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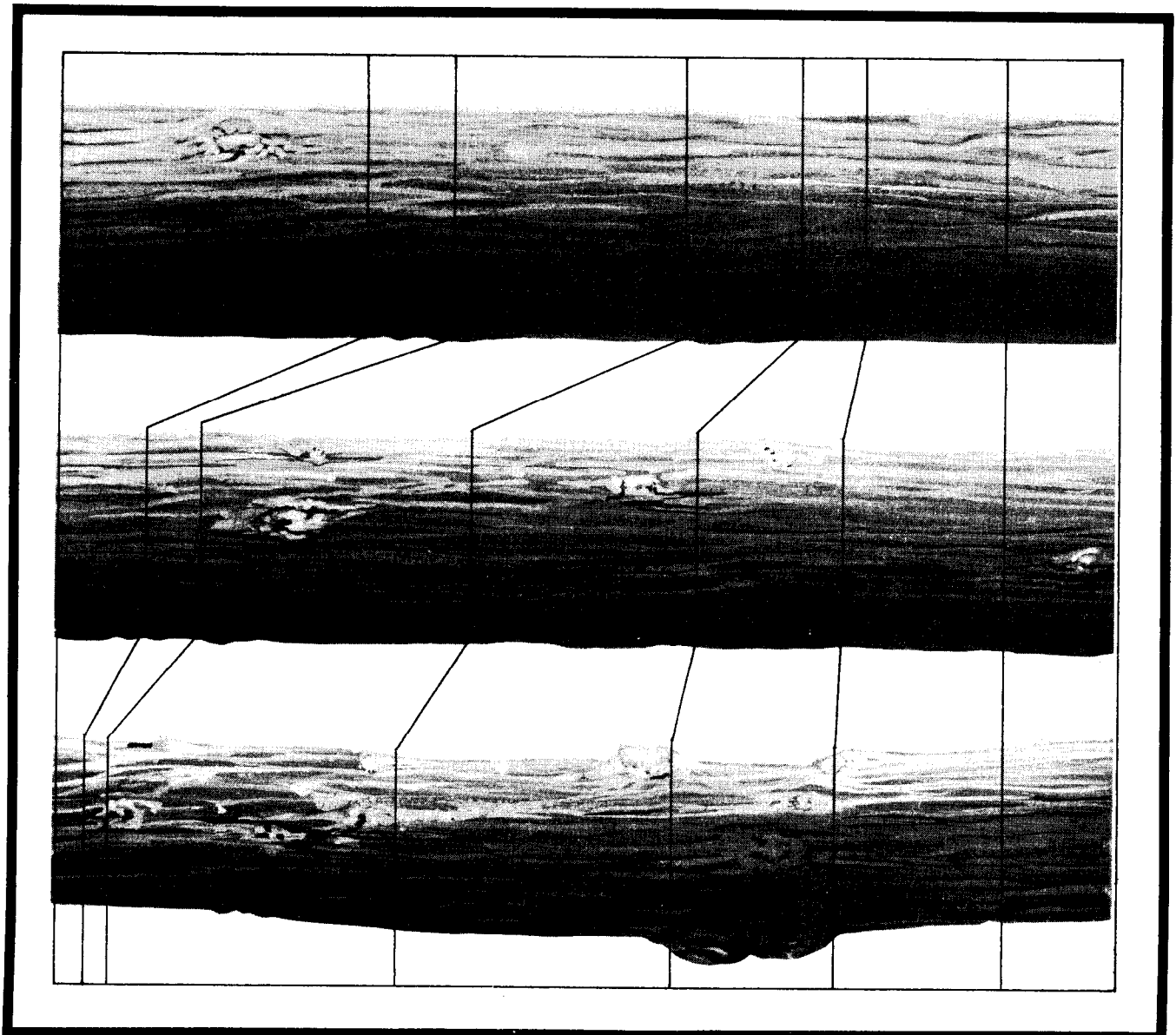
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Hardwood Log Grades for Standard Lumber



ABSTRACT

The official U.S. Forest Service Hardwood Log Grades for Standard Lumber are described and tables of expected yields of standard factory grade lumber are presented by species, log grade, and log diameter.

With this information, foresters, timber sellers, and timber buyers can separate, from woods-run hardwood logs, those logs suitable for manufacture into standard factory grade lumber. Furthermore, the logs can be ranked into categories of high, medium, and low value and lumber grade yields. The yield tables provide the information to estimate the lumber grade yields to be expected from the graded logs.

This report supersedes the previous Forest Products Laboratory report on hardwood log grading (No. 1737).

The Forest Products Laboratory of the Forest Service, U.S. Department of Agriculture, is maintained at Madison, Wis., in cooperation with the University of Wisconsin.

Hardwood Log Grades for Standard Lumber

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Historically, log quality has been evaluated by log grading systems based on judgment and experience. The hardwood log grades for standard lumber, as developed by the Forest Products Laboratory,¹ are based on an analysis of the relationship between log characteristics and end product yield.

This system enables foresters, timber sellers, and timber buyers to separate, from woods-run hardwood logs, those logs suitable for manufacture into factory grade lumber and to rank the logs into categories of high-, medium-, and low-quality yields.

The yield tables provide the information necessary for estimating the value and volumes of the standard factory lumber grades to be extended from the graded logs.

This system for grading hardwood logs was first proposed by the Forest Products Laboratory in 1949 in Laboratory Report 1737.² In 1952, the proposed grades were adopted as the official hardwood log grades for the U.S. Forest Service. Since the first publication of the grading system,

the grade specifications and their application have remained unchanged. This report updates Report No. 1737, adds a limited amount of new yield data, and includes some adjustments in the original yield data.

DESCRIPTION OF METHODS OF FIELD STUDY AND ANALYSIS

Approximately 11,000 logs as sawed at 28 saw-mills in the northern, central, and southern hardwood regions are included in the studies covered by this report. Each study log was diagramed, providing as accurate a record as possible of the exterior and ends of the log. Logs were then sawed and the yield per log, in board feet of green lumber, was tallied by board grade and thickness. Green lumber yield was reduced by 5 percent to allow for shrinkage during seasoning. No allowance was made for degrade that might occur during seasoning. These basic data were

¹Other members of the Forest Service have given valuable assistance.

²Published by the U.S. Forest Products Laboratory as "Hardwood Log Grades for Standard Lumber--Proposals and Results," FPL Report 1737, March 1949. A pocket edition, D1737-A, was also issued by the Laboratory in 1949 as "Hardwood Log Grades for Standard Lumber and How to Apply Them."

then used to develop log grade specifications and yield tables.

The data were first sorted into groups of logs having similar yields by grade. Each group of data from logs with similar grade yields was then sorted into groups of logs having similar external characteristics. These data were then analyzed and the basic specifications for log grades were determined.

HARDWOOD LOG GRADES FOR STANDARD LUMBER

Three grades are considered sufficient for commercial evaluation of factory lumber logs. Analysis of the basic data made it possible to establish specifications so that each log grade attracts to itself logs having similar standard lumber grade yields and values. Each of the three log grades--high, medium, and low--has corresponding lumber grade yields with high, medium, and low average values.

The log grade specifications are correlated closely with the specifications for standard hardwood lumber grades. A board is graded on the basis of clear-faced or sound cuttings of a minimum size to comprise a certain fraction of the area of the board; logs are similarly graded on the clear cuttings of a definite minimum size comprising a specified fraction of the area of one-quarter of the circumference of the log.

The log grade specifications are listed in figure 1.

HOW TO USE THE LOG GRADES

The grading of logs is not as difficult as it may first appear. The basic requirements are a knowledge of surface indicators of interior defect, and a knowledge of the log grade specifications. Knowledge of surface indicators can be gained by a careful study of Agriculture Handbook No. 244, "Grade Defects in Hardwood Timber and Logs,"³

and observation in a sawmill. Knowledge of the log grade specifications and their interpretation can be gained by studying "A Guide to Hardwood Log Grading" and by experience.

With experience, log grade can be determined in most cases in the process of scaling the log. Even in the logs where grade is not immediately apparent, it is seldom necessary to lay out the actual cuttings. Usually measurements to see whether the cuttings conform to the minimum size will be enough to determine the grade.

Faces

After taking into account the size and soundness of the log, the first step in grading is to visually divide the surface of the log (full length) into four equal faces, so oriented as to give the greatest possible number of good faces. The influence of a given defect should be confined to one grading face wherever possible instead of permitting it to extend over two faces.

Clear Cuttings

The next step is to establish the grade of the best three faces on the basis of the clear cutting requirements. Only when two of these faces grade higher than the third is it necessary to examine the fourth face to be sure that the best faces have been selected. The grade of the log is that of the lowest of the faces chosen as the three grading faces.

The clear cuttings are taken as the portions of the length of the face that lie between defects or between the ends of the logs and defects and extend over the full width of the face.

Knots, overgrown knots, grub holes, etc., either projecting or recessed, are excluded from clear cuttings.

Sound end defects, such as medium-to-heavy mineral stain in hard maple and yellow-poplar and slight dote in yellow birch on the small end of the log, shall not exceed one-half the log diameter for Grade 1 logs and for Grade 2 logs under 16 inches, and not exceed three-fifths the

³Lockard, C. R., Putnam, J. A., and Carpenter, R. D. Grade defects in hardwood timber and logs. U.S. Dept. Agr., Agr. Handb. 244, 39 pp. 1963.

⁴Northeastern Forest Experiment Station. A guide to hardwood log grading. U.S. Forest Serv., Northeastern Forest Exp. Sta., Upper Darby, Pa. Revised 1965.

Figure 1.--Forest Service standard specifications
for hardwood factory lumber logs.

Grading Factors		Log Grades							
		F1			F2				F3
Position in tree		Butts only	Butts & uppers		Butts & uppers				Butts & uppers
Diameter, scaling, inches		1 1/3-15	16-19	20+	2 1/4	12+			8+
Length without trim, feet		10+			10+	8-9	10-11	12+	8+
Clear cuttings ³ on each 3 best faces	Length, min., feet	7	5	3	3	3	3	3	2
	Number, maximum	2	2	2	2	2	2	3	No limit
	Fraction of log length required in clear cutting ⁴	5/6	5/6	5/6	2/3	3/4	2/3	2/3	1/2
Sweep and crook allowance (maximum) in percent gross volume	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%
Total scaling deduction including sweep and crook		30%			50%				50%
End defects:		See instructions page 4 .							

¹Ash and basswood butts can be 12 inches if otherwise meeting requirements for small No. 1's.

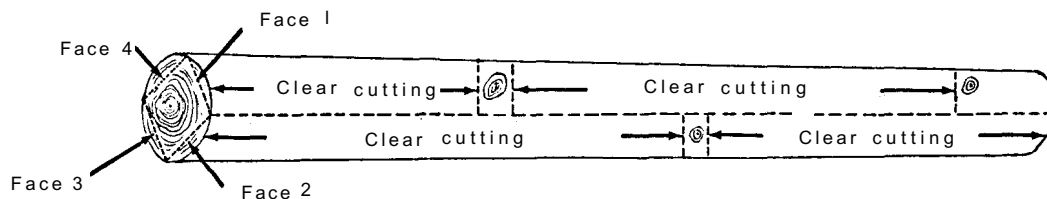
²Ten-inch logs of all species can be No. 2 if otherwise meeting requirements for small No. 1's.

³A clear cutting is a portion of a face free of defects, extending the width of the face.

⁴See table 46.

⁵Otherwise No.1 logs with 41-60% deductions can be No. 2.

⁶Otherwise No.2 logs with 51-60% deductions can be No. 3.



log diameter on Grade 2 logs 16 inches and larger. Excess will lower the log one grade. When the defect is not concentrated in one spot, its extent is taken as the sum of the individual occurrences.

Slight stain is not a defect.

Full-length unsound end defect outside the heart zone (taken as one-fifth of the diameter from the pith), when extending more than one-half the distance between the heart zone and the bark, prevents taking clear cuttings on the face surface overlying it. When it extends less than the full log length, cuttings can be taken over a third of its estimated length from the end tapering out.

End defects, such as bird peck, worm holes, spot wormhole stain, mineral spots or streaks, and such unsound defects as grub holes and bark pockets are considered when outside the heart zone, the heart zone being taken as extending one-fifth the diameter of the log from the pith. When these defects affect one-half the radial distance between the heart zone and the bark under three faces of the log at one end, or two faces at both ends, a log of Grade 1 or 2 shall be dropped one grade. When there is less than 3 inches either between the heart zone and the defect, or between defects, the portion will be included with the defect.

For seams, frost cracks, and fire or other scars whose depth exceeds one-fifth the diameter but not extending the full length of the log, clear cuttings can be taken over one-third of its length from the end tapering out.

Bird pecks are considered defects in cuttings of Grade 1 and Grade 2 logs when the area contains more than four bird pecks per square foot. Also when the depth of the bird peck on the end of the log is less than one-tenth of the log diameter, it is not considered a defect.

Sweep, Crook, and Cull Deductions

Logs that involve deductions in scale in excess of percentages allowed for each grade are dropped one grade. All deductions that are made by enclosing the defect in a rectangle are computed according to the National Forest Scaling Handbook⁵ by multiplying width, height, and length of defect together and dividing by 15. The maximum

percentage deduction for this type of cull as provided for in log grade specifications will apply to Scribner Decimal C, Doyle, or International rules. However, the percentage deduction arrived at when Doyle or International scale is used in grading should be multiplied by the following factors to give the approximate percentage deduction for grading:

International Rule

(Inches)	(Factor)
----------	----------

Logs 8 to 14	1.2
Logs 15 to 19	1.1
Logs 20 to 36	1.05
Logs 37 and up.	None

Doyle Rule

(Inches)	(Factor)
----------	----------

Logs 8 to 11	0.6
Logs 12 to 13	.8
Logs 14 to 20	.9
Logs 21 to 31	None
Logs 32 to 40	1.1

For sweep, the rule-of-thumb given in the Handbook is replaced by the provision that the percentage deduction is taken as the maximum sweep minus 2, divided by log diameter.

Measurement of Log Diameter and Length

Average diameter inside the bark on the small end of log is used in scaling and grading. The length for figuring the necessary clear cuttings is dropped to the full foot, but the cuttings are allowed to include the overlength.

LUMBER GRADE YIELDS

Lumber grade yields and lumber thickness by species, log grade, and diameter are given in

⁵U.S. Forest Service. National Forest scaling handbook. U.S. Dept. Agr., Forest Serv. Handb. 2443.71. 1964.

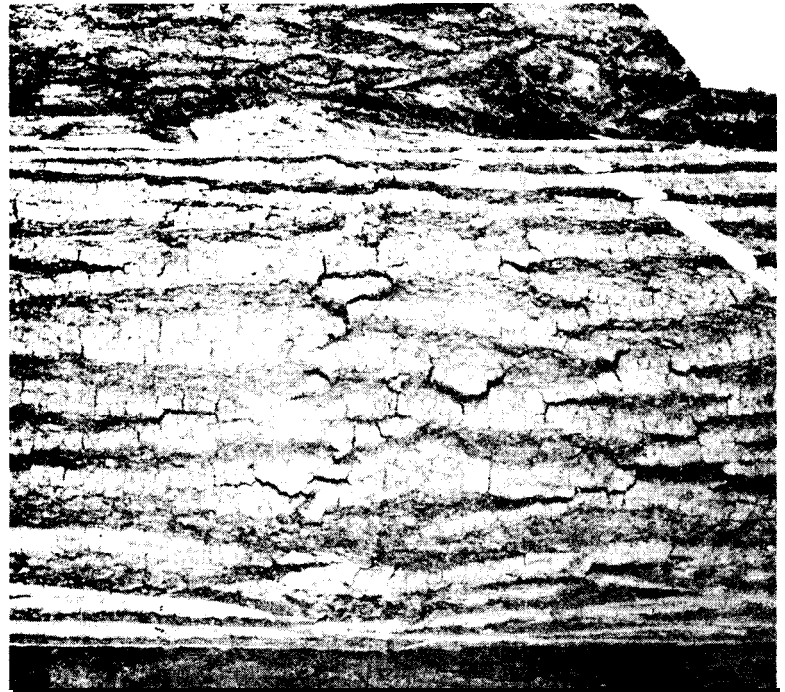
tables 1 through 45. The information listed here, together with current lumber prices, will enable interested parties to calculate an estimated value for a group of logs.

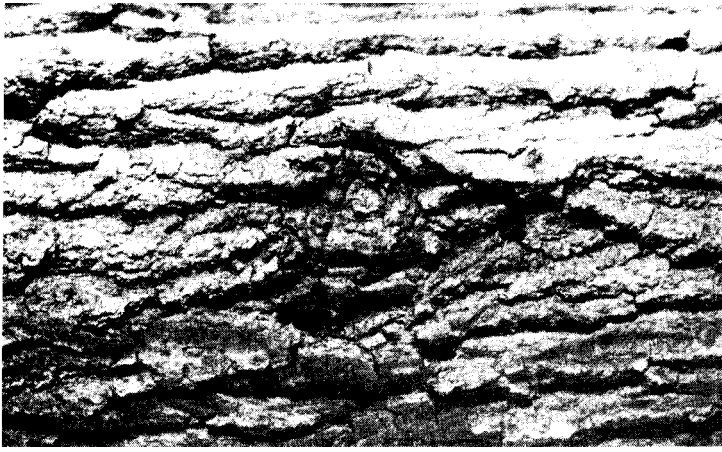
The clear cutting requirements are converted from fractions to actual lengths by log length in table 46.

Slight bark distortion, consisting of a simple break across the normal bark pattern--not a defect.



Medium bark distortion consisting of compound breaks across and along the normal bark pattern--a defect in logs of all diameters.

