pct.)—lumber tally minus net scale divided by net scale.

NHLA lumber grade yields (actual)—actual lumber grade yields

(green or dry) in percent by National Hardwood Lumber Association lumber grades.

FAS — First and Seconds

F1F — Firsts and Seconds one face

Sel — Select

Saps — Saps, yellow-poplar only

1C — No. 1 Common

2C — No. 2 Common

2A — No. 2A Common

2B — No. 2B Common

SW — Sound wormy

3C — No. 3 Common

3A — No. 3A Common

3B — No. 3B Common

SSE — Sound square edge

TBR — Timbers

WHND — Worm Holes No Defect, chestnut oak only

Index for Lumber Grade Yield Tables

Table No.	Species	Log Grade	Page	Table No.	Species	Log Grade	Page
1	Basswood	1	10	33	White oak	3	60
2	Basswood	2	11	34	Yellow-poplar	1	62
3	Basswood	3	12	35	Yellow-poplar	2	64
4	Paper birch	1	13	36	Yellow-poplar	3	66
5	Paper birch	2	14	37	Beech (green)	1	68
6	Paper birch	3	15	38	Beech (green)	2	70
7	Yellow birch	1	16	39	Beech (green)	3	72
8	Yellow birch	2	18	40	Cottonwood (green)	1	73
9	Yellow birch	3	20	41	Cottonwood (green)	2	74
10	Black cherry	1	22	42	Cottonwood (green)	3	75
11	Black cherry	2	23	43	Elm (green)	1	76
12	Black cherry	3	24	44	Elm (green)	2	78
13	Red maple	1	26	45	Elm (green)	3	80
14	Red maple	2	28	46	Sap gum (green)	1	81
15	Red maple	3	30	47	Sap gum (green)	2	82
16	Sugar maple	1	32	48	Sap gum (green)	3	83
17	Sugar maple	2	34	49	Lowland red oak (green)	1	84
18	Sugar maple	3	36	50	Lowland red oak (green)	2	85
19	Black oak	1	38	51	Lowland red oak (green)	3	86
20	Black oak	2	40	52	Lowland white oak (green)	1	88
21	Black oak	3	42	53	Lowland white oak (green)	2	90
22	Chestnut oak	1	44	54	Lowland white oak (green)	3	92
23	Chestnut oak	2	46				
24	Chestnut oak	3	48				
25	Northern red oak	1	50				
26	Northern red oak	2	51				
27	Northern red oak	3	52				
28	Scarlet oak	1	54				
29	Scarlet oak	2	55				
30	Scarlet oak	3	56				
31	White oak	1	57				
32	White oak	2	58				

Table 1.—BASSWOOD: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber yields (actual)				
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3C
		Gross	Net	Over-run	Gross	Net	Over-run						
		Board feet		Percent	Board feet		Percent	Board feet	-----Percent-----				
12	36	2,935	2,751	-1.7	2,480	2,311	17.0	2,704	16.3	16.5	32.2	26.4	8.6
13	40	3,990	3,830	-1.2	3,380	3,222	17.5	3,785	27.0	17.1	26.9	16.9	12.1
14	26	3,070	2,890	-0.6	2,590	2,395	20.0	2,874	22.3	17.9	29.0	25.8	5.0
15	28	3,785	3,628	-2.6	3,420	3,270	8.0	3,532	30.3	17.9	28.3	16.9	6.6
16	32	4,545	4,253	-2.3	4,100	3,797	9.5	4,157	24.3	15.3	29.5	20.5	10.4
17	21	3,790	3,564	3.1	3,400	3,133	17.3	3,674	33.3	17.1	23.7	14.0	11.9
18	20	3,925	3,572	-2.2	3,640	3,218	8.6	3,494	35.8	17.5	16.6	19.7	10.4
19	8	1,800	1,591	-4.4	1,680	1,434	6.1	1,521	43.0	10.5	22.9	12.3	11.3
20	2	385	370	-24.3	380	365	-23.3	280	42.5	15.7	27.9	13.9	—
21	2	390	344	-11.3	380	335	-9.0	305	24.6	11.1	24.3	31.8	8.2
22	3	875	875	-14.9	830	830	-10.2	745	35.9	14.6	26.8	10.1	12.6
23	3	1,040	977	-3.3	1,020	952	-0.7	945	25.2	25.3	17.2	16.0	16.3
All diameters	221	30,530	28,645	-2.2	27,300	25,262	10.9	28,016	28.6	16.8	25.9	18.9	9.8

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3C
1/2	—	—	—	0.1	—
5/8	—	—	—	0.5	—
3/4	5.5	1.6	4.4	4.0	5.8
4/4	61.8	69.6	67.1	71.4	58.3
5/4	15.4	7.1	14.6	12.0	5.9
6/4	2.3	7.6	3.2	0.5	0.4
7/4	—	—	—	0.5	—
8/4	15.0	13.9	10.6	7.2	5.5
9/4	—	0.2	0.1	3.8	23.7
12/4	—	—	—	—	0.4
Total tally (board feet)	8,016	4,703	7,258	5,297	2,742

Table 2.—BASSWOOD: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)				
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	4C
		Gross	Net	Over-run	Gross	Net	Over-run						
		--- Board feet ---		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----				
10	57	2,965	2,797	-0.8	2,370	2,235	24.1	2,774	5.6	9.0	30.7	36.3	18.4
11	138	8,415	7,883	0.7	6,620	6,185	28.4	7,942	7.0	7.5	34.0	38.4	13.1
12	107	7,760	7,294	-1.0	6,640	6,211	16.2	7,219	7.6	9.6	32.0	36.5	14.3
13	88	7,715	7,112	-2.9	6,490	5,953	16.0	6,907	7.9	9.2	31.2	36.9	14.8
14	74	7,405	6,745	-3.6	6,460	5,771	12.6	6,501	11.0	11.1	31.9	33.1	12.9
15	54	6,345	5,707	-4.7	5,850	5,208	4.5	5,440	18.1	10.9	29.0	28.8	13.2
16	20	2,630	2,181	-8.4	2,390	1,965	1.6	1,997	10.9	11.4	32.6	28.9	16.2
17	8	1,210	1,040	-3.8	1,110	931	7.5	1,001	6.9	5.7	38.7	38.6	10.1
18	2	250	233	-2.6	240	219	3.7	227	—	21.1	27.3	28.3	23.3
19	4	800	602	-6.6	750	499	12.6	562	42.6	27.9	12.1	8.0	9.4
20	1	155	155	-27.1	160	160	-29.4	113	43.5	11.5	15.0	26.5	3.5
21	2	390	381	-16.8	380	367	-13.6	317	2.5	4.7	17.7	43.2	31.9
All diameters	555	46,040	42,130	-2.7	39,460	35,704	14.8	41,000	10.0	9.8	31.5	34.6	14.1

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3C
1/2	--	--	--	--	--
5/8	--	--	--	0.2	--
3/4	1.6	1.1	2.3	1.8	1.9
4/4	60.5	75.4	70.4	69.8	62.6
5/4	21.1	6.1	15.2	12.5	8.1
6/4	1.8	4.4	1.2	0.5	--
8/4	15.0	11.7	10.7	11.9	6.1
9/4	--	0.4	0.2	3.3	21.3
10/4	--	0.9	--	--	--
Total tally (board feet)	4,084	4,010	12,915	14,192	5,799

Table 3.—BASSWOOD: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)				
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3C
		Gross	Net	Over-run	Gross	Net	Over-run						
		---Board feet---	Percent		---Board feet---	Percent	Board feet	----- Percent -----					
8	93	2,270	2,173	10.5	1,700	1,626	47.7	2,402	0.1	0.5	13.3	59.0	27.1
9	176	5,995	5,657	5.1	5,100	4,809	23.6	5,946	1.5	3.0	23.4	53.9	18.2
10	150	6,560	6,116	2.8	5,370	4,997	25.8	6,287	1.2	3.1	20.6	57.5	17.6
11	64	3,500	3,230	-1.7	2,850	2,630	20.7	3,175	1.6	4.5	22.6	56.7	14.6
12	37	2,355	2,144	-1.1	2,040	1,824	16.2	2,120	1.1	4.8	17.3	56.1	20.7
13	25	1,835	1,659	-5.3	1,570	1,393	12.8	1,571	6.0	9.5	20.1	47.3	17.1
14	13	1,235	1,159	-0.8	1,080	1,001	14.9	1,150	6.4	10.0	23.7	40.0	19.9
15	14	1,735	1,599	-5.2	1,580	1,415	7.1	1,516	4.1	4.9	20.6	48.5	21.9
16	11	1,445	1,324	3.9	1,320	1,177	16.8	1,375	12.8	13.5	27.0	29.9	16.8
17	7	1,150	1,064	1.0	1,040	938	14.6	1,075	7.0	9.1	21.3	47.3	15.3
18	3	570	539	-11.7	530	490	-2.9	476	9.7	10.3	43.1	29.8	7.1
19	2	380	309	-5.5	360	277	5.4	292	39.4	12.0	2.1	34.2	12.3
All diameters	595	29,030	26,973	1.5	24,540	22,577	21.3	27,385	3.2	4.9	21.2	52.3	18.4

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3C
1/2	—	—	—	—	0.1
5/8	—	—	—	0.1	—
3/4	2.7	0.7	1.2	2.1	0.9
4/4	85.5	81.8	82.6	79.9	70.7
5/4	3.3	2.1	10.2	8.4	5.7
6/4	8.5	8.5	3.2	0.1	0.2
7/4	—	—	—	0.2	—
8/4	—	3.4	2.3	3.0	3.8
9/4	—	3.5	0.5	6.2	18.6
Total tally (board feet)	879	1,336	5,801	14,328	5,041

Table 4.—PAPER BIRCH: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---	Percent		--- Board feet ---	Percent	Board feet	-----Percent-----						
13	10	1,045	1,027	-14.7	890	874	0.2	876	15.4	25.1	22.4	16.8	13.1	7.2
14	7	835	749	-10.4	710	621	8.1	671	26.4	29.6	14.2	14.5	12.8	2.5
15	10	1,285	1,165	-9.6	1,170	1,034	1.8	1,053	22.8	27.6	19.8	21.0	6.8	2.0
16	6	725	621	3.5	660	545	18.0	643	19.4	28.4	27.8	10.1	6.5	7.8
17	3	375	317	-12.6	360	286	-3.1	277	19.1	19.9	25.7	22.7	6.5	6.1
18	2	310	296	-21.6	290	273	-15.0	232	13.4	28.0	12.9	12.1	18.5	15.1
19	1	155	102	-7.8	150	82	14.6	94	14.9	35.1	29.8	9.6	—	10.6
All diameters	39	4,730	4,277	-10.1	4,230	3,715	3.5	3,846	20.2	27.1	21.0	16.4	9.8	5.5

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
3/4	0.9	1.0	0.2	0.5	5.3	2.3
4/4	99.1	99.0	99.8	99.5	94.7	97.7
Total tally (board feet)	775	1,044	808	630	376	213

Table 5.—PAPER BIRCH: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---	Percent	--- Board feet ---	Percent	Board feet	----- Percent -----							
10	11	485	449	-4.7	370	337	27.0	428	—	16.6	19.6	25.9	24.8	13.1
11	34	1,935	1,801	-5.3	1,550	1,424	19.8	1,706	6.3	11.7	22.8	23.5	24.9	10.8
12	29	1,840	1,693	-8.4	1,600	1,449	7.0	1,551	5.1	19.3	19.5	27.0	20.3	8.8
13	32	2,540	2,372	-13.0	2,160	1,999	3.2	2,063	6.7	15.5	24.6	28.0	17.2	8.0
14	20	1,820	1,676	-16.3	1,610	1,463	-4.1	1,403	13.8	22.0	19.2	19.0	16.0	10.0
15	20	2,250	2,099	-13.2	2,090	1,921	-5.2	1,821	7.5	13.2	29.4	28.1	13.8	8.0
16	4	500	423	-27.7	460	361	-15.2	306	12.4	24.5	20.6	19.6	20.9	2.0
17	3	315	277	-3.2	300	258	3.9	268	34.7	18.3	20.9	15.7	4.1	6.3
18	2	325	325	-16.3	310	310	-12.3	272	31.2	29.8	13.6	15.8	9.6	—
All diameters	155	12,010	11,115	-11.7	10,450	9,522	3.1	9,818	8.9	16.7	22.8	24.8	18.1	8.7

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
1/2	—	—	0.2	—	—	—
5/8	—	—	—	—	0.2	—
3/4	—	0.8	0.9	2.6	3.2	4.2
4/4	100.0	98.8	98.9	97.4	96.3	95.8
5/4	—	0.4	—	—	0.3	—
Total tally (board feet)	871	1,644	2,242	2,429	1,780	852

Table 6.—PAPER BIRCH: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		---Board feet---	Percent	Percent	---Board feet---	Percent	Board feet	-----Percent-----						
8	26	535	500	-3.4	430	405	19.3	483	—	1.7	2.1	15.5	33.7	47.0
9	53	1,625	1,547	-9.0	1,440	1,366	3.1	1,408	—	5.1	6.2	23.7	36.8	28.2
10	53	2,140	1,970	-8.7	1,660	1,505	19.5	1,798	0.3	4.3	9.6	31.1	34.5	20.2
11	31	1,485	1,431	-11.5	1,210	1,159	9.2	1,266	—	5.8	16.0	28.2	27.9	22.1
12	26	1,540	1,418	-11.6	1,330	1,218	3.0	1,254	1.5	7.3	11.1	25.4	33.3	21.4
13	20	1,460	1,307	-27.2	1,240	1,069	-11.0	951	5.6	7.3	20.0	28.2	19.2	19.7
14	18	1,535	1,394	-19.2	1,370	1,228	-8.2	1,127	0.4	4.5	25.3	27.5	23.7	18.6
15	8	760	655	-21.5	710	592	-13.2	514	—	10.1	30.5	15.8	22.0	21.6
16	7	735	700	-24.6	660	625	-15.5	528	4.2	7.6	29.7	24.8	17.4	16.3
17	2	300	280	-30.4	280	256	-23.8	195	37.5	11.8	8.2	16.9	16.9	8.7
18	3	480	325	-5.2	450	268	14.9	308	3.9	8.4	24.4	21.1	30.5	11.7
19	1	225	198	-5.1	210	179	5.0	188	8.5	1.6	55.8	30.9	1.1	2.1
All diameters	248	12,820	11,725	-14.5	10,990	9,870	1.5	10,020	2.0	5.8	15.9	25.9	28.6	21.8

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
1/2	—	—	—	—	—	0.2
3/4	—	1.5	1.8	1.7	3.1	4.8
4/4	100.0	98.5	98.2	98.1	96.6	95.0
5/4	—	—	—	0.2	0.3	—
Total tally (board feet)	205	585	1,592	2,591	2,858	2,186

Table 7.—YELLOW BIRCH: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		--- Board feet ---	Percent		--- Board feet ---	Percent	Board feet	----- Percent -----							
13	48	4,595	4,401	-1.3	3,880	3,709	17.1	4,344	16.8	9.2	4.6	29.7	15.7	7.5	16.5
14	45	5,275	5,000	-6.0	4,500	4,237	11.0	4,702	22.7	8.7	3.3	29.8	16.4	5.8	13.3
15	47	6,090	5,852	-4.9	5,560	5,309	4.8	5,566	22.1	12.1	3.2	28.7	13.9	5.2	14.8
16	64	9,725	9,184	-4.7	8,780	8,230	6.4	8,755	23.0	9.0	2.2	31.5	14.8	7.3	12.2
17	63	10,430	9,740	-5.3	9,490	8,837	4.4	9,226	27.9	9.6	2.0	29.3	12.4	6.0	12.8
18	49	9,305	8,987	-2.2	8,750	8,413	4.5	8,793	35.5	10.2	2.0	26.2	10.9	5.5	9.7
19	37	7,855	7,561	-3.1	7,360	7,071	3.7	7,330	40.1	8.8	2.2	26.4	9.4	4.5	8.6
20	19	4,035	3,830	-3.4	3,930	3,684	0.5	3,701	31.8	11.6	3.1	31.7	9.8	4.1	7.9
21	17	4,150	4,064	-6.5	4,010	3,923	-3.1	3,801	38.7	7.5	1.8	25.8	12.2	6.7	7.3
22	10	2,880	2,655	-7.6	2,740	2,485	-1.3	2,453	52.9	5.4	2.1	21.2	6.8	5.7	5.9
23	4	1,350	1,264	-4.6	1,320	1,236	-2.4	1,206	46.1	11.0	5.1	20.6	7.0	3.6	6.6
24	4	1,415	1,356	-2.8	1,350	1,279	3.0	1,318	22.5	6.7	0.7	35.4	13.8	10.4	10.5
25	2	620	554	-20.9	630	547	-19.9	438	32.5	7.5	0.7	25.8	20.1	5.9	7.5
26	2	740	613	0.5	750	594	3.7	616	43.1	4.2	3.4	28.9	9.6	6.3	4.5
27	1	540	540	-9.6	550	550	-11.3	488	58.6	10.5	1.0	17.0	6.4	4.5	2.0
All diameters	412	69,005	65,601	-4.4	63,600	60,104	4.4	62,737	30.5	9.4	2.5	28.3	12.4	5.9	11.0

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
3/8	—	—	—	—	—	—	—
1/2	—	0.1	—	—	—	—	—
5/8	—	—	—	0.1	—	—	0.1
3/4	1.1	1.2	2.7	3.2	2.4	2.1	2.0
4/4	71.3	62.1	66.9	73.5	72.0	71.9	64.8
5/4	12.4	15.8	14.4	10.2	12.8	12.0	5.7
6/4	5.6	9.2	10.1	5.4	3.7	1.9	3.5
8/4	5.5	5.3	5.5	5.3	4.5	9.0	19.6
9/4	—	—	—	—	0.2	1.1	2.6
10/4	4.1	6.3	0.4	2.3	2.0	1.0	0.3
12/4	—	—	—	—	—	—	1.2
16/4	—	—	—	—	2.4	1.0	0.2
Total tally (board feet)	19,156	5,871	1,579	17,770	7,758	3,701	6,902

Table 8.—YELLOW BIRCH: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B	
		Gross	Net	Over- run	Gross	Net	Over- run									
--- Board feet ---		Percent		--- Board feet ---		Percent		Board feet	----- Percent -----							
10	49	2,670	2,480	4.7	2,160	1,997	30.0	2,597	3.4	2.5	1.5	24.9	24.3	13.4	30.0	
11	124	7,990	7,387	0.4	6,260	5,783	28.3	7,420	4.0	4.6	2.6	26.5	20.2	11.7	30.4	
12	161	12,060	11,170	-2.3	10,280	9,506	14.8	10,914	7.4	6.7	2.6	25.2	21.2	12.1	24.8	
13	113	9,925	9,111	-7.0	8,310	7,568	12.0	8,477	5.5	4.6	1.9	27.3	23.6	12.6	24.5	
14	103	10,510	9,632	-7.9	9,140	8,310	6.8	8,871	7.1	6.6	1.6	30.2	23.0	11.1	20.4	
15	105	12,415	11,493	-8.3	11,440	10,522	0.1	10,537	10.8	8.3	1.8	27.5	22.8	10.2	18.6	
16	46	6,210	5,589	-3.4	5,650	4,997	8.0	5,399	11.6	6.7	1.2	28.1	25.8	11.1	15.5	
17	33	4,980	4,395	-4.7	4,550	3,927	6.7	4,190	5.7	4.7	1.1	31.5	24.8	11.4	20.8	
18	25	4,340	3,919	-13.8	4,080	3,656	-7.6	3,377	12.5	8.4	1.9	36.0	18.2	6.6	16.4	
19	24	4,330	3,939	-0.2	4,100	3,619	8.7	3,933	9.4	7.3	1.4	38.2	21.1	10.5	12.1	
20	8	1,615	1,487	-16.3	1,590	1,417	-12.1	1,245	6.7	10.5	3.4	36.9	22.9	9.2	10.4	
21	4	865	843	-2.1	830	820	0.6	825	18.3	4.0	—	49.3	16.1	4.4	7.9	
22	4	905	733	-8.9	880	691	-3.3	668	19.0	9.3	2.7	34.1	15.7	6.6	12.6	
23	5	1,325	1,223	-21.4	1,320	1,218	-21.1	961	18.2	4.7	0.6	39.7	22.4	2.7	11.7	
24	1	310	305	-21.3	300	295	-18.6	240	9.6	7.9	1.7	59.5	12.5	4.6	4.2	
25	2	740	740	-7.0	740	740	-7.0	688	36.7	10.0	0.3	35.6	10.3	4.9	2.2	
All diameters	807	81,190	74,446	-5.5	71,630	65,066	8.1	70,342	8.4	6.3	1.8	29.4	22.2	10.9	21.0	

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
3/8	—	—	—	—	—	—	—
1/2	—	—	—	—	0.1	—	—
5/8	—	—	—	0.1	—	—	0.1
3/4	1.5	1.7	3.8	4.3	2.7	2.1	2.4
4/4	70.6	64.7	66.7	76.3	71.9	79.0	68.7
5/4	13.8	15.9	15.8	8.7	10.1	9.0	4.5
6/4	8.3	12.2	10.4	5.6	4.2	2.0	3.5
8/4	4.1	2.6	2.8	2.8	3.8	5.6	14.4
9/4	—	—	—	—	—	0.3	3.8
10/4	1.7	2.9	0.5	1.3	2.1	2.0	0.5
12/4	—	—	—	—	2.8	—	1.0
16/4	—	—	—	0.9	2.3	—	1.1
Total tally (board feet)	5,893	4,463	1,298	20,677	15,618	7,648	14,745

Table 9.—YELLOW BIRCH: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		--- Board feet ---	Percent	--- Board feet ---	Percent	Board feet	Percent								
8	42	995	952	8.7	740	704	47.0	1,035	—	0.4	0.7	7.4	19.9	19.0	52.6
9	93	3,170	2,899	5.2	2,700	2,457	24.1	3,049	0.3	0.4	1.3	10.7	24.4	21.7	41.2
10	153	6,795	6,175	-1.9	5,400	4,888	23.9	6,055	0.6	1.3	1.3	13.9	23.1	17.9	41.9
11	89	4,580	4,163	-2.2	3,680	3,322	22.5	4,070	0.5	1.2	1.5	13.2	30.9	20.6	32.1
12	63	3,950	3,517	-8.1	3,420	3,016	7.1	3,231	0.2	1.5	0.5	14.3	28.2	20.6	34.7
13	48	3,830	3,381	-9.6	3,240	2,819	8.4	3,057	—	2.1	1.1	18.2	34.8	21.8	22.0
14	32	3,015	2,749	-13.8	2,660	2,396	-1.1	2,369	0.9	1.8	1.1	20.5	27.8	14.9	33.0
15	27	2,800	2,385	-15.2	2,630	2,159	-6.3	2,023	1.3	1.2	0.6	17.0	27.4	19.4	33.1
16	14	1,845	1,664	-11.8	1,680	1,451	1.2	1,468	5.9	5.0	1.6	20.7	24.3	11.8	30.7
17	11	1,465	1,214	-12.7	1,360	1,050	1.0	1,060	2.5	4.8	1.2	18.8	24.2	22.5	26.0
18	10	1,520	1,217	-15.9	1,450	1,092	-6.2	1,024	4.7	8.6	4.1	21.3	27.2	15.0	19.1
19	3	375	335	0.9	360	304	11.2	338	—	5.9	3.0	29.3	27.8	20.4	13.6
20	3	520	491	-10.2	520	477	-7.5	441	2.3	5.7	—	45.9	22.7	15.2	8.2
21	2	515	409	7.8	490	371	18.9	441	7.3	2.7	—	31.1	30.8	15.9	12.2
22	3	690	666	-13.5	670	637	-9.6	576	4.3	6.3	—	28.6	17.0	11.1	32.7
23	1	335	335	-4.8	330	330	-3.3	319	18.8	11.6	—	33.6	28.8	3.4	3.8
24	1	425	387	7.5	400	349	19.2	416	39.2	—	1.4	28.1	22.6	6.5	2.2
All diameters	595	36,825	32,939	-6.0	31,730	27,822	11.3	30,972	1.9	2.1	1.2	16.7	26.8	18.5	32.8

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
3/8	—	—	—	—	—	—	0.1
1/2	—	—	1.0	—	—	—	0.1
5/8	—	—	—	—	—	—	0.1
3/4	2.4	0.4	0.3	2.0	2.2	2.2	2.8
4/4	80.3	68.8	77.3	80.2	74.8	83.0	78.9
5/4	17.3	26.4	14.7	14.9	9.8	12.1	5.4
6/4	—	4.4	2.8	1.8	2.5	0.5	2.5
8/4	—	—	—	0.6	1.2	1.7	6.6
9/4	—	—	—	—	—	—	1.8
10/4	—	—	3.9	0.5	1.3	0.5	0.4
12/4	—	—	—	—	7.5	—	—
16/4	—	—	—	—	0.7	—	1.3
Total tally (board feet)	577	661	366	5,179	8,299	5,732	10,158

Table 10.—BLACK CHERRY: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run							
--- Board feet ---		Percent		--- Board feet ---		Percent		Board feet	Percent					
13	19	1,675	1,614	1.3	1,390	1,331	22.8	1,635	28.2	28.5	15.8	13.1	8.0	6.4
14	24	2,540	2,503	2.8	2,200	2,163	19.0	2,574	27.8	27.3	18.1	13.7	9.9	3.2
15	24	3,115	3,016	0.8	2,820	2,719	11.8	3,041	38.5	21.8	16.0	13.1	8.3	2.3
16	30	4,120	3,957	-0.7	3,740	3,570	10.0	3,928	34.5	20.0	18.9	15.7	7.2	3.7
17	23	3,435	3,328	-1.7	3,180	3,080	6.2	3,272	30.8	25.7	21.5	10.8	7.3	3.9
18	19	3,215	3,045	-3.0	3,000	2,802	5.5	2,955	37.3	20.3	21.3	12.4	4.1	4.6
19	19	4,065	3,990	0.7	3,810	3,718	8.1	4,018	41.5	20.8	16.5	12.1	5.6	3.5
20	13	2,830	2,725	3.1	2,760	2,661	5.6	2,810	30.5	28.4	19.3	13.5	5.8	2.5
21	4	945	930	-5.9	920	903	-3.1	875	42.6	21.1	17.7	9.0	7.4	2.2
22	4	950	904	2.3	920	861	7.4	925	47.8	17.3	11.1	12.4	4.6	6.8
24	2	565	475	-11.2	550	460	-8.3	422	49.7	17.3	19.2	3.8	1.2	8.8
25	3	960	900	-3.8	970	897	-3.5	866	38.7	21.2	21.0	7.6	7.6	3.9
All diameters	184	28,415	27,387	-0.2	26,260	25,165	8.6	27,321	35.5	23.0	18.3	12.6	6.8	3.8

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
1/2	—	—	0.1	0.1	—	0.5
3/4	0.4	0.1	0.1	—	0.4	1.9
4/4	42.8	49.7	70.2	84.8	77.2	85.9
5/4	2.2	2.9	2.6	3.0	1.8	—
6/4	23.7	19.9	17.3	6.4	2.5	—
7/4	—	—	—	—	0.5	—
8/4	30.9	27.4	9.7	5.3	17.6	11.7
12/4	—	—	—	0.4	—	—
Total tally (board feet)	9,701	6,291	5,010	3,443	1,851	1,025

Table 11.—BLACK CHERRY: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
--- Board feet ---		Percent		--- Board feet ---		Percent		Board feet	----- Percent -----					
10	9	455	455	5.7	350	350	37.4	481	9.4	20.4	23.0	22.7	16.8	7.7
11	42	2,270	2,159	3.4	1,800	1,723	29.6	2,233	4.9	10.0	27.5	26.4	19.8	11.4
12	65	4,405	4,230	-0.7	3,800	3,641	15.4	4,201	7.3	16.0	25.9	27.6	16.1	7.1
13	49	3,920	3,743	-1.8	3,270	3,086	19.1	3,676	7.2	14.5	31.1	25.5	15.9	5.8
14	42	3,620	3,475	-5.8	3,220	3,101	5.6	3,275	11.2	17.6	32.2	20.3	12.4	6.3
15	36	4,010	3,891	-5.5	3,680	3,557	3.4	3,678	8.7	19.2	33.6	22.4	10.1	6.0
16	19	2,130	2,046	-5.4	1,960	1,874	3.3	1,935	9.8	16.0	35.1	20.2	8.1	10.8
17	20	2,830	2,737	-2.4	2,600	2,498	7.0	2,672	7.9	19.7	36.8	21.4	12.0	2.2
18	15	2,565	2,428	-3.3	2,400	2,271	3.3	2,347	12.4	17.9	40.5	17.3	8.5	3.4
19	8	1,565	1,441	-11.3	1,460	1,337	-4.4	1,278	11.8	11.8	40.3	20.6	10.4	5.1
20	5	945	865	1.6	930	851	3.3	879	10.0	19.9	35.8	17.6	11.5	5.2
21	2	350	275	12.0	340	267	15.4	308	27.3	23.4	25.3	14.6	4.9	4.5
All diameters	312	29,065	27,745	-2.8	25,810	24,556	9.8	26,963	9.0	16.6	32.5	22.7	12.9	6.3

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
5/8	—	—	—	—	0.2	—
3/4	0.4	0.4	0.2	0.3	1.0	0.5
4/4	69.4	66.1	80.9	91.7	70.5	85.6
5/4	1.2	3.0	1.8	1.2	0.1	0.8
6/4	11.4	15.6	9.5	4.0	2.0	0.5
7/4	—	—	—	—	—	0.6
8/4	17.6	14.9	7.6	2.8	23.6	10.2
12/4	—	—	—	—	2.6	1.8
Total tally (board feet)	2,422	4,467	8,764	6,115	3,491	1,704

Table 12.—BLACK CHERRY: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run							
		---Board feet---		Percent	---Board feet---		Percent		Board feet	-----Percent-----				
8	34	710	650	12.3	560	513	42.3	730	—	2.3	4.2	29.7	42.6	21.2
9	52	1,515	1,437	8.5	1,350	1,268	22.9	1,559	—	3.2	10.1	36.4	33.5	16.8
10	75	3,115	2,979	-0.6	2,520	2,398	23.5	2,962	1.1	3.2	15.7	40.9	29.8	9.3
11	55	2,665	2,508	-3.7	2,150	2,013	20.0	2,415	0.9	3.5	19.7	39.0	27.0	9.9
12	45	2,535	2,378	-1.9	2,190	2,022	15.3	2,332	1.0	3.7	24.0	37.4	21.6	12.3
13	22	1,625	1,493	-2.9	1,380	1,253	15.7	1,450	1.4	6.7	26.1	37.9	18.0	9.9
14	28	2,450	2,351	-4.6	2,170	2,060	8.9	2,243	4.8	8.8	27.1	33.8	18.1	7.4
15	15	1,535	1,424	-4.6	1,420	1,316	3.2	1,358	4.0	3.4	43.5	29.5	14.7	4.9
16	10	1,085	1,014	-3.7	1,000	924	5.6	976	6.1	7.9	43.0	21.5	12.0	9.5
17	2	275	275	-8.4	260	260	-3.1	252	5.2	7.9	55.1	14.3	12.7	4.8
18	5	610	545	-9.7	590	529	-7.0	492	13.4	7.3	41.7	19.1	9.6	8.9
19	1	125	115	-8.7	120	110	-4.5	105	—	—	76.1	12.4	2.9	8.6
20	1	175	155	-7.7	170	150	-4.7	143	38.4	16.8	16.1	16.1	8.4	4.2
All diameters	345	18,520	17,324	-1.8	15,880	14,816	14.9	17,017	2.7	4.9	24.3	34.6	23.2	10.3

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
3/8	—	—	0.1	—	0.1	—
1/2	—	—	—	0.1	—	0.1
5/8	—	0.3	—	—	—	—
3/4	—	—	0.2	0.3	0.5	0.3
4/4	82.2	83.3	89.4	91.9	67.9	83.7
5/4	1.3	3.9	1.4	2.6	0.3	0.4
6/4	13.1	9.3	8.3	2.4	0.6	0.4
7/4	—	—	—	—	0.3	—
8/4	3.4	3.2	0.6	2.7	27.3	14.3
12/4	—	—	—	—	3.0	0.8
Total tally (board feet)	455	829	4,129	5,898	3,946	1,760

Table 13.—RED MAPLE: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2A	2B	3A	3B
		Gross	Net	Over run	Gross	Net	Over- run									
		--- Board feet ---		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----							
13	25	2,455	2,380	-4.2	2,060	1,991	14.5	2,279	17.2	14.6	5.0	27.3	17.6	7.9	6.7	3.7
14	25	2,910	2,747	3.1	2,470	2,297	23.3	2,833	21.6	19.6	5.8	15.5	21.1	11.1	3.7	1.6
15	27	3,760	3,686	-4.3	3,380	3,296	7.0	3,526	25.4	17.0	7.9	18.1	14.2	10.2	6.1	1.1
16	31	4,590	4,447	-0.7	4,140	3,962	11.4	4,414	25.4	16.3	4.6	20.8	18.7	9.0	3.0	2.2
17	29	4,910	4,713	-4.3	4,440	4,239	6.4	4,510	25.5	15.1	3.2	26.9	18.9	7.1	2.1	1.2
18	15	2,580	2,520	-0.9	2,420	2,343	6.6	2,497	30.8	18.3	8.2	20.7	15.8	2.7	2.3	1.2
19	12	2,630	2,541	-1.0	2,460	2,350	7.0	2,515	31.1	13.9	4.2	19.1	15.0	12.8	3.1	0.8
20	8	1,920	1,872	-2.4	1,880	1,820	0.4	1,828	34.4	19.4	5.6	19.0	17.0	2.5	1.8	0.3
21	4	900	865	-5.0	880	830	-1.0	822	32.3	19.5	3.5	23.7	15.0	3.2	1.5	1.3
22	3	825	798	-0.1	790	764	4.3	797	19.1	6.6	2.3	42.8	12.4	2.5	8.0	6.3
23	1	285	285	10.5	280	280	12.5	315	50.4	10.2	9.5	12.1	15.6	2.2	—	—
24	1	310	310	-14.5	300	300	-11.7	265	7.9	9.8	3.4	38.5	30.6	—	3.8	6.0
25	1	400	265	2.3	400	265	2.3	271	13.3	1.5	0.4	46.1	25.8	11.8	0.7	0.4
All diameters	182	28,475	27,429	-2.0	25,900	24,737	8.6	26,872	26.0	16.1	5.2	22.2	17.4	7.8	3.6	1.7

Percentage distribution of grade 1 logs yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2A	2B	3A	3B
1/2	—	—	—	0.1	0.1	0.1	—	—
5/8	—	—	—	—	—	—	0.2	—
3/4	0.2	0.6	—	0.7	0.5	1.7	1.5	1.7
4/4	56.0	66.1	69.1	67.4	52.9	58.3	62.7	70.4
5/4	10.9	8.5	5.8	11.5	12.3	14.7	5.1	2.6
6/4	13.6	13.1	13.5	7.1	1.5	1.5	1.9	3.6
7/4	—	—	—	0.1	0.1	0.3	0.3	3.9
8/4	19.3	11.7	11.6	13.1	11.6	11.3	19.3	17.8
10/4	—	—	—	—	0.3	12.1	9.0	—
12/4	—	—	—	—	20.3	—	—	—
24/4	—	—	—	—	0.4	—	—	—
Total tally (board feet)	6,988	4,322	1,404	5,978	4,678	2,090	955	457

Table 14.—RED MAPLE: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule											
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	F1F	SEL	1C	2A	2B	3A	3B
		--- Board feet ---		Percent	--- Board feet ---		Percent		Board feet	----- Percent -----						
10	11	595	563	3.4	460	428	36.0	582	11.3	9.5	5.2	18.2	20.1	16.5	8.2	11.0
11	74	4,745	4,546	0.8	3,880	3,685	24.4	4,584	2.9	6.9	3.5	21.5	31.4	18.9	6.9	8.0
12	88	6,650	6,297	-1.4	5,650	5,315	16.9	6,211	5.8	9.0	4.7	22.9	29.6	16.3	6.9	4.8
13	70	6,135	5,722	-2.7	5,210	4,768	16.7	5,665	4.7	9.9	4.5	19.9	39.5	10.6	6.1	4.8
14	58	5,480	5,140	-4.4	4,820	4,437	10.8	4,916	7.3	10.8	4.4	25.1	28.9	11.7	7.2	4.6
15	46	5,340	5,016	-3.2	4,900	4,516	7.5	4,855	11.4	12.7	2.6	25.4	27.5	11.8	4.2	4.4
16	32	4,120	3,833	-1.0	3,760	3,450	10.0	3,795	8.7	11.2	3.0	31.0	33.2	6.2	4.2	2.5
17	19	2,515	2,375	4.0	2,360	2,206	11.9	2,469	8.3	9.1	3.0	32.8	27.4	9.7	5.2	4.5
18	9	1,485	1,351	-12.1	1,400	1,242	-4.3	1,188	14.1	5.7	4.0	30.6	27.2	5.0	9.4	4.0
19	8	1,660	1,515	-9.7	1,560	1,374	-0.4	1,368	22.3	11.5	4.3	27.0	22.1	6.1	5.7	1.0
20	4	845	826	-9.0	830	806	-6.7	752	36.6	19.1	4.5	14.2	17.0	0.7	3.2	4.7
21	5	1,145	993	-7.9	1,100	908	0.8	915	30.4	14.4	8.0	19.8	16.7	2.7	5.6	2.4
All diameters	424	40,715	38,177	-2.6	35,930	33,135	12.3	37,200	8.8	10.2	4.0	24.5	30.1	11.7	6.0	4.7

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2A	2B	3A	3B
1/2	—	—	—	0.1	—	—	0.2	—
3/4	0.1	0.3	—	0.7	0.7	1.8	0.8	0.6
4/4	63.5	61.5	66.1	74.8	60.7	63.7	68.0	70.1
5/4	9.7	15.0	14.1	8.7	8.9	13.9	4.3	3.5
6/4	13.5	15.3	15.3	7.4	1.4	—	1.5	—
7/4	—	0.2	—	0.1	0.4	—	0.4	2.7
8/4	13.2	7.7	4.5	8.2	6.4	12.9	23.7	19.9
9/4	—	—	—	—	0.1	0.2	—	1.2
10/4	—	—	—	—	0.7	7.5	1.1	—
12/4	—	—	—	—	19.5	—	—	2.0
24/4	—	—	—	—	1.2	—	—	—
Total tally (board feet)	3,290	3,778	1,471	9,099	11,202	4,361	2,238	1,761

Table 15.—RED MAPLE: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C Rule											
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	F1F	SEL	1C	2A	2B	3A	3B
		--- Board feet ---		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----							
8	67	1,630	1,578	9.3	1,300	1,254	37.5	1,724	—	0.1	0.3	2.6	20.0	44.1	14.4	18.5
9	116	3,880	3,729	2.0	3,370	3,225	17.9	3,803	0.2	0.9	1.6	6.2	31.8	36.3	12.4	10.6
10	163	7,160	6,839	-1.2	5,770	5,489	23.1	6,756	0.6	1.1	2.4	9.8	31.8	35.1	11.5	7.7
11	94	5,010	4,799	-0.5	4,060	3,866	23.6	4,777	0.4	0.8	1.5	9.5	36.4	34.2	9.7	7.5
12	67	4,175	3,925	-4.2	3,620	3,388	11.0	3,762	0.5	1.4	1.2	13.3	39.2	24.2	13.2	7.0
13	51	3,980	3,738	-6.4	3,370	3,150	11.0	3,497	1.5	4.6	1.3	14.2	39.2	27.6	7.1	4.5
14	35	3,100	2,823	-11.9	2,740	2,447	1.6	2,487	1.4	4.5	1.1	17.8	36.9	22.1	11.9	4.3
15	18	1,905	1,781	-5.3	1,770	1,626	3.7	1,686	6.3	8.4	0.9	31.9	29.7	11.8	8.2	2.8
16	7	890	850	-15.5	810	774	-7.2	718	—	10.7	0.8	21.0	47.7	11.4	7.8	0.6
17	7	1,015	949	-0.1	940	869	9.1	948	12.8	14.0	3.9	21.1	19.2	9.4	16.5	3.1
18	4	620	531	-2.4	580	490	5.7	518	10.2	6.0	2.1	38.5	21.0	7.3	6.0	8.9
19	1	190	190	-3.2	180	180	2.2	184	—	—	—	23.9	46.2	9.8	1.6	18.5
All diameters	630	33,555	31,732	-2.7	28,510	26,758	15.3	30,860	1.5	2.8	1.6	12.8	33.7	29.2	11.0	7.4

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2A	2B	3A	3B
1/2	—	—	—	0.1	—	—	—	0.1
5/8	—	—	—	—	—	—	—	0.1
3/4	—	—	—	1.3	0.5	2.8	1.5	1.6
4/4	75.5	75.1	75.5	81.1	60.0	72.7	64.6	82.0
5/4	5.8	12.1	14.5	8.2	8.5	10.5	4.7	3.3
6/4	18.7	7.6	9.2	5.4	0.9	0.2	0.2	0.5
7/4	—	2.2	—	—	—	—	—	—
8/4	—	3.0	0.8	3.9	2.6	3.4	12.0	12.4
10/4	—	—	—	—	0.3	10.4	17.0	—
12/4	—	—	—	—	25.0	—	—	—
24/4	—	—	—	—	2.2	—	—	—
Total tally (board feet)	450	854	488	3,965	10,429	9,003	3,386	2,285