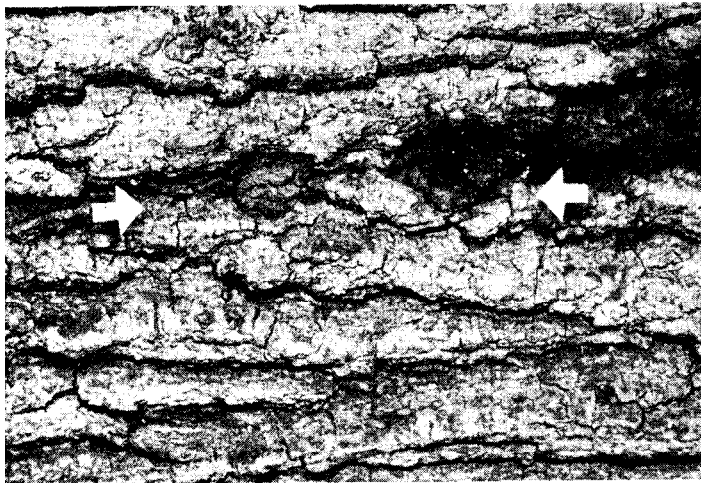
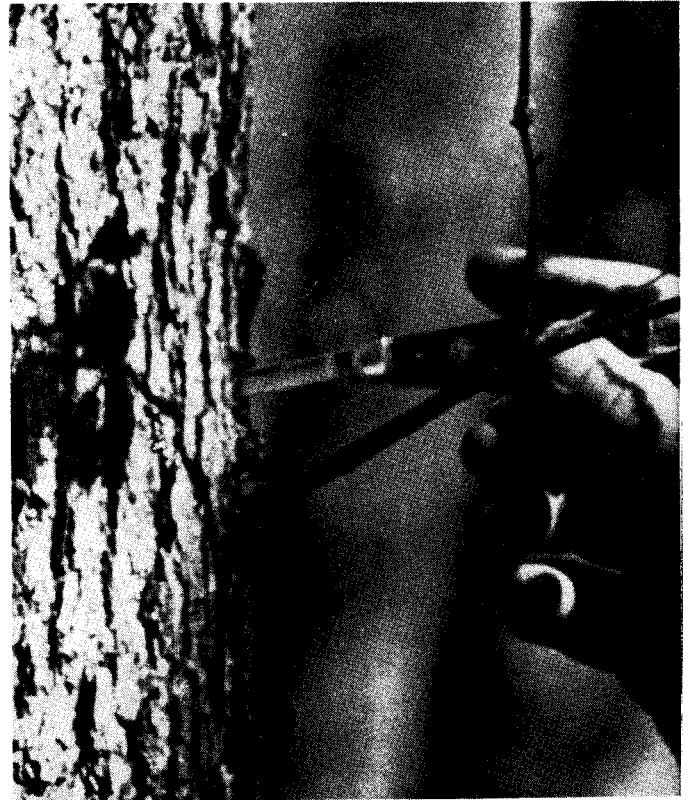




Bark distortion that clearly is an overgrown knot--a defect in logs of all diameters.

Adventitious twig growth $\frac{3}{8}$ inch or less in diameter is a defect in logs under 14 inches d.i.b. On logs 14 inches and larger, only every other one is considered a defect.

In the nondense hardwood species it is not considered a defect in grade 3 logs.



Grub holes and grub-caused overgrowths:

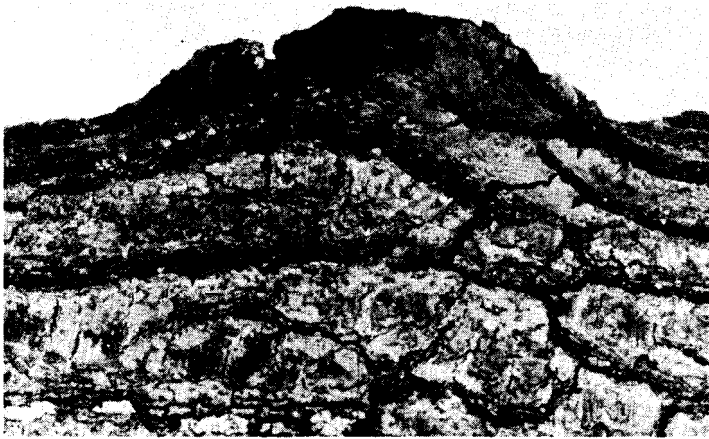
On logs 8-15 inches--each is a full defect.

On logs 16-19 inches--disregard every 6th one.

Logs 20-23 inches--disregard every 5th one.

On logs 24-27 inches--disregard every 4th one.

On logs 28 inches or more--disregard every 3rd one.



A bump is taken as any bark-covered protuberance with gradual to abrupt sloping sides, the cause of which is not clearly evident.

Bumps are not considered defects in logs:
Under 14 inches d. i. b. when the length of the bump is 16 or more times its height.
Nor in 14-inch logs and over d. i. b. when the length of the bump is 12 or more times its height.

Measurement of clear cuttings may extend into both ends of bumps by:
1/4 when length is 6 or more times the height.
1/8 when length is 3, but less than 6, times the height.

Key to Symbols for Tables 1 - 45

No. of logs = actual number of logs sampled.

DIB (inches) = scaling diameter at the small end of the log.

Scale

Int. 1/4 Inch = international 1/4-inch log rule.
Gross (bd. ft.) = gross scale before deductions.
Net (bd. ft.) = net scale after deductions.
Overrun (pct.) = lumber tally minus net scale divided by net scale.

Scrib. Dec. C = Scribner Decimal C log rule.
Gross (bd. ft.) = gross scale before deductions.
Net (bd. ft.) = net scale after deductions.
Overrun (pct.) = lumber tally minus net scale divided by net scale.

Lumber tally (bd. ft.) = volume of green lumber tally reduced by 5 percent.

NHLA Lumber Grade Yields (Actual) = actual lumber grade yields in percent by National Hardwood Lumber Assoc. lumber grades.

FAS = Firsts and seconds
Sel = Select
Saps = Saps, yellow-poplar only
1C = No. 1 Common
2C = No. 2 Common
2A = No. 2A Common, yellow-poplar only
2B = No. 2B Common, yellow-poplar only
SW = Sound wormy
3A = No. 3A Common
3B = No. 3B Common
Tmbrs. & SSE = Ties, timbers, and sound square edges

Lumber thickness (inches) - shown by quarters of inches.

4/4 and below = all lumber 1 inch thick and thinner.
8/4 and above = all lumber 2 inches thick and thicker.

Table 1--Basswood, Log Grade I--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-	Gross	Net	Over-							
				run			run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.
27	12	2,205	2,063	-2.8	1,860	1,740	15.2	2,005	19.2	10.8	37.7	22.9	.9	8.5
28	13	2,730	2,643	1.0	2,300	2,227	19.8	2,669	33.3	10.2	27.7	15.5	2.4	10.9
12	14	1,415	1,361	.4	1,190	1,145	19.3	1,366	34.9	6.0	31.5	22.3	.7	4.6
15	15	1,885	1,781	2.6	1,730	1,635	11.8	1,828	40.6	11.1	26.2	15.3	---	6.8
19	16	2,585	2,439	-5.1	2,340	2,208	4.8	2,314	30.3	7.7	36.0	16.8	1.6	7.6
11	17	1,765	1,678	5.7	1,620	1,540	15.2	1,774	30.0	8.2	30.7	14.8	3.8	12.5
10	18	1,985	1,894	1.2	1,840	1,756	9.1	1,916	43.1	9.3	19.1	17.5	.5	10.5
4	19	865	764	-10.2	810	715	-4.1	686	35.7	1.2	29.9	13.1	---	20.1
2	20	385	370	-24.6	380	365	-23.6	279	47.0	12.2	28.0	12.8	---	---
2	21	390	344	-12.2	380	335	-9.9	302	25.5	10.6	25.8	30.8	---	7.3
2	22	615	615	-19.8	580	580	-15.0	493	49.9	8.7	20.7	8.3	---	12.4
1	23	260	255	-1.2	260	255	-1.2	252	44.4	1.6	40.9	6.3	---	6.8

Distribution by thickness of Log Grade I yields

Lumber Thickness	NHLA Lumber Grade Yields (Actual)					
	FAS	Sel	IC	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	56.7	51.2	63.5	63.7	89.8	53.3
5/4	22.8	21.0	21.3	20.7	---	8.5
6/4	.8	1.4	.6	---	---	.7
7/4	---	---	---	.9	---	---
8/4 & above	19.7	26.4	14.6	14.7	10.2	37.5
Total lumber (Bd. ft.)	5,362	1,399	4,712	2,720	205	1,486

Table 2.--Basswood, Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-	Gross	Net	Over-							
				run			run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.		Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.
43	10	2,280	2,132	-4.7	1,820	1,702	19.5	2,031	7.0	6.6	32.1	32.9	---	21.4
100	11	6,070	5,659	-6.8	4,750	4,428	26.8	5,614	7.9	5.0	39.2	34.1	.9	12.9
69	12	4,965	4,657	-2.9	4,240	3,977	13.7	4,520	9.4	5.6	36.7	31.4	1.3	15.6
53	13	4,570	4,148	-2.1	3,870	3,513	15.6	4,060	10.9	5.3	32.7	32.9	.0	18.2
38	14	3,840	3,511	-5.4	3,370	3,081	7.9	3,323	12.7	6.2	37.0	28.9	2.6	12.6
38	15	4,555	4,114	-6.7	4,200	3,793	1.2	3,838	22.8	7.3	34.1	25.3	1.7	8.8
10	16	1,385	1,055	-7.6	1,260	960	1.6	975	11.8	5.1	36.2	25.5	2.9	18.5
4	17	635	547	-7.5	580	500	1.2	506	4.3	3.0	55.3	30.0	---	7.4

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	NHLA Lumber Grade Yields (Actual)					
	FAS	Sel	IC	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	49.4	56.5	64.0	56.3	71.0	55.8
5/4	29.5	14.7	20.2	21.2	----	12.5
6/4	----	----	.5	.2	----	----
8/4 & above	21.1	28.8	15.3	22.3	29.0	31.7
Total lumber (Bd. ft.)	2,891	1,432	9,014	7,674	286	3,570

Table 3.--Basswood, Log Grade 3--Lumber grade yield by diameter

No. of Logs	: DIB	Scale						: Lumber Tally	NHLA Lumber Grade Yields (Actual)						
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B	
		Gross	Net	Over-	Gross	Net	Over-								
				run			run								
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	
33	: 8	: 930	: 890	: 11.1	: 690	: 660	: 49.8	: 989	----	: ---	: 25.9	: 46.7	: ---	: 27.4	
94	: 9	: 3,440	: 3,246	: 4.9	: 2,840	: 2,680	: 27.1	: 3,405	: 2.2	: 2.4	: 32.2	: 43.8	: .8	: 18.6	
76	: 10	: 3,380	: 3,123	: 2.6	: 2,710	: 2,504	: 27.9	: 3,203	: 1.5	: 3.5	: 25.7	: 49.0	: .1	: 20.2	
19	: 11	: 915	: 816	: -1.2	: 740	: 660	: 22.1	: 806	: .5	: .5	: 24.7	: 48.4	: ---	: 25.9	
9	: 12	: 510	: 453	: 4.9	: 450	: 400	: 18.8	: 475	: .8	: ---	: 16.2	: 52.8	: 2.7	: 27.5	
5	: 13	: 395	: 347	: -6.1	: 330	: 290	: 12.4	: 326	----	: ---	: 22.7	: 53.4	: ---	: 23.9	
2	: 14	: 235	: 235	: -23.0	: 200	: 200	: -9.5	: 181	----	: ---	: 12.7	: 50.3	: ---	: 37.0	
2	: 15	: 200	: 153	: -7.2	: 190	: 145	: -2.1	: 142	: 11.3	: 2.8	: 33.1	: 38.7	: 4.9	: 9.2	
1	: 16	: 130	: 113	: -2.7	: 120	: 104	: 5.8	: 110	----	: ---	: 13.6	: 50.0	: ---	: 36.4	

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	80.3	66.3	73.1	67.0	100.0	63.9
5/4	19.7	11.4	21.4	23.1	----	12.2
6/4	----	----	1.1	----	----	.4
7/4	----	----	----	.6	----	----
8/4 & above	----	22.3	4.4	9.3	----	23.5
Total lumber (Bd. ft.)	147	202	2,613	4,539	51	2,085

Table 4.--Yellow Birch, Log Grade I--Lumber grade yield by diameter

No. of Logs:	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.
28	13	2,650	2,523	-3.4	2,230	2,123	14.7	2,436	18.4	9.3	29.4	13.5	4.8	24.6
27	14	3,145	3,001	-10.8	2,690	2,567	4.2	2,676	28.0	4.2	31.6	15.0	3.3	17.9
33	15	4,230	4,081	-7.6	3,860	3,724	1.2	3,770	27.2	10.2	27.5	12.3	4.3	18.5
47	16	7,130	6,776	-5.3	6,440	6,120	4.8	6,415	27.5	7.0	30.8	14.1	5.0	15.6
47	17	7,660	7,057	-6.1	6,990	6,440	2.9	6,628	34.8	7.2	28.2	10.4	4.0	15.4
33	18	6,315	6,111	-6.6	5,950	5,758	-8	5,710	43.7	7.1	22.5	10.4	3.6	12.7
28	19	5,865	5,624	-5.5	5,500	5,274	.8	5,314	48.6	6.7	23.8	7.2	3.1	10.6
11	20	2,300	2,244	-8.2	2,240	2,185	-5.7	2,060	37.5	8.4	32.3	8.4	2.0	11.4
11	21	2,775	2,697	-10.1	2,680	2,605	-6.9	2,425	51.6	4.8	20.7	10.0	5.0	7.8
6	22	1,790	1,669	-13.4	1,700	1,585	-8.8	1,446	65.5	1.4	17.3	4.8	5.3	5.7
2	23	675	603	-8.5	660	590	-6.4	552	49.8	10.5	19.0	7.1	1.5	12.1
1	24	310	289	----	300	280	3.2	289	66.1	----	22.8	4.2	---	6.9

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	83.2	65.6	77.9	76.0	70.6	68.2
5/4	1.5	2.7	2.7	3.0	9.6	4.3
6/4	6.6	16.5	8.6	5.8	3.1	3.9
8/4 & above	8.7	15.2	10.8	15.2	16.7	23.6
Total lumber (Bd. ft.)	14,809	2,780	10,574	4,300	1,573	5,685

Table 5.--Yellow Birch, Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.
41	10	2,275	2,083	6.2	1,840	1,685	31.3	2,213	3.7	2.3	25.1	23.3	11.2	34.4
82	11	5,335	4,863	-2	4,180	3,810	27.4	4,853	4.7	6.1	26.3	18.0	6.8	38.1
102	12	7,920	7,238	-1.9	6,710	6,132	15.9	7,104	8.7	6.0	25.3	18.4	7.4	34.2
64	13	5,775	5,255	-7.1	4,830	4,395	11.1	4,883	5.9	3.8	29.1	21.7	6.0	33.5
62	14	6,635	6,014	-9.4	5,740	5,203	4.7	5,447	7.1	5.4	33.1	21.7	5.4	27.3
63	15	7,835	7,259	-8.6	7,200	6,671	-6	6,632	13.1	7.7	26.0	21.2	6.5	25.5
21	16	3,065	2,707	-5.6	2,780	2,455	4.1	2,556	11.4	3.7	29.0	22.8	7.6	25.5
13	17	2,295	2,016	-5.9	2,060	1,810	4.8	1,897	3.1	2.0	26.0	31.4	7.5	30.0
16	18	2,930	2,599	-14.5	2,740	2,430	-8.6	2,221	10.3	4.9	37.3	18.3	5.3	23.9
7	19	1,295	1,263	-6.5	1,230	1,200	-1.6	1,181	10.8	2.1	48.6	18.9	5.5	14.1
2	20	460	450	-8.7	450	440	-6.6	411	2.2	4.2	42.3	26.8	11.4	13.1
2	21	390	390	-7.7	380	380	-5.3	360	8.3	---	51.9	21.7	5.6	12.5
2	22	520	406	-15.0	500	390	-11.5	345	21.7	7.8	33.1	17.4	---	20.0
4	23	1,140	1,069	-27.2	1,130	1,060	-26.6	778	15.8	.8	42.7	23.4	1.8	15.5
1	24	310	305	-22.3	300	295	-19.7	237	8.9	8.0	62.9	11.8	3.8	4.6

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B
	In.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	80.7	73.8	82.8	75.7	81.8	71.5
5/4	.3	1.5	1.5	3.5	3.5	4.2
6/4	10.9	15.9	7.8	6.9	4.5	4.1
8/4 & above	8.1	8.8	7.9	13.9	10.2	20.2
Total lumber (Bd. ft.)	3,437	2,094	12,170	8,613	2,731	12,073

Table 6.--Yellow Birch, Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Se1	1C	2C	3A	3B
		Gross	Net	Over-	Gross	Net	Over-							
				run			run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.
6	8	180	167	12.0	140	130	43.8	187	---	3.2	25.1	16.6	13.4	41.7
27	9	1,100	953	9.1	890	771	34.9	1,040	---	1.7	12.1	20.6	6.1	59.5
63	10	3,160	2,737	-1.0	2,400	2,079	30.3	2,709	1.0	1.3	13.9	17.0	6.6	60.2
27	11	1,685	1,418	-3.6	1,320	1,111	23.0	1,367	.7	---	10.4	23.6	9.6	55.7
21	12	1,505	1,257	-6.1	1,290	1,077	9.6	1,180	---	---	8.2	20.2	7.3	64.3
12	13	1,005	743	-10.0	830	614	9.0	669	---	.7	8.5	24.4	10.6	55.8
14	14	1,405	1,279	-19.1	1,230	1,120	-7.6	1,035	.7	.6	14.6	17.7	6.6	59.8
11	15	1,290	1,113	-10.2	1,200	1,035	-3.4	1,000	1.2	.4	9.2	21.2	21.2	46.8
5	16	800	778	-23.3	720	700	-14.7	597	2.4	2.7	11.4	24.1	5.5	53.9
2	17	305	251	5.2	280	230	14.8	264	---	---	10.6	55.7	4.2	29.5
2	18	400	270	-31.9	370	250	-26.4	184	---	---	4.4	3.8	19.0	72.8

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Se1	1C	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	100.0	91.1	89.8	79.2	88.2	84.6
5/4	---	8.9	4.7	5.2	6.1	3.9
6/4	---	---	1.1	4.4	2.1	2.3
8/4 & above	---	---	4.4	11.2	3.6	9.2
Total lumber (Bd. ft.)	71	90	1,193	2,123	914	5,841

Table 7.--Sap Gum, Log Grade I--Lumber grade yield by diameter

No. of Logs	: DIB	Scale						: Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-	Gross	Net	Over-							
				run			run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.
41	: 13	: 4,310	: 4,168	: 10.1	: 3,650	: 3,530	: 30.0	: 4,589	: 21.5	: 9.7	: 32.5	: 26.1	: 8.4	: 1.8
42	: 14	: 5,125	: 4,967	: 6.9	: 4,320	: 4,187	: 26.8	: 5,308	: 31.0	: 10.1	: 28.7	: 20.1	: 8.4	: 1.7
42	: 15	: 6,070	: 5,865	: 3.0	: 5,410	: 5,227	: 15.5	: 6,039	: 27.7	: 9.9	: 28.7	: 24.6	: 8.3	: .8
52	: 16	: 8,490	: 8,185	: 7.8	: 7,620	: 7,346	: 20.1	: 8,825	: 39.5	: 8.9	: 24.6	: 19.1	: 5.8	: 2.1
31	: 17	: 5,905	: 5,656	: 6.6	: 5,240	: 5,019	: 20.1	: 6,027	: 36.8	: 7.2	: 28.8	: 20.0	: 6.0	: 1.2
29	: 18	: 6,100	: 5,941	: 8.7	: 5,670	: 5,522	: 16.9	: 6,455	: 39.1	: 8.4	: 26.9	: 17.3	: 7.1	: 1.2
20	: 19	: 4,430	: 4,234	: 12.4	: 4,140	: 3,957	: 20.2	: 4,757	: 41.5	: 7.8	: 22.9	: 18.0	: 6.6	: 3.2
13	: 20	: 3,330	: 3,212	: 7.6	: 3,240	: 3,125	: 10.6	: 3,455	: 38.1	: 8.5	: 23.4	: 20.6	: 8.2	: 1.2
7	: 21	: 2,075	: 1,978	: 3.1	: 1,970	: 1,878	: 8.6	: 2,040	: 40.0	: 7.2	: 33.1	: 13.2	: 4.5	: 2.0
4	: 22	: 1,325	: 1,325	: 7.8	: 1,240	: 1,240	: 15.2	: 1,428	: 50.8	: 7.5	: 18.7	: 14.4	: 6.6	: 2.0
4	: 23	: 1,350	: 1,264	: 10.3	: 1,320	: 1,236	: 12.8	: 1,394	: 34.9	: 4.2	: 39.5	: 14.9	: 4.4	: 2.1
1	: 25	: 400	: 300	: 10.0	: 400	: 300	: 10.0	: 330	: 23.4	: 7.6	: 52.1	: 3.0	: 2.4	: 11.5
2	: 26	: 935	: 842	: -7.2	: 940	: 847	: -7.8	: 781	: 49.1	: 1.5	: 29.7	: 6.8	: 1.9	: 11.0
1	: 27	: 540	: 540	: -1.9	: 550	: 550	: -3.6	: 530	: 39.4	: 5.3	: 37.2	: 13.4	: ---	: 4.7

Distribution by thickness of Log Grade I yields

Lumber Thickness	:	FAS	:	Sel	:	IC	:	2C	:	3A	:	3B
		:		:		:		:		:		:
In.	:	Pct.	:	Pct.	:	Pct.	:	Pct.	:	Pct.	:	Pct.
4/4 & below	:	43.3	:	41.6	:	57.7	:	56.6	:	32.9	:	57.7
5/4	:	56.0	:	57.8	:	38.5	:	31.8	:	10.5	:	12.9
6/4	:	---	:	---	:	.1	:	---	:	---	:	---
7/4	:	---	:	---	:	---	:	.3	:	1.4	:	12.8
8/4 & above	:	.7	:	.6	:	3.7	:	11.3	:	55.2	:	16.6
Total lumber (Bd. ft.)	:	18,520	:	4,378	:	14,391	:	10,142	:	3,537	:	990

Table 8.--Sap Gum, Log Grade 2--Lumber grade yield by diameter

Lumber														
No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)					
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-run	Gross	Net	Over-run							
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.
21	10	1,185	1,155	5.5	950	926	31.5	1,218	1.6	7.6	28.3	41.6	11.8	9.1
66	11	4,495	4,288	6.4	3,510	3,348	36.3	4,564	4.5	6.0	24.7	40.1	20.3	4.0
112	12	9,525	9,207	5.3	8,000	7,733	25.3	9,691	7.4	7.2	28.1	38.3	13.2	5.8
94	13	9,490	9,172	4.9	8,010	7,742	24.3	9,621	10.3	6.0	29.2	35.4	15.0	4.1
89	14	10,655	10,328	4.7	9,020	8,743	23.7	10,818	9.4	6.6	32.3	32.9	13.6	5.2
77	15	10,430	10,228	4.8	9,460	9,277	9.3	10,142	12.0	5.8	36.2	30.8	12.9	2.3
49	16	7,570	7,369	3.4	6,840	6,658	14.4	7,618	10.2	3.8	38.1	34.6	10.9	2.4
30	17	5,315	5,178	5.3	4,780	4,657	17.1	5,453	14.0	4.6	40.7	31.6	7.9	1.2
17	18	3,100	2,909	1.6	2,910	2,731	8.2	2,956	16.0	3.1	41.0	28.5	7.7	3.7
8	19	1,800	1,800	2.7	1,680	1,680	10.1	1,849	23.4	10.4	32.2	23.2	7.0	3.8
4	20	1,080	971	11.8	1,040	935	16.1	1,086	13.6	2.8	28.5	25.6	2.6	26.9
2	21	640	640	1.6	600	600	8.3	650	5.8	---	61.4	16.2	13.1	3.5
-	22	---	---	---	---	---	---	---	---	---	---	---	---	---
2	23	620	610	5.9	610	600	7.7	646	23.2	4.9	39.2	26.8	5.9	---

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	60.9	47.0	62.9	62.3	38.5	36.2
5/4	35.9	48.7	33.1	26.9	12.0	9.3
6/4	.4	---	---	.1	.3	.4
7/4	.4	.3	.2	1.2	1.4	18.9
8/4 & above	2.4	4.0	3.8	9.5	47.8	35.2
Total lumber (Bd. ft.)	6,936	3,862	22,063	22,325	8,339	2,787

Table 9.--Sap Gum, Log Grade 3--Lumber grade yield by diameter

No. of Logs :	DIB :	Scale						Lumber Tally :	NHLA Lumber Grade Yields (Actual)						
		Int. 1/4 Inch			Scrib. Dec. C.					FAS	Sel	IC	2C	3A	3B
		Gross	Net	Over-	Gross	Net	Over-								
				run			run								
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
2	8	80	73	37.0	60	55	81.8	100	----	----	23.0	55.0	13.0	9.0	
40	9	1,805	1,759	7.7	1,370	1,335	41.9	1,895	1.3	3.7	10.2	42.1	16.6	26.1	
62	10	3,365	3,198	5.9	2,680	2,547	33.0	3,388	1.0	1.5	12.7	50.0	25.3	9.5	
45	11	3,095	3,031	6.9	2,470	2,419	33.9	3,239	----	.6	10.8	49.2	26.2	13.2	
41	12	3,340	3,273	11.9	2,810	2,754	33.0	3,663	1.0	.9	18.8	47.7	22.4	9.2	
36	13	3,585	3,503	1.5	2,980	2,912	22.0	3,554	1.6	1.5	18.2	53.5	19.6	5.6	
24	14	2,830	2,774	8.7	2,420	2,372	27.1	3,015	.9	1.5	21.4	46.1	21.1	9.0	
19	15	2,485	2,439	7.8	2,270	2,228	18.0	2,630	3.0	1.5	24.9	49.5	14.8	6.3	
16	16	2,380	2,336	8.3	2,160	2,120	19.3	2,529	4.6	2.2	34.3	42.2	11.1	5.6	
6	17	1,015	1,008	.1	920	914	10.4	1,009	.9	1.0	40.9	42.3	10.1	4.8	
8	18	1,570	1,567	1.4	1,450	1,447	9.8	1,589	2.8	2.5	25.0	43.7	11.2	14.8	
3	19	605	578	12.8	570	545	19.6	652	----	----	38.8	39.0	12.1	10.1	
1	20	210	210	-12.4	210	210	-12.4	184	----	----	25.0	72.8	----	2.2	
1	21	235	228	-8.8	230	223	-6.7	208	7.2	----	39.9	32.7	8.2	12.0	

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	52.7	46.0	71.1	66.1	49.3	48.0
5/4	47.3	49.5	28.1	22.3	10.6	5.5
6/4	----	----	----	.3	.4	1.7
7/4	----	----	----	1.0	1.4	17.5
8/4 & above	----	4.5	.8	10.3	38.3	27.3
Total lumber (Bd. ft.)	444	421	5,692	13,120	5,231	2,747

Table 10.--Hard Maple, Log Grade I--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
42	13	4,025	3,808	1.4	3,560	3,179	21.4	3,860	19.3	19.1	26.6	9.5	----	6.7	18.5	0.3		
33	14	3,695	3,568	1.9	3,170	3,061	18.8	3,635	30.2	14.2	24.1	11.4	----	4.2	14.6	1.3		
43	15	5,700	5,471	-8.1	5,180	4,972	1.1	5,029	30.3	13.5	24.3	9.8	----	6.0	15.7	.4		
46	16	6,460	6,289	-6.6	5,870	5,715	2.8	5,874	25.3	10.3	33.0	10.6	----	3.9	14.9	2.0		
46	17	7,520	7,269	-10.7	6,860	6,631	-2.1	6,494	25.5	13.0	32.0	11.0	----	2.6	14.3	1.6		
40	18	7,520	7,295	-7.9	7,020	6,810	-1.3	6,720	27.4	13.6	28.5	11.6	----	2.4	14.7	1.8		
23	19	4,845	4,672	-12.6	4,540	4,378	-6.8	4,081	27.9	11.1	31.8	13.9	----	2.7	11.7	.9		
23	20	5,565	5,436	-8.0	5,410	5,285	-5.4	5,000	37.5	12.1	24.8	11.4	----	3.6	8.5	2.1		
10	21	2,420	2,420	-12.1	2,350	2,350	-9.5	2,127	36.0	10.6	27.5	12.7	----	4.5	8.7	----		
6	22	1,655	1,592	-17.0	1,580	1,520	-13.0	1,322	42.0	12.2	23.4	9.3	----	.9	12.2	----		
5	23	1,580	1,447	-13.3	1,550	1,420	-11.7	1,254	34.0	11.5	29.5	9.4	----	3.5	12.1	----		
1	24	310	207	-8.2	300	200	-5.0	190	61.0	3.2	21.1	8.9	----	5.8	----	----		
2	25	800	700	2.4	800	700	2.4	717	33.1	9.2	25.5	12.5	----	3.9	7.0	8.8		
1	26	500	500	-20.6	500	500	-20.6	397	52.4	14.4	20.1	----	----	----	----	13.1		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	24.3	25.1	44.1	52.3	----	55.6	59.9	----
4/5	9.8	9.1	12.4	14.3	----	10.5	10.4	----
6/4	28.8	19.2	14.4	8.6	----	6.6	7.5	----
7/4	----	----	.1	.6	----	----	.5	----
8/4 & above	37.1	46.6	29.0	24.2	----	27.3	21.7	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	13,671	6,010	13,163	5,151	-----	1,746	6,276	683

Table II.--Hard Maple, Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
31	10	1,575	1,502	2.7	1,270	121	27.4	1,543	3.7	4.7	27.8	17.9	----	9.1	36.8	----		
122	11	7,585	7,289	----	5,940	5,708	27.7	7,289	3.8	8.2	25.8	18.5	----	7.7	35.9	.1		
186	12	14,270	13,721	-5.7	12,130	11,663	11.0	12,943	6.8	7.3	29.4	18.9	----	7.5	29.2	.9		
152	13	13,585	13,049	-8.3	11,400	10,950	9.3	11,964	4.8	5.7	27.7	22.9	----	9.0	29.2	.7		
110	14	11,325	10,848	-8.7	9,870	9,454	4.7	9,903	5.6	6.4	33.1	21.5	.1	6.9	25.6	.8		
103	15	12,690	12,158	-8.4	11,680	11,190	-.4	11,141	8.2	7.4	31.8	22.9	----	6.2	22.9	.6		
61	16	8,355	7,762	-9.4	7,600	7,061	-.4	7,030	7.5	7.6	33.8	22.7	----	6.0	21.1	1.3		
47	17	7,145	6,618	-8.7	6,580	6,095	-.9	6,041	9.0	9.2	35.0	19.1	----	7.0	19.3	1.4		
23	18	4,090	3,835	-9.5	3,820	3,582	-3.1	3,472	7.0	8.8	33.3	22.2	----	6.2	22.1	.4		
17	19	3,170	2,909	-9.1	2,990	2,744	-3.6	2,645	15.4	7.3	37.4	21.1	----	3.1	12.2	3.5		
17	20	3,300	3,145	-9.5	3,300	3,145	-9.5	2,847	12.6	10.2	32.3	17.8	----	6.2	16.7	4.2		
7	21	1,805	1,727	-9.0	1,720	1,646	-4.5	1,572	26.2	8.1	22.8	19.2	----	5.9	14.6	3.2		
3	22	805	706	-8.6	770	675	-4.4	645	17.3	12.9	23.7	25.6	----	9.0	11.5	----		
1	23	390	267	17.2	380	260	20.4	313	21.7	6.7	20.8	34.5	----	----	16.3	----		

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs.
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	30.9	28.2	51.2	50.2	100.0	61.4	55.1	----
5/4	14.4	12.3	13.6	14.0	----	7.8	7.5	----
6/4	29.4	21.2	14.2	8.6	----	8.3	5.9	----
7/4	----	----	.1	.4	----	----	.1	----
8/4 & above	25.3	38.3	20.9	26.8	----	22.5	31.4	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	5,925	5,873	24,376	16,658	7	5,592	20,112	805

Table 12.--Hard Maple, Log Grade 3--Grade yield by diameter

No. of Logs :	Scale						Lumber Tally :	NHLA Lumber Grade Yields (Actual)									
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
	Gross	Net	Over-run	Gross	Net	Over-run											
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
5 : 8 :	115 :	115 :	1.7 :	100 :	100 :	17.0 :	117 :	---	3.4 :	13.7 :	17.1 :	---	13.7 :	52.1 :	---		
43 : 9 :	1,715 :	1,642 :	4.5 :	1,390 :	1,331 :	28.9 :	1,716 :	.3 :	.9 :	16.5 :	22.2 :	---	10.1 :	50.0 :	---		
71 : 10 :	3,250 :	3,054 :	1.8 :	2,570 :	2,415 :	28.8 :	3,110 :	.2 :	1.9 :	18.2 :	23.4 :	---	11.2 :	44.8 :	.3 :		
54 : 11 :	2,995 :	2,842 :	2.3 :	2,460 :	2,334 :	24.6 :	2,908 :	---	1.0 :	10.3 :	22.0 :	---	11.5 :	55.2 :	---		
31 : 12 :	2,175 :	1,997 :	-6.1 :	1,860 :	1,708 :	9.8 :	1,875 :	---	.4 :	14.7 :	25.0 :	---	15.2 :	44.7 :	---		
42 : 13 :	3,355 :	3,125 :	-8.6 :	2,860 :	2,664 :	7.2 :	2,855 :	.4 :	.9 :	13.0 :	26.3 :	---	13.6 :	45.0 :	.8 :		
35 : 14 :	3,265 :	3,089 :	-9.6 :	2,870 :	2,715 :	2.9 :	2,793 :	1.0 :	.4 :	13.6 :	26.5 :	---	11.7 :	46.0 :	.8 :		
15 : 15 :	1,785 :	1,522 :	-19.1 :	1,630 :	1,390 :	-11.4 :	1,231 :	.3 :	3.6 :	12.2 :	23.3 :	---	9.1 :	51.5 :	---		
11 : 16 :	1,145 :	1,048 :	-18.4 :	1,060 :	970 :	-11.9 :	855 :	1.3 :	---	19.9 :	31.7 :	---	13.1 :	30.3 :	3.7 :		
8 : 17 :	1,220 :	1,096 :	-20.9 :	1,120 :	1,006 :	-13.8 :	867 :	1.0 :	2.9 :	15.7 :	34.2 :	---	16.3 :	24.1 :	5.8 :		
7 : 18 :	1,310 :	1,054 :	-25.5 :	1,230 :	990 :	-20.7 :	785 :	---	3.7 :	16.6 :	31.7 :	---	14.8 :	33.2 :	---		
3 : 19 :	535 :	535 :	-4.3 :	510 :	510 :	.4 :	512 :	2.5 :	---	37.1 :	26.4 :	---	7.8 :	26.2 :	---		
-- : 20 :	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---		
2 : 21 :	350 :	314 :	-11.5 :	340 :	305 :	-8.9 :	278 :	---	---	16.9 :	42.8 :	---	15.1 :	25.2 :	---		

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	51.8	32.6	64.7	64.3	---	63.0	54.3	---
5/4	14.9	11.6	12.6	7.2	---	6.2	5.2	---
6/4	18.4	11.6	4.8	8.0	---	4.2	3.3	---
7/4	---	---	---	.5	---	---	.5	---
8/4 & above	14.9	44.2	17.9	20.0	---	26.6	36.7	---
Tmbrs. & SSE	---	---	---	---	---	---	---	100.0
Total lumber (Bd. ft.)	87	251	3,016	5,086	---	2,436	8,890	136

Table 13.--Black Oak, Log Grade I --Lumber grade yield by diameter

No. of Logs	: DiB	Scale						: Lumber Tally	NH&A Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
15	13	1,485	1,473	-.1	1,240	1,230	19.7	1,472	25.6	10.1	25.3	15.9	----	8.2	12.5	2.4		
20	14	2,230	2,166	5.1	1,930	1,875	21.4	2,276	22.6	9.5	26.6	13.9	----	5.7	16.1	5.6		
20	15	2,560	2,502	1.6	2,340	2,287	11.1	2,541	25.4	11.6	29.2	13.8	----	5.5	14.5	----		
30	16	4,370	4,208	1.8	3,960	3,813	12.4	4,285	23.4	10.4	27.1	15.2	----	6.8	17.1	----		
29	17	4,820	4,770	.8	4,380	4,335	10.9	4,809	23.0	11.5	27.4	15.1	----	5.3	17.0	.7		
15	18	2,970	2,918	-.2	2,750	2,702	7.7	2,911	24.8	7.9	31.5	14.3	----	6.8	14.7	----		
22	19	4,845	4,703	-1.8	4,530	4,397	5.0	4,618	30.9	10.4	27.8	10.6	----	3.1	11.0	6.2		
19	20	4,625	4,481	-5.1	4,500	4,360	-2.4	4,254	30.3	6.2	28.6	9.2	----	5.0	10.7	----		
9	21	2,510	2,437	-2.7	2,400	2,330	1.7	2,370	38.8	6.5	32.0	10.1	----	3.9	8.7	----		
7	22	2,235	2,104	-5.0	2,110	1,986	.7	1,999	37.9	5.5	42.4	4.1	----	1.1	9.0	----		
2	23	780	757	-1.5	760	738	1.1	746	29.1	7.7	37.5	10.2	----	3.2	12.3	----		
2	24	680	680	-17.1	650	650	-13.2	564	20.7	5.7	59.0	5.5	----	2.0	7.1	----		
--	25	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
3	26	1,240	1,240	-.2	1,250	1,250	-1.0	1,238	57.1	11.4	26.7	.7	----	2.2	1.9	----		
2	27	870	870	23.3	890	890	20.6	1,073	53.2	10.2	21.6	4.8	----	2.5	7.7	----		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	21.6	35.3	43.4	59.2	----	55.8	40.9	----
5/4	6.4	7.5	5.8	3.6	----	.5	.3	----
6/4	56.5	40.3	43.3	25.2	----	12.5	4.9	----
7/4	----	.5	1.2	8.7	----	25.7	49.1	----
8/4 & above	15.5	16.4	6.3	3.3	----	5.5	4.8	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	10,367	3,237	10,824	4,067	----	1,689	4,486	486