Table 16.—SUGAR MAPLE: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run								
		--- Board feet ---	Percent	--- Board feet ---	Percent	Board feet	----- Percent -----								
13	56	5,410	5,145	3.4	4,530	4,302	23.7	5,322	14.7	13.2	4.1	26.7	14.2	10.5	16.6
14	47	5,290	5,109	4.3	4,540	4,384	21.6	5,329	23.2	12.7	4.4	24.7	15.1	7.0	12.9
15	54	7,295	6,980	-3.7	6,600	6,302	6.6	6,719	24.2	11.7	3.5	23.7	14.1	8.5	14.3
16	66	9,360	9,114	-5.0	8,490	8,250	4.9	8,658	19.5	11.5	3.1	27.5	17.0	6.9	14.5
17	74	12,370	11,876	-6.1	11,230	10,716	4.1	11,155	20.9	13.0	3.4	28.1	16.6	5.9	12.1
18	56	10,600	10,220	-5.5	9,880	9,473	1.9	9,656	24.3	13.2	3.1	25.0	15.7	6.0	12.7
19	34	7,250	7,010	-8.0	6,790	6,550	-1.5	6,452	21.4	11.7	2.6	28.1	17.3	6.5	12.4
20	47	11,275	10,922	-4.7	10,960	10,550	-1.3	10,409	26.6	13.1	2.7	25.8	15.6	7.1	9.1
21	22	5,545	5,417	-7.2	5,350	5,197	-3.3	5,025	27.7	13.9	2.8	26.8	14.4	7.1	7.3
22	14	4,260	4,085	-6.0	4,020	3,821	0.5	3,839	20.9	8.9	3.2	31.6	19.2	7.2	9.0
23	8	2,590	2,340	-9.2	2,540	2,252	-5.7	2,124	35.7	12.5	2.8	24.2	10.5	6.8	7.5
24	1	310	207	-7.7	300	200	-4.5	191	52.8	5.2	1.6	23.6	8.9	6.3	1.6
25	2	800	700	4.0	800	700	4.0	728	31.5	7.7	1.8	24.5	21.6	5.6	7.3
26	1	500	500	-17.2	500	500	-17.2	414	49.9	10.9	2.7	18.4	16.9	1.0	0.2
All diameters	482	82,855	79,625	-4.5	76,530	73,197	3.9	76,021	23.2	12.4	3.2	26.5	15.8	7.0	11.9

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
5/8	—	—	—	—	—	—	0.1
3/4	0.2	0.2	0.6	0.3	1.2	0.5	0.4
4/4	19.6	20.6	34.6	35.7	44.6	52.1	59.0
5/4	23.8	37.1	18.2	31.5	21.8	17.5	9.4
6/4	23.6	—	7.4	5.6	3.2	2.5	5.6
7/4	0.3	—	0.7	0.1	0.3	—	0.4
8/4	24.4	37.1	35.3	24.0	25.4	22.3	19.4
9/4	1.8	1.7	0.9	1.0	0.3	—	—
10/4	4.0	1.6	1.1	0.7	—	—	0.7
12/4	2.3	1.7	1.2	0.8	2.7	—	2.1
16/4	—	—	—	—	0.3	4.6	2.9
24/4	—	—	—	0.3	0.2	0.5	—
Total tally (board feet)	17,657	9,438	2,440	20,110	12,006	5,323	9,047

Table 17.—SUGAR MAPLE: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		---Board feet---		Percent	---Board feet---		Percent	Board feet	----- Percent -----						
10	35	1,770	1,690	2.9	1,420	1,353	28.5	1,739	2.8	3.7	2.5	25.3	19.3	11.2	35.2
11	152	9,480	9,124	1.0	7,480	7,192	28.1	9,214	3.2	5.5	2.5	22.8	21.1	11.5	33.4
12	220	16,800	16,147	-3.9	14,290	13,746	12.9	15,519	5.3	4.7	2.0	25.9	22.0	11.3	28.8
13	211	18,585	17,867	-5.1	15,630	15,005	13.0	16,958	4.2	4.4	1.8	24.9	25.6	12.8	26.3
14	151	15,750	15,070	-5.9	13,670	13,060	8.6	14,177	4.7	4.7	2.8	29.5	25.3	10.7	22.3
15	157	19,000	18,258	-7.3	17,470	16,752	1.1	16,930	6.6	6.9	2.8	28.1	25.3	9.7	20.6
16	96	12,990	12,139	-6.1	11,810	10,977	3.9	11,400	6.0	5.2	2.7	31.1	26.8	9.7	18.5
17	86	13,155	12,360	-6.5	12,070	11,271	2.5	11,558	6.3	8.5	2.4	31.9	22.3	11.1	17.5
18	44	8,125	7,672	-7.1	7,600	7,133	-0.1	7,127	5.8	7.8	1.7	33.1	24.6	9.1	17.9
19	38	7,450	6,981	-9.0	7,010	6,518	-2.5	6,352	10.3	10.8	2.0	30.6	25.6	10.4	10.3
20	30	6,320	5,967	-9.0	6,260	5,861	-7.4	5,430	8.9	11.0	2.7	30.1	22.0	10.7	14.6
21	13	3,470	3,250	-3.0	3,310	3,039	3.7	3,152	19.3	6.4	3.2	28.9	18.4	10.1	13.7
22	3	805	706	-7.2	770	675	-3.0	655	14.2	9.6	3.5	23.2	25.7	11.0	12.8
23	1	390	267	17.2	380	260	20.4	313	22.7	4.8	1.0	19.5	30.3	5.4	16.3
All diameters	1,237	134,090	127,498	-5.5	119,170	112,842	6.8	120,524	6.2	6.3	2.4	28.2	24.0	10.8	22.1

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	—	—	—	—	—	—	—
5/8	—	0.2	—	0.1	—	—	0.1
3/4	0.3	0.2	1.2	0.4	0.6	0.5	0.3
4/4	26.6	23.0	36.5	44.1	46.5	56.9	55.5
5/4	24.9	40.9	22.9	30.7	22.7	18.5	7.7
6/4	24.5	—	9.9	5.9	4.1	3.8	4.9
7/4	—	0.2	—	0.1	0.2	—	0.1
8/4	20.8	35.0	29.1	18.2	20.8	16.2	22.1
9/4	0.5	0.2	0.2	0.2	0.1	0.2	1.4
10/4	1.3	0.3	0.2	0.1	0.1	—	0.1
12/4	1.1	—	—	0.2	4.4	—	5.6
16/4	—	—	—	—	0.5	3.9	2.2
Total tally (board feet)	7,396	7,610	2,864	33,997	28,955	13,026	26,676

Table 18.—SUGAR MAPLE: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NH&A lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run								
		---Board feet---		Percent	---Board feet---		Percent	Board feet	----- Percent -----						
8	20	505	488	10.0	410	396	35.6	537	—	0.4	1.7	6.0	26.1	15.3	50.5
9	79	2,900	2,788	9.8	2,440	2,348	30.3	3,060	1.4	0.7	0.5	10.6	21.1	24.2	41.5
10	124	5,570	5,305	3.3	4,490	4,273	28.2	5,479	0.3	0.8	1.4	13.5	24.2	20.0	39.8
11	92	4,885	4,675	2.9	3,950	3,777	27.3	4,810	—	0.6	0.8	11.0	27.3	18.9	41.4
12	74	5,095	4,820	-1.6	4,370	4,130	14.8	4,742	0.6	1.1	2.0	14.0	29.1	21.2	32.0
13	73	5,810	5,474	-8.9	4,940	4,641	7.4	4,986	0.7	1.1	1.1	14.1	29.3	19.2	34.5
14	63	5,920	5,579	-7.4	5,190	4,875	6.0	5,166	1.0	0.9	2.2	15.2	29.0	16.4	35.3
15	50	5,640	5,163	-9.6	5,170	4,664	—	4,666	0.8	5.4	1.6	23.0	28.3	14.5	26.4
16	35	4,035	3,728	-8.6	3,710	3,392	0.4	3,406	1.2	2.8	1.2	29.5	29.7	14.4	21.2
17	27	3,700	3,423	-14.3	3,430	3,130	-6.3	2,933	0.7	4.5	2.3	22.8	32.0	20.4	17.3
18	19	3,590	3,194	-10.8	3,360	2,948	-3.3	2,850	1.5	6.1	1.5	23.8	29.8	16.3	21.0
19	14	2,550	2,465	-0.9	2,410	2,321	5.3	2,444	2.1	7.8	1.2	32.2	29.3	10.1	17.3
20	2	385	341	-7.3	360	302	4.6	316	—	2.2	3.2	22.8	36.7	17.1	18.0
21	5	1,020	908	-11.6	980	860	-6.6	803	1.2	3.0	0.5	37.8	29.1	12.0	16.4
All diameters	677	51,605	48,351	-4.5	45,210	42,057	9.8	46,198	0.8	2.4	1.5	18.1	28.0	17.9	31.3

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	—	—	—	—	—	—	0.1
5/8	1.0	—	—	—	—	—	—
3/4	—	—	1.9	0.6	0.5	0.6	0.3
4/4	34.0	20.2	49.4	48.6	51.8	56.0	54.0
5/4	29.4	51.1	22.7	35.5	23.3	19.6	8.6
6/4	4.2	—	1.0	1.0	2.6	1.7	2.3
7/4	4.0	—	—	0.4	0.2	—	0.3
8/4	27.4	26.6	25.0	13.7	11.4	11.6	22.3
9/4	—	2.1	—	0.2	—	—	1.0
10/4	—	—	—	—	0.3	—	0.2
12/4	—	—	—	—	8.6	—	7.2
16/4	—	—	—	—	1.3	10.5	3.7
Total tally (board feet)	384	1,118	668	8,362	12,949	8,265	14,452

Table 19.—BLACK OAK: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	SW	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run									
		--- Board feet ---		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----							
13	20	2,030	2,018	3.3	1,710	1,700	22.6	2,085	19.9	13.0	2.1	25.6	17.5	1.0	10.2	10.7
14	28	3,200	3,100	7.1	2,750	2,659	24.9	3,321	15.7	10.8	1.8	29.2	18.8	0.2	8.9	14.6
15	29	3,870	3,805	0.8	3,500	3,441	11.5	3,835	19.5	13.4	1.9	29.2	17.3	0.4	8.1	10.2
16	37	5,555	5,361	2.4	5,020	4,831	13.6	5,487	18.4	10.5	1.9	28.1	16.2	1.3	7.5	16.1
17	46	8,045	7,870	2.9	7,240	7,047	14.9	8,098	19.8	12.0	1.8	28.8	15.5	0.4	8.3	13.4
18	26	5,260	5,183	2.5	4,860	4,782	11.1	5,314	19.7	11.0	1.2	33.4	14.8	0.5	8.3	11.1
19	34	7,755	7,549	-1.2	7,230	7,021	6.3	7,460	25.3	12.5	2.0	28.8	16.6	0.2	5.3	9.3
20	38	9,270	9,054	-1.0	9,010	8,793	1.9	8,959	23.8	12.4	2.2	34.9	11.6	1.0	6.7	7.4
21	22	6,335	6,160	0.7	6,020	5,827	6.5	6,204	26.0	10.3	1.9	33.3	13.3	2.5	7.1	5.6
22	13	4,220	4,060	-3.5	3,970	3,817	2.6	3,916	24.8	11.3	0.7	41.4	8.9	0.5	4.3	8.1
23	8	2,805	2,756	-2.3	2,740	2,693	0.0	2,692	28.5	17.8	4.2	27.2	9.5	0.4	6.4	6.0
24	7	2,465	2,371	-3.0	2,350	2,230	3.1	2,300	31.8	10.3	0.9	38.4	8.2	1.6	3.0	5.8
25	3	1,380	1,297	11.9	1,380	1,270	14.3	1,451	16.4	18.3	1.0	33.7	14.7	4.7	2.5	8.7
26	7	2,970	2,954	-1.8	2,960	2,941	-1.3	2,902	50.4	15.2	3.5	21.0	1.1	0.0	4.1	4.7
27	4	1,810	1,806	8.0	1,850	1,843	5.9	1,951	37.5	16.0	2.5	23.3	11.8	0.0	3.2	5.7
28	1	585	562	-6.6	580	548	-4.2	525	15.6	33.5	0.0	43.7	3.4	0.0	2.7	1.1
29	1	385	385	4.2	380	380	5.5	401	21.2	19.7	5.7	37.7	6.2	0.0	9.5	0.0
All diameters	324	67,940	66,291	0.9	63,550	61,823	8.2	66,901	24.0	12.5	1.9	31.1	13.5	0.8	6.7	9.5

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	SW	3A	3B
1/2	0.1	—	—	—	—	—	—	—
5/8	—	0.1	0.1	0.4	—	—	—	—
3/4	0.4	0.1	0.3	0.6	1.0	1.4	0.4	0.6
4/4	14.1	19.7	31.3	35.6	62.1	71.6	63.9	39.3
5/4	72.4	63.1	62.2	45.2	15.8	4.6	7.1	4.4
6/4	2.8	11.2	—	13.8	11.5	—	5.1	—
7/4	—	0.2	0.2	0.6	4.0	—	9.9	35.6
8/4	3.9	2.1	2.2	2.5	4.0	18.1	9.5	10.4
10/4	4.3	3.3	3.5	0.6	0.4	—	1.1	8.9
12/4	2.0	0.2	0.2	0.7	0.3	4.3	3.0	0.8
16/4	—	—	—	—	0.4	—	—	—
24/4	—	—	—	—	0.5	—	—	—
Total tally (board feet)	16,032	8,380	1,302	20,811	8,999	562	4,459	6,356

Table 20.—BLACK OAK: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	SW	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run									
--- Board feet ---		Percent		--- Board feet ---		Percent		Board feet	Percent							
10	6	340	340	7.1	280	280	30.0	364	—	1.6	6.0	22.3	41.8	—	22.8	5.5
11	29	1,765	1,704	8.6	1,400	1,351	36.9	1,850	2.0	6.6	3.0	14.8	23.6	2.4	22.5	25.1
12	57	4,475	4,288	3.6	3,800	3,622	22.7	4,443	2.8	4.7	1.4	21.0	24.9	2.1	16.1	27.0
13	38	3,700	3,602	0.8	3,130	3,048	19.1	3,631	1.9	4.7	0.6	23.3	26.3	1.5	17.8	23.9
14	55	5,705	5,477	6.5	4,950	4,737	23.1	5,832	3.4	3.9	0.8	23.9	20.6	1.3	13.3	32.8
15	72	9,515	9,248	0.8	8,590	8,342	11.8	9,324	4.6	5.6	1.3	25.6	22.2	1.3	10.9	28.5
16	56	8,535	8,183	0.3	7,700	7,358	11.5	8,205	4.2	4.5	1.5	24.9	23.3	0.9	12.6	28.1
17	46	7,830	7,514	2.5	7,080	6,786	13.5	7,699	5.5	4.4	1.4	31.2	25.0	1.2	9.7	21.6
18	35	6,520	6,384	-0.8	6,080	5,948	6.4	6,330	4.6	8.8	1.7	40.3	16.5	2.7	12.8	12.6
19	29	6,350	6,052	-3.0	5,940	5,638	4.1	5,871	8.3	7.2	1.4	35.4	21.3	2.0	9.8	14.6
20	10	2,345	2,190	1.5	2,310	2,145	3.6	2,223	6.2	4.3	1.1	30.4	21.6	1.0	12.0	23.4
21	10	2,995	2,973	-8.4	2,840	2,813	-3.2	2,723	9.9	9.0	0.6	33.8	20.0	1.2	10.8	14.7
22	4	1,135	1,128	-10.3	1,080	1,073	-5.7	1,012	17.2	13.4	0.8	28.7	16.6	5.5	13.5	4.3
23	2	575	480	-4.4	570	440	4.3	459	17.6	9.2	—	34.5	13.9	2.2	15.0	7.6
24	5	1,810	1,699	-4.9	1,730	1,608	0.5	1,616	6.0	7.3	1.9	40.4	26.1	—	11.6	6.7
25	2	800	783	-2.6	800	783	-2.6	763	14.5	16.5	—	37.9	16.4	—	10.5	4.2
26	3	1,240	1,223	-11.0	1,250	1,232	-11.6	1,089	10.0	7.6	0.6	40.7	27.7	0.1	7.7	5.6
27	1	540	540	-27.8	550	550	-29.1	390	9.5	6.9	1.8	73.9	7.9	—	—	—
28	1	355	355	-6.8	360	360	-8.1	331	1.8	7.3	—	68.6	16.9	—	5.4	—
All diameters	461	66,530	64,163	0.0	60,440	58,114	10.4	64,155	5.3	6.0	1.3	29.5	22.2	1.5	12.4	21.8

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	SW	3A	3B
1/2	—	—	—	—	0.1	—	—	—
5/8	—	0.2	0.2	0.4	—	—	—	—
3/4	—	—	—	0.6	0.6	1.8	1.0	0.4
4/4	22.2	24.0	24.9	39.4	55.6	80.4	62.9	32.6
5/4	75.0	68.3	67.9	48.3	19.6	10.0	6.0	6.9
6/4	2.1	4.1	—	8.2	12.8	—	2.7	—
7/4	—	—	—	0.3	4.2	—	9.8	43.5
8/4	0.7	1.7	5.1	2.3	4.6	7.8	15.5	12.5
10/4	—	—	—	0.5	—	—	1.8	3.3
12/4	—	1.7	1.9	—	0.7	—	0.3	0.8
16/4	—	—	—	—	0.8	—	—	—
24/4	—	—	—	—	1.0	—	—	—
Total tally (board feet)	3,427	3,836	836	18,940	14,235	969	7,949	13,963

Table 21.—BLACK OAK: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule											
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	F1F	SEL	1C	2C	SW	3A	3B
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----							
8	15	445	438	4.1	320	315	44.8	456	—	—	—	2.2	15.4	4.8	25.7	51.9
9	28	1,100	1,083	2.6	920	916	21.3	1,111	—	—	0.2	7.2	21.7	11.6	31.8	27.5
10	50	2,430	2,358	2.3	1,980	1,924	25.4	2,413	0.2	—	—	6.2	19.6	7.7	31.2	35.1
11	30	1,755	1,700	1.9	1,410	1,364	27.1	1,733	—	0.6	1.0	10.7	21.0	10.0	31.3	25.4
12	42	3,060	2,963	-3.7	2,600	2,509	13.7	2,853	0.1	0.6	—	10.4	26.0	7.4	27.0	28.5
13	41	3,680	3,581	-1.2	3,100	3,015	17.3	3,537	0.1	1.1	—	11.6	29.2	9.7	21.8	26.5
14	37	3,720	3,599	-0.3	3,220	3,099	15.8	3,588	1.0	2.6	0.3	18.5	27.4	7.3	19.8	23.1
15	45	5,415	5,215	0.5	5,000	4,809	9.0	5,241	1.2	1.3	—	20.3	27.3	9.8	21.4	18.7
16	24	3,265	3,115	0.9	2,960	2,813	11.7	3,143	3.1	2.6	1.0	21.7	32.2	3.4	19.9	16.1
17	13	1,970	1,922	-2.2	1,790	1,747	7.6	1,879	—	3.1	0.3	23.6	39.0	7.7	17.1	9.2
18	9	1,680	1,638	1.3	1,580	1,540	7.8	1,660	—	3.2	0.3	36.4	31.3	3.2	17.5	8.1
19	7	1,600	1,536	-5.1	1,480	1,421	2.6	1,458	3.0	3.4	1.2	25.0	21.4	2.3	12.5	31.2
20	10	2,425	2,330	7.9	2,370	2,249	11.8	2,515	5.6	7.4	0.3	29.2	25.8	3.6	12.4	15.7
21	1	320	320	-10.0	300	300	-4.0	288	—	10.1	—	47.6	22.9	—	19.4	—
22	3	915	864	1.7	870	798	10.2	879	7.2	12.6	1.0	29.8	28.4	2.7	11.8	6.5
23	1	285	285	1.4	280	280	3.2	289	15.2	9.7	—	32.9	24.2	—	4.2	13.8
24	1	425	425	-8.5	400	400	-2.8	389	5.1	—	—	49.9	20.1	—	18.5	6.4
25	1	460	460	-0.7	460	460	-0.7	457	54.5	17.5	—	4.8	3.9	7.0	—	12.3
All diameters	358	34,950	33,832	0.2	31,040	29,959	13.1	33,889	2.3	2.7	0.3	18.9	26.6	6.9	21.0	21.3

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	SW	3A	3B
1/2	—	—	—	—	0.1	—	—	—
3/4	—	—	1.9	1.1	0.7	0.6	0.7	0.2
4/4	12.0	15.7	54.9	41.6	62.6	68.8	63.0	40.1
5/4	84.3	80.2	39.4	52.3	24.1	17.8	7.1	3.5
6/4	0.3	0.2	—	2.1	2.7	1.2	1.9	—
7/4	—	—	—	—	1.1	0.6	2.7	22.2
8/4	—	1.5	1.9	2.5	6.2	11.0	19.4	20.5
10/4	—	2.4	1.9	0.4	—	—	3.9	12.8
12/4	3.4	—	—	—	1.3	—	1.3	0.7
16/4	—	—	—	—	0.4	—	—	—
24/4	—	—	—	—	0.8	—	—	—
Total tally (board feet)	766	906	104	6,398	9,051	2,328	7,112	7,224