Table 14.--Black Oak, Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
1	10	45	45	17.8	30	30	76.7	53	----	----	18.9	43.4	----	----	37.7	----		
17	11	950	918	13.0	750	725	43.0	1,037	3.5	7.5	16.4	23.2	----	11.6	37.8	----		
33	12	2,450	2,370	.3	2,090	2,022	17.6	2,377	4.5	2.4	17.9	23.5	----	9.5	42.2	----		
23	13	2,125	2,077	-6.8	1,780	1,740	11.2	1,935	3.2	2.4	22.5	20.1	----	12.6	37.3	1.9		
39	14	3,910	3,766	4.2	3,410	3,284	19.5	3,926	3.9	2.8	23.0	18.0	----	8.2	44.1	----		
46	15	6,020	5,831	-1.9	5,460	5,289	8.2	5,721	5.6	3.7	22.4	21.6	.2	8.2	38.3	----		
31	16	4,505	4,335	-3.5	4,080	3,926	6.5	4,183	2.3	4.1	22.7	17.8	----	8.3	44.8	----		
22	17	3,640	3,433	1.6	3,300	3,112	12.1	3,488	4.5	1.4	24.8	21.6	----	6.4	39.5	1.8		
13	18	2,360	2,300	-2.7	2,210	2,154	3.9	2,238	5.2	7.3	36.6	17.4	----	10.1	23.4	----		
12	19	2,665	2,511	-8.3	2,490	2,346	-1.9	2,302	7.4	3.4	33.4	15.5	2.4	8.7	26.5	2.7		
6	20	1,185	1,085	7.4	1,190	1,090	6.9	1,165	13.8	1.4	23.1	22.7	----	9.7	29.3	----		
2	21	600	600	-16.7	570	570	-12.3	500	----	1.8	28.0	28.2	----	13.4	28.6	----		

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS		Sel		1C		2C		SW		3A		3B		Tmbrs. and SSE	
	In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below		38.4	48.4	54.4	52.5	100.0	58.2	30.1	----	----	----	----	----	----	----	----
5/4		5.7	6.8	6.9	2.2	----	1.3	----	----	----	----	----	----	----	----	----
6/4		54.1	28.4	32.5	30.2	----	7.6	8.7	----	----	----	----	----	----	----	----
7/4		----	----	.6	10.1	----	30.3	54.4	----	----	----	----	----	----	----	----
8/4 & above		1.8	16.4	5.6	5.0	----	2.6	6.8	----	----	----	----	----	----	----	----
Tmbrs. & SSE		----	----	----	----	----	----	----	----	----	----	----	----	----	100.0	----
Total lumber (Bd. ft.)		1,381	992	7,037	5,800	67	2,557	10,927	164							

Table 15.--Black Oak, Log Grade 3--Lumber grade yield by diameter

No. of Logs:	Scale						Lumber Tally:	NHLA Lumber Grade Yields (Actual)							
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
	Gross	Net	Over-run	Gross	Net	Over-run									
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
5 : 8 :	120 :	120 :	23.3 :	90 :	90 :	64.4 :	148 :	----	----	----	13.5 :	----	5.4 :	81.1 :	----
8 : 9 :	250 :	250 :	5.2 :	230 :	230 :	14.3 :	263 :	----	----	----	8.7 :	16.7 :	----	10.7 :	63.9 :
14 : 10 :	535 :	512 :	4.1 :	450 :	431 :	23.7 :	533 :	----	----	12.8 :	19.1 :	----	15.6 :	52.5 :	----
8 : 11 :	345 :	330 :	-1.8 :	290 :	277 :	17.0 :	324 :	----	2.2 :	7.7 :	15.7 :	----	10.2 :	64.2 :	----
13 : 12 :	825 :	819 :	-3.8 :	710 :	705 :	11.8 :	788 :	.8 :	.7 :	14.5 :	23.5 :	----	10.8 :	49.7 :	----
10 : 13 :	790 :	766 :	6.3 :	670 :	650 :	25.2 :	814 :	----	1.1 :	11.6 :	24.6 :	----	13.9 :	48.8 :	----
11 : 14 :	1,095 :	1,060 :	1.0 :	950 :	920 :	16.4 :	1,071 :	1.0 :	----	22.4 :	23.6 :	----	13.0 :	40.0 :	----
7 : 15 :	835 :	776 :	-10.7 :	760 :	706 :	-1.8 :	693 :	.9 :	----	15.1 :	19.2 :	4.0 :	11.0 :	49.8 :	----
6 : 16 :	770 :	711 :	-3.8 :	700 :	646 :	5.9 :	684 :	3.8 :	1.3 :	25.3 :	28.4 :	----	14.8 :	26.4 :	----
-- : 17 :	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
2 : 18 :	370 :	370 :	-4.6 :	340 :	340 :	3.8 :	353 :	----	13.0 :	37.1 :	27.2 :	----	4.0 :	5.7 :	13.0
2 : 19 :	520 :	498 :	-21.9 :	480 :	460 :	-15.4 :	389 :	----	----	2.6 :	9.2 :	----	3.9 :	84.3 :	----
3 : 20 :	710 :	710 :	-3.1 :	700 :	700 :	-1.7 :	688 :	4.4 :	1.6 :	21.5 :	21.4 :	----	13.1 :	32.8 :	5.2

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	45.6	22.7	59.6	69.7	----	54.7	32.0	----
5/4	21.5	12.5	9.0	3.9	----	1.0	----	----
6/4	----	20.5	20.7	13.8	100.0	16.1	4.6	----
7/4	----	----	----	6.6	----	23.7	50.7	----
8/4 & above	32.9	44.3	10.7	6.0	----	4.5	12.7	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	79	88	1,132	1,461	28	785	3,093	82

*
Table 16.--Chestnut Oak (WHAD), Log Grade I--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
5	13	425	383	-4.4	360	324	13.0	366	23.2	21.0	22.9	11.5	3.0	3.6	8.5	6.3		
1	14	100	89	6.7	90	80	18.8	95	---	---	58.9	41.1	---	---	---	---		
1	15	115	115	-4.3	110	110	.0	110	7.3	10.9	21.8	25.5	---	34.5	---	---		
2	16	285	274	-13.9	260	250	-5.6	236	15.7	8.0	31.3	13.6	5.5	3.4	22.5	---		
2	17	330	330	4.2	300	300	14.7	344	12.8	13.9	32.6	---	11.9	3.2	---	25.6		
1	18	140	140	-7.9	130	130	-8	129	---	24.8	31.0	11.6	24.8	7.8	---	---		
2	19	450	364	-2.7	420	340	4.1	354	25.2	7.6	12.4	28.5	6.8	14.7	4.8	---		
3	20	675	675	7.6	650	650	11.7	726	14.5	8.1	40.7	7.0	13.9	8.5	7.3	---		
1	21	280	181	-9.4	270	175	-6.3	164	27.4	17.7	10.4	29.3	3.6	11.6	---	---		
2	22	660	554	-8.8	620	520	-2.9	505	10.3	1.6	54.0	13.1	9.1	3.4	8.5	---		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	64.9	73.9	65.2	81.0	88.0	100.0	61.4	---
5/4	13.8	---	6.1	---	---	---	---	---
8/4 & above	21.3	26.1	28.7	19.0	12.0	---	38.6	---
Tmbrs. & SSE	---	---	---	---	---	---	---	100.0
Total lumber (Bd. ft.)	465	311	1,019	422	274	230	197	111

*Lumber graded WHAD--worm holes a defect.

Table 17.--Chestnut Oak (WHAD), Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Se1	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
5	10	255	236	3.4	190	176	38.6	244	----	1.2	34.8	42.2	3.3	12.7	5.8	----		
12	11	715	672	-2.8	580	545	19.8	653	----	----	18.2	22.8	8.6	18.2	16.4	15.8		
10	12	675	605	14.4	580	520	33.1	692	1.4	1.9	27.8	20.1	19.9	10.0	18.9	----		
7	13	625	565	-5.0	520	470	14.3	537	4.7	1.9	14.7	15.5	10.0	17.5	35.7	----		
9	14	980	915	-1.0	830	775	16.9	906	1.1	----	10.0	17.4	12.4	23.1	26.3	9.7		
10	15	1,215	1,071	-5.0	1,110	978	4.0	1,017	2.3	2.7	11.9	25.9	19.6	12.5	21.5	3.6		
5	16	735	696	2.3	660	625	13.9	712	2.8	.9	24.3	18.5	28.1	8.0	17.4	----		
2	17	355	333	-16.8	320	300	-7.7	277	----	----	5.4	12.6	22.4	34.3	25.3	----		
5	18	910	744	16.4	850	695	24.6	866	3.7	1.6	27.5	21.2	13.4	11.9	20.7	----		
6	19	1,010	857	5.4	960	815	10.8	903	5.2	2.7	31.0	18.0	13.7	13.2	16.2	----		
4	20	770	689	----	760	680	1.3	689	----	----	8.6	24.4	41.2	6.4	19.4	----		
4	21	1,025	942	-10.2	990	910	-7.0	846	2.1	1.8	19.4	11.0	32.9	3.7	29.1	----		
--	22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
1	23	285	285	7.7	280	280	9.6	307	12.4	15.0	30.3	5.9	9.4	2.9	7.5	16.6		
4	24	1,300	1,253	-1.5	1,250	1,205	2.4	1,234	----	----	16.0	10.9	33.3	7.4	9.5	22.9		
4	25	1,240	1,103	-10.7	1,270	1,130	-12.8	985	2.7	4.8	33.3	11.3	23.1	13.2	11.6	----		
1	26	435	410	-6.3	440	415	-7.5	384	----	----	21.6	----	61.7	3.1	13.6	----		
--	27	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
1	28	510	500	-24.0	510	500	-24.0	380	10.0	----	47.4	23.4	3.9	7.9	7.4	----		
1	29	465	425	11.1	460	420	12.4	472	2.5	1.5	42.4	.4	43.7	7.4	2.1	----		
2	30	990	960	-4.5	980	950	-3.5	917	13.7	.6	38.2	8.5	25.3	10.1	3.6	----		
1	31	625	625	-11.8	620	620	-11.1	551	1.6	----	12.0	1.3	66.8	3.4	14.9	----		

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Se1	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	83.5	55.0	79.6	82.3	78.9	81.6	62.7	----
5/4	2.5	----	.6	----	----	.8	----	----
6/4	----	----	.2	----	----	----	----	----
8/4 & above	14.0	45.0	19.6	17.7	21.1	17.6	37.3	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	435	218	3,114	2,110	3,357	1,517	2,260	561

Table 18.--Chestnut Oak (WHAD), Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Timbers. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
4	8	85	85	34.1	60	60	90.0	114	----	----	3.5	13.2	----	14.0	69.3	----		
14	9	520	508	7.1	430	420	29.5	544	----	----	11.0	18.8	5.1	17.7	33.8	13.6		
13	10	605	574	10.8	510	484	31.4	636	----	----	3.0	19.3	12.4	23.3	33.0	9.0		
14	11	910	829	7.0	720	656	35.2	887	----	.7	6.7	11.5	27.5	16.1	27.5	10.0		
9	12	630	609	9.4	540	522	27.6	666	----	.8	7.8	12.3	35.4	6.8	24.0	12.9		
12	13	1,105	967	-4.0	840	735	26.3	928	----	----	2.7	8.3	32.3	31.7	20.4	4.6		
10	14	1,025	984	-2.7	900	864	10.8	957	1.1	3.8	7.7	10.8	34.7	16.0	23.2	2.7		
6	15	695	668	-3.0	640	615	5.4	648	----	----	4.2	3.8	52.5	15.1	15.0	9.4		
5	16	660	572	7.9	600	520	18.7	617	----	----	9.1	13.8	33.7	16.7	20.7	6.0		
3	17	425	425	-2.8	400	400	3.3	413	----	----	6.8	19.4	41.4	21.3	11.1	----		
6	18	1,020	972	1.9	950	905	9.4	990	----	----	5.4	7.7	38.1	13.3	23.4	12.1		
4	19	530	442	-8.8	510	425	-5.2	403	----	----	2.5	----	46.1	15.4	36.0	----		
5	20	1,095	1,049	-5.6	1,080	1,035	-4.3	990	----	----	3.7	18.3	24.3	29.0	24.7	----		
2	21	640	533	-32.8	600	500	-28.4	358	----	----	5.9	13.4	53.1	12.8	14.8	----		
--	22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
3	23	755	619	-.5	750	615	.2	616	----	----	4.1	5.7	54.5	11.0	24.7	----		
2	24	625	552	-8.3	600	530	-4.5	506	----	----	3.9	7.9	42.5	11.9	22.7	11.1		
--	25	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
1	26	305	207	6.8	310	210	5.2	221	----	----	----	----	75.1	19.5	5.4	----		
1	27	470	343	15.7	480	350	13.4	397	----	----	8.1	13.8	28.5	22.4	27.2	----		
1	28	355	325	-20.6	360	330	-21.8	258	4.3	----	3.1	2.7	68.2	11.6	10.1	----		

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Timbers. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	50.0	38.3	92.8	88.4	87.6	85.3	63.4	----
5/4	50.0	25.5	----	----	.3	----	.3	----
8/4 & above	----	36.2	7.2	11.6	12.1	14.7	36.3	----
Timbers. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	22	47	610	1,236	3,938	2,001	2,646	649

*
Table 19.--Chestnut Oak (WHND), Log Grade I--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
5	13	425	383	-4.4	360	324	13.0	366	23.2	21.0	24.3	11.5	1.6	3.6	8.5	6.3		
1	14	100	89	6.7	90	80	18.8	95	---	---	58.9	41.1	---	---	---	---		
1	15	115	115	-4.3	110	110	---	110	7.3	10.9	30.8	25.5	---	25.5	---	---		
2	16	285	274	-13.9	260	250	-5.6	236	22.4	8.0	30.1	13.6	---	3.4	22.5	---		
2	17	330	330	4.2	300	300	14.7	344	45.6	14.0	11.6	1.5	---	1.7	---	25.6		
1	18	140	140	-7.9	130	130	-8	129	20.2	10.9	49.5	17.8	---	1.6	---	---		
2	19	450	364	-2.7	420	340	4.1	354	28.5	7.6	27.7	16.7	---	14.7	4.8	---		
3	20	675	675	7.6	650	650	11.7	726	21.6	8.1	47.4	9.8	---	5.8	7.3	---		
1	21	280	181	-9.4	270	175	-6.3	164	27.4	17.7	14.1	32.9	---	7.9	---	---		
2	22	660	554	-8.8	620	520	-2.9	505	21.2	1.6	52.2	13.1	---	3.4	8.5	---		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	66.2	72.4	68.4	90.9	100.0	100.0	61.4	---
5/4	10.8	---	4.3	---	---	---	---	---
8/4 & above	23.0	27.6	27.3	9.1	---	---	38.6	---
Tmbrs. & SSE	---	---	---	---	---	---	---	100.0
Total lumber (Bd. ft.)	739	293	1,083	419	6	181	197	111

*Lumber graded WHND--worm holes no defect.

Table 20.--Chestnut Oak (WHND), Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
5	10	255	236	3.4	190	176	38.6	244	----	1.2	41.0	39.3	----	12.7	5.8	----		
12	11	715	672	-2.8	580	545	19.8	653	3.2	----	16.8	23.7	6.7	17.3	16.4	15.9		
10	12	675	605	14.4	580	520	33.1	692	8.5	1.9	36.7	22.3	3.9	7.8	18.9	----		
7	13	625	565	-5.0	520	470	14.3	537	6.7	3.0	21.6	21.8	----	11.2	35.7	----		
9	14	980	915	-1.0	830	775	16.9	906	7.0	.6	15.2	19.4	4.5	18.1	25.5	9.7		
10	15	1,215	1,071	-5.0	1,110	978	4.0	1,017	8.0	3.9	27.1	19.7	5.9	10.3	21.5	3.6		
5	16	735	696	2.3	660	625	13.9	712	27.4	1.8	27.8	21.1	----	4.5	17.4	----		
2	17	355	333	-16.8	320	300	-7.7	277	----	2.5	25.3	31.0	----	15.9	25.3	----		
5	18	910	744	16.4	850	695	24.6	866	23.0	4.2	19.1	23.6	----	9.5	20.6	----		
6	19	1,010	857	5.4	960	815	10.8	903	7.5	2.7	42.4	21.2	----	10.1	16.1	----		
4	20	770	689	----	760	680	1.3	689	38.5	3.3	21.2	13.8	----	3.8	19.4	----		
4	21	1,025	942	-10.2	990	910	-7.0	846	22.1	3.5	34.6	6.0	.8	3.7	29.3	----		
--	22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
1	23	285	285	7.7	280	280	9.6	307	17.3	15.0	34.9	5.9	----	2.9	7.4	16.6		
4	24	1,300	1,253	-1.5	1,250	1,205	2.4	1,234	23.4	1.5	27.1	10.1	1.1	4.5	9.4	22.9		
4	25	1,240	1,103	-10.7	1,270	1,130	-12.8	985	37.1	3.9	26.0	15.6	----	5.9	11.5	----		
1	26	435	410	-6.3	440	415	-7.5	384	67.4	----	15.9	3.1	----	----	13.6	----		
--	27	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
1	28	510	500	-24.0	510	500	-24.0	380	41.8	----	28.4	14.5	----	7.9	7.4	----		
1	29	465	425	11.1	460	420	12.4	472	75.6	----	15.9	1.1	----	5.3	2.1	----		
2	30	990	960	-4.5	980	950	-3.5	917	54.7	1.5	23.1	11.0	----	6.0	3.7	----		
1	31	625	625	11.8	620	620	11.1	551	63.2	3.6	13.6	2.5	----	2.2	14.9	----		

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	SeI	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	72.2	67.3	83.1	90.5	80.8	77.2	62.6	----
5/4	.3	----	.5	.6	----	----	----	----
6/4	----	----	.2	----	----	----	----	----
8/4 & above	27.5	32.7	16.2	8.9	19.2	22.8	37.4	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	3,506	346	3,477	2,159	192	1,078	2,253	561

Table 21.--Chestnut Oak (WHND), Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)										
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE			
		Gross	Net	Over-run	Gross	Net	Over-run												
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.			
4	8	85	85	34.1	60	60	90.0	114	----	----	3.5	13.2	----	14.0	69.3	----			
14	9	520	508	7.1	430	420	29.5	544	----	.9	15.3	20.8	----	15.6	33.8	13.6			
13	10	605	574	10.8	510	484	31.4	636	----	1.9	13.1	25.0	2.7	16.8	31.5	9.0			
14	11	910	829	7.0	720	656	35.2	887	4.2	2.3	29.5	13.5	----	13.0	27.5	10.0			
9	12	630	609	9.4	540	522	27.6	666	3.0	1.4	35.3	17.3	4.8	1.4	24.0	12.8			
12	13	1,105	967	-4.0	840	735	26.3	928	6.0	----	25.5	26.2	4.0	13.3	20.4	4.6			
10	14	1,025	984	-2.7	900	864	10.8	957	16.2	5.1	25.9	8.4	3.2	15.3	23.2	2.7			
6	15	695	668	-3.0	640	615	5.4	648	20.4	----	36.6	13.3	----	5.4	15.0	9.3			
5	16	660	572	7.9	600	520	18.7	617	----	----	40.0	27.2	1.9	4.1	20.8	6.0			
3	17	425	425	-2.8	400	400	3.3	413	19.1	----	29.1	32.7	----	8.0	11.1	----			
6	18	1,020	972	1.9	950	905	9.4	990	20.8	2.1	24.1	14.1	----	3.2	23.5	12.2			
4	19	530	442	-8.8	510	425	-5.2	403	6.7	----	40.0	6.5	----	10.8	36.0	----			
5	20	1,095	1,049	-5.6	1,080	1,035	-4.3	990	6.8	----	21.8	25.6	----	21.2	24.6	----			
2	21	640	533	-32.8	600	500	-28.4	358	36.9	4.5	17.6	21.2	----	5.0	14.8	----			
--	22	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----			
3	23	755	619	-.5	750	615	.2	616	7.1	1.0	51.5	15.7	----	----	24.7	----			
2	24	625	552	-8.3	600	530	-4.5	506	2.8	----	46.2	15.4	----	1.8	22.7	11.1			
--	25	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----			
1	26	305	207	6.8	310	210	5.2	221	21.7	----	53.4	19.5	----	----	5.4	----			
1	27	470	343	15.7	480	350	13.4	397	----	----	36.5	33.5	----	2.8	27.2	----			
1	28	355	325	-20.6	360	330	-21.8	258	33.3	----	42.2	11.2	----	3.1	10.2	----			

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	77.5	79.0	90.9	95.3	72.1	72.0	63.3	----
5/4	1.0	8.7	.3	----	----	----	.3	----
8/4 & above	21.5	12.3	8.8	4.7	27.9	28.0	36.4	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	1,103	138	3,358	2,109	129	1,026	2,637	649

Table 22.--Red Oak (Lowland), Log Grade I--Lumber grade yield by diameter

No. of Logs	:DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Se1	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
16	: 13	: 1,630	: 1,550		: 12.3	: 1,370	: 1,303	: 33.5	: 1,740	: 15.0	: 7.4	: 31.9	: 21.3	: ----	: 7.8	: 11.8	: 4.8	
25	: 14	: 3,025	: 2,993		: 7.4	: 2,560	: 2,533	: 26.8	: 3,213	: 26.6	: 9.3	: 26.7	: 16.4	: ----	: 7.5	: 7.4	: 6.1	
32	: 15	: 4,460	: 4,385		: 7.6	: 4,000	: 3,933	: 19.9	: 4,717	: 23.2	: 11.3	: 29.5	: 13.7	: .2	: 6.2	: 7.1	: 8.8	
60	: 16	: 9,230	: 8,908		: 6.0	: 8,330	: 8,039	: 17.4	: 9,439	: 18.9	: 9.9	: 31.2	: 15.2	: ----	: 9.9	: 9.3	: 5.6	
40	: 17	: 7,440	: 7,249		: 2.9	: 6,630	: 6,460	: 15.5	: 7,462	: 29.4	: 7.5	: 28.2	: 14.9	: ----	: 7.9	: 4.6	: 7.5	
34	: 18	: 6,830	: 6,506		: 6.5	: 6,360	: 6,058	: 14.4	: 6,932	: 25.1	: 9.7	: 32.1	: 12.3	: ----	: 4.2	: 5.2	: 11.4	
29	: 19	: 6,420	: 6,173		: 1.6	: 6,000	: 5,769	: 8.7	: 6,272	: 30.7	: 6.4	: 34.4	: 13.2	: ----	: 6.8	: 4.3	: 4.2	
27	: 20	: 6,670	: 6,376		: -.6	: 6,520	: 6,233	: 1.7	: 6,336	: 33.8	: 8.5	: 26.5	: 10.6	: .9	: 5.0	: 8.4	: 6.3	
16	: 21	: 4,705	: 4,557		: -3.3	: 4,470	: 4,329	: 1.8	: 4,407	: 40.3	: 7.6	: 26.5	: 8.0	: ----	: 2.5	: 5.1	: 10.0	
13	: 22	: 4,180	: 4,051		: .2	: 3,930	: 3,809	: 6.6	: 4,059	: 30.1	: 6.3	: 34.9	: 10.7	: ----	: 5.3	: 10.3	: 2.4	
14	: 23	: 4,720	: 4,598		: -.1	: 4,620	: 4,501	: 2.1	: 4,594	: 30.9	: 9.1	: 32.6	: 9.3	: ----	: 4.2	: 9.1	: 4.8	
4	: 24	: 1,645	: 1,639		: -3.8	: 1,550	: 1,544	: 2.1	: 1,577	: 25.7	: 8.6	: 41.3	: 6.8	: ----	: 3.3	: 3.1	: 11.2	
4	: 25	: 1,600	: 1,506		: 1.0	: 1,600	: 1,506	: 1.0	: 1,521	: 33.2	: 4.1	: 36.7	: 16.3	: ----	: 4.9	: 2.0	: 2.8	
1	: 26	: 305	: 305		: -23.3	: 310	: 310	: -24.5	: 234	: 10.2	: ----	: 42.7	: 30.8	: ----	: 4.3	: 12.0	: ----	
2	: 27	: 1,080	: 1,051		: -7.3	: 1,100	: 1,070	: -9.0	: 974	: 34.1	: 16.2	: 24.0	: 6.8	: ----	: 4.4	: 3.8	: 10.7	

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Se1	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	48.9	65.1	82.0	94.9	100.0	93.5	74.5	----
8/4 & above	51.1	34.9	18.0	5.1	----	6.5	25.5	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	17,669	5,434	19,541	8,146	65	3,933	4,374	4,315

Table 23.--Red Oak (Lowland), Log Grade 2--Lumber grade yield by diameter

No. of Logs	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE		
	Gross	Net	Over-run	Gross	Net	Over-run											
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
2 : 10 :	120 :	112 :	13.4 :	100 :	93 :	36.6 :	127 :	---	7.9 :	33.1 :	15.7 :	---	27.6 :	15.7 :	---		
35 : 11 :	2,585 :	2,462 :	6.6 :	2,080 :	1,981 :	32.5 :	2,624 :	6.2 :	4.5 :	27.8 :	23.4 :	---	12.4 :	14.8 :	10.9 :		
55 : 12 :	4,960 :	4,773 :	2.9 :	4,160 :	4,003 :	22.7 :	4,912 :	5.3 :	3.7 :	30.2 :	22.2 :	---	12.9 :	18.1 :	7.6 :		
68 : 13 :	7,045 :	6,882 :	2.1 :	5,960 :	5,822 :	20.7 :	7,025 :	5.0 :	4.2 :	26.8 :	24.3 :	---	14.8 :	17.2 :	7.7 :		
57 : 14 :	6,745 :	6,637 :	-1.1 :	5,730 :	5,638 :	16.4 :	6,561 :	7.1 :	5.0 :	28.4 :	23.4 :	.5 :	14.5 :	18.3 :	2.8 :		
72 : 15 :	10,240 :	9,824 :	-2.5 :	9,140 :	8,769 :	9.2 :	9,580 :	5.7 :	4.1 :	29.1 :	23.4 :	---	14.9 :	14.9 :	7.9 :		
40 : 16 :	6,125 :	5,945 :	.6 :	5,540 :	5,377 :	11.2 :	5,979 :	4.8 :	6.0 :	39.4 :	20.8 :	.4 :	10.8 :	12.0 :	5.8 :		
33 : 17 :	5,920 :	5,861 :	-4.4 :	5,300 :	5,247 :	6.8 :	5,602 :	8.3 :	6.0 :	33.6 :	17.7 :	.2 :	9.4 :	17.7 :	7.1 :		
30 : 18 :	5,910 :	5,722 :	1.9 :	5,530 :	5,354 :	8.9 :	5,830 :	8.0 :	3.8 :	40.9 :	16.5 :	---	9.0 :	12.3 :	9.5 :		
22 : 19 :	4,775 :	4,617 :	-3.5 :	4,470 :	4,322 :	3.1 :	4,457 :	10.1 :	4.8 :	34.6 :	22.6 :	---	13.0 :	12.1 :	2.8 :		
5 : 20 :	1,250 :	1,071 :	2.5 :	1,220 :	1,045 :	5.1 :	1,098 :	12.2 :	2.7 :	27.8 :	19.0 :	---	14.0 :	21.0 :	3.3 :		
4 : 21 :	1,155 :	1,134 :	-1.2 :	1,100 :	1,080 :	3.7 :	1,120 :	3.8 :	8.2 :	35.1 :	20.0 :	2.5 :	14.5 :	8.8 :	7.1 :		
4 : 22 :	1,175 :	1,175 :	-3.7 :	1,120 :	1,120 :	1.0 :	1,131 :	11.8 :	4.0 :	35.5 :	18.4 :	---	10.3 :	7.8 :	12.2 :		
1 : 23 :	335 :	335 :	-20.3 :	330 :	330 :	-19.1 :	267 :	3.4 :	4.1 :	38.6 :	30.0 :	---	4.1 :	4.1 :	15.7 :		
6 : 24 :	2,385 :	2,081 :	-5.3 :	2,250 :	1,963 :	.4 :	1,970 :	8.9 :	3.2 :	50.2 :	16.1 :	---	8.4 :	6.2 :	7.0 :		

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	69.9	67.3	90.8	95.7	100.0	93.5	71.5	----
6/4	----	----	.1	----	----	----	----	----
8/4 & above	30.1	32.7	9.1	4.3	----	6.5	28.5	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total Lumber (Bd. ft.)	3,950	2,694	19,155	12,444	101	7,289	8,653	3,997

Table 24.--Red Oak (Lowland), Log Grade 3--Lumber grade yield by diameter

No.:DIB :		Scale						Lumber:		NHLA Lumber Grade Yields (Actual)									
of :								Tally :											
Logs :		Int. 1/4 inch			Scrib. Dec. C.					FAS	Sel	IC	2C	SW	3A	3B	Tmbrs.		
																		and	
		Gross	Net	Over-	Gross	Net	Over-											SSE	
				run			run												
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
7 :	8 :	275 :	275 :	-1.4 :	200 :	200 :	37.0 :	274 :	----	----	19.7 :	8.4 :	----	11.7 :	36.9 :	23.3 :			
10 :	9 :	490 :	476 :	3.2 :	380 :	369 :	33.1 :	491 :	1.6 :	1.6 :	14.1 :	20.4 :	----	8.3 :	32.0 :	22.0 :			
20 :	10 :	1,180 :	1,173 :	-1.2 :	980 :	974 :	20.2 :	1,171 :	1.2 :	1.2 :	21.4 :	20.7 :	----	16.0 :	25.9 :	13.6 :			
15 :	11 :	1,070 :	1,032 :	10.7 :	850 :	820 :	39.3 :	1,142 :	----	1.5 :	12.6 :	32.9 :	----	24.5 :	25.9 :	2.6 :			
15 :	12 :	1,315 :	1,242 :	3.1 :	1,100 :	1,039 :	23.3 :	1,281 :	----	.4 :	19.3 :	32.1 :	----	20.4 :	21.5 :	6.3 :			
28 :	13 :	2,725 :	2,525 :	-6.4 :	2,280 :	2,113 :	11.8 :	2,363 :	.7 :	.6 :	9.8 :	22.0 :	----	24.2 :	35.6 :	7.1 :			
24 :	14 :	2,685 :	2,631 :	-6.0 :	2,320 :	2,273 :	8.8 :	2,474 :	1.2 :	.7 :	13.5 :	23.7 :	.2 :	21.3 :	33.4 :	6.0 :			
15 :	15 :	1,915 :	1,890 :	-13.0 :	1,760 :	1,737 :	-5.4 :	1,644 :	.4 :	.7 :	24.7 :	30.3 :	----	19.2 :	19.4 :	5.3 :			
5 :	16 :	725 :	689 :	3.2 :	660 :	627 :	13.4 :	711 :	----	----	23.5 :	24.3 :	----	23.6 :	28.6 :	----			
12 :	17 :	1,975 :	1,931 :	-9.9 :	1,800 :	1,760 :	8.8 :	1,914 :	.8 :	2.9 :	32.4 :	31.7 :	----	9.9 :	16.7 :	5.6 :			
6 :	18 :	1,230 :	1,219 :	-3.9 :	1,140 :	1,130 :	3.7 :	1,172 :	3.1 :	4.9 :	22.2 :	21.8 :	----	19.3 :	23.0 :	5.7 :			
3 :	19 :	605 :	594 :	-10.8 :	570 :	560 :	-5.4 :	530 :	----	.8 :	46.0 :	22.1 :	----	12.8 :	18.3 :	----			
6 :	20 :	1,540 :	1,511 :	-3.6 :	1,500 :	1,472 :	-1.0 :	1,457 :	.8 :	.7 :	27.2 :	30.9 :	----	17.4 :	23.0 :	----			
1 :	21 :	235 :	235 :	-11.9 :	230 :	230 :	-10.0 :	207 :	----	----	34.3 :	26.6 :	----	21.2 :	17.9 :	----			
2 :	22 :	710 :	700 :	-18.4 :	660 :	651 :	-12.3 :	571 :	----	----	34.0 :	41.9 :	----	15.9 :	8.2 :	----			

Distribution by thickness of Log Grade 3 yields

Lumber Thickness :	FAS :	Sel :	IC :	2C :	SW :	3A :	3B :	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below :	80.3 :	76.7 :	95.8 :	96.1 :	100.0 :	96.4 :	77.1 :	----
5/4 :	----	----	.4 :	.3 :	----	----	----	----
8/4 & above :	19.7 :	23.3 :	3.8 :	3.6 :	----	3.6 :	22.9 :	----
Tmbrs. & SSE :	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.) :	137 :	215 :	3,689 :	4,655 :	5 :	3,255 :	4,426 :	1,020

Table 25.--Red Oak (Upland), Log Grade I--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
32	13	2,915	2,828	2.8	2,420	2,348	23.9	2,908	19.6	12.9	26.0	13.8	----	8.9	17.4	1.4		
16	14	1,785	1,755	5.1	1,530	1,504	22.7	1,845	35.1	13.2	22.0	12.7	----	7.7	9.3	----		
26	15	3,225	3,149	7.5	2,980	2,910	16.3	3,384	29.6	13.9	25.7	9.8	----	6.9	12.8	1.3		
43	16	6,185	5,876	-2.6	5,600	5,320	7.6	5,724	37.4	12.6	24.7	11.1	----	6.2	6.5	1.5		
35	17	5,880	5,680	1.3	5,340	5,158	11.5	5,753	37.1	11.9	22.8	11.0	----	6.4	10.2	.6		
27	18	5,205	5,081	-.8	4,860	4,744	6.3	5,042	37.3	9.2	26.1	10.4	----	4.4	10.6	2.0		
30	19	6,260	6,144	.2	5,880	5,771	6.7	6,159	32.3	6.5	34.2	10.2	----	4.1	9.8	2.9		
22	20	5,160	5,066	-3.2	5,030	4,938	-.6	4,906	38.1	9.6	25.5	10.9	----	3.4	11.5	1.0		
21	21	5,505	5,330	2.2	5,290	5,122	6.4	5,448	40.4	6.3	26.6	10.2	----	3.2	11.7	1.6		
19	22	5,595	5,469	-5.3	5,310	5,190	-.3	5,177	35.8	6.2	28.3	11.7	----	5.2	11.8	1.0		
13	23	4,070	4,002	-5.9	3,990	3,923	-4.0	3,765	42.8	5.6	27.5	10.6	----	4.2	8.5	.8		
15	24	5,065	4,846	-2.8	4,830	4,640	1.5	4,708	37.9	5.2	30.2	12.0	----	3.3	10.4	1.0		
6	25	2,160	2,062	-4.1	2,180	2,081	-4.9	1,978	36.3	5.3	34.0	12.1	----	5.0	7.3	----		
8	26	3,415	3,299	10.5	3,440	3,323	9.8	3,647	43.3	5.7	35.0	6.5	----	1.0	8.5	----		
3	27	1,410	1,343	-.6	1,440	1,372	-2.7	1,335	55.7	7.8	12.0	2.3	----	9.6	12.6	----		
2	28	785	596	15.9	800	607	13.8	691	41.1	10.0	27.1	9.5	----	2.7	9.6	----		
3	29	1,315	1,247	-13.2	1,300	1,233	-12.2	1,083	46.7	.7	38.4	9.2	----	1.9	3.1	----		
4	30	1,725	1,561	-5.7	1,720	1,556	-5.4	1,472	29.1	4.6	33.6	15.1	.7	6.6	10.3	----		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	36.8	42.8	52.0	63.4	100.0	67.1	49.3	----
5/4	13.9	11.7	7.3	3.8	----	.8	.1	----
6/4	34.5	30.5	32.3	18.8	----	6.6	4.7	----
7/4	1.2	.5	2.4	8.5	----	19.2	37.9	----
8/4 & above	13.6	14.5	6.0	5.5	----	6.3	8.0	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total Lumber (Bd. ft.)	23,945	5,507	17,995	6,951	10	3,163	6,712	742

Table 26.--Red Oak (Upland), Log Grade 2--Lumber grade yield by diameter

No. of Logs :	Scale						Lumber Tally :	NHLA Lumber Grade Yields (Actual)									
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
	Gross	Net	Over-run	Gross	Net	Over-run											
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
15	10	745	732	7.1	580	570	37.5	784	8.9	15.8	30.1	13.8	1.3	9.7	20.4	----	
65	11	3,590	3,462	-1.5	2,830	2,729	26.2	3,445	3.6	4.7	28.8	26.2	----	14.6	20.9	1.2	
80	12	5,410	5,073	-3.5	4,640	4,351	20.7	5,250	4.3	6.4	29.0	19.8	----	13.5	22.9	4.1	
54	13	4,665	4,491	-1.7	3,950	3,803	12.0	4,258	6.7	4.6	28.1	19.7	1.5	11.1	28.3	----	
65	14	6,445	6,263	-2.8	5,600	5,442	8.2	5,890	8.6	6.0	34.6	22.1	.3	9.7	15.9	2.8	
67	15	8,290	8,078	-2.0	7,570	7,376	7.3	7,914	10.4	7.3	31.8	19.1	----	7.7	23.7	----	
39	16	5,225	5,099	-1.1	4,760	4,645	11.0	5,157	7.8	4.5	27.7	21.2	----	9.9	27.6	1.3	
35	17	5,520	5,240	-2.8	5,020	4,765	10.0	5,242	10.1	5.5	30.1	14.3	----	8.9	30.9	.2	
22	18	4,040	3,893	-1.5	3,790	3,652	4.0	3,798	10.9	1.8	30.9	22.2	.3	7.0	26.9	----	
25	19	4,590	4,461	-1.3	4,330	4,208	.4	4,223	12.4	4.1	38.7	17.4	----	6.7	20.4	.3	
11	20	2,445	2,417	-1.1	2,400	2,373	5.5	2,504	7.1	3.3	35.7	21.7	----	6.2	19.3	6.7	
5	21	1,145	950	-17.0	1,100	913	24.9	1,140	16.9	4.1	27.1	8.6	----	4.7	38.6	----	
6	22	1,710	1,637	-4.3	1,620	1,551	6.9	1,658	15.2	.7	36.8	18.5	----	3.4	25.4	----	
4	23	1,245	1,204	-3.3	1,220	1,180	8.4	1,279	7.3	.7	28.6	22.7	----	6.2	34.5	----	
4	24	1,205	1,143	-5.2	1,170	1,110	13.0	1,254	10.1	5.1	53.4	14.8	----	1.6	12.4	2.6	