Table 22.—CHESTNUT OAK: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diam- eter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)											
		Int. 1/4-inch rule			Scribner Decimal C rule															
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	FAS- WHND	F1F	F1F- WHND	SEL	SEL- WHND	1C	1C- WHND	2C	SW	3A	3B
		-- Board feet --		Per- cent	-- Board feet --		Per- cent	Board feet	-----Percent-----											
13	13	1,240	1,192	-1.7	1,040	994	17.9	1,172	5.5	5.7	12.3	1.4	4.9	—	22.1	10.3	15.8	6.1	10.2	5.7
14	15	1,750	1,684	-3.2	1,480	1,414	15.3	1,630	6.7	11.0	6.7	1.7	3.5	—	21.1	12.3	13.0	9.2	10.6	4.2
15	13	1,615	1,490	-1.3	1,470	1,345	9.4	1,471	15.4	5.4	8.0	2.1	1.7	—	25.1	6.4	20.9	0.6	8.6	5.8
16	16	2,415	2,178	-4.7	2,180	1,930	7.6	2,076	8.0	7.8	8.8	3.1	1.9	0.2	19.7	10.4	14.7	5.1	10.7	9.6
17	17	2,930	2,744	-5.7	2,650	2,438	6.2	2,588	10.6	11.6	9.4	3.7	1.0	0.2	11.5	16.7	10.2	4.3	8.0	12.8
18	13	2,660	2,495	0.6	2,460	2,255	11.3	2,509	6.1	19.1	6.9	5.2	0.4	—	7.7	18.9	5.5	10.5	7.7	12.0
19	18	4,085	3,866	-0.4	3,810	3,578	7.6	3,851	4.5	25.1	5.6	4.4	0.8	0.8	10.8	17.2	6.3	6.6	8.7	9.2
20	13	2,845	2,636	-3.0	2,750	2,482	3.1	2,558	5.8	11.7	9.3	4.0	1.2	1.4	15.6	16.3	6.3	4.9	9.3	14.2
21	9	2,355	2,213	-9.1	2,270	2,098	-4.1	2,012	1.9	20.6	6.4	5.9	0.2	0.2	3.5	20.3	8.0	4.5	9.0	19.5
22	8	2,645	2,438	1.5	2,480	2,228	11.0	2,474	7.9	18.2	6.8	5.3	0.4	—	19.4	15.2	7.6	4.9	8.1	6.2
23	7	2,255	2,053	1.7	2,210	1,952	6.9	2,087	7.1	18.5	3.7	8.0	0.2	—	9.0	21.0	5.4	5.1	7.3	14.7
24	2	625	594	-18.0	600	561	-13.2	487	1.4	42.3	—	13.6	—	—	2.3	15.0	1.2	3.7	15.4	5.1
25	2	740	682	-1.2	740	674	—	674	2.8	6.1	2.8	4.7	—	0.9	2.1	44.4	6.5	4.2	9.9	15.6
26	3	1,205	1,181	-9.7	1,220	1,196	-10.9	1,066	17.7	11.1	8.3	1.7	—	—	12.5	13.2	9.8	7.4	5.7	12.6
27	1	540	486	-9.7	550	477	-8.0	439	10.3	11.4	6.4	7.1	—	—	19.4	12.8	18.5	—	11.4	2.7
28	1	585	585	-3.9	580	580	-3.1	562	4.3	8.0	—	—	—	—	37.2	33.8	1.6	1.2	10.7	3.2
29	1	630	630	1.6	610	610	4.9	640	—	1.6	—	1.4	—	—	19.4	10.6	28.1	11.1	23.3	4.5
30	2	990	931	19.7	980	921	21.0	1,114	9.9	4.4	9.5	—	—	—	21.5	25.5	7.5	7.5	5.7	8.5
All diam- eters	154	32,110	30,078	-2.2	30,080	27,733	6.0	29,410	7.1	14.6	6.9	4.1	1.0	0.3	14.4	16.9	9.5	5.8	9.1	10.3

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	FAS- WHND	F1F	F1F- WHND	SEL	SEL- WHND	1C	1C- WHND	2C	SW	3A	3B
1/2	—	—	0.2	—	—	—	—	—	—	0.2	0.1	—
5/8	—	—	—	—	—	—	0.1	—	0.2	—	—	0.1
3/4	1.1	0.3	—	—	—	—	0.3	0.2	2.3	1.1	3.7	2.3
4/4	26.1	14.0	22.7	16.5	56.8	92.8	39.6	44.1	86.6	57.4	90.1	94.5
5/4	21.5	15.9	21.1	10.8	29.1	—	17.8	20.7	5.0	18.7	0.9	1.2
6/4	51.3	69.8	56.0	71.9	14.1	7.2	41.9	35.0	5.9	22.6	5.2	1.9
7/4	—	—	—	0.8	—	—	0.3	—	—	—	—	—
Total tally (board feet)	2,096	4,298	2,039	1,207	296	83	4,237	4,963	2,782	1,695	2,674	3,040

Table 23.—CHESTNUT OAK: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diam- eter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)											
		Int. 1/4-inch rule			Scribner Decimal C rule															
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	FAS- WHND	F1F	F1F- WHND	SEL	SEL- WHND	1C	1C- WHND	2C	SW	3A	3B
		---Board feet---		Per- cent	---Board feet---		Per- cent		Board feet	-----Percent-----										
10	10	560	524	-1.9	480	449	14.5	514	3.3	—	—	—	2.7	—	11.1	12.5	12.6	20.2	22.4	15.2
11	44	2,805	2,593	3.4	2,270	2,082	28.8	2,681	2.8	1.4	4.2	0.8	2.9	0.3	15.8	11.0	16.6	13.2	21.6	9.4
12	49	3,810	3,586	-3.8	3,240	3,044	13.3	3,448	1.2	3.3	3.9	0.7	3.8	0.3	13.8	9.8	16.9	15.3	18.2	12.8
13	45	4,085	3,766	-9.6	3,450	3,112	9.4	3,406	1.7	1.9	4.1	0.4	1.6	0.4	12.2	11.2	15.5	17.2	20.2	13.6
14	35	3,615	3,349	-3.8	3,120	2,865	12.4	3,221	1.4	3.8	2.5	1.8	0.4	0.6	11.0	15.1	11.6	14.4	17.5	19.9
15	40	4,935	4,679	-4.9	4,500	4,243	4.9	4,449	3.0	6.8	4.2	1.3	0.6	0.4	13.0	14.8	11.7	13.3	13.2	17.7
16	32	4,130	3,879	-6.1	3,760	3,515	3.6	3,643	1.9	4.0	2.7	4.2	0.6	0.5	6.3	18.8	8.6	15.3	16.5	20.6
17	22	3,650	3,347	-6.9	3,310	2,952	5.6	3,116	2.6	8.7	3.8	2.5	1.0	0.2	10.8	20.0	10.9	9.5	13.0	17.0
18	19	3,080	2,873	-3.4	2,910	2,685	3.3	2,774	3.4	7.3	2.5	4.0	0.5	0.4	10.1	27.9	9.4	8.2	16.0	10.3
19	21	3,970	3,647	-6.7	3,750	3,363	1.2	3,404	1.1	10.5	3.2	3.1	0.6	0.3	9.9	23.4	6.2	7.3	11.5	22.9
20	7	1,515	1,194	-7.6	1,490	1,100	0.3	1,103	—	8.3	—	2.7	0.4	0.4	4.5	28.0	4.0	7.6	11.2	32.9
21	6	1,670	1,571	-2.9	1,590	1,464	4.2	1,525	0.7	23.5	0.4	7.1	—	1.0	4.9	24.3	3.3	3.2	11.4	20.2
22	5	1,305	1,260	0.8	1,250	1,203	5.6	1,270	—	18.5	0.8	3.1	1.7	3.0	4.7	27.7	4.1	13.4	13.8	9.2
23	2	780	721	-12.9	760	687	-8.6	628	—	4.6	3.5	3.3	2.1	—	16.7	15.4	13.7	2.1	20.0	18.6
24	3	885	820	-5.7	860	782	-1.2	773	—	9.3	4.7	1.4	—	0.6	18.0	26.3	6.9	10.0	10.6	12.2
25	1	400	356	17.1	400	350	19.1	417	—	6.7	9.4	—	—	—	23.5	11.5	28.8	0.5	17.7	1.9
27	1	540	432	-3.0	550	416	0.7	419	—	9.8	—	8.6	—	—	—	51.8	—	5.0	8.6	16.2
28	2	1,015	959	-3.0	1,020	950	-2.1	930	1.3	6.0	17.1	—	—	—	23.9	26.9	2.7	2.8	10.5	8.8
All diam- eters	344	42,750	39,556	-4.6	38,710	35,262	7.0	37,721	1.8	6.7	3.5	2.3	1.2	0.5	11.2	18.4	10.8	11.7	15.6	16.3

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	FAS- WHND	F1F	F1F- WHND	SEL	SEL- WHND	1C	1C- WHND	2C	SW	3A	3B
1/2	—	—	—	—	—	—	0.1	—	—	—	0.1	0.1
5/8	—	—	—	—	—	—	0.4	0.3	—	—	0.1	—
3/4	—	0.5	0.4	0.6	1.1	—	0.5	0.6	1.2	1.2	2.6	2.8
4/4	44.6	31.7	36.8	26.9	58.2	65.7	60.5	58.9	89.3	76.5	93.9	93.5
5/4	38.7	23.8	20.3	38.6	29.5	11.4	20.4	22.5	7.3	16.5	2.2	2.4
6/4	16.7	44.0	42.5	33.9	11.2	22.9	18.1	17.7	2.2	5.8	1.1	1.2
Total tally (board feet)	675	2,528	1,322	867	447	175	4,238	6,941	4,072	4,399	5,889	6,168

Table 24.—CHESTNUT OAK: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diam- eter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)											
		Int. 1/4-inch rule			Scribner Decimal C rule															
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	FAS- WHND	F1F	F1F- WHND	SEL	SEL- WHND	1C	1C- WHND	2C	SW	3A	3B
		---Board feet---		Per- cent	---Board feet---		Per- cent	Board feet	-----Percent-----											
8	19	470	453	-1.3	350	339	31.9	447	—	—	—	—	—	—	1.1	—	7.2	9.2	25.1	57.4
9	48	1,680	1,574	-4.8	1,460	1,369	9.5	1,499	—	—	—	—	—	—	2.1	2.1	7.3	18.0	27.6	42.9
10	78	3,690	3,489	-4.6	3,020	2,836	17.3	3,327	—	0.4	0.4	0.1	0.8	0.1	4.4	3.9	10.1	19.1	23.1	37.6
11	53	2,795	2,662	-2.7	2,290	2,176	19.0	2,590	—	1.2	0.3	0.6	1.4	0.2	3.0	5.5	11.1	21.9	21.7	33.1
12	35	2,425	2,366	-6.3	2,080	2,024	9.5	2,216	—	2.6	—	0.5	0.2	0.1	3.9	11.6	8.5	18.5	20.8	33.3
13	30	2,515	2,392	-9.2	2,160	2,048	6.0	2,171	—	1.3	0.7	1.7	0.4	—	6.9	10.3	9.8	26.5	22.8	19.6
14	26	2,750	2,613	-12.7	2,370	2,248	1.5	2,282	1.9	1.6	0.4	1.4	—	—	6.4	10.6	10.9	25.2	17.7	23.9
15	14	1,610	1,508	-8.1	1,480	1,374	0.9	1,386	0.6	1.1	0.5	—	—	—	4.5	15.7	5.3	28.2	14.6	29.5
16	12	1,565	1,462	-13.3	1,420	1,313	-3.4	1,268	—	5.9	1.2	3.0	0.3	0.2	10.6	14.9	7.6	13.1	15.5	27.7
17	10	1,370	1,292	-7.5	1,260	1,171	2.0	1,195	—	3.7	—	2.4	0.5	0.3	4.7	14.7	4.6	22.4	8.2	38.5
18	10	1,625	1,539	-8.2	1,530	1,435	-1.5	1,413	—	1.5	—	0.4	—	—	3.4	21.4	3.5	18.6	20.1	31.1
19	6	1,250	1,216	-8.5	1,170	1,134	-1.9	1,113	—	2.4	—	—	—	—	2.2	29.8	7.5	14.8	16.1	27.2
20	4	655	631	2.2	660	632	2.1	645	—	3.6	2.3	1.9	—	—	13.3	10.1	6.2	20.6	16.0	26.0
21	1	235	218	-7.3	230	207	-2.4	202	—	7.4	—	—	—	—	—	27.7	6.9	10.9	18.8	28.3
22	3	695	621	-15.9	670	561	-7.0	522	—	1.9	5.4	—	—	—	10.0	28.2	12.6	12.6	5.9	23.4
23	1	335	322	-9.0	330	317	-7.6	293	—	22.9	—	—	—	—	6.5	12.3	4.1	39.9	—	14.3
24	1	310	295	-22.0	300	285	-19.3	230	—	19.6	—	8.3	—	—	—	31.7	3.5	3.9	1.7	31.3
25	1	460	396	-8.8	460	376	-4.0	361	—	50.7	—	3.9	—	—	—	24.9	—	—	2.5	18.0
26	1	500	451	-19.3	500	460	-20.9	364	—	24.5	—	2.5	—	—	—	45.2	—	6.9	—	20.9
All diam- eters	353	26,935	25,500	-7.7	23,740	22,305	5.5	23,524	0.2	3.3	0.5	1.0	0.4	0.1	4.8	12.2	8.1	20.0	18.5	30.9

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	FAS-WHND	F1F	F1F-WHND	SEL	SEL-WHND	1C	1C-WHND	2C	SW	3A	3B
1/2	—	—	—	—	—	—	—	—	0.5	—	—	—
3/4	—	—	—	—	—	—	0.7	0.8	0.3	1.8	2.9	2.1
4/4	100.0	66.4	45.4	60.4	81.2	100.0	66.8	71.5	96.5	87.5	95.5	96.0
5/4	—	14.5	7.4	21.8	18.8	—	16.4	17.9	2.7	7.8	1.6	1.7
6/4	—	19.1	47.2	17.8	—	—	16.1	9.8	—	2.9	—	0.2
Total tally (board feet)	51	780	108	225	85	19	1,122	2,874	1,911	4,706	4,359	7,284

Table 25.—NORTHERN RED OAK: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		--- Board feet ---	Percent	Percent	--- Board feet ---	Percent	Board feet	----- Percent -----							
13	15	1,350	1,239	14.5	1,120	1,002	41.6	1,419	18.5	16.5	5.1	21.4	22.6	15.0	0.9
14	26	2,980	2,793	7.6	2,540	2,340	28.5	3,006	24.7	15.0	3.3	27.7	17.8	9.4	2.1
15	26	3,250	3,331	4.8	3,160	2,961	17.9	3,491	25.2	15.0	3.5	24.5	21.9	8.0	1.9
16	43	6,445	6,121	4.3	5,820	5,466	16.8	6,382	24.7	12.6	3.3	27.4	22.2	8.8	1.0
17	42	7,785	7,350	11.9	6,950	6,449	27.6	8,227	32.1	14.8	3.7	26.1	16.7	5.5	1.1
18	38	7,330	6,961	8.7	6,840	6,413	18.0	7,570	28.7	16.1	2.5	27.3	15.4	8.3	1.7
19	44	10,145	9,806	7.9	9,440	9,111	16.2	10,585	37.9	13.3	2.8	23.6	15.4	5.3	1.7
20	35	8,200	7,919	6.8	7,980	7,669	10.3	8,461	33.8	15.0	1.7	28.6	13.5	5.9	1.5
21	29	7,700	7,266	7.7	7,370	6,772	15.6	7,829	30.9	13.6	1.4	33.0	13.8	4.8	2.5
22	36	10,670	10,151	3.5	10,100	9,469	11.0	10,507	33.0	16.4	1.7	25.2	15.4	5.2	3.1
23	26	8,485	8,297	6.4	8,310	8,062	9.5	8,828	34.6	15.4	3.2	26.4	12.9	5.1	2.4
24	20	7,765	7,088	9.5	7,350	6,486	19.6	7,760	30.9	13.6	3.5	31.7	10.2	7.3	2.8
25	15	6,180	6,001	0.7	6,190	5,966	1.3	6,042	40.7	12.3	4.0	26.4	8.8	5.3	2.5
26	12	5,220	4,832	6.9	5,250	4,742	8.9	5,165	25.8	10.5	4.2	38.0	14.2	4.9	2.4
27	3	1,480	1,375	6.0	1,510	1,381	5.5	1,457	24.1	9.6	7.9	40.5	11.8	6.1	—
28	5	2,390	2,277	9.4	2,390	2,236	11.4	2,491	40.1	12.4	1.4	30.8	11.2	3.5	0.6
29	3	1,395	1,279	14.8	1,370	1,255	17.0	1,468	26.9	18.9	—	38.4	8.4	5.2	2.2
30	1	495	485	15.1	490	476	17.2	558	22.9	9.3	7.5	50.3	5.2	4.8	—
31	1	530	530	12.5	530	530	12.5	596	56.1	11.2	5.0	20.1	5.4	2.2	—
All diameters	420	100,065	95,101	7.1	94,710	88,786	14.7	101,842	31.9	14.2	2.9	28.3	14.6	6.1	2.0

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
3/8	—	—	—	—	—	—	—
1/2	—	—	—	—	—	0.1	—
5/8	0.1	—	—	0.1	0.1	0.2	0.2
3/4	0.4	0.4	0.1	0.7	1.5	2.2	2.0
4/4	23.0	33.5	40.9	48.1	82.4	92.6	93.5
5/4	65.3	60.9	58.6	49.3	15.6	4.6	3.3
6/4	11.2	5.2	0.4	1.8	0.4	0.3	1.0
Total tally (board feet)	32,511	14,459	2,965	28,771	14,870	6,268	1,998

Table 26.—NORTHERN RED OAK: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run								
		--- Board feet ---	Percent		--- Board feet ---	Percent	Board feet	----- Percent -----							
10	9	435	422	6.4	340	326	37.7	449	2.4	6.9	5.1	32.8	26.5	23.6	2.7
11	44	2,590	2,390	10.8	2,030	1,870	41.7	2,649	5.1	5.8	4.8	20.3	33.4	22.5	8.1
12	60	4,415	4,172	6.6	3,750	3,525	26.2	4,437	6.4	6.9	2.8	25.0	34.1	18.9	5.9
13	66	5,875	5,449	3.2	4,940	4,519	24.5	5,626	4.7	5.2	2.9	31.6	31.3	17.4	6.9
14	57	5,710	5,336	5.2	4,970	4,576	22.7	5,608	9.2	8.4	3.2	30.4	28.5	17.2	3.1
15	72	8,505	7,925	2.3	7,770	7,137	13.6	8,108	11.7	7.5	2.3	29.6	29.5	14.9	4.5
16	50	7,205	6,896	0.1	6,520	6,218	11.0	6,904	9.8	11.2	2.9	34.1	26.7	10.9	4.4
17	41	6,375	5,988	3.9	5,820	5,410	15.0	6,220	12.3	8.0	1.6	36.9	22.5	12.4	6.3
18	35	5,995	5,425	4.5	5,630	4,972	14.1	5,671	16.6	10.7	2.8	30.4	22.5	12.3	4.7
19	33	6,010	5,615	1.7	5,700	5,228	9.2	5,710	11.9	6.9	2.5	39.5	23.6	10.2	5.4
20	16	3,165	2,965	-2.1	3,110	2,862	1.4	2,903	10.7	11.7	1.2	32.5	21.7	11.6	10.6
21	15	3,450	3,176	3.2	3,340	2,982	9.9	3,278	7.6	8.3	1.4	50.0	16.9	9.3	6.5
22	14	3,880	3,486	3.6	3,700	3,237	11.6	3,611	14.5	10.2	1.7	38.4	22.1	9.0	4.1
23	6	1,920	1,800	-2.9	1,890	1,740	0.4	1,747	9.2	11.6	0.2	46.1	12.5	11.3	9.1
24	7	2,110	1,800	8.4	2,050	1,636	19.3	1,951	23.5	14.8	4.2	36.1	15.8	3.2	2.4
25	5	1,670	1,612	4.0	1,700	1,624	3.2	1,676	22.1	15.2	0.4	39.0	20.0	3.3	—
26	2	805	783	13.9	810	780	14.4	892	1.3	7.5	—	67.7	15.1	6.4	2.0
29	3	1,805	1,444	-9.3	1,750	1,300	0.8	1,310	9.5	7.5	—	53.3	20.5	7.7	1.5
30	1	410	213	7.0	410	164	39.0	228	20.6	15.4	3.5	36.4	19.7	3.1	1.3
All diameters	536	72,330	66,897	3.1	66,230	60,106	14.8	68,978	10.8	8.8	2.4	34.5	25.3	13.0	5.2

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	—	—	—	—	—	0.2	0.1
5/8	0.1	—	—	0.1	0.1	0.1	0.3
3/4	0.3	0.7	0.3	1.0	1.2	1.6	1.9
4/4	39.3	45.9	71.4	64.1	87.7	93.6	93.1
5/4	47.4	46.2	27.7	33.3	10.7	4.0	2.4
6/4	12.9	7.2	0.6	1.5	0.2	—	—
8/4	—	—	—	—	0.1	0.5	2.2
Total tally (board feet)	7,477	6,063	1,648	23,829	17,424	8,943	3,594