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	49.9	53.5	62.2	66.7	100.0	69.5	36.9	----
5/4	11.0	6.2	4.6	1.9	----	1.0	.3	----
6/4	25.2	19.0	22.4	15.1	----	3.8	3.6	----
7/4	.5	.7	1.3	8.9	----	17.9	49.7	----
8/4 & above	13.4	20.6	9.5	7.4	----	7.8	9.5	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	4,750	2,727	17,165	10,555	103	4,833	12,957	706

Table 27.--Red Oak (Upland), Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB		Scale						Lumber Tally		NHLA Lumber Grade Yields (Actual)									
			Int. 1/4 Inch			Scrib. Dec. C.					FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
			Gross	Net	Over-run	Gross	Net	Over-run												
			In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
11	8		305	298		12.8	220	215	56.3	336	2.4	2.1	15.2	24.7	1.5	7.4	46.7	----		
23	9		805	764		10.9	690	655	29.3	847	.6	.9	19.5	27.3	.9	14.6	36.2	----		
45	10	2,020	1,940			-1.9	1,560	1,498	27.1	1,904	----	.4	17.9	25.1	.3	15.8	40.5	----		
13	11		570	539		5.2	480	454	24.9	567	----	.7	11.3	17.6	----	13.6	56.8	----		
26	12	1,625	1,569			-2.4	1,410	1,361	12.5	1,531	----	1.0	18.3	25.9	----	17.7	37.1	----		
21	13	1,530	1,410			-9	1,310	1,207	15.8	1,398	----	.6	8.4	27.0	----	16.7	45.6	1.7		
22	14	1,930	1,853			-1.7	1,710	1,642	11.0	1,822	.5	----	11.5	22.3	----	15.2	50.5	----		
14	15	1,610	1,566			-2.8	1,470	1,430	6.4	1,522	.3	.4	9.2	19.2	----	9.8	54.5	6.6		
17	16	2,195	2,071			-1.3	2,000	1,887	8.4	2,045	----	.4	12.7	24.4	----	11.8	50.7	----		
7	17	1,140	1,121			-4.7	1,030	1,013	5.4	1,068	2.5	2.4	21.3	26.1	----	8.9	27.5	11.3		
5	18	940	927			2.9	880	868	9.9	954	5.4	----	17.7	21.1	----	10.2	45.6	----		
7	19	1,455	1,372			.5	1,360	1,282	7.6	1,379	.6	----	25.4	26.3	----	5.8	41.9	----		
2	20	540	540			4.6	520	520	8.7	565	----	----	1.9	19.3	----	3.0	75.8	----		
6	21	1,565	1,485			3.8	1,500	1,423	8.4	1,542	----	1.0	20.2	34.7	----	10.4	33.7	----		
1	22	305	305			-2.6	290	290	2.4	297	----	----	7.7	18.9	----	15.8	57.6	----		
2	23	520	520			1.9	510	510	3.9	530	----	----	50.5	25.3	----	13.2	11.0	----		
1	24	310	305			-10.8	300	295	-7.8	272	----	----	26.1	30.9	----	12.5	30.5	----		
1	25	400	400			-34.3	400	400	-34.3	263	10.3	----	51.7	20.1	----	----	17.9	----		

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
4/4 & below	55.6	75.7	66.6	63.3	100.0	64.4	42.8	----
5/4	14.1	10.3	2.8	2.8	----	1.0	----	----
6/4	11.3	----	17.5	14.6	----	5.1	2.1	----
7/4	19.0	----	8.3	15.1	----	22.1	43.2	----
8/4 & above	----	14.0	4.8	4.2	----	7.4	11.9	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	142	107	3,195	4,677	18	2,300	8,159	244

Table 28.--White Oak (Lowland), Log Grade I--Lumber grade yield by diameter

No. :	DIB :	Scale						Lumber :	NHLA Lumber Grade Yields (Actual)									
of :	Logs :	Int. 1/4 Inch			Scrib. Dec. C.			Tally :	FAS :	Sel :	1C :	2C :	SW :	3A :	3B :	Tmbrs. and SSE		
:	:	Gross :	Net :	Over-run :	Gross :	Net :	Over-run :	:	:	:	:	:	:	:	:	:		
:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:	:		
:	:	In. :	Bd. ft. :	Bd. ft. :	Pct. :	Bd. ft. :	Bd. ft. :	Pct. :	Bd. ft. :	Pct. :	Pct. :	Pct. :	Pct. :	Pct. :	Pct. :	Pct. :		
12 :	13 :	1,215 :	1,207 :	5.6 :	1,020 :	1,013 :	25.8 :	1,274 :	7.0 :	7.7 :	32.8 :	17.6 :	0.7 :	13.1 :	12.8 :	8.3 :		
12 :	14 :	1,370 :	1,343 :	8.5 :	1,180 :	1,157 :	25.9 :	1,457 :	15.6 :	7.9 :	31.2 :	20.4 :	---- :	7.6 :	13.1 :	4.2 :		
18 :	15 :	2,495 :	2,435 :	3.2 :	2,250 :	2,196 :	14.5 :	2,514 :	25.8 :	9.4 :	27.6 :	19.8 :	.8 :	9.4 :	5.4 :	1.8 :		
23 :	16 :	3,595 :	3,446 :	5.0 :	3,240 :	3,106 :	16.5 :	3,618 :	21.0 :	7.1 :	29.1 :	15.0 :	1.3 :	9.6 :	10.9 :	6.0 :		
30 :	17 :	5,290 :	5,126 :	2.1 :	4,760 :	4,612 :	13.4 :	5,232 :	26.2 :	8.6 :	29.4 :	14.1 :	1.6 :	7.6 :	7.6 :	4.9 :		
25 :	18 :	5,000 :	4,822 :	1.2 :	4,670 :	4,504 :	8.4 :	4,881 :	27.7 :	7.5 :	32.7 :	15.6 :	.6 :	7.1 :	5.5 :	3.3 :		
14 :	19 :	2,975 :	2,923 :	8.3 :	2,790 :	2,741 :	15.5 :	3,167 :	24.7 :	7.3 :	35.3 :	13.1 :	1.6 :	4.8 :	2.9 :	10.3 :		
15 :	20 :	3,510 :	3,470 :	4.0 :	3,430 :	3,391 :	6.5 :	3,610 :	29.8 :	4.0 :	40.1 :	10.4 :	---- :	3.2 :	8.7 :	3.8 :		
12 :	21 :	3,340 :	3,269 :	-.7 :	3,200 :	3,132 :	3.7 :	3,247 :	28.0 :	6.3 :	37.6 :	13.7 :	---- :	4.3 :	8.0 :	2.1 :		
7 :	22 :	2,145 :	2,096 :	-.1 :	2,030 :	1,984 :	5.5 :	2,093 :	28.7 :	3.0 :	39.1 :	12.4 :	2.3 :	2.7 :	2.9 :	8.9 :		
5 :	23 :	1,635 :	1,620 :	-3.6 :	1,600 :	1,585 :	-1.5 :	1,561 :	44.6 :	3.9 :	36.6 :	9.2 :	---- :	3.5 :	2.2 :	---- :		
5 :	24 :	1,785 :	1,687 :	-9.7 :	1,700 :	1,607 :	-5.2 :	1,523 :	39.7 :	8.3 :	38.8 :	4.8 :	---- :	2.8 :	2.8 :	2.8 :		
2 :	25 :	740 :	740 :	.7 :	740 :	740 :	.7 :	745 :	29.4 :	4.3 :	54.1 :	4.2 :	---- :	.9 :	3.3 :	3.8 :		
2 :	26 :	675 :	675 :	3.0 :	680 :	680 :	2.2 :	695 :	52.1 :	5.5 :	23.7 :	11.5 :	---- :	---- :	7.2 :	---- :		
1 :	27 :	400 :	400 :	13.3 :	410 :	410 :	10.5 :	453 :	36.9 :	2.0 :	37.3 :	15.9 :	---- :	---- :	7.9 :	---- :		
2 :	28 :	1,015 :	1,009 :	-1.3 :	1,020 :	1,014 :	-1.8 :	996 :	58.7 :	8.0 :	11.5 :	9.9 :	---- :	.7 :	11.2 :	---- :		
1 :	29 :	465 :	445 :	7.2 :	460 :	440 :	8.4 :	477 :	76.3 :	3.4 :	10.7 :	3.1 :	---- :	1.5 :	---- :	5.0 :		
1 :	30 :	495 :	495 :	.6 :	490 :	490 :	1.6 :	498 :	9.0 :	---- :	41.2 :	36.4 :	3.6 :	3.4 :	6.4 :	---- :		
1 :	31 :	720 :	694 :	-16.7 :	710 :	684 :	-12.3 :	600 :	---- :	---- :	70.0 :	25.0 :	---- :	2.7 :	2.3 :	---- :		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	1C	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	69.0	75.2	90.1	92.4	100.0	92.9	64.1	---
5/4	.1	.9	1.9	2.2	---	1.6	.8	---
6/4	---	---	.1	.3	---	---	---	---
7/4	---	---	.1	.9	---	---	6.5	---
8/4 & above	30.9	23.9	7.8	4.2	---	5.5	28.6	---
Tmbrs. & SSE	---	---	---	---	---	---	---	100.0
Total lumber (Bd. ft.)	10,855	2,531	13,048	5,397	306	2,223	2,622	1,659

Table 29.--White Oak (Lowland), Log Grade 2--Lumber grade yield by diameter

No. of Logs		Scale						Lumber Tally		NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.					FAS	Sel	IC	2C	SW	3A	3B	Tmbrs.		
		Gross	Net	Over-	Gross	Net	Over-											and	SSE
				run			run												
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4	10	240	206	29.6	210	180	48.3	267	2.6	3.8	20.6	29.6	----	20.2	10.5	12.7			
27	11	1,880	1,863	8.6	1,530	1,516	33.5	2,024	.9	2.5	18.1	28.0	1.9	20.9	21.8	5.9			
48	12	4,025	3,910	9.6	3,390	3,293	30.1	4,285	4.3	3.8	24.9	26.6	3.2	13.1	15.9	8.2			
50	13	5,075	4,968	12.1	4,240	4,151	34.1	5,568	3.2	1.2	26.2	29.9	1.0	15.2	10.7	12.6			
50	14	5,920	5,838	4.7	5,030	4,960	23.2	6,111	5.5	2.9	29.7	26.6	1.2	11.6	13.9	8.6			
61	15	8,615	8,455	2.2	7,710	7,567	14.2	8,645	4.5	3.4	30.0	23.3	2.7	13.5	12.7	9.9			
40	16	6,085	5,904	6.0	5,500	5,336	17.3	6,258	4.8	3.1	36.4	26.6	1.2	9.0	7.7	11.2			
38	17	6,410	6,220	5.7	5,800	5,628	16.8	6,572	6.6	3.5	30.9	25.0	1.9	10.3	11.0	10.8			
35	18	6,670	6,370	.9	6,240	5,959	7.9	6,429	6.8	3.7	40.6	18.3	2.9	6.2	8.2	13.3			
17	19	3,515	3,399	-1.4	3,300	3,191	5.0	3,350	12.2	6.4	35.5	19.6	1.3	9.4	11.3	4.3			
8	20	1,850	1,848	-1.0	1,810	1,808	1.2	1,830	11.8	3.8	43.5	19.4	----	3.3	10.3	7.9			
8	21	1,930	1,892	11.7	1,860	1,823	15.9	2,113	12.0	1.7	45.6	20.3	1.2	4.8	8.0	5.9			
9	22	2,445	2,233	4.0	2,330	2,128	9.1	2,322	10.1	3.4	37.5	19.4	5.5	10.4	10.1	3.6			
--	23	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
4	24	1,305	1,305	.6	1,250	1,250	5.0	1,313	21.0	3.4	41.8	15.6	1.9	2.3	1.9	12.1			
1	25	400	400	-2.8	400	400	-2.8	389	17.7	----	20.6	28.0	8.7	5.2	2.3	17.5			
2	26	740	692	-10.0	740	692	-10.0	623	7.2	3.0	46.9	29.7	4.0	2.1	7.1	----			
1	27	470	470	-1.7	480	480	-3.8	462	----	----	32.0	35.5	8.0	8.0	16.5	----			

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	91.4	90.2	93.7	86.5	84.6	86.2	60.3	----
5/4	1.9	.5	3.3	8.5	7.5	8.4	5.1	----
6/4	----	----	.1	----	----	----	----	----
7/4	----	----	.2	1.6	----	1.2	8.3	----
8/4 & above	6.7	9.3	2.7	3.4	7.9	4.2	26.3	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	3,800	1,883	19,159	14,129	1,237	6,218	6,556	5,579

Table 30.--White Oak (Lowland), Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB		Scale						Lumber Tally		NHLA Lumber Grade Yields (Actual)									
			Int. 1/4 Inch			Scrib. Dec. C.					FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
			Gross	Net	Over-run	Gross	Net	Over-run												
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
1	8	40	40	25.0	30	30	66.7	50	----	8.0	20.0	----	----	52.0	20.0	----				
8	9	375	369	11.9	290	285	44.9	413	----	2.9	13.3	21.3	----	33.2	19.6	9.7				
25	10	1,465	1,427	9.0	1,230	1,198	29.9	1,556	.5	----	17.7	33.3	1.5	14.6	25.6	6.8				
16	11	1,185	1,170	7.0	950	938	33.5	1,252	.6	.3	17.7	21.2	3.3	13.9	32.8	10.2				
15	12	1,145	1,099	12.5	970	931	32.8	1,236	----	1.2	14.7	27.6	5.7	13.4	18.5	18.9				
27	13	2,715	2,666	8.8	2,290	2,249	29.0	2,901	.5	.3	13.7	30.5	.4	17.4	23.6	13.6				
17	14	1,895	1,873	3.2	1,640	1,621	19.2	1,932	----	1.4	8.1	40.4	4.9	12.0	16.0	17.2				
20	15	2,550	2,364	3.3	2,320	2,151	13.5	2,441	----	----	19.8	24.1	3.3	14.5	21.1	17.2				
18	16	2,890	2,740	10.4	2,600	2,465	22.8	3,026	1.4	1.3	20.8	30.3	6.6	15.1	9.3	15.2				
13	17	2,235	2,180	2.6	2,020	1,970	13.6	2,237	.4	.8	14.7	28.3	2.6	9.7	14.0	29.5				
11	18	2,110	2,009	6.0	1,970	1,876	13.5	2,130	.5	2.9	23.9	33.0	4.4	11.1	13.5	10.7				
6	19	1,385	1,338	-3.7	1,290	1,246	3.4	1,288	----	----	15.3	40.4	8.4	8.6	7.8	19.5				
5	20	1,095	1,085	-3.6	1,070	1,060	-1.3	1,046	----	----	17.2	31.0	15.7	10.1	7.1	18.9				
5	21	1,265	901	-2.8	1,220	869	.8	876	----	1.0	25.1	27.1	1.1	13.6	28.9	3.2				
3	22	830	830	13.9	790	790	19.6	945	----	1.6	16.4	46.2	----	7.8	7.1	20.9				
1	23	285	285	19.6	280	280	21.8	341	----	----	17.6	37.5	5.6	14.1	8.5	16.7				

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	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	----	----	----	.1	----	----	----	----
7/4	----	----	----	.2	----	----	2.9	----
8/4 & above	----	----	1.0	3.2	----	2.9	18.0	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	95	213	4,061	7,364	971	3,193	4,042	3,731

Table 3 I.--White Oak (Upland), Log Grade I--Lumber grade yield by diameter

No. of Logs		Scale						Lumber Tally		NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.					FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and	SSE	
		Gross	Net	Over-run	Gross	Net	Over-run												
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
9	13	770	746	8.3	650	630	28.3	808	15.4	16.2	23.9	13.1	----	5.7	25.7	----			
6	14	540	540	-4.1	480	480	7.9	518	18.9	4.3	28.8	19.1	----	10.8	18.1	----			
5	15	585	574	-6.3	540	530	1.5	538	25.6	12.3	20.3	14.3	1.7	6.3	19.5	----			
12	16	1,790	1,757	3.2	1,620	1,590	14.0	1,813	34.4	10.8	27.2	9.8	----	5.8	10.9	1.1			
7	17	1,030	1,028	1.4	960	958	8.8	1,042	29.1	9.2	32.3	4.5	----	3.7	12.0	9.2			
4	18	650	622	10.6	610	584	17.8	688	39.2	3.5	18.6	13.4	----	10.6	14.7	----			
1	19	190	167	34.7	180	158	42.4	225	13.3	----	36.0	22.2	----	----	28.5	----			
8	20	1,655	1,616	2.8	1,630	1,592	4.4	1,662	29.7	4.2	36.5	9.5	.4	7.9	11.8	----			
14	21	3,350	3,311	3.0	3,250	3,212	6.1	3,409	43.2	8.6	25.6	9.8	.6	4.3	7.9	----			
8	22	2,080	2,073	3.7	2,000	1,993	7.9	2,150	36.4	10.4	29.6	7.0	1.6	3.1	10.2	1.7			
7	23	1,870	1,857	2.3	1,840	1,827	4.0	1,900	58.8	6.4	16.4	5.3	1.0	5.7	6.4	----			
3	24	1,045	1,019	-8.9	1,000	975	-4.8	928	40.5	6.0	30.2	8.9	----	5.4	4.4	4.6			
5	25	1,760	1,738	.9	1,770	1,748	.3	1,753	49.0	5.4	19.6	10.9	----	5.2	9.9	----			

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and
								SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	44.7	39.4	49.9	59.0	78.4	59.6	44.2	----
5/4	6.0	7.1	13.3	4.1	----	1.2	----	----
6/4	33.7	40.3	28.5	21.7	21.6	15.0	5.1	----
7/4	.2	----	.4	7.3	----	18.8	39.8	----
8/4 & above	15.4	13.2	7.9	7.9	----	5.4	10.9	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	6,689	1,392	4,541	1,665	88	946	1,918	195