Table 27.—NORTHERN RED OAK: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run								
		--- Board feet ---		Percent	--- Board feet ---		Percent								
8	24	620	583	11.0	490	459	41.0	647	—	—	3.1	4.9	27.7	42.0	22.3
9	40	1,400	1,276	16.1	1,200	1,090	36.0	1,482	—	1.0	1.6	12.6	35.8	36.4	12.6
10	49	2,085	1,870	9.6	1,670	1,475	38.9	2,049	1.4	0.5	1.1	8.8	38.0	37.4	12.8
11	52	2,590	2,348	9.6	2,160	1,939	32.7	2,574	0.6	1.2	1.2	14.3	40.3	31.7	10.7
12	36	2,370	2,213	0.9	2,030	1,879	18.8	2,232	0.3	1.2	1.1	14.9	34.7	35.1	12.7
13	40	3,030	2,729	0.3	2,590	2,302	18.9	2,738	1.2	3.0	0.8	22.7	35.1	25.3	11.9
14	28	2,650	2,419	2.9	2,330	2,103	18.3	2,488	1.0	1.6	1.3	21.4	37.5	21.5	15.7
15	25	2,630	2,515	-4.8	2,410	2,297	4.2	2,394	—	3.4	0.8	27.6	34.4	23.7	10.1
16	23	3,255	3,112	1.6	2,950	2,815	12.4	3,163	3.5	6.0	1.1	27.4	31.9	18.4	11.7
17	10	1,550	1,377	3.1	1,410	1,213	17.1	1,420	9.4	8.4	1.5	29.6	34.8	9.8	6.5
18	8	1,330	1,226	-6.4	1,250	1,116	2.8	1,147	5.1	4.9	—	25.3	32.0	13.3	19.4
19	5	1,020	904	-5.5	960	810	5.4	854	10.9	4.3	—	19.8	35.3	22.4	7.3
20	7	1,675	1,572	-12.2	1,640	1,519	-9.1	1,381	5.8	3.6	1.6	28.9	29.5	16.4	14.2
21	5	1,350	1,277	-7.5	1,290	1,198	-1.4	1,181	1.2	2.8	—	35.5	30.3	13.4	16.8
22	1	305	204	13.7	290	166	39.8	232	—	—	—	12.5	31.9	48.3	7.3
23	2	595	589	-12.1	590	582	-11.0	518	—	5.4	—	40.3	38.8	11.6	3.9
24	1	310	282	-45.7	300	262	-41.6	153	—	—	2.0	27.5	32.5	19.0	19.0
25	1	250	242	9.9	260	252	5.6	266	10.2	9.8	--	52.6	21.4	6.0	—
26	1	240	211	-4.3	250	212	-4.7	202	5.4	4.0	—	38.6	33.2	7.4	11.4
27	1	470	461	-18.7	480	464	-19.2	375	—	18.4	—	39.7	25.9	8.5	7.5
28	1	355	227	20.7	360	230	19.1	274	34.6	13.9	5.5	24.8	10.6	9.1	1.5
All diameters	360	30,080	27,637	0.5	26,910	24,383	13.9	27,770	2.6	3.4	1.0	22.3	34.4	24.2	12.1

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	—	—	—	—	—	—	—
5/8	—	—	—	0.1	—	0.1	0.1
3/4	—	0.4	—	0.9	0.8	2.3	2.6
4/4	36.1	49.1	76.9	79.1	92.2	94.3	90.6
5/4	58.3	49.7	23.1	19.4	6.1	2.2	2.5
6/4	5.6	0.8	—	0.5	0.1	—	0.5
8/4	—	—	—	—	0.8	1.1	3.7
Total tally (board feet)	731	943	290	6,196	9,530	6,712	3,368

Table 28.—SCARLET OAK: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		---Board feet---		Percent	---Board feet---		Percent	Board feet	Percent						
13	2	170	170	11.2	140	140	35.0	189	21.2	10.6	3.2	15.9	32.2	16.9	—
14	2	270	270	-9.6	220	220	10.9	244	11.5	7.4	19.7	29.4	7.4	6.6	18.0
15	1	135	135	-8.9	120	120	2.5	123	17.1	37.4	—	18.7	19.5	7.3	—
16	7	1,210	1,179	11.2	1,080	1,053	24.5	1,311	14.8	6.3	—	38.3	19.8	15.1	5.7
17	15	2,970	2,764	2.9	2,620	2,437	16.7	2,844	11.6	5.9	1.2	42.6	18.3	15.3	5.1
18	5	1,030	938	8.7	960	874	16.7	1,020	24.9	9.9	1.6	35.8	9.7	13.3	4.8
19	4	900	877	-0.3	840	818	6.8	874	13.4	7.1	3.0	40.7	16.6	13.3	5.9
20	4	1,160	1,033	13.3	1,120	997	17.4	1,170	31.1	9.9	1.1	37.0	11.0	4.9	5.0
21	4	1,200	1,181	-1.2	1,140	1,123	3.9	1,167	22.5	12.4	3.7	36.3	12.1	9.5	3.5
22	1	305	281	-2.5	290	267	2.6	274	—	4.7	—	30.7	34.3	7.7	22.6
23	2	725	675	4.9	710	660	7.3	708	20.3	13.0	1.3	31.6	16.4	9.9	7.5
All diameters	47	10,075	9,503	4.4	9,240	8,709	14.0	9,924	17.7	8.7	2.0	37.5	16.2	12.1	5.8

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	0.3	0.5	—	0.9	0.2	0.5	—
5/8	47.1	43.1	43.3	50.6	11.7	0.6	—
3/4	—	—	—	0.4	1.4	0.6	2.1
4/4	27.3	33.4	31.4	35.5	82.0	95.3	97.9
5/4	25.3	23.0	25.3	12.6	4.7	—	—
8/4	—	—	—	—	—	3.0	—
Total tally (board feet)	1,756	865	194	3,721	1,607	1,202	579

Table 29.—SCARLET OAK: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		--- Board feet ---		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----						
11	9	590	571	5.6	450	435	38.6	603	3.0	4.3	4.5	26.2	22.2	25.2	14.6
12	17	1,360	1,323	9.8	1,150	1,116	30.1	1,452	2.4	2.5	1.6	25.8	31.1	23.1	13.5
13	16	1,705	1,635	1.6	1,440	1,382	20.2	1,661	3.0	3.9	2.7	21.2	27.2	28.0	14.0
14	15	1,700	1,639	4.6	1,440	1,387	23.6	1,714	4.1	2.5	0.9	25.2	25.6	25.5	16.2
15	20	2,815	2,697	1.4	2,520	2,415	13.3	2,736	3.7	3.4	1.8	33.7	28.3	14.0	15.1
16	14	2,300	2,234	4.2	2,060	2,001	16.3	2,327	2.8	4.0	0.9	31.8	31.8	21.1	7.6
17	12	2,195	2,101	-6.3	1,960	1,876	5.0	1,969	6.1	6.9	0.8	29.0	29.2	18.2	9.8
18	8	1,420	1,301	6.4	1,340	1,227	12.8	1,384	8.0	7.4	0.8	35.6	24.7	16.7	6.8
19	8	1,940	1,616	4.1	1,800	1,499	12.3	1,683	3.0	6.0	0.8	32.7	29.1	18.3	10.1
20	2	540	452	-3.5	520	436	—	436	6.0	13.1	—	29.3	21.3	10.6	19.7
21	1	280	255	-4.3	270	246	-0.8	244	—	—	—	14.3	45.5	25.4	14.8
22	2	615	615	-5.7	580	580	—	580	1.7	2.8	—	20.9	25.8	24.1	24.7
23	1	390	390	10.5	380	380	13.4	431	—	—	—	17.6	41.3	38.5	2.6
All diameters	125	17,850	16,829	2.3	15,910	14,980	15.0	17,220	3.8	4.5	1.3	28.7	28.6	20.8	12.3

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	—	0.8	—	0.1	0.3	0.2	0.2
5/8	36.7	34.9	21.3	46.8	12.4	2.7	1.2
3/4	—	—	—	0.5	1.0	0.4	0.9
4/4	25.6	34.6	64.2	39.9	79.8	88.8	79.4
5/4	37.7	29.7	14.5	12.7	3.1	—	0.3
8/4	—	—	—	—	1.1	6.6	16.3
12/4	—	—	—	—	2.3	1.3	1.7
Total tally (board feet)	656	768	221	4,956	4,923	3,578	2,118

Table 30.—SCARLET OAK: log grade 3: dry lumber grade yield, by scaling diameter

Table 30.—SCARLET OAK: log grade 3: dry lumber grade yield, by scaling diameter															
Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run								
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----						
8	4	85	84	23.8	80	79	31.6	104	—	—	—	2.9	15.4	29.8	51.9
9	11	370	353	10.5	320	305	27.9	390	—	1.5	1.0	2.1	1.5	34.1	59.8
10	34	1,620	1,532	16.4	1,330	1,253	42.3	1,783	—	0.4	0.3	5.1	14.9	37.8	41.5
11	32	2,055	1,962	13.0	1,670	1,589	39.5	2,217	—	0.5	—	7.2	24.9	35.0	32.4
12	34	2,385	2,285	8.7	2,040	1,957	26.9	2,483	—	—	0.6	4.9	24.3	40.4	29.8
13	27	2,315	2,207	5.5	1,980	1,885	23.5	2,328	—	0.6	0.5	14.5	22.5	38.7	23.2
14	29	3,230	3,107	4.7	2,730	2,626	23.8	3,252	0.4	1.6	0.4	14.3	35.0	33.8	14.5
15	27	3,315	3,236	1.4	3,020	2,947	11.4	3,282	0.8	0.7	—	15.7	35.2	31.5	16.1
16	9	1,285	1,236	3.6	1,160	1,106	15.7	1,280	0.3	—	—	15.5	39.2	28.0	17.0
17	5	840	809	4.9	750	722	17.6	849	0.7	2.8	—	22.6	45.0	21.1	7.8
18	4	680	605	6.3	630	561	14.6	643	—	—	—	16.8	29.5	38.8	14.9
19	3	560	520	0.2	540	497	4.8	521	—	—	—	23.2	36.9	18.8	21.1
20	4	770	726	-5.8	770	725	-5.7	684	8.3	0.7	—	27.0	44.3	10.1	9.6
All diameters	223	19,510	18,662	6.2	17,020	16,252	21.9	19,816	0.5	0.7	0.3	12.6	29.4	33.4	23.1

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	3A	3B
1/2	—	—	—	0.3	—	0.2	0.1
5/8	39.3	49.0	8.0	41.3	10.2	1.9	0.9
3/4	—	—	—	0.4	0.6	1.0	0.5
4/4	60.7	51.0	92.0	55.7	83.4	89.1	93.6
5/4	—	—	—	2.3	0.4	0.6	0.2
8/4	—	—	—	—	5.1	5.7	4.7
12/4	—	—	—	—	0.3	1.5	—
Total tally (board feet)	107	145	50	2,506	5,828	6,602	4,578

Table 31.—WHITE OAK: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	F1F	SEL	1C	2C	SW	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run									
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----							
13	13	1,260	1,236	-2.0	1,070	1,041	16.3	1,211	13.0	13.3	3.4	30.2	16.1	3.2	14.0	6.8
14	10	1,035	1,010	2.5	900	869	19.1	1,035	21.3	16.9	5.6	21.9	18.3	—	12.6	3.4
15	23	3,110	2,972	4.0	2,810	2,654	16.4	3,090	15.3	11.9	3.3	25.2	20.8	4.8	12.6	6.1
16	21	3,415	3,314	-2.9	3,060	2,932	9.8	3,218	22.4	13.5	3.5	28.3	17.0	2.1	7.5	5.7
17	11	1,960	1,920	0.7	1,760	1,722	12.3	1,933	18.8	10.7	7.1	22.2	21.0	7.1	9.4	3.7
18	13	2,690	2,565	-10.0	2,480	2,322	-0.6	2,309	13.7	8.5	2.8	21.8	20.6	8.8	13.9	9.9
19	16	3,460	3,350	2.0	3,240	3,102	10.2	3,417	15.4	9.2	3.3	36.5	21.1	5.3	7.1	2.1
20	10	2,115	2,028	2.3	2,080	1,968	5.4	2,074	20.2	13.5	4.2	25.5	20.0	1.4	8.5	6.7
21	10	3,035	2,964	3.7	2,590	2,495	23.2	3,074	16.8	15.1	5.8	28.2	15.2	3.2	9.5	6.2
22	9	2,760	2,633	0.1	2,610	2,453	7.5	2,636	14.2	19.4	3.2	40.3	16.8	—	4.4	1.7
23	8	2,435	2,377	1.0	2,390	2,320	3.5	2,401	17.0	9.0	4.6	29.0	24.9	8.9	4.4	2.2
24	8	3,000	2,847	10.7	2,850	2,673	17.9	3,152	13.1	16.6	0.9	41.1	19.2	1.0	5.3	2.8
26	2	870	850	1.4	870	845	2.0	862	19.0	11.4	3.1	35.1	14.8	—	13.5	3.1
27	1	540	524	9.2	550	534	7.1	572	22.7	2.3	3.1	57.7	14.2	—	—	—
28	1	585	585	-8.5	580	580	-7.8	535	7.3	29.0	—	43.6	7.1	2.2	2.6	8.2
29	1	630	630	-22.9	610	610	-20.3	486	39.4	7.2	7.8	36.0	4.9	—	1.6	3.1
All diameters	157	32,900	31,805	0.6	30,450	29,120	9.9	32,005	17.0	13.0	3.7	31.1	18.7	3.6	8.3	4.6

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	SW	3A	3B
3/8	—	—	—	0.1	—	—	—	—
1/2	0.1	—	0.2	0.1	—	—	—	—
5/8	—	—	—	—	0.1	—	0.1	—
3/4	0.3	0.8	—	1.4	2.4	2.5	4.4	3.2
4/4	24.1	21.7	45.9	39.6	69.0	71.8	83.8	85.1
5/4	56.2	41.7	28.9	37.2	22.7	16.1	7.5	3.3
6/4	19.3	35.8	25.0	21.5	5.4	9.6	—	—
8/4	—	—	—	0.1	0.4	—	4.2	8.4
Total tally (board feet)	5,432	4,148	1,200	9,954	5,978	1,165	2,669	1,459

Table 32.—WHITE OAK: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule											
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	F1F	SEL	1C	2C	SW	3A	3B
		---Board feet---		Percent	---Board feet---		Percent		Board feet	-----Percent-----						
10	4	230	227	-11.5	180	178	12.9	201	—	—	4.5	9.5	41.2	—	24.4	20.4
11	31	1,980	1,895	-8.0	1,610	1,533	13.7	1,743	1.5	4.2	4.2	13.5	27.3	6.4	22.0	20.9
12	44	3,145	3,083	-1.5	2,700	2,643	14.9	3,036	1.1	6.2	1.3	19.4	28.6	10.6	18.1	14.7
13	46	4,260	4,138	-9.6	3,590	3,474	7.6	3,739	2.3	4.4	1.1	17.7	29.9	9.6	21.5	13.5
14	48	5,060	4,975	-11.6	4,370	4,272	2.9	4,398	3.4	4.2	1.2	22.1	30.3	7.7	20.8	10.3
15	41	5,395	5,215	-6.6	4,860	4,669	4.3	4,869	3.8	4.4	3.5	26.0	32.5	4.2	15.1	10.5
16	36	4,985	4,814	-6.6	4,530	4,348	3.4	4,495	6.8	7.9	2.2	27.1	28.5	6.4	13.0	8.1
17	29	4,700	4,597	-3.3	4,280	4,183	6.2	4,444	6.4	5.0	1.8	31.0	28.0	5.7	11.3	10.8
18	23	4,210	4,044	0.2	3,940	3,735	8.5	4,053	5.1	3.8	2.7	34.0	25.3	9.5	12.2	7.4
19	14	2,905	2,839	0.2	2,730	2,657	7.1	2,845	9.6	4.2	2.0	32.9	28.4	5.2	12.4	5.3
20	7	1,635	1,609	-6.3	1,600	1,567	-3.8	1,507	7.2	4.7	1.4	43.0	26.7	2.1	8.7	6.2
21	8	2,270	2,070	-1.8	2,160	1,945	4.5	2,033	5.6	9.0	2.7	36.7	28.8	3.1	8.3	5.8
22	9	2,595	2,501	1.9	2,470	2,352	8.4	2,549	8.2	6.3	1.8	34.5	20.5	9.0	14.3	5.4
23	3	805	784	-6.3	790	762	-3.5	735	1.1	3.3	1.0	37.3	39.1	9.5	8.7	—
24	1	425	408	-2.2	400	379	5.3	399	6.8	7.8	—	33.8	39.0	3.3	3.3	6.0
25	3	1,080	1,068	-9.5	1,090	1,078	-10.3	967	3.4	6.9	—	42.8	23.3	—	15.3	8.3
All diameters	347	45,680	44,267	-5.1	41,300	39,775	5.6	42,013	4.9	5.3	2.0	27.9	28.6	6.7	14.9	9.7

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	SW	3A	3B
3/8	0.1	0.1	—	—	0.1	—	—	0.1
1/2	—	0.2	—	0.1	0.1	—	0.1	0.1
5/8	—	—	—	0.3	0.1	—	0.3	0.1
3/4	0.9	1.0	0.9	1.7	2.3	2.5	2.7	5.1
4/4	44.3	39.4	45.5	54.2	76.9	77.7	86.6	78.0
5/4	43.6	47.5	46.4	36.5	16.1	13.2	3.7	1.8
6/4	11.1	11.8	7.2	7.0	2.6	2.1	0.4	—
7/4	—	—	—	0.2	0.2	—	0.4	1.3
8/4	—	—	—	—	1.6	4.5	5.6	13.5
12/4	—	—	—	—	—	—	0.2	—
Total tally (board feet)	2,049	2,218	857	11,748	12,002	2,820	6,253	4,066

Table 33.—WHITE OAK: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule											
		Gross	Net	Over- run	Gross	Net	Over- run									
									FAS	F1F	SEL	1C	2C	SW	3A	3B
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----							
8	29	815	793	-13.0	600	582	18.6	690	—	—	—	1.7	7.4	2.3	25.1	63.5
9	42	1,660	1,607	-7.7	1,360	1,314	12.9	1,483	0.3	1.6	0.2	2.2	16.8	1.6	24.6	52.7
10	59	2,920	2,841	-4.4	2,410	2,343	15.9	2,715	—	0.6	0.9	4.7	20.4	7.1	27.5	38.8
11	44	2,700	2,637	-11.2	2,140	2,092	12.0	2,342	—	—	0.3	5.9	26.3	13.5	29.2	24.8
12	58	4,165	4,068	-8.3	3,570	3,473	7.4	3,731	0.8	1.1	0.1	7.9	28.9	8.7	29.7	22.8
13	41	3,625	3,494	-6.1	3,050	2,932	11.9	3,280	0.7	0.5	0.2	8.8	32.0	11.6	22.5	23.7
14	47	4,775	4,620	-7.4	4,120	3,966	7.9	4,279	1.3	1.6	0.8	13.1	32.2	11.4	22.0	17.6
15	37	4,560	4,439	-4.2	4,170	4,047	5.1	4,252	0.7	1.9	0.1	18.3	35.3	12.3	18.3	13.1
16	25	3,505	3,371	-0.2	3,170	3,008	11.8	3,363	1.0	0.9	1.6	17.0	38.3	10.5	17.0	13.7
17	26	3,780	3,634	-3.7	3,470	3,318	5.5	3,500	1.0	2.9	1.3	19.7	29.4	17.7	16.7	11.3
18	22	3,710	3,495	-3.9	3,500	3,243	3.6	3,359	0.7	1.5	—	31.0	33.0	8.6	15.4	9.8
19	13	2,435	2,341	-0.1	2,290	2,190	6.8	2,339	4.1	5.5	0.3	29.7	20.4	10.3	14.5	15.2
20	12	2,770	2,487	-5.4	2,720	2,362	-0.4	2,352	1.6	3.8	—	25.5	32.3	11.1	14.7	11.0
21	7	1,990	1,962	-1.7	1,910	1,874	2.9	1,929	3.6	7.2	0.8	42.3	29.9	11.9	4.3	—
22	2	525	498	-8.2	500	466	-1.9	457	3.1	7.9	—	28.2	29.5	10.7	17.5	3.1
23	1	335	204	-22.5	330	158	—	158	—	—	—	5.1	5.1	—	55.0	34.8
24	2	680	582	3.8	650	521	15.9	604	—	6.6	—	38.5	32.8	2.0	13.1	7.0
All diameters	467	44,950	43,073	-5.2	39,960	37,889	7.8	40,833	1.1	2.1	0.5	17.2	29.5	10.6	20.1	18.9

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	F1F	SEL	1C	2C	SW	3A	3B
3/8	—	—	—	—	0.1	—	0.1	—
1/2	—	—	—	0.2	—	—	—	0.1
5/8	—	—	—	0.4	0.3	—	0.1	0.2
3/4	—	0.6	—	1.7	2.1	1.2	3.7	3.1
4/4	33.8	54.5	69.9	65.6	82.0	70.3	82.7	80.4
5/4	50.1	22.8	25.2	29.1	10.7	8.2	2.4	1.8
6/4	16.1	22.1	4.9	2.7	0.3	0.7	0.2	0.1
7/4	—	—	—	—	0.2	3.2	1.0	1.9
8/4	—	—	—	0.3	3.6	15.7	9.0	12.2
9/4	—	—	—	—	0.5	0.7	0.4	—
12/4	—	—	—	—	0.2	—	0.4	0.2
Total tally (board feet)	453	861	206	7,018	12,046	4,321	8,227	7,701