Table 32.--White Oak (Upland), Log Grade 2--Lumber grade yield by diameter

No. of Logs :	Scale :						Lumber Tally :	NHLA Lumber Grade Yields (Actual) :									
:	Int. 1/4 Inch :			Scrib. Dec. C. :			:	FAS :	Sel :	IC :	2C :	SW :	3A :	3B :	Timbers. and SSE :		
:	Gross :	Net :	Over-run :	Gross :	Net :	Over-run :	:	:	:	:	:	:	:	:	:		
:	In. :	Bd. ft. :	Bd. ft. :	Pct. :	Bd. ft. :	Bd. ft. :	Pct. :	Bd. ft. :	Pct. :	Pct. :	Pct. :	Pct. :	Pct. :	Pct. :	Pct. :		
7 :	10 :	515 :	308 :	-2.3 :	240 :	235 :	28.1 :	301 :	3.7 :	2.7 :	31.2 :	17.6 :	----	14.9 :	29.9 :	----	
28 :	11 :	1,620 :	1,605 :	3.7 :	1,270 :	1,258 :	32.3 :	1,664 :	2.0 :	4.1 :	20.9 :	23.8 :	2.8 :	12.4 :	35.3 :	.7 :	
46 :	12 :	3,185 :	3,040 :	.4 :	2,740 :	2,615 :	16.7 :	3,051 :	5.6 :	5.1 :	23.3 :	16.8 :	4.0 :	12.6 :	50.8 :	1.8 :	
27 :	13 :	2,280 :	2,191 :	----	1,930 :	1,855 :	18.1 :	2,191 :	3.3 :	2.4 :	26.6 :	22.8 :	1.1 :	11.6 :	29.4 :	2.8 :	
29 :	14 :	2,780 :	2,609 :	-2.1 :	2,440 :	2,290 :	11.5 :	2,554 :	4.4 :	5.6 :	25.8 :	16.6 :	3.1 :	12.5 :	29.5 :	2.5 :	
32 :	15 :	3,800 :	3,707 :	-4.5 :	3,530 :	3,444 :	2.8 :	3,539 :	5.5 :	4.0 :	31.9 :	22.5 :	2.9 :	6.9 :	23.3 :	3.0 :	
18 :	16 :	2,420 :	2,314 :	-.5 :	2,200 :	2,104 :	9.4 :	2,502 :	2.4 :	2.7 :	30.8 :	23.3 :	.6 :	6.4 :	30.3 :	3.5 :	
26 :	17 :	3,765 :	3,600 :	2.2 :	3,470 :	3,318 :	10.8 :	3,678 :	6.8 :	4.3 :	40.7 :	19.5 :	.2 :	7.8 :	15.8 :	4.9 :	
19 :	18 :	3,410 :	3,281 :	-.5 :	3,190 :	3,069 :	6.4 :	3,266 :	7.1 :	5.2 :	33.5 :	17.3 :	3.1 :	11.0 :	20.4 :	2.4 :	
15 :	19 :	2,920 :	2,851 :	8.3 :	2,760 :	2,695 :	14.6 :	3,088 :	5.5 :	3.0 :	42.1 :	27.0 :	.3 :	8.8 :	10.5 :	2.8 :	
8 :	20 :	1,495 :	1,435 :	-.9 :	1,500 :	1,440 :	.6 :	1,448 :	11.7 :	5.7 :	35.8 :	25.8 :	.6 :	9.7 :	7.4 :	3.3 :	
3 :	21 :	670 :	649 :	9.4 :	650 :	630 :	12.7 :	710 :	23.8 :	2.7 :	30.4 :	20.1 :	----	6.2 :	10.0 :	6.8 :	
5 :	22 :	1,120 :	1,099 :	-8.1 :	1,090 :	1,070 :	-5.6 :	1,010 :	13.9 :	3.7 :	41.1 :	6.2 :	7.6 :	5.3 :	18.8 :	3.4 :	
3 :	23 :	805 :	736 :	-3.0 :	790 :	722 :	-1.1 :	714 :	5.6 :	1.5 :	48.3 :	24.7 :	----	7.6 :	12.3 :	----	
2 :	24 :	565 :	555 :	8.3 :	550 :	540 :	11.3 :	601 :	16.0 :	4.2 :	47.7 :	15.3 :	----	7.2 :	9.6 :	----	
1 :	25 :	220 :	215 :	-19.5 :	230 :	225 :	-23.1 :	173 :	----	----	30.1 :	31.8 :	----	7.5 :	30.6 :	----	
-- :	26 :	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
3 :	27 :	1,270 :	1,255 :	-15.1 :	1,300 :	1,285 :	-17.0 :	1,066 :	5.2 :	1.3 :	47.5 :	20.8 :	11.2 :	2.9 :	11.1 :	----	
1 :	28 :	280 :	280 :	-9.3 :	290 :	290 :	-12.4 :	254 :	51.6 :	3.9 :	22.8 :	7.9 :	----	----	4.3 :	9.5 :	

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	In.	FAS	Sel	IC	2C	SW	3A	3B	Timbers. and SSE
		Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below		51.8	54.1	57.9	64.1	72.7	60.8	45.5	----
5/4		.6	1.0	1.4	.7	2.8	.9	.1	----
6/4		42.3	34.1	35.2	21.2	13.7	6.5	5.3	----
7/4		----	1.6	.8	4.9	1.8	18.7	37.3	----
8/4 & above		5.3	9.2	4.7	9.1	9.0	13.1	11.8	----
Timbers. & SSE		----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)		2,101	1,254	10,520	6,480	712	2,895	6,769	879

Table 33.--White Oak (Upland), Log Grade 3--Lumber grade yield by diameter

No. of Logs	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Timbers.		
	Gross	Net	Over-	Gross	Net	Over-										and	
			run			run										SSE	
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
4	8	95	87	34.5	70	64	82.8	117	----	----	2.5	13.7	----	4.3	79.5	----	
20	9	675	656	10.4	580	564	28.4	724	.6	----	7.6	18.1	2.6	16.7	54.4	----	
22	10	910	862	-1.2	720	682	26.1	860	----	----	7.9	16.3	8.6	11.9	53.3	2.0	
23	11	1,100	1,049	-3.2	870	830	22.3	1,015	----	.5	11.3	19.7	3.5	12.0	50.9	2.1	
23	12	1,395	1,319	-2.1	1,210	1,144	12.8	1,291	1.5	----	7.7	22.9	2.1	9.9	47.6	8.3	
17	13	1,325	1,263	-7.5	1,120	1,068	9.4	1,168	----	----	8.0	20.5	5.9	7.3	55.6	2.7	
9	14	805	782	2.7	710	690	16.4	803	1.6	1.7	14.1	24.7	----	10.6	42.1	5.2	
14	15	1,605	1,535	-3.1	1,470	1,406	5.8	1,488	.9	1.7	15.3	25.6	4.8	13.4	33.5	4.8	
11	16	1,445	1,412	.1	1,310	1,280	10.4	1,413	----	.7	18.0	27.8	5.6	15.3	24.1	8.5	
2	17	275	275	11.6	260	260	18.1	307	----	----	23.8	39.1	----	12.4	24.7	----	
7	18	1,310	1,278	3.4	1,220	1,190	11.0	1,321	3.9	3.9	21.4	25.0	----	18.7	27.1	----	
3	19	570	542	-3.5	540	513	1.9	523	----	----	26.4	37.8	----	11.5	24.3	----	
4	20	775	744	-1.3	750	720	1.9	734	----	3.5	28.2	35.8	----	14.3	18.2	----	
1	21	280	280	23.9	270	270	28.5	347	4.0	4.0	45.2	46.8	----	----	----	----	
2	22	565	565	-6.9	540	540	-2.6	526	12.2	8.2	53.4	16.9	----	5.5	3.8	----	
--	23	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
1	24	205	205	-3.4	210	210	-5.7	198	3.5	8.1	20.7	34.3	----	6.6	26.8	----	
2	25	680	680	-1.1	690	690	-1.6	679	6.9	2.5	46.4	22.2	1.5	4.0	16.5	----	
1	26	370	370	-30.5	370	370	-30.5	257	----	----	----	8.9	52.9	6.3	31.9	----	

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Timbers.
								and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	68.7	47.0	68.2	66.9	91.9	66.5	47.9	----
5/4	10.7	11.7	4.4	1.2	1.9	2.3	.3	----
6/4	20.6	41.3	22.1	18.9	----	5.5	3.7	----
7/4	----	----	4.3	7.9	----	10.6	36.7	----
8/4 & above	----	----	.4	5.1	6.2	15.1	11.4	----
Timbers. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	233	223	2,522	3,398	521	1,599	4,867	408

Table 34.--Yellow-Poplar, Log Grade I--Lumber grade yield by diameter

No. of Logs :	Scale :						Lumber Tally :	Natl. Lumber Grade Yields (Actual) :									
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	Saps	IC	2A	2B	3A	3B		
	Gross	Net	Over-run	Gross	Net	Over-run											
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
8 : 13 :	785 :	771 :	4.2 :	650 :	638 :	25.9 :	803 :	----	2.6 :	8.6 :	40.1 :	17.2 :	18.2 :	5.0 :	8.5 :		
10 : 14 :	1,025 :	1,016 :	-1.3 :	900 :	892 :	13.6 :	1,013 :	4.1 :	1.1 :	25.1 :	42.4 :	14.2 :	6.2 :	3.8 :	3.1 :		
5 : 15 :	685 :	674 :	-12.8 :	620 :	610 :	-3.6 :	588 :	4.8 :	2.9 :	3.1 :	57.0 :	21.4 :	1.2 :	3.6 :	6.0 :		
7 : 16 :	995 :	972 :	-3.5 :	900 :	879 :	6.7 :	938 :	9.1 :	2.5 :	24.2 :	31.4 :	22.3 :	7.1 :	.9 :	2.5 :		
8 : 17 :	1,535 :	1,493 :	10.4 :	1,360 :	1,323 :	24.6 :	1,648 :	11.4 :	4.6 :	11.7 :	42.7 :	15.3 :	10.0 :	2.5 :	1.8 :		
4 : 18 :	800 :	693 :	2.0 :	750 :	650 :	8.8 :	707 :	1.4 :	2.1 :	28.7 :	50.2 :	12.6 :	.8 :	2.5 :	1.7 :		
4 : 19 :	970 :	850 :	-1.1 :	900 :	789 :	6.6 :	841 :	4.4 :	3.8 :	27.3 :	47.4 :	9.2 :	3.3 :	4.6 :	----		
1 : 20 :	210 :	210 :	-10.0 :	210 :	210 :	-10.0 :	189 :	15.9 :	11.1 :	43.9 :	22.2 :	6.9 :	----	----	----		
5 : 21 :	1,350 :	1,345 :	-7.2 :	1,290 :	1,285 :	-2.9 :	1,248 :	21.6 :	4.1 :	----	43.9 :	11.1 :	16.7 :	----	2.6 :		
5 : 22 :	1,305 :	1,305 :	2.3 :	1,250 :	1,250 :	6.8 :	1,335 :	5.9 :	----	3.7 :	63.7 :	10.9 :	8.8 :	2.4 :	4.6 :		
4 : 23 :	1,140 :	1,125 :	3.7 :	1,120 :	1,105 :	5.6 :	1,167 :	31.4 :	2.0 :	1.4 :	45.2 :	8.6 :	.9 :	6.3 :	4.2 :		
4 : 24 :	1,130 :	1,079 :	3.6 :	1,100 :	1,050 :	6.5 :	1,118 :	14.2 :	1.2 :	5.5 :	59.3 :	15.6 :	----	.7 :	3.5 :		
3 : 25 :	1,140 :	1,130 :	7.3 :	1,140 :	1,130 :	7.3 :	1,213 :	50.2 :	2.2 :	14.3 :	26.4 :	4.2 :	----	----	2.7 :		
6 : 26 :	2,285 :	2,250 :	-4.0 :	2,290 :	2,255 :	-4.2 :	2,160 :	29.3 :	3.4 :	.3 :	48.1 :	12.5 :	1.0 :	1.5 :	3.9 :		
3 : 27 :	1,200 :	1,166 :	1.9 :	1,230 :	1,195 :	-1.6 :	1,188 :	38.6 :	3.0 :	2.8 :	42.6 :	5.2 :	.9 :	1.8 :	5.1 :		
1 : 28 :	430 :	430 :	-2.6 :	440 :	440 :	-4.8 :	419 :	30.5 :	1.5 :	1.5 :	60.6 :	3.3 :	----	----	2.6 :		
-- : 29 :	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
2 : 30 :	990 :	970 :	1.4 :	980 :	960 :	2.5 :	984 :	27.6 :	1.7 :	5.0 :	47.1 :	10.5 :	----	.8 :	7.3 :		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	Saps	IC	2A	2B	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	11.8	41.9	44.3	32.8	67.5	72.9	71.9	87.4
5/4	75.3	40.7	8.5	47.6	17.3	5.9	12.6	2.2
6/4	11.3	3.5	25.4	6.0	1.5	2.4	----	6.6
7/4	----	----	----	----	.6	----	----	1.1
8/4 & above	1.6	13.9	21.8	13.6	13.1	18.8	15.5	2.7
Total Lumber								
(Bd. ft.)	3,395	462	1,672	8,051	2,106	851	381	641

Table 35.--Yellow-Poplar, Log Grade 2--Lumber grade yield by diameter

No. of Logs	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)								
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	Saps	IC	2A	2B	3A	3B	
	Gross	Net	Over-	Gross	Net	Over-										
			run			run										
	In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
19	10	785	275	3.6	790	782	29.2	1,010	1.0	1.7	2.6	43.2	24.4	16.8	3.7	6.6
48	11	3,605	2,944	5.2	2,570	2,322	33.3	3,096	.8	.2	2.6	33.8	27.1	18.7	10.8	6.0
43	12	3,185	3,112	3.6	2,710	2,648	21.8	3,225	---	.2	7.7	34.9	27.8	19.9	6.8	2.7
27	13	2,445	2,351	2.7	2,040	1,945	23.1	2,395	1.3	1.8	5.1	34.1	30.1	17.2	7.4	3.0
23	14	2,255	2,125	6.4	2,000	1,885	19.9	2,260	.4	1.0	3.9	39.1	30.9	8.3	9.1	7.3
21	15	2,510	2,472	.8	2,310	2,275	9.5	2,492	2.2	.7	10.5	39.8	19.3	18.3	4.6	4.6
9	16	1,915	934	5.9	940	865	14.3	989	---	.8	---	37.3	35.1	14.9	6.8	5.1
---	17	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4	18	1,020	871	4.2	960	820	14.9	942	---	---	---	30.7	37.6	12.3	4.1	15.3
4	19	760	759	-11.4	720	700	-6.4	655	1.5	---	6.9	60.8	16.2	8.7	1.7	4.2
2	20	540	540	-2.6	520	520	1.2	526	---	---	.8	46.8	42.4	2.5	7.5	---
3	21	755	754	-1.4	720	700	3.4	724	4.7	---	6.6	41.4	23.3	20.2	1.9	1.9
3	22	645	640	-.2	630	625	2.2	639	3.0	---	---	39.9	31.1	16.4	5.9	3.7
---	23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3	24	825	815	.2	810	800	2.1	817	8.4	---	---	65.1	17.5	3.1	1.3	4.6
1	25	340	340	6.2	340	340	6.2	361	---	---	---	73.4	26.6	---	---	---

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	Saps	IC	2A	2B	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	56.5	73.6	75.7	65.8	72.2	76.9	79.6	80.2
5/4	39.3	---	---	20.6	5.6	3.0	2.3	1.0
6/4	4.2	---	9.9	5.8	1.8	1.0	.8	1.4
7/4	---	---	---	.1	1.3	1.5	5.3	9.9
8/4 & above	---	26.4	14.4	7.7	19.1	17.6	12.0	7.5
Total Lumber (Bd. ft.)	262	121	922	7,953	5,516	3,054	1,309	994

Table 36.--Yellow-Poplar, Log Grade 3--Lumber grade yield by diameter

No. of Logs	DBH	Scale						Lumber Total	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Genib. Dec. C.			Fully	FAS	Sel	Saps	IC	2A	2B	3A	3B		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
14	8	455	447	9.2	550	324	59.6	488	----	----	1.0	9.0	31.8	42.6	10.5	5.1		
33	9	1,245	1,239	.7	1,040	1,035	20.6	1,248	----	----	----	8.1	24.8	56.7	14.7	15.7		
39	10	1,320	1,291	9.2	1,040	1,017	38.6	1,410	----	----	----	16.6	27.4	29.7	18.6	7.7		
17	11	920	881	7.3	740	709	35.4	945	----	----	1.6	15.4	31.5	24.6	16.6	10.9		
9	12	525	514	.4	460	450	14.7	516	----	----	----	26.7	29.7	26.0	10.6	7.0		
6	13	605	569	.7	510	480	19.4	573	----	----	----	21.5	30.2	19.9	9.6	18.8		
3	14	245	184	9.2	220	165	21.6	201	----	----	----	4.5	17.4	32.8	29.4	15.9		
4	15	400	400	-2.3	370	370	5.7	391	----	----	----	23.8	40.9	13.3	13.0	9.0		
5	16	610	559	10.6	560	495	20.4	596	----	----	2.9	32.2	31.9	13.9	7.2	11.9		
1	17	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
1	18	230	250	-8.7	210	210	----	210	----	----	----	59.0	29.1	----	----	11.9		
4	19	625	620	.3	600	595	4.5	622	5.1	1.0	----	24.6	41.2	17.2	9.2	1.7		

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	Saps	IC	2A	2B	3A	3B
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	----	----	100.0	76.0	73.2	75.3	86.2	66.7
5/4	100.0	100.0	----	9.8	3.4	3.6	----	1.5
6/4	----	----	----	1.0	.4	----	----	----
7/4	----	----	----	.4	3.2	5.7	----	13.2
8/4 & above	----	----	----	12.8	19.8	15.4	13.8	18.6
Total lumber (Bd. ft.)	32	6	37	1,357	2,177	1,873	967	751