Table 34.—YELLOW POPLAR: log grade 1: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	SAP	1C	2A	2B	3C
		Gross	Net	Over- run	Gross	Net	Over- run								
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----						
13	16	1,630	1,576	-1.1	1,380	1,326	17.6	1,559	0.8	5.5	8.1	35.9	26.3	15.8	7.6
14	27	3,140	3,059	-4.7	2,670	2,582	12.9	2,914	2.8	6.5	11.5	39.0	31.9	5.8	2.5
15	20	2,965	2,845	-9.2	2,630	2,501	3.3	2,583	3.1	8.3	5.6	39.3	34.4	6.5	2.8
16	25	3,720	3,592	-4.6	3,360	3,221	6.4	3,426	6.0	7.2	11.2	38.5	25.2	7.6	4.3
17	36	6,765	6,508	-3.0	6,020	5,731	10.2	6,314	6.4	8.5	4.4	41.3	26.9	7.2	5.3
18	23	4,660	4,450	-4.9	4,320	4,084	3.6	4,233	3.7	9.5	10.3	37.8	28.2	6.9	3.6
19	22	4,985	4,626	-3.6	4,650	4,241	5.2	4,461	6.3	11.8	5.6	42.9	23.4	5.9	4.1
20	12	2,890	2,799	-1.8	2,820	2,703	1.7	2,749	7.6	14.0	8.0	43.9	17.7	6.8	2.0
21	18	5,090	5,010	-7.3	4,830	4,740	-2.0	4,645	11.4	10.3	4.0	41.8	18.8	11.2	2.5
22	13	3,670	3,626	-4.0	3,490	3,450	0.9	3,481	6.4	3.4	7.8	44.4	28.8	6.4	2.8
23	6	1,865	1,847	-8.4	1,830	1,810	-6.6	1,691	11.1	8.6	2.4	46.9	20.3	2.8	7.9
24	5	1,555	1,503	-2.1	1,500	1,450	1.4	1,471	7.8	8.1	5.9	36.8	35.6	3.3	2.5
25	3	1,140	1,130	4.4	1,140	1,130	4.4	1,180	18.8	3.7	11.5	52.1	11.2	0.6	2.1
26	6	2,285	2,250	-13.9	2,290	2,255	-14.1	1,937	0.5	3.8	0.4	57.2	30.3	3.0	4.8
27	3	1,200	1,166	-5.7	1,230	1,195	-7.9	1,100	0.6	3.5	3.1	64.0	21.1	1.7	6.0
28	1	430	430	-15.3	440	440	-17.3	364	—	0.8	1.6	65.7	28.6	0.8	2.5
30	2	990	970	-8.0	980	960	-7.1	892	—	2.0	5.6	56.9	27.0	1.7	6.8
All diameters	238	48,980	47,387	-5.0	45,580	43,819	2.7	45,000	6.1	8.1	6.6	43.0	25.7	6.6	3.9

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	SAP	1C	2A	2B	3C
1/2	—	—	—	—	—	0.3	—
5/8	—	0.6	0.3	0.1	—	—	—
3/4	6.0	1.0	1.4	1.2	2.0	2.2	1.8
4/4	75.4	81.0	53.4	82.2	75.0	77.0	80.9
5/4	0.4	6.0	5.2	0.2	1.4	3.5	3.5
6/4	16.3	9.6	27.4	15.8	10.6	0.7	3.5
7/4	—	—	—	—	0.1	—	—
8/4	1.9	1.8	12.3	0.5	10.9	16.3	10.3
Total tally (board feet)	2,726	3,622	2,988	19,364	11,546	2,982	1,772

Table 35.—YELLOW POPLAR: log grade 2: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	SAP	1C	2A	2B	3C	
		Gross	Net	Over- run	Gross	Net	Over- run									
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----							
10	22	1,130	1,118	2.1	890	880	29.8	1,142	1.4	3.4	1.0	30.9	32.7	20.6	10.0	
11	75	4,685	4,559	0.1	3,740	3,635	25.5	4,562	0.4	0.7	3.2	27.1	32.6	23.6	12.4	
12	81	6,225	6,014	-1.3	5,290	5,088	16.7	5,936	0.7	2.9	2.8	29.2	36.7	20.3	7.4	
13	72	6,720	6,497	-4.8	5,630	5,425	14.0	6,184	0.9	3.1	2.6	30.9	36.9	19.6	6.0	
14	61	6,250	6,002	-2.3	5,440	5,200	12.7	5,861	0.9	2.7	3.8	31.8	36.5	16.2	8.1	
15	65	8,380	8,193	-7.0	7,620	7,426	2.6	7,618	1.9	4.8	3.5	32.8	31.1	19.7	6.2	
16	66	9,775	9,373	-4.3	8,820	8,401	6.7	8,967	1.6	6.1	2.6	34.1	30.8	20.9	3.9	
17	35	6,225	6,055	-5.1	5,580	5,365	7.1	5,748	2.3	2.5	3.6	46.3	29.9	11.8	3.6	
18	33	6,420	6,032	-3.2	5,960	5,523	5.7	5,837	2.7	6.0	3.3	38.9	31.7	11.0	6.4	
19	27	6,045	5,850	-6.5	5,640	5,424	0.8	5,468	5.9	8.4	4.0	39.5	31.2	9.3	1.7	
20	12	2,935	2,741	-7.0	2,840	2,584	-1.3	2,550	3.0	4.2	1.0	41.2	36.5	9.5	4.6	
21	9	2,590	2,569	-1.9	2,450	2,430	3.7	2,520	2.3	4.6	3.1	51.7	27.5	9.1	1.7	
22	4	1,000	995	-13.0	960	955	-9.3	866	2.2	2.2	0.8	35.2	39.1	14.3	6.2	
23	1	335	335	-9.9	330	330	-8.5	302	—	—	—	50.0	43.0	7.0	—	
24	4	1,250	1,206	-9.5	1,210	1,157	-5.7	1,091	1.4	5.0	—	48.4	34.5	7.0	3.7	
25	1	340	340	-13.2	340	340	-13.2	295	—	—	—	39.0	57.3	3.7	—	
27	2	1,010	983	-13.2	1,030	991	-13.9	853	14.0	24.5	2.6	44.4	8.2	0.9	5.4	
All diameters	570	71,315	68,862	-4.4	63,770	61,154	7.6	65,800	2.1	4.5	3.0	35.8	32.8	16.1	5.7	

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	SAP	1C	2A	2B	3C
1/2	—	—	—	—	0.1	—	—
5/8	—	0.9	—	0.2	—	—	0.1
3/4	3.6	1.3	1.6	2.1	1.9	3.4	3.3
4/4	90.2	93.2	79.8	87.4	87.4	79.2	79.8
5/4	0.7	0.5	—	0.3	0.8	1.7	2.2
6/4	5.5	3.0	11.7	8.7	4.6	0.8	5.3
7/4	—	—	—	—	0.3	0.4	—
8/4	—	1.1	6.9	1.3	4.9	14.5	9.3
Total tally (board feet)	1,370	2,976	1,968	23,574	21,559	10,586	3,767

Table 36.—YELLOW POPLAR: log grade 3: dry lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NH&A lumber grade yields (actual)						
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	SAP	1C	2A	2B	3C
		Gross	Net	Over-run	Gross	Net	Over-run								
		--- Board feet ---	Percent		--- Board feet ---	Percent		Board feet	----- Percent -----						
8	43	1,230	1,206	4.0	940	921	36.2	1,254	—	0.2	0.2	5.0	17.2	54.1	23.3
9	88	3,250	3,196	-2.2	2,720	2,667	17.2	3,125	—	0.3	0.2	7.1	20.6	49.7	22.1
10	114	5,610	5,474	-3.6	4,610	4,497	17.3	5,275	—	—	0.1	10.0	30.3	47.1	12.5
11	98	5,795	5,611	-0.6	4,670	4,528	23.2	5,578	0.1	0.3	0.4	11.5	30.9	41.9	14.9
12	89	6,665	6,450	-5.5	5,690	5,485	11.2	6,098	—	0.5	0.9	14.3	35.1	38.5	10.7
13	78	7,085	6,828	-3.7	5,990	5,750	14.3	6,573	—	0.1	1.0	18.6	37.9	34.9	7.5
14	60	6,290	5,963	-6.1	5,410	5,091	10.0	5,598	0.1	0.7	0.5	21.7	36.9	33.7	6.4
15	56	7,430	7,234	-7.2	6,670	6,445	4.1	6,712	0.1	0.7	1.3	24.0	41.9	26.3	5.7
16	41	5,645	5,506	-3.2	5,120	4,975	7.1	5,328	0.2	2.5	1.1	31.1	38.7	21.1	5.3
17	20	3,460	3,340	-5.3	3,120	2,989	5.8	3,162	1.1	1.8	0.7	40.1	35.9	15.0	5.4
18	15	3,240	3,123	-6.7	2,990	2,869	1.6	2,915	1.0	2.5	2.6	40.3	29.6	21.9	2.1
19	14	2,985	2,892	-1.8	2,790	2,701	5.2	2,841	0.4	2.5	1.8	35.6	35.6	20.6	3.5
20	9	2,450	2,444	-3.2	2,370	2,364	0.1	2,367	3.5	2.6	0.5	54.2	23.6	14.4	1.2
21	2	310	288	-6.3	300	277	-2.5	270	—	—	—	21.5	43.3	33.3	1.9
22	5	1,495	1,444	-7.2	1,410	1,341	-0.1	1,340	9.0	4.9	9.3	37.9	16.8	12.9	9.2
23	1	285	285	-4.9	280	280	-3.2	271	—	—	—	29.2	41.3	24.0	5.5
24	1	310	270	-16.3	300	244	-7.4	226	—	—	—	38.1	49.5	12.4	—
26	1	240	235	-11.9	250	245	-15.5	207	—	—	—	21.7	50.3	6.3	21.7
27	2	870	870	-14.1	890	890	-16.1	747	—	2.0	4.0	43.9	34.0	11.1	5.0
All diameters	737	64,645	62,659	-4.4	56,520	54,559	9.8	59,887	0.5	1.1	1.2	23.3	33.7	31.5	8.7

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	SAP	1C	2A	2B	3C
1/2	—	—	—	—	—	0.1	0.2
5/8	—	0.3	—	—	0.1	—	—
3/4	—	—	2.9	1.4	1.8	2.1	2.4
4/4	100.0	97.1	90.7	94.8	93.3	88.5	83.7
5/4	—	1.0	—	0.1	1.1	2.4	2.4
6/4	—	1.6	6.4	2.8	1.4	0.1	2.0
7/4	—	—	—	—	0.3	0.6	—
8/4	—	—	—	0.9	2.0	6.2	9.3
Total tally (board feet)	309	630	699	13,935	20,204	18,879	5,231

Table 37.—BEECH: log grade 1: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)								
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE	TBR
		Gross	Net	Over- run	Gross	Net	Over- run										
		---Board feet---	Percent		---Board feet---	Percent	Board feet	-----Percent-----									
13	11	900	890	-7.0	770	762	8.7	828	7.2	13.5	38.4	9.5	—	9.5	21.9	—	—
14	5	550	539	-9.3	480	470	4.0	489	33.2	6.5	32.3	12.5	—	8.8	6.7	—	—
15	7	785	711	-6.3	750	679	-1.9	666	14.7	15.6	39.9	10.7	—	3.5	15.6	—	—
16	16	2,305	2,207	-0.7	2,090	2,001	9.5	2,191	25.1	8.9	33.9	12.8	0.5	3.9	14.9	—	—
17	9	1,445	1,364	3.5	1,320	1,247	13.2	1,412	8.4	2.5	47.1	18.4	—	8.1	15.5	—	—
18	12	2,070	1,977	-2.4	1,950	1,862	3.6	1,929	31.3	5.5	31.5	10.8	—	7.5	12.3	—	1.1
19	11	2,300	2,194	0.5	2,160	2,060	7.0	2,204	25.9	3.7	36.9	13.7	—	4.4	15.4	—	—
20	17	3,780	3,488	2.2	3,730	3,441	3.5	3,563	28.4	5.5	36.4	12.6	—	4.2	11.0	—	1.9
21	13	3,110	2,955	5.8	3,030	2,879	8.5	3,125	33.1	6.3	31.4	10.3	—	3.0	15.3	0.2	0.4
22	6	1,650	1,640	-3.3	1,580	1,570	1.0	1,586	28.2	2.5	38.1	14.8	—	6.5	9.9	—	—
23	6	1,760	1,642	-4.9	1,730	1,614	-3.2	1,562	27.8	1.5	42.9	8.9	—	4.0	14.9	—	—
24	2	680	661	5.4	650	632	10.3	697	25.0	1.7	36.0	12.8	—	7.3	15.6	1.6	—
All diameters	115	21,335	20,268	-0.1	20,240	19,217	5.4	20,252	26.0	5.6	36.4	12.3	0.1	5.1	13.9	0.1	0.5

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE	TBR
5/8	23.2	7.6	27.2	11.1	—	—	0.6	—	—
3/4	0.1	—	0.1	0.2	—	—	—	—	—
4/4	20.2	23.1	25.2	32.6	—	28.4	41.3	—	100.0
5/4	20.4	26.3	20.7	21.9	—	8.9	5.7	—	—
6/4	16.0	31.1	12.9	6.6	100.0	7.6	1.8	—	—
7/4	—	—	1.0	13.0	—	22.5	36.9	100.0	—
8/4	18.4	11.9	11.8	14.6	—	32.6	12.6	—	—
12/4	1.7	—	1.1	—	—	—	1.1	—	—
Total tally (board feet)	5,266	1,135	7,373	2,495	12	1,046	2,808	16	101

Table 38.—BEECH: log grade 2: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)								
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE	TBR
		Gross	Net	Over- run	Gross	Net	Over- run										
		-- Board feet --		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----								
10	6	255	255	-5.9	180	180	33.3	240	3.3	—	32.5	36.2	—	11.7	16.3	—	—
11	18	1,080	1,017	-0.3	860	810	25.2	1,014	2.9	6.1	22.1	18.3	3.3	6.8	40.5	—	—
12	49	3,590	3,384	-5.0	3,030	2,856	12.6	3,215	1.9	3.6	27.5	21.1	0.7	12.9	32.3	—	—
13	48	3,910	3,750	-9.8	3,310	3,173	6.6	3,381	5.1	5.8	29.5	23.8	1.3	6.2	27.7	—	0.6
14	65	6,325	5,928	-2.3	5,560	5,212	11.1	5,790	5.4	6.1	31.6	24.1	0.6	9.3	22.9	—	—
15	50	5,855	5,575	-2.9	5,400	5,142	5.3	5,413	6.8	6.1	34.1	22.4	0.3	8.8	20.7	—	0.8
16	41	5,110	4,659	-2.8	4,670	4,259	6.3	4,527	7.6	4.4	37.5	23.3	0.2	5.7	20.8	—	0.5
17	34	5,010	4,845	-4.0	4,600	4,447	4.6	4,652	6.6	3.8	40.4	21.1	0.9	4.3	22.9	—	—
18	22	3,485	3,319	-0.2	3,310	3,151	5.2	3,314	8.4	4.0	34.9	21.9	0.2	8.4	22.2	—	—
19	25	4,865	4,711	-1.0	4,590	4,445	4.9	4,664	8.7	4.2	44.6	20.2	—	5.4	16.9	—	—
20	9	1,785	1,650	2.1	1,780	1,645	2.4	1,685	8.1	3.5	41.3	25.5	—	4.5	15.1	—	2.0
21	10	2,615	2,607	-4.3	2,510	2,502	-0.3	2,495	9.5	3.9	42.1	13.7	—	10.5	16.7	—	3.6
22	5	1,395	1,364	5.4	1,330	1,300	10.5	1,437	4.8	7.2	45.3	21.6	—	3.7	12.5	—	4.9
24	3	990	848	-5.1	950	815	-1.2	805	5.6	3.6	51.0	18.9	—	11.7	9.2	—	—
25	3	1,260	1,207	18.1	1,260	1,207	18.1	1,425	8.0	1.4	56.6	17.5	—	1.8	14.7	—	—
All diameters	388	47,530	45,119	-2.4	43,340	41,144	7.1	44,057	6.6	4.7	36.9	21.7	0.5	7.3	21.7	—	0.6

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE	TBR
5/8	8.8	3.1	11.0	5.1	—	0.2	0.1	—	—
3/4	—	—	0.1	0.1	—	0.1	0.2	—	—
4/4	28.7	21.5	31.0	36.0	3.7	45.1	49.6	—	100.0
5/4	11.4	6.2	15.8	15.8	—	6.8	3.3	—	—
6/4	45.0	56.8	33.4	27.0	96.3	16.7	11.5	—	—
7/4	—	—	0.3	4.5	—	13.1	25.1	—	—
8/4	6.1	12.4	8.4	11.2	—	18.0	10.2	—	—
12/4	—	—	—	0.3	—	—	—	—	—
Total tally (board feet)	2,895	2,076	16,255	9,554	214	3,242	9,543	—	278

Table 39.—BEECH: log grade 3: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						NHLA lumber grade yields (actual)									
		Int. 1/4-inch rule			Scribner Decimal C rule			Total lumber tally									
		Gross	Net	Over- run	Gross	Net	Over- run		FAS	SEL	1C	2C	SW	3A	3B	SSE	TBR
		-- Board feet --	Percent		-- Board feet --	Percent		Board feet	Percent								
8	6	145	140	1.4	120	115	23.5	142	—	—	7.7	2.8	4.2	—	85.3	—	—
9	13	530	510	-2.0	420	405	23.5	500	—	—	12.0	17.0	4.8	10.4	55.8	—	—
10	29	1,280	1,223	-5.9	1,050	1,005	14.5	1,151	—	0.5	11.4	23.8	3.4	6.5	54.4	—	—
11	25	1,285	1,197	-7.9	1,020	950	16.1	1,103	—	0.5	11.9	28.5	4.5	10.0	44.6	—	—
12	28	1,730	1,632	-4.9	1,500	1,416	9.6	1,552	—	0.5	15.7	26.7	4.6	10.2	42.3	—	—
13	24	1,855	1,705	-7.3	1,600	1,470	7.6	1,581	0.7	1.5	13.0	31.2	9.6	10.9	33.1	—	—
14	18	1,625	1,529	-14.1	1,430	1,346	-2.4	1,314	1.5	2.5	8.7	32.0	2.9	11.4	41.0	—	—
15	15	1,415	1,312	-3.8	1,340	1,243	1.5	1,262	1.7	—	20.0	37.2	1.4	9.0	30.7	—	—
16	8	870	837	—	800	770	8.7	837	—	—	28.3	19.8	—	8.0	43.9	—	—
17	2	330	330	13.9	300	300	25.3	376	—	—	31.9	39.1	—	18.4	10.6	—	—
18	4	650	539	-17.6	610	504	-11.9	444	—	2.5	29.1	37.1	—	13.7	17.6	—	—
19	6	940	905	-13.6	900	866	-9.7	782	—	—	16.1	32.2	—	10.4	41.3	—	—
20	3	560	540	-13.1	550	530	-11.5	469	—	—	24.9	35.4	—	13.9	25.8	—	—
21	2	435	321	13.1	420	310	17.1	363	3.3	—	46.1	22.0	—	7.7	20.9	—	—
22	2	525	525	-3.4	500	500	1.4	507	6.5	—	56.6	21.3	—	2.4	8.5	4.7	—
24	2	565	510	-2.0	550	496	0.8	500	2.2	2.4	51.8	29.8	—	4.8	9.0	—	—
All diameters	187	14,740	13,755	-6.3	13,110	12,226	5.4	12,883	0.8	0.8	20.1	28.8	3.1	9.6	36.6	0.2	—

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE	TBR
5/8	—	—	0.4	0.4	—	—	—	—	—
4/4	37.6	13.7	40.3	40.8	8.1	50.6	62.9	—	—
5/4	11.9	—	4.9	5.8	—	5.5	0.8	—	—
6/4	50.5	76.0	50.8	47.2	91.9	31.9	22.1	—	—
7/4	—	—	0.7	0.9	—	0.9	8.8	—	—
8/4	—	10.3	2.9	4.3	—	11.1	5.4	—	—
12/4	—	—	—	0.6	—	—	—	100.0	—
Total tally (board feet)	109	99	2,591	3,704	397	1,239	4,720	24	—

Table 40.—COTTONWOOD: log grade 1: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run							
		---Board feet---		Percent	---Board feet---		Percent							
13	9	810	738	27.1	660	601	56.1	938	11.9	5.5	35.9	44.4	2.3	—
14	11	1,235	1,158	21.1	1,060	995	40.9	1,402	22.3	10.3	31.2	28.7	4.4	3.1
15	17	2,105	2,090	8.5	1,960	1,946	16.5	2,267	27.6	5.9	26.0	34.3	3.6	2.6
16	27	3,875	3,704	12.7	3,530	3,375	23.7	4,174	26.0	4.4	33.3	31.3	3.6	1.4
17	22	3,610	3,523	13.5	3,300	3,222	24.1	3,997	29.0	9.5	30.5	25.3	2.1	3.6
18	14	2,500	2,418	13.2	2,350	2,273	20.4	2,736	37.8	8.2	29.8	19.8	1.6	2.8
19	12	2,490	2,406	14.3	2,340	2,261	21.7	2,751	36.2	6.4	29.3	21.3	2.0	4.8
20	11	2,710	2,690	11.7	2,650	2,630	14.3	3,006	44.6	4.9	27.2	21.7	1.1	0.5
21	5	1,350	1,340	4.2	1,300	1,290	8.2	1,396	39.4	1.5	25.6	24.6	5.6	3.3
22	5	1,575	1,554	19.0	1,490	1,470	25.8	1,849	59.6	6.7	19.0	12.6	2.1	—
23	2	780	780	6.0	760	760	8.8	827	55.0	6.8	26.2	12.0	—	—
24	4	1,470	1,470	4.6	1,400	1,400	9.8	1,537	38.5	3.7	39.3	17.3	0.7	0.5
25	4	1,540	1,540	14.5	1,540	1,540	14.5	1,764	44.4	7.9	30.9	11.5	2.0	3.3
26	1	435	435	16.8	440	440	15.5	508	21.3	1.4	62.8	10.0	4.5	—
27	3	1,410	1,410	4.1	1,440	1,440	1.9	1,468	38.3	3.3	37.6	18.3	1.5	1.0
28	3	1,600	1,479	15.7	1,600	1,480	15.6	1,711	48.8	2.4	30.4	13.5	2.6	2.3
29	2	1,090	1,063	8.6	1,060	1,034	11.6	1,154	42.8	3.2	26.1	20.4	4.4	3.1
31	2	1,440	1,440	11.1	1,420	1,420	12.7	1,600	75.0	6.9	7.3	10.1	0.7	—
32	2	1,340	1,340	-6.3	1,290	1,290	-2.7	1,255	37.7	2.8	45.6	8.0	—	5.9
33	2	1,425	1,425	29.3	1,370	1,370	34.5	1,842	59.7	0.8	28.9	5.3	2.4	2.9
All diameters	158	34,790	34,003	12.3	32,960	32,237	18.4	38,183	39.1	5.6	29.9	20.9	2.3	2.2

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
4/4	96.8	90.0	96.5	84.2	85.3	84.8
6/4	2.9	10.0	3.3	2.4	4.9	3.3
7/4	—	—	0.2	12.8	—	9.6
8/4	0.3	—	—	0.6	9.8	2.3
Total tally (board feet)	14,922	2,134	11,401	7,980	886	859

Table 41.—COTTONWOOD: log grade 2: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---	Percent	--- Board feet ---	Percent	Board feet	----- Percent -----							
10	3	155	155	1.9	120	120	31.7	158	—	—	57.0	34.8	—	8.2
11	24	1,540	1,385	19.9	1,180	1,060	56.6	1,660	2.1	3.1	33.6	45.5	4.9	10.8
12	58	4,610	4,357	11.7	3,890	3,676	32.4	4,867	3.3	2.8	37.5	45.6	4.4	6.4
13	66	6,170	5,853	11.7	5,130	4,868	34.3	6,538	3.6	2.6	40.1	46.6	2.6	4.5
14	56	6,300	5,982	9.1	5,430	5,157	26.5	6,525	7.1	5.1	38.8	40.5	2.2	6.3
15	44	5,590	5,289	10.7	5,150	4,872	20.2	5,855	10.2	6.2	39.2	37.2	2.0	5.2
16	36	5,385	5,183	8.3	4,880	4,697	19.5	5,613	6.2	4.4	41.9	42.9	1.8	2.8
17	19	3,140	3,015	4.6	2,860	2,747	14.8	3,154	6.7	2.9	46.4	35.5	1.3	7.2
18	15	2,760	2,728	5.4	2,600	2,570	11.9	2,875	15.7	4.1	42.4	31.2	5.1	1.5
19	8	1,695	1,627	10.5	1,590	1,526	17.8	1,798	28.8	4.4	32.2	26.6	3.3	4.7
20	2	540	540	15.7	520	520	20.2	625	19.2	1.9	48.8	25.3	2.6	2.2
21	1	195	195	-2.1	190	190	0.5	191	10.5	4.7	53.9	30.9	—	—
22	3	825	814	5.3	790	780	9.9	857	23.3	4.4	43.8	21.8	3.0	3.7
All diameters	335	38,905	37,123	9.7	34,330	32,783	24.2	40,716	8.2	4.1	40.0	39.8	2.8	5.1

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
4/4	75.5	68.8	81.2	78.2	69.5	74.2
5/4	—	—	—	0.1	—	0.2
6/4	24.5	31.2	18.7	12.7	19.2	17.2
7/4	—	—	0.1	8.8	7.8	6.9
8/4	—	—	—	0.2	3.5	1.5
Total tally (board feet)	3,353	1,652	16,304	16,218	1,118	2,071

Table 42.—COTTONWOOD: log grade 3: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---	Percent		--- Board feet ---	Percent	Board feet	Percent						
9	5	205	205	20.5	160	160	54.4	247	—	—	17.0	45.7	7.7	29.6
10	19	1,020	932	0.8	820	746	25.9	939	—	—	26.4	59.4	0.7	13.5
11	5	375	358	12.8	320	305	32.5	404	—	1.7	13.4	70.3	4.2	10.4
12	8	665	562	19.4	560	474	41.6	671	—	—	22.1	63.3	10.6	4.0
13	8	710	701	14.6	590	582	38.0	803	—	0.6	20.4	74.3	1.5	3.2
14	10	1,045	1,000	17.4	920	880	33.4	1,174	2.6	2.5	34.3	58.4	—	2.2
15	4	535	527	-6.3	480	473	4.4	494	3.6	—	27.3	55.1	13.0	1.0
16	2	260	260	21.9	240	240	32.1	317	—	—	29.7	64.6	5.7	—
18	3	510	499	12.2	480	470	19.1	560	2.0	1.3	44.5	50.8	1.4	—
All diameters	64	5,325	5,044	11.2	4,570	4,330	29.5	5,609	1.1	0.9	27.4	61.0	3.8	5.8

75

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
4/4	59.7	87.5	95.0	84.1	76.1	77.9
5/4	—	—	0.3	0.5	—	—
6/4	40.3	12.5	4.7	9.0	15.2	12.6
7/4	—	—	—	6.0	—	9.5
8/4	—	—	—	0.4	8.7	—
Total tally (board feet)	60	48	1,537	3,422	216	326

Table 43.—ELM: log grade 1: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run							
		--- Board feet ---	Percent	--- Board feet ---	Percent	Board feet	Percent							
13	22	2,230	2,096	6.5	1,890	1,778	25.5	2,232	12.5	6.9	36.7	23.1	7.6	13.2
14	32	3,810	3,502	4.9	3,230	2,971	23.7	3,675	27.0	11.5	28.8	12.8	2.9	17.0
15	25	3,550	3,222	4.8	3,180	2,889	16.9	3,378	26.3	11.4	30.4	15.1	2.5	14.3
16	43	6,790	6,196	5.4	6,110	5,575	17.1	6,530	21.2	10.6	28.8	17.8	6.3	15.3
17	41	7,280	6,482	6.1	6,550	5,835	17.9	6,877	29.1	10.3	27.9	15.3	1.6	15.8
18	29	5,950	5,380	9.4	5,500	4,975	18.3	5,887	31.0	8.8	24.1	14.9	2.7	18.5
19	25	5,555	4,956	5.9	5,190	4,630	13.4	5,249	30.0	5.3	30.4	14.9	1.2	18.2
20	22	5,345	4,558	5.9	5,220	4,460	8.4	4,825	25.7	12.8	29.3	16.6	1.6	14.0
21	12	3,505	3,177	4.9	3,330	3,020	10.4	3,334	37.6	6.9	25.6	19.8	---	10.1
22	15	4,845	4,178	7.6	4,550	3,925	14.5	4,495	34.9	6.5	26.1	17.0	---	15.5
23	5	1,535	1,438	7.2	1,500	1,405	9.8	1,542	49.7	5.1	22.4	6.7	---	16.1
24	3	935	779	-1.5	900	750	2.3	767	25.9	14.1	35.1	11.6	---	13.3
25	8	3,380	2,901	-10.6	3,390	2,910	-10.9	2,594	28.4	14.3	22.5	17.3	---	17.5
26	1	370	370	-6.2	370	370	-6.2	347	49.8	11.5	18.2	15.3	---	5.2
27	4	1,810	1,663	6.1	1,850	1,700	3.8	1,764	49.1	8.9	24.8	8.8	---	8.4
28	1	585	504	-6.0	580	500	-5.2	474	36.7	---	39.1	12.2	---	12.0
All diameters	288	57,475	51,402	5.0	53,340	47,683	13.2	53,970	29.4	9.4	27.9	15.8	2.2	15.3

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
3/8	1.2	—	1.0	0.3	1.0	—
3/4	—	—	—	—	0.8	0.1
4/4	47.2	42.7	66.1	76.4	75.3	84.7
5/4	1.0	1.3	1.2	0.7	2.2	0.2
6/4	5.4	0.9	4.1	3.0	—	2.6
7/4	—	0.4	0.2	0.6	6.1	2.1
8/4	3.0	2.5	4.8	5.4	12.3	7.6
9/4	—	—	—	—	—	2.7
10/4	31.4	35.9	15.7	11.6	—	—
12/4	10.8	16.3	6.9	2.0	2.3	—
Total tally (board feet)	15,928	5,050	15,042	8,503	1,185	8,262

Table 44.—ELM: log grade 2: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over- run	Gross	Net	Over- run							
		--- Board feet ---	Percent		--- Board feet ---	Percent	Board feet	----- Percent -----						
10	24	1,260	1,142	4.6	1,050	947	26.2	1,195	3.4	1.8	24.5	32.0	1.3	37.0
11	59	3,925	3,656	3.4	3,160	2,945	28.4	3,782	4.2	3.8	27.9	28.5	7.1	28.5
12	63	4,925	4,431	11.7	4,180	3,761	31.6	4,950	8.0	3.5	29.4	26.3	8.6	24.2
13	66	6,165	5,542	5.0	5,190	4,668	24.6	5,817	6.6	4.2	34.8	26.1	6.9	21.4
14	64	7,255	6,390	5.7	6,230	5,483	23.2	6,756	3.9	5.3	32.7	32.3	6.0	19.8
15	47	6,505	5,766	0.0	5,850	5,180	11.3	5,764	12.4	5.6	28.7	27.8	5.4	20.1
16	23	3,490	3,055	2.0	3,140	2,750	13.3	3,116	5.3	6.5	35.3	31.2	6.9	14.8
17	23	4,105	3,631	-0.9	3,670	3,246	10.9	3,600	10.0	3.2	33.1	29.6	4.9	19.2
18	15	2,610	2,371	6.0	2,460	2,234	12.5	2,513	13.5	9.3	41.4	21.1	3.5	11.2
19	8	1,730	1,395	-12.3	1,620	1,307	-6.4	1,223	10.1	2.2	49.3	23.2	5.1	10.1
20	5	1,170	1,017	-6.3	1,150	1,000	-4.7	953	13.0	4.5	39.6	25.6	7.5	9.8
21	4	905	671	-17.0	870	645	-13.6	557	3.2	—	40.7	25.9	—	30.2
22	1	355	290	7.9	330	270	15.9	313	10.9	17.3	29.9	29.1	—	12.8
23	1	335	335	-3.0	330	330	-1.5	325	9.5	—	29.2	37.0	22.8	1.5
All diameters	403	44,735	39,692	3.0	39,230	34,766	17.5	40,864	7.7	4.7	32.8	28.2	6.2	20.4

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
3/8	0.4	0.1	1.3	0.1	—	0.2
3/4	0.4	—	1.3	0.8	0.4	0.4
4/4	64.1	49.0	75.3	75.8	66.1	66.6
5/4	8.1	15.0	6.2	6.9	3.6	1.0
6/4	8.2	4.2	3.0	1.9	—	3.2
7/4	—	—	0.1	1.1	4.8	5.3
8/4	5.1	7.9	7.0	11.0	25.1	19.9
9/4	—	—	—	0.1	—	3.4
10/4	0.8	6.3	0.5	0.8	—	—
12/4	12.9	17.5	5.3	1.5	—	—
Total tally (board feet)	3,154	1,937	13,416	11,520	2,516	8,321

Table 45.—ELM: log grade 3: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----					
8	5	130	130	-0.8	90	90	43.3	129	—	—	8.5	31.8	3.1	56.6
9	28	1,125	999	5.0	930	829	26.5	1,049	—	0.5	14.2	27.7	8.0	49.6
10	42	2,155	1,919	7.1	1,740	1,547	32.8	2,055	1.9	1.1	16.8	33.1	10.8	36.3
11	10	660	550	-4.2	510	425	24.0	527	—	—	3.8	52.0	1.5	42.7
12	13	1,010	878	5.0	860	747	23.4	922	1.6	2.0	21.3	41.2	13.0	20.9
13	10	945	734	6.8	790	617	27.1	784	2.7	—	16.1	41.4	5.0	34.8
14	3	295	251	13.1	260	220	29.1	284	—	—	27.8	49.0	—	23.2
15	6	715	599	6.5	660	552	15.6	638	—	6.4	15.0	41.2	4.5	32.9
16	8	1,170	955	7.2	1,060	865	18.4	1,024	10.3	0.4	21.5	42.4	7.8	17.6
17	3	560	505	13.3	500	450	27.1	572	—	—	15.7	51.2	0.9	32.2
18	2	400	319	-9.4	370	295	-2.0	289	5.2	—	15.6	45.6	—	33.6
19	2	450	439	-6.4	420	410	0.2	411	—	—	23.8	38.2	4.9	33.1
All diameters	132	9,615	8,278	4.9	8,190	7,047	23.2	8,684	2.3	1.0	17.0	39.3	7.0	33.4

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
3/8	—	—	0.7	0.2	—	—
5/8	—	—	—	0.7	—	—
3/4	—	—	0.7	1.1	—	—
4/4	49.3	21.4	71.6	72.9	54.4	64.7
5/4	11.3	39.3	20.9	11.1	11.7	1.3
6/4	5.6	—	0.4	—	—	0.9
7/4	—	—	—	1.7	2.6	9.5
8/4	—	9.8	5.7	8.4	31.3	21.5
9/4	—	—	—	—	—	0.9
12/4	33.8	29.5	—	3.9	—	—
16/4	—	—	—	—	—	1.2
Total tally (board feet)	195	90	1,475	3,410	611	2,903

Table 46.—SAP GUM: log grade 1: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---	Percent		--- Board feet ---	Percent	Board feet	Percent -----						
13	41	4,310	4,170	15.9	3,650	3,530	36.9	4,831	21.5	9.7	32.5	26.1	8.4	1.8
14	42	5,125	4,966	12.5	4,320	4,187	33.4	5,587	31.0	10.1	28.7	20.1	8.4	1.7
15	42	6,070	5,863	8.4	5,410	5,227	21.6	6,357	27.7	9.9	28.6	24.7	8.3	0.8
16	52	8,490	8,187	13.5	7,620	7,346	26.5	9,290	39.6	8.8	24.6	19.1	5.8	2.1
17	31	5,905	5,658	12.1	5,240	5,019	26.4	6,342	36.8	7.2	28.8	20.0	6.0	1.2
18	29	6,100	5,941	14.3	5,670	5,522	23.0	6,792	39.1	8.4	26.9	17.3	7.1	1.2
19	20	4,430	4,233	18.2	4,140	3,957	26.4	5,003	41.6	7.8	22.9	18.0	6.6	3.1
20	13	3,330	3,213	13.2	3,240	3,125	16.4	3,636	38.1	8.5	23.4	20.5	8.3	1.2
21	7	2,075	1,977	8.7	1,970	1,878	14.4	2,149	39.9	7.3	33.1	13.2	4.5	2.0
22	4	1,325	1,325	13.4	1,240	1,240	21.2	1,503	50.7	7.5	18.7	14.4	6.7	2.0
23	4	1,350	1,264	16.1	1,320	1,236	18.8	1,468	34.9	4.2	39.5	14.9	4.4	2.1
25	1	400	300	15.7	400	300	15.7	347	23.3	7.5	52.2	3.2	2.3	11.5
26	2	935	842	-2.3	940	847	-2.8	823	49.0	1.6	29.6	6.8	1.9	11.1
27	1	540	540	3.1	550	550	1.3	557	39.4	5.2	37.2	13.5	—	4.7
All diameters	289	50,385	48,479	12.8	45,710	43,964	24.4	54,685	35.7	8.4	27.7	19.5	6.8	1.9

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
5/8	0.2	0.9	1.6	0.6	0.3	0.7
4/4	44.2	40.7	56.4	56.0	33.6	59.0
5/4	54.9	57.7	38.3	31.8	10.3	12.2
6/4	—	—	0.1	—	—	—
7/4	—	—	—	0.3	1.4	12.3
8/4	0.3	0.7	1.2	10.8	54.4	15.8
10/4	0.4	—	2.4	0.5	—	—
Total tally (board feet)	19,490	4,607	15,149	10,676	3,723	1,040

Table 47.—SAP GUM: log grade 2: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---		Percent	--- Board feet ---		Percent	Board feet	----- Percent -----					
10	21	1,185	1,156	11.2	950	926	38.8	1,285	1.7	7.5	28.3	41.6	11.8	9.1
11	66	4,495	4,281	12.2	3,510	3,348	43.5	4,805	4.5	6.5	24.7	40.1	20.2	4.0
12	112	9,525	9,207	10.8	8,000	7,733	31.9	10,200	7.4	7.2	28.1	38.3	13.2	5.8
13	94	9,490	9,173	10.4	8,010	7,742	30.8	10,128	10.3	6.0	29.2	35.5	15.0	4.0
14	89	10,655	10,327	10.3	9,020	8,743	30.2	11,386	9.4	6.6	32.3	32.9	13.6	5.2
15	77	10,430	10,230	4.4	9,460	9,277	15.1	10,676	12.0	5.8	36.2	30.8	12.9	2.3
16	49	7,570	7,368	8.8	6,840	6,658	20.4	8,018	10.2	3.8	38.1	34.6	10.9	2.4
17	30	5,315	5,179	10.8	4,780	4,657	23.2	5,738	14.0	4.6	40.7	31.6	7.9	1.2
18	17	3,100	2,908	7.1	2,910	2,731	14.0	3,114	16.0	3.1	41.0	28.5	7.7	3.7
19	8	1,800	1,800	8.1	1,680	1,680	15.8	1,945	23.4	10.4	32.3	23.1	7.0	3.8
20	4	1,080	971	18.0	1,040	935	22.6	1,146	13.6	2.9	28.4	25.6	2.6	26.9
21	2	640	640	6.9	600	600	14.0	684	5.8	—	61.4	16.1	13.2	3.5
23	2	620	610	11.5	610	600	13.3	680	23.2	4.9	39.1	26.9	5.9	—
All diameters	571	65,905	63,850	9.3	57,410	55,630	25.5	69,805	10.4	5.8	33.3	33.7	12.6	4.2

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
5/8	0.8	0.8	2.3	0.9	0.5	0.7
4/4	61.3	46.3	61.2	61.5	38.5	35.9
5/4	34.7	48.6	32.5	26.7	11.9	9.0
6/4	0.4	—	—	0.1	0.3	0.4
7/4	0.4	0.3	0.2	1.4	1.4	19.8
8/4	1.7	4.0	2.8	9.1	47.4	34.2
10/4	0.7	—	1.0	0.3	—	—
Total tally (board feet)	7,305	4,065	23,225	23,502	8,777	2,931

Table 48.—SAP GUM: log grade 3: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)					
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		--- Board feet ---	Percent		--- Board feet ---	Percent		Board feet	Percent					
8	2	80	73	42.5	60	55	89.1	104	—	—	23.1	55.7	12.5	8.7
9	40	1,805	1,759	13.4	1,370	1,335	49.4	1,994	1.3	3.9	10.2	42.0	16.5	26.1
10	62	3,365	3,198	11.5	2,680	2,547	40.0	3,565	1.0	1.5	12.7	50.0	25.3	9.5
11	45	3,095	3,028	12.6	2,470	2,419	41.0	3,410	—	0.6	10.9	49.1	26.2	13.2
12	41	3,340	3,273	17.8	2,810	2,754	39.9	3,854	1.0	0.9	18.8	47.7	22.4	9.2
13	36	3,585	3,501	6.7	2,980	2,912	28.3	3,736	1.6	1.5	18.2	53.5	19.6	5.6
14	24	2,830	2,775	14.4	2,420	2,372	33.8	3,174	0.9	1.5	21.4	46.0	21.1	9.1
15	19	2,485	2,438	13.7	2,270	2,228	24.4	2,771	3.0	1.5	24.9	49.5	14.8	6.3
16	16	2,380	2,335	14.0	2,160	2,120	25.6	2,662	4.6	2.2	34.2	42.3	11.1	5.6
17	6	1,015	1,009	5.3	920	914	16.2	1,062	0.8	1.0	41.0	42.3	10.1	4.8
18	8	1,570	1,567	6.8	1,450	1,447	15.7	1,674	2.9	2.5	25.0	43.6	11.2	14.8
19	3	605	579	18.3	570	545	25.7	685	—	—	38.7	39.0	12.1	10.2
20	1	210	210	-8.1	210	210	-8.1	193	—	—	24.9	73.0	—	2.1
21	1	235	228	-3.9	230	223	-1.8	219	7.3	—	39.7	32.9	8.2	11.9
All diameters	304	26,600	25,973	12.1	22,600	22,081	31.8	29,103	1.6	1.5	20.6	47.5	18.9	9.9

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	3A	3B
5/8	0.8	2.5	4.8	1.9	1.4	3.0
4/4	49.7	43.4	64.1	63.8	47.5	45.0
5/4	45.4	49.6	27.1	22.1	10.6	5.4
6/4	—	—	—	0.3	0.4	1.7
7/4	—	—	—	1.0	1.4	17.5
8/4	4.1	4.5	4.0	10.9	38.7	27.4
Total tally (board feet)	467	442	5,991	13,805	5,502	2,892

Table 49.—RED OAK (lowland): log grade 1: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
		Gross	Net	Over-run	Gross	Net	Over-run									
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----							
13	16	1,630	1,550	17.9	1,370	1,303	40.2	1,827	15.0	7.4	31.9	21.3	—	7.8	11.8	4.8
14	25	3,025	2,993	12.7	2,560	2,533	33.2	3,374	26.6	9.3	26.7	16.4	—	7.5	7.4	6.1
15	32	4,460	4,385	13.0	4,000	3,933	25.9	4,953	23.2	11.3	29.5	13.7	0.2	6.2	7.1	8.8
16	60	9,230	8,908	11.3	8,330	8,039	23.3	9,911	18.9	9.9	31.2	15.2	—	9.9	9.3	5.6
17	40	7,440	7,249	8.1	6,630	6,460	21.3	7,835	29.4	7.5	28.2	14.9	—	7.9	4.6	7.5
18	34	6,830	6,506	11.9	6,360	6,058	20.2	7,279	25.1	9.7	32.1	12.3	—	4.2	5.2	11.4
19	29	6,420	6,173	6.7	6,000	5,769	14.2	6,586	30.7	6.4	34.4	13.2	—	6.8	4.3	4.2
20	27	6,670	6,376	4.3	6,520	6,233	6.7	6,653	33.8	8.5	26.5	10.6	0.9	5.0	8.4	6.3
21	16	4,705	4,557	1.5	4,470	4,329	6.9	4,627	40.3	7.6	26.5	8.0	—	2.5	5.1	10.0
22	13	4,180	4,051	5.2	3,930	3,809	11.9	4,262	30.1	6.3	34.9	10.7	—	5.3	10.3	2.4
23	14	4,720	4,598	4.9	4,620	4,501	7.2	4,824	30.9	9.1	32.6	9.3	—	4.2	9.1	4.8
24	4	1,645	1,639	1.0	1,550	1,544	7.3	1,656	25.7	8.6	41.3	6.8	—	3.3	3.1	11.2
25	4	1,600	1,506	6.0	1,600	1,506	6.0	1,597	33.2	4.1	36.7	16.3	—	4.9	2.0	2.8
26	1	305	305	-19.3	310	310	-20.6	246	10.2	—	42.7	30.8	—	4.3	12.0	—
27	2	1,080	1,051	-2.7	1,100	1,070	-4.4	1,023	34.1	16.2	24.0	6.8	—	4.4	3.8	10.7
All diameters	317	63,940	61,847	7.8	59,350	57,397	16.1	66,653	27.8	8.6	30.8	12.8	0.1	6.2	6.9	6.8

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
4/4	48.9	65.1	82.0	94.9	100.0	93.5	74.5	—
8/4	50.6	34.9	17.9	5.1	—	6.5	25.5	23.8
12/4	0.5	—	0.1	—	—	—	—	76.2
Total tally (board feet)	18,553	5,706	20,519	8,553	68	4,130	4,593	4,531

Table 50.—RED OAK (lowland): log grade 2: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
		Gross	Net	Over-run	Gross	Net	Over-run									
		---Board feet---	Percent	---	Board feet---	Percent	Board feet	-----Percent-----								
10	2	120	112	18.8	100	93	43.0	133	—	7.9	33.1	15.7	—	27.6	15.7	—
11	35	2,585	2,462	11.9	2,080	1,981	39.1	2,755	6.2	4.5	27.8	23.4	—	12.4	14.8	10.9
12	55	4,960	4,773	8.1	4,160	4,003	28.9	5,158	5.3	3.7	30.2	22.2	—	12.9	18.1	7.6
13	68	7,045	6,882	7.2	5,960	5,822	26.7	7,376	5.0	4.2	26.8	24.3	—	14.8	17.2	7.7
14	57	6,745	6,637	3.8	5,730	5,638	22.2	6,889	7.1	5.0	28.4	23.4	0.5	14.5	18.3	2.8
15	72	10,240	9,824	2.4	9,140	8,769	14.7	10,059	5.7	4.1	29.1	23.4	—	14.9	14.9	7.9
16	40	6,125	5,945	5.6	5,540	5,377	16.8	6,278	4.8	6.0	39.4	20.8	0.4	10.8	12.0	5.8
17	33	5,920	5,861	0.4	5,300	5,247	12.1	5,882	8.3	6.0	33.6	17.7	0.2	9.4	17.7	7.1
18	30	5,910	5,722	7.0	5,530	5,354	14.3	6,122	8.0	3.8	40.9	16.5	—	9.0	12.3	9.5
19	22	4,775	4,617	1.4	4,470	4,322	8.3	4,680	10.1	4.8	34.6	22.6	—	13.0	12.1	2.8
20	5	1,250	1,071	7.7	1,220	1,045	10.3	1,153	12.2	2.7	27.8	19.0	—	14.0	21.0	3.3
21	4	1,155	1,134	3.7	1,100	1,080	8.9	1,176	3.8	8.2	35.1	20.0	2.5	14.5	8.8	7.1
22	4	1,175	1,175	1.1	1,120	1,120	6.1	1,188	11.8	4.0	35.5	18.4	—	10.3	7.8	12.2
23	1	335	335	-16.4	330	330	-15.2	280	3.4	4.1	38.6	30.0	—	4.1	4.1	15.7
24	6	2,385	2,081	-0.6	2,250	1,963	5.4	2,069	8.9	3.2	50.2	16.1	—	8.4	6.2	7.0
All diameters	434	60,725	58,631	4.4	54,030	52,144	17.4	61,198	6.8	4.6	32.9	21.3	0.2	12.5	14.8	6.9

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
4/4	69.9	67.3	90.8	95.7	100.0	93.5	71.4	—
6/4	—	—	0.1	—	—	—	—	—
8/4	30.1	32.7	9.1	4.3	—	6.5	27.9	39.1
12/4	—	—	—	—	—	—	0.7	60.9
Total tally (board feet)	4,148	2,829	20,113	13,066	106	7,653	9,086	4,197

Table 51.—RED OAK (lowland): log grade 3: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
		Gross	Net	Over- run	Gross	Net	Over- run									
		---Board feet---	Percent	---	Board feet---	Percent	Board feet	-----Percent-----								
8	7	275	275	4.7	200	200	44.0	288	—	—	19.7	8.4	—	11.7	36.9	23.3
9	10	490	476	8.4	380	369	39.8	516	1.6	1.6	14.1	20.4	—	8.3	32.0	22.0
10	20	1,180	1,173	4.9	980	974	26.3	1,230	1.2	1.2	21.4	20.7	—	16.0	25.9	13.6
11	15	1,070	1,032	16.2	850	820	46.2	1,199	—	1.5	12.6	32.9	—	24.5	25.9	2.6
12	15	1,315	1,242	8.3	1,100	1,039	29.5	1,345	—	0.4	19.3	32.1	—	20.4	21.5	6.3
13	28	2,725	2,525	-1.7	2,280	2,113	17.4	2,481	0.7	0.6	9.8	22.0	—	24.2	35.6	7.1
14	24	2,685	2,631	-1.3	2,320	2,273	14.3	2,598	1.2	0.7	13.5	23.7	0.2	21.3	33.4	6.0
15	15	1,915	1,890	-8.7	1,760	1,737	-0.6	1,726	0.4	0.7	24.7	30.3	—	19.2	19.4	5.3
16	5	725	689	8.4	660	627	19.1	747	—	—	23.5	24.3	—	23.6	28.6	—
17	12	1,975	1,931	4.1	1,800	1,760	14.2	2,010	0.8	2.9	32.4	31.7	—	9.9	16.7	5.6
18	6	1,230	1,219	1.0	1,140	1,130	8.9	1,231	3.1	4.9	22.2	21.8	—	19.3	23.0	5.7
19	3	605	594	-6.2	570	560	-0.5	557	—	0.8	46.0	22.1	—	12.8	18.3	—
20	6	1,540	1,511	1.3	1,500	1,472	3.9	1,530	0.8	0.7	27.2	30.9	—	17.4	23.0	—
21	1	235	235	-7.7	230	230	-5.7	217	—	—	34.3	26.6	—	21.2	17.9	—
22	2	710	700	-14.3	660	651	-7.8	600	—	—	34.0	41.9	—	15.9	8.2	—
All diameters	169	18,675	18,123	0.8	16,430	15,955	14.5	18,275	0.8	1.2	21.2	26.8	0.0	18.7	25.4	5.9

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
4/4	80.3	76.7	95.8	96.1	100.0	96.4	77.1	—
5/4	—	—	0.4	0.3	—	—	—	—
8/4	19.7	23.3	3.8	3.6	—	3.6	22.9	58.2
9/4	—	—	—	—	—	—	—	1.5
12/4	—	—	—	—	—	—	—	40.3
Total tally (board feet)	144	226	3,874	4,889	5	3,418	4,648	1,071

Table 52.—WHITE OAK (lowland): log grade 1: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
		Gross	Net	Over-run	Gross	Net	Over-run									
		-- Board feet --		Percent	-- Board feet --		Percent	Board feet	----- Percent -----							
13	12	1,215	1,207	10.9	1,020	1,013	32.1	1,338	7.0	7.7	32.8	17.6	0.7	13.1	12.8	8.3
14	12	1,370	1,343	13.9	1,180	1,157	32.2	1,530	15.6	7.9	31.2	20.4	—	7.6	13.1	4.2
15	18	2,495	2,435	8.4	2,250	2,196	20.2	2,640	25.8	9.4	27.6	19.8	0.8	9.4	5.4	1.8
16	23	3,595	3,446	10.2	3,240	3,106	22.3	3,799	21.0	7.1	29.1	15.0	1.3	9.6	10.9	6.0
17	30	5,290	5,126	7.2	4,760	4,612	19.1	5,494	26.2	8.6	29.4	14.1	1.6	7.6	7.6	4.9
18	25	5,000	4,822	6.3	4,670	4,504	13.8	5,125	27.7	7.5	32.7	15.6	0.6	7.1	5.5	3.3
19	14	2,975	2,923	13.8	2,790	2,741	21.3	3,325	24.7	7.3	35.3	13.1	1.6	4.8	2.9	10.3
20	15	3,510	3,470	9.2	3,430	3,391	11.8	3,790	29.8	4.0	40.1	10.4	—	3.2	8.7	3.8
21	12	3,340	3,269	4.3	3,200	3,132	8.8	3,409	28.0	6.3	37.6	13.7	—	4.3	8.0	2.1
22	7	2,145	2,096	4.9	2,030	1,984	10.8	2,198	28.7	3.0	39.1	12.4	2.3	2.7	2.9	8.9
23	5	1,635	1,620	1.2	1,600	1,585	3.4	1,639	44.6	3.9	36.6	9.2	—	3.5	2.2	—
24	5	1,785	1,687	-5.2	1,700	1,607	-0.5	1,599	39.7	8.3	38.8	4.8	—	2.8	2.8	2.8
25	2	740	740	5.7	740	740	5.7	782	29.4	4.3	54.1	4.2	—	0.9	3.3	3.8
26	2	675	675	8.1	680	680	7.4	730	52.1	5.5	23.7	11.5	—	—	7.2	—
27	1	400	400	19.0	410	410	16.1	476	36.9	2.0	37.3	15.9	—	—	7.9	—
28	2	1,015	1,009	3.7	1,020	1,014	3.2	1,046	58.7	8.0	11.5	9.9	—	0.7	11.2	—
29	1	465	445	12.6	460	440	13.9	501	76.3	3.4	10.7	3.1	—	1.5	—	5.0
30	1	495	495	5.7	490	490	6.7	523	9.0	—	41.2	36.4	3.6	3.4	6.4	—
31	1	720	694	-9.2	710	684	-7.9	630	—	—	70.0	25.0	—	2.7	2.3	—
All diameters	188	38,865	37,902	7.0	36,380	35,486	14.3	40,574	28.1	6.5	33.8	14.0	0.8	5.7	6.8	4.3

Percentage distribution of log grade 1 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
4/4	69.0	75.2	90.1	92.4	100.0	92.9	64.1	—
5/4	0.1	0.9	1.9	2.2	—	1.6	0.8	—
6/4	—	—	0.1	0.3	—	—	—	—
7/4	—	—	0.1	0.9	—	—	6.5	—
8/4	3.6	2.1	1.2	2.4	—	5.5	25.5	35.3
10/4	26.3	20.6	6.0	1.8	—	—	3.1	—
12/4	1.0	1.2	0.6	—	—	—	—	64.7
Total tally (board feet)	11,398	2,658	13,701	5,667	321	2,334	2,753	1,742

Table 53.—WHITE OAK (lowland): log grade 2: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
		Gross	Net	Over-run	Gross	Net	Over-run									
		---Board feet---		Percent	---Board feet---		Percent	Board feet	-----Percent-----							
10	4	204	206	36.1	210	180	55.6	280	2.6	3.8	20.6	29.6	—	20.2	10.5	12.7
11	27	1,880	1,863	14.1	1,530	1,516	40.2	2,125	0.9	2.5	18.1	28.0	1.9	20.9	21.8	5.9
12	48	4,025	3,910	15.1	3,390	3,293	36.6	4,499	4.3	3.8	24.9	26.6	3.2	13.1	15.9	8.2
13	50	5,075	4,968	17.7	4,240	4,151	40.8	5,846	3.2	1.2	26.2	29.9	1.0	15.2	10.7	12.6
14	50	5,920	5,838	9.9	5,030	4,960	29.4	6,417	5.5	2.9	29.7	26.6	1.2	11.6	13.9	8.6
15	61	8,615	8,455	7.4	7,710	7,567	20.0	9,077	4.5	3.4	30.0	23.3	2.7	13.5	12.7	9.9
16	40	6,085	5,904	11.3	5,500	5,336	23.1	6,571	4.8	3.1	36.4	26.6	1.2	9.0	7.7	11.2
17	38	6,410	6,220	10.9	5,800	5,628	22.6	6,901	6.6	3.5	30.9	25.0	1.9	10.3	11.0	10.8
18	35	6,670	6,370	6.0	6,240	5,959	13.3	6,750	6.8	3.7	40.6	18.3	2.9	6.2	8.2	13.3
19	17	3,515	3,399	3.5	3,300	3,191	10.2	3,518	12.2	6.4	35.5	19.6	1.3	9.4	11.3	4.3
20	8	1,850	1,848	4.0	1,810	1,808	6.3	1,922	11.8	3.8	43.5	19.4	—	3.3	10.3	7.9
21	8	1,930	1,892	17.3	1,860	1,823	21.7	2,219	12.0	1.7	45.6	20.3	1.2	4.8	8.0	5.9
22	9	2,445	2,233	9.2	2,330	2,128	14.6	2,438	10.1	3.4	37.5	19.4	5.5	10.4	10.1	3.6
24	4	1,305	1,305	5.7	1,250	1,250	10.3	1,379	21.0	3.4	41.8	15.6	1.9	2.3	1.9	12.1
25	1	400	400	2.0	400	400	2.0	408	17.7	—	20.6	28.0	8.7	5.2	2.3	17.5
26	2	740	692	-5.5	740	692	-5.5	654	7.2	3.0	46.9	29.7	4.0	2.1	7.1	—
27	1	470	470	3.2	480	480	1.0	485	—	—	32.0	35.5	8.0	8.0	16.5	—
All diameters	403	57,575	55,973	9.9	51,820	50,362	22.1	61,489	6.5	3.2	32.7	24.1	2.1	10.6	11.2	9.6

Percentage distribution of log grade 2 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
4/4	91.4	90.2	93.7	86.5	84.6	86.2	60.3	—
5/4	1.9	0.5	3.3	8.5	7.5	8.4	5.1	—
6/4	—	—	0.1	—	—	—	—	—
7/4	—	—	0.2	1.6	—	1.2	8.3	—
8/4	0.6	2.8	0.6	2.1	—	4.2	25.1	19.6
10/4	6.1	6.5	2.1	0.4	2.2	—	—	0.4
12/4	—	—	—	0.9	5.7	—	1.2	80.0
Total tally (board feet)	3,990	1,977	20,117	14,835	1,299	6,529	6,884	5,858

Table 54.—WHITE OAK (lowland): log grade 3: green lumber grade yield, by scaling diameter

Scaling diameter (inches)	No. logs	Scale						Total lumber tally	NHLA lumber grade yields (actual)							
		Int. 1/4-inch rule			Scribner Decimal C rule				FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
		Gross	Net	Over- run	Gross	Net	Over- run									
		---Board feet---	Percent	---	Board feet---	Percent	Board feet	-----Percent-----								
8	1	40	40	30.0	30	30	73.3	52	—	8.0	20.0	—	—	52.0	20.0	—
9	8	375	369	17.6	290	285	52.3	434	—	2.9	13.3	21.3	—	33.2	19.6	9.7
10	25	1,465	1,427	14.5	1,230	1,198	36.4	1,634	0.5	—	17.7	33.3	1.5	14.6	25.6	6.8
11	16	1,185	1,170	12.4	950	938	40.2	1,315	0.6	0.3	17.7	21.2	3.3	13.9	32.8	10.2
12	15	1,145	1,099	18.1	970	931	39.4	1,298	—	1.2	14.7	27.6	5.7	13.4	18.5	18.9
13	27	2,715	2,666	14.3	2,290	2,249	35.4	3,046	0.5	0.3	13.7	30.5	0.4	17.4	23.6	13.6
14	17	1,895	1,873	8.3	1,640	1,621	25.2	2,029	—	1.4	8.1	40.4	4.9	12.0	16.0	17.2
15	20	2,550	2,364	8.4	2,320	2,151	19.2	2,563	—	—	19.8	24.1	3.3	14.5	21.1	17.2
16	18	2,890	2,740	15.9	2,600	2,465	28.9	3,177	1.4	1.3	20.8	30.3	6.6	15.1	9.3	15.2
17	13	2,235	2,180	7.8	2,020	1,970	19.2	2,349	0.4	0.8	14.7	28.3	2.6	9.7	14.0	29.5
18	11	2,110	2,009	11.3	1,970	1,876	19.2	2,237	0.5	2.9	23.9	33.0	4.4	11.1	13.5	10.7
19	6	1,385	1,338	1.0	1,290	1,246	8.5	1,352	—	—	15.3	40.4	8.4	8.6	7.8	19.5
20	5	1,095	1,085	0.3	1,070	1,060	3.6	1,098	—	—	17.2	31.0	15.7	10.1	7.1	18.9
21	5	1,265	901	2.1	1,220	869	5.9	920	—	1.0	25.1	27.1	1.1	13.6	28.9	3.2
22	3	830	830	19.5	790	790	25.6	992	—	1.6	16.4	46.2	—	7.8	7.1	20.9
23	1	285	285	25.6	280	280	27.9	358	—	—	17.6	37.5	5.6	14.1	8.5	16.7
All diameters	191	23,465	22,376	11.1	20,960	19,959	24.5	24,854	0.4	0.9	17.1	31.1	4.1	13.5	17.1	15.8

Percentage distribution of log grade 3 yields, by thickness

Lumber thickness (inches)	FAS	SEL	1C	2C	SW	3A	3B	SSE and TBR
4/4	100.0	92.0	95.0	88.5	91.8	90.0	76.1	—
5/4	—	8.0	4.0	8.0	8.2	7.1	3.0	—
6/4	—	—	—	0.1	—	—	—	—
7/4	—	—	—	0.2	—	—	2.9	—
8/4	—	—	—	0.9	—	—	18.0	15.6
10/4	—	—	1.0	0.6	—	2.9	—	—
12/4	—	—	—	1.7	—	—	—	84.4
Total tally (board feet)	100	224	4,264	7,731	1,020	3,353	4,244	3,918

Hanks, Leland F., Glenn L. Gammon, Robert L. Brisbin, and Everette D. Rast.

1980. Hardwood log grades and lumber grade yields for factory lumber logs. Northeast. For. Exp. Stn., Broomall, Pa.
92 p. (USDA For. Serv. Res. Pap. NE-468)

The USDA Forest Service Standard Grades for Hardwood Factory Lumber Logs are described, and lumber grade yields for 16 species and 2 species groups are presented by log grade and log diameter. The grades enable foresters, log buyers, and log sellers to select and grade those logs suitable for conversion into standard factory grade lumber. By using the appropriate lumber grade yields, log buyers and sellers can appraise the logs in terms of expected lumber grade volume and value. This report supersedes an earlier report on hardwood log grading, Forest Service Research Paper FPL 63.

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