Table 37.--Beech, Log Grade I--Lumber grade yield by diameter

No. of Logs:	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
11	13	900	891	-12.0	770	762	2.9	784	7.3	13.5	38.4	9.6	----	9.4	21.8	----		
5	14	550	539	-14.3	480	470	-1.7	462	33.3	6.5	32.2	12.6	----	8.7	6.7	----		
7	15	785	711	-10.8	750	679	-6.6	634	14.8	15.6	39.9	10.7	----	3.5	15.5	----		
16	16	2,305	2,207	-5.7	2,090	2,011	4.0	2,081	25.1	8.9	33.8	12.8	.5	4.0	14.9	----		
9	17	1,445	1,365	-1.8	1,320	1,247	7.5	1,341	8.4	2.5	47.1	18.4	----	8.1	15.5	----		
12	18	2,070	1,977	-7.3	1,950	1,862	-1.6	1,833	31.3	5.5	31.5	10.8	----	7.4	12.4	1.1		
11	19	2,300	2,194	-4.6	2,160	2,060	1.6	2,093	25.9	3.7	37.0	13.6	----	4.4	15.4	----		
17	20	3,780	3,487	-2.9	3,730	3,441	-1.6	3,386	28.4	5.5	36.4	12.6	----	4.2	11.0	1.9		
13	21	3,110	2,955	.4	3,030	2,879	3.0	2,966	33.1	6.3	31.5	10.3	----	3.0	15.3	.5		
6	22	1,650	1,640	-8.0	1,580	1,570	-3.9	1,508	28.2	2.5	38.1	14.8	----	6.5	9.9	----		
6	23	1,760	1,642	-9.5	1,730	1,614	-7.9	1,486	27.8	1.5	42.9	8.9	----	4.0	14.9	----		
2	24	680	661	-.2	650	632	4.4	660	25.0	1.7	36.0	12.9	----	7.3	15.6	1.5		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	44.3	30.9	53.4	43.8	----	28.5	41.9	----
5/4	20.8	26.9	21.2	21.9	----	8.9	5.7	----
6/4	14.4	30.0	11.2	6.7	100.0	7.5	1.6	----
7/4	----	----	1.0	13.0	----	22.4	37.1	----
8/4 & above	20.5	12.2	13.2	14.6	----	32.7	13.7	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	5,004	1,080	7,004	2,369	11	990	2,665	111

Table 38.--Beech, Log Grade 2--Lumber grade yield by diameter

No. of Logs	: DIB	Scale						: Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
6	: 10	: 255	: 255	: -10.2	: 180	: 180	: 27.2	: 229	: 3.5	: ---	: 32.3	: 36.2	: ---	: 11.8	: 16.2	: ---		
18	: 11	: 1,080	: 1,017	: -5.4	: 860	: 810	: 18.8	: 962	: 2.9	: 6.1	: 22.0	: 18.4	: 3.2	: 6.8	: 40.6	: ---		
49	: 12	: 3,590	: 3,584	: -9.8	: 3,030	: 2,856	: 6.9	: 3,054	: 1.9	: 3.7	: 27.5	: 21.1	: .8	: 12.9	: 32.1	: ---		
48	: 13	: 3,910	: 3,748	: -14.3	: 3,310	: 3,173	: 1.3	: 3,213	: 5.1	: 5.8	: 29.3	: 23.8	: 1.3	: 6.2	: 27.9	: .6		
65	: 14	: 6,325	: 5,929	: -7.2	: 5,560	: 5,212	: 5.5	: 5,501	: 5.4	: 6.1	: 31.6	: 24.1	: .5	: 9.3	: 23.0	: ---		
50	: 15	: 5,855	: 5,575	: -7.7	: 5,400	: 5,142	: ---	: 5,144	: 6.8	: 6.1	: 34.0	: 22.4	: .3	: 8.8	: 20.6	: .8		
41	: 16	: 5,110	: 4,660	: -1.7	: 4,670	: 4,259	: 1.0	: 4,500	: 7.7	: 4.4	: 37.3	: 23.3	: .2	: 5.8	: 20.8	: .5		
34	: 17	: 5,010	: 4,843	: -8.8	: 4,600	: 4,447	: -.6	: 4,419	: 6.6	: 3.8	: 40.2	: 21.2	: 1.0	: 4.3	: 22.9	: ---		
22	: 18	: 3,485	: 3,318	: -5.1	: 3,310	: 3,151	: -.1	: 3,149	: 8.5	: 4.0	: 34.8	: 21.8	: .3	: 8.4	: 22.2	: ---		
25	: 19	: 4,865	: 4,711	: -5.9	: 4,590	: 4,445	: -.3	: 4,433	: 8.7	: 4.2	: 44.6	: 20.2	: ---	: 5.4	: 16.9	: ---		
9	: 20	: 1,785	: 1,650	: -3.0	: 1,780	: 1,645	: -2.7	: 1,600	: 8.0	: 3.5	: 41.3	: 25.5	: ---	: 4.5	: 15.2	: 2.0		
10	: 21	: 2,615	: 2,607	: -9.1	: 2,510	: 2,502	: -5.3	: 2,369	: 9.5	: 4.0	: 42.1	: 13.8	: ---	: 10.4	: 16.6	: 3.6		
5	: 22	: 1,395	: 1,364	: .1	: 1,330	: 1,300	: 5.1	: 1,366	: 4.8	: 7.2	: 45.2	: 21.7	: ---	: 3.7	: 12.5	: 4.9		
--	: 23	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---		
3	: 24	: 990	: 849	: -10.0	: 950	: 815	: -6.3	: 764	: 5.6	: 3.7	: 51.0	: 18.8	: ---	: 11.7	: 9.2	: ---		
3	: 25	: 1,260	: 1,207	: 12.1	: 1,260	: 1,207	: 12.1	: 1,353	: 8.0	: 1.4	: 56.5	: 17.6	: ---	: 1.8	: 14.7	: ---		

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	: FAS		: Sel		: IC		: 2C		: SW		: 3A		: 3B		: Tmbrs.		: and	
	: ---		: ---		: ---		: ---		: ---		: ---		: ---		: ---		: SSE	
	In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	: 42.1	: 25.5	: 44.3	: 41.1	: 3.9	: 45.5	: 50.6	: ---										
5/4	: 12.9	: 6.5	: 16.7	: 15.9	: ---	: 6.8	: 3.4	: ---										
6/4	: 39.1	: 55.0	: 30.0	: 27.0	: 96.1	: 16.5	: 10.2	: ---										
7/4	: ---	: ---	: .3	: 4.5	: ---	: 13.1	: 25.5	: ---										
8/4 & above	: 5.9	: 13.0	: 8.7	: 11.5	: ---	: 18.1	: 10.3	: ---										
Tmbrs. & SSE	: ---	: ---	: ---	: ---	: ---	: ---	: ---	: ---										
Total lumber	: 2,749	: 1,974	: 15,442	: 9,084	: 204	: 3,077	: 9,062	: 264										
(Bd. ft.)																		

Table 39.--Beech, Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE		
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.		
6	8	145	139	-2.9	120	115	17.4	135	----	----	7.4	3.0	4.4	----	85.2	----		
13	9	530	511	-6.8	420	405	17.5	476	----	----	12.0	17.0	4.8	10.5	55.7	----		
29	10	1,280	1,225	-10.8	1,050	1,005	8.8	1,093	----	.5	11.5	23.8	3.4	6.5	94.3	----		
25	11	1,285	1,197	-12.4	1,020	950	10.3	1,048	----	.6	11.8	28.5	4.5	10.0	44.6	----		
28	12	1,730	1,633	-9.6	1,500	1,416	4.3	1,477	----	.5	15.7	26.7	4.6	10.2	42.3	----		
24	13	1,855	1,704	-12.1	1,600	1,470	1.9	1,498	.7	1.4	13.0	31.2	9.5	10.9	33.3	----		
18	14	1,625	1,530	-18.3	1,430	1,346	-7.1	1,250	1.5	2.6	8.6	31.9	2.9	11.4	41.1	----		
15	15	1,415	1,313	-8.8	1,340	1,243	-3.7	1,197	1.8	----	20.1	37.0	1.4	9.0	30.7	----		
8	16	870	837	-5.1	800	770	3.1	794	----	----	28.5	19.9	----	7.8	43.8	----		
2	17	330	330	8.5	300	300	19.3	358	----	----	31.9	39.1	----	18.4	10.6	----		
4	18	650	537	-21.4	610	504	-16.3	422	----	2.4	29.2	37.2	----	13.7	17.5	----		
6	19	940	904	-17.9	900	866	-14.3	742	----	----	16.0	32.2	----	10.3	41.5	----		
3	20	560	540	-17.4	550	530	-15.8	446	----	----	24.9	35.2	----	13.9	26.0	----		
2	21	435	321	6.9	420	310	10.6	343	3.2	----	46.1	22.1	----	7.6	21.0	----		
2	22	525	525	-8.2	500	500	-3.6	482	6.4	----	56.6	21.4	----	2.5	8.3	4.8		
--	23	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----		
2	24	565	510	-6.9	550	496	-4.2	475	2.1	2.3	51.8	29.9	----	4.8	9.1	----		

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	Sel	IC	2C	SW	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	37.3	15.9	43.9	41.5	7.9	50.7	63.4	----
5/4	12.7	----	5.6	5.9	----	5.4	.8	----
6/4	50.0	72.4	46.5	46.7	92.1	31.9	21.6	----
7/4	----	----	.8	.9	----	.9	8.8	----
8/4 & above	----	11.7	3.2	5.0	----	11.1	5.4	----
Tmbrs. & SSE	----	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	102	94	2,461	3,520	377	1,176	4,483	23

Table 40.--Cottonwood, Log Grade I--Lumber grade yield by diameter

No. of Logs	DIB		Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)							
	Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	1C	2C	3A	3B	Tmbrs. and SSE			
	Gross	Net	Over-run	Gross	Net	Over-run											
	In.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.			
9	13	810	738	20.8	660	601	48.1	890	11.9	5.5	35.9	44.3	2.4	----			
11	14	1,235	1,159	15.0	1,060	995	34.0	1,333	22.4	10.4	31.1	28.7	4.3	3.1			
17	15	2,105	2,090	3.1	1,960	1,946	10.7	2,154	27.6	5.9	26.0	54.2	5.6	2.7			
27	16	3,875	3,705	7.0	3,530	3,375	17.5	3,965	26.0	4.4	33.3	51.3	3.6	1.4			
22	17	3,610	3,525	7.7	3,300	3,222	17.8	3,797	29.0	9.5	30.5	25.3	2.1	5.6			
14	18	2,500	2,418	7.5	2,350	2,273	14.4	2,600	37.9	8.2	29.7	19.8	1.6	2.8			
12	19	2,490	2,406	8.6	2,340	2,261	15.6	2,614	36.1	6.5	29.5	21.3	2.0	4.8			
11	20	2,710	2,690	6.2	2,650	2,630	8.6	2,856	44.6	4.9	27.2	21.7	1.1	.5			
5	21	1,350	1,340	-1.0	1,300	1,290	2.8	1,326	39.4	1.5	25.6	24.6	5.6	3.3			
5	22	1,575	1,554	13.1	1,490	1,470	19.6	1,758	59.6	6.6	19.1	12.6	2.1	----			
2	23	780	780	.6	760	760	3.3	765	55.0	6.8	26.2	12.0	----	----			
4	24	1,470	1,470	-7	1,400	1,400	4.3	1,460	38.5	3.7	39.2	17.3	.7	.6			
4	25	1,540	1,540	8.8	1,540	1,540	8.8	1,676	44.3	7.9	30.9	11.5	2.0	5.4			
1	26	435	435	11.0	440	440	9.8	483	21.3	1.5	62.7	9.9	4.6	----			
3	27	1,410	1,410	-1.1	1,440	1,440	-3.1	1,595	58.2	5.4	37.6	18.3	1.5	1.0			
3	28	1,600	1,480	9.9	1,600	1,480	9.9	1,627	48.8	2.4	30.4	15.5	2.6	2.3			
2	29	1,090	1,063	3.1	1,060	1,034	6.0	1,096	42.9	3.2	26.1	20.5	4.4	3.1			
---	30	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
2	31	1,440	1,440	5.5	1,420	1,420	7.0	1,519	75.0	6.9	7.3	10.1	.7	----			
2	32	1,340	1,340	-1	1,290	1,290	-1	1,191	37.7	2.8	45.6	8.0	----	3.9			
2	33	1,425	1,425	22.7	1,370	1,370	27.7	1,749	59.7	.8	28.9	5.3	2.4	2.9			

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	96.6	89.6	96.4	83.9	84.4	84.6	----
6/4	3.1	10.4	3.4	2.5	5.1	3.3	----
7/4	----	----	.2	13.0	----	9.8	----
8/4 & above	.3	----	----	.6	10.5	2.3	----
Tmbrs. & SSE	----	----	----	----	----	----	----
Total lumber (Bd. ft.)	14,176	2,028	10,830	7,585	841	814	----

Table 4.1--Cottonwood, Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)							
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B	Tmbrs and SSE	
		Gross	Net	Over-run	Gross	Net	Over-run									
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
3	10	155	155	-3.2	120	120	25.0	150	----	----	57.3	34.7	----	8.0	----	
24	11	1,540	1,383	14.0	1,180	1,060	48.8	1,577	2.1	3.0	33.6	45.6	4.9	10.8	----	
58	12	4,610	4,356	6.1	3,890	3,675	25.8	4,623	3.3	2.7	37.4	45.8	4.4	6.4	----	
66	13	6,170	5,855	6.1	5,130	4,868	27.6	6,210	3.6	2.6	40.1	46.5	2.6	4.4	.2	
56	14	6,300	5,983	3.6	5,430	5,157	20.2	6,197	7.1	5.1	38.8	40.1	2.2	6.3	.4	
44	15	5,590	5,288	5.2	5,150	4,872	14.2	5,562	10.2	6.2	39.1	37.3	2.0	5.2	----	
36	16	5,385	5,183	2.9	4,880	4,697	13.5	5,331	6.2	4.4	41.9	42.9	1.8	2.8	----	
19	17	3,140	3,016	-.6	2,860	2,747	9.1	2,997	6.7	2.9	46.5	35.5	1.2	7.2	----	
15	18	2,760	2,728	.1	2,600	2,570	6.3	2,731	15.7	4.1	42.4	31.2	5.1	1.5	----	
8	19	1,695	1,627	5.0	1,590	1,526	12.0	1,709	28.8	4.5	32.0	26.7	3.3	4.7	----	
2	20	540	540	9.8	520	520	14.0	593	19.2	1.9	48.9	25.3	2.5	2.2	----	
1	21	195	195	-6.7	190	190	-4.2	182	10.4	4.9	53.9	30.8	----	----	----	
3	22	825	815	-.1	790	780	4.4	814	23.3	4.4	43.6	21.9	3.1	3.7	----	

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	74.3	68.0	80.6	78.0	70.8	73.3	----
5/4	----	----	----	.1	----	.3	----
6/4	25.7	32.0	19.3	12.8	19.5	17.8	----
7/4	----	----	.1	8.9	6.1	7.1	----
8/4 & above	----	----	----	.2	3.6	1.5	----
Tmbrs. & SSE	----	----	----	----	----	----	100.0
Total Lumber (Bd. ft.)	3,185	1,568	15,488	15,374	1,060	1,965	36

Table 42.--Cottonwood, Log Grade 3--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)							
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE	
		Gross	Net	Over-run	Gross	Net	Over-run									
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
5	9	205	205	14.1	160	160	46.3	234	----	----	17.1	45.7	7.7	29.5	----	
19	10	1,020	928	-3.8	820	746	19.7	893	----	----	26.4	59.4	.8	13.4	----	
5	11	375	357	7.6	320	305	25.9	384	----	1.8	13.3	70.6	4.2	10.1	----	
8	12	665	563	13.1	560	474	34.4	637	----	----	22.0	63.4	10.5	4.1	----	
8	13	710	700	9.0	590	582	31.1	763	----	.7	20.3	74.3	1.4	3.3	----	
10	14	1,045	1,000	11.5	920	880	26.7	1,115	2.6	2.5	34.3	58.4	----	2.2	----	
4	15	535	527	-10.8	480	473	-.6	470	3.6	----	27.2	55.1	13.0	1.1	----	
2	16	260	260	15.8	240	240	25.4	301	----	----	29.6	64.8	5.6	----	----	
--	17	----	----	----	----	----	----	----	----	----	----	----	----	----	----	
3	18	510	499	6.8	480	470	13.4	533	1.9	1.3	44.5	50.8	1.5	----	----	

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	In.	FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE
		Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below		51.7	85.1	94.1	83.2	74.6	78.3	----
5/4		----	----	.4	.6	----	----	----
6/4		48.3	14.9	5.5	9.4	16.1	12.3	----
7/4		----	----	----	6.3	----	9.4	----
8/4 & above		----	----	----	.5	9.3	----	----
Tmbrs. & SSE		----	----	----	----	----	----	----
Total lumber								
(Bd. ft.)		56	47	1,459	3,255	205	308	----

Table 43.--Elm, Log Grade I--Lumber grade yield by diameter

No. of Logs		Scale			Lumber Tally			NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.			FAS	Sel	IC	2C	3A	3B	Tmbrs. and			
		Gross	Net	Over-run	Gross	Net	Over-run							SSE			
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
22	13	2,230	2,098	1.0	1,890	1,778	19.2	2,119	12.6	6.8	36.7	23.1	7.5	13.3	----		
32	14	3,810	3,504	-.3	3,230	2,971	17.5	3,492	27.0	11.5	28.7	12.8	2.9	17.1	----		
25	15	3,550	3,225	-.5	3,180	2,889	11.0	3,208	26.2	11.4	30.5	15.1	2.5	14.3	----		
44	16	6,970	6,331	-.4	6,270	5,695	10.7	6,304	20.9	10.4	28.9	17.9	6.2	15.7	----		
41	17	7,280	6,485	.7	6,550	5,835	12.0	6,533	29.1	10.3	27.9	15.3	1.6	15.8	----		
29	18	5,950	5,382	3.9	5,500	4,975	12.4	5,591	30.9	8.8	24.1	14.5	2.7	18.5	.5		
25	19	5,555	4,956	.6	5,190	4,630	7.7	4,988	30.0	5.3	30.4	14.9	1.2	18.2	----		
22	20	5,345	4,557	.5	5,220	4,450	3.0	4,582	25.8	12.8	29.2	16.6	1.6	14.0	----		
12	21	3,505	3,179	-.4	3,330	3,020	4.8	3,166	37.7	6.9	25.6	19.7	----	10.1	----		
15	22	4,845	4,179	2.2	4,550	3,925	8.8	4,271	34.9	6.5	26.1	17.0	----	15.5	----		
5	23	1,535	1,438	1.8	1,500	1,405	4.2	1,464	49.7	5.1	22.4	6.7	----	16.1	----		
3	24	935	779	-6.4	900	750	-2.8	729	25.9	14.1	35.0	11.7	----	13.3	----		
8	25	3,380	2,901	-15.1	3,390	2,910	-15.4	2,463	28.4	14.3	22.4	17.4	----	17.5	----		
1	26	370	370	-10.8	370	370	-10.8	330	50.0	11.5	17.9	15.4	----	5.2	----		
4	27	1,810	1,663	.7	1,850	1,700	-1.5	1,675	49.0	8.9	24.9	8.8	----	8.4	----		
1	28	585	504	-10.7	580	500	-10.0	450	36.7	----	39.1	12.2	----	12.0	----		

Distribution by thickness of Log Grade I yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	48.4	42.7	67.2	77.1	77.2	85.0	----
5/4	1.0	1.3	1.2	.7	2.2	.3	----
6/4	5.4	.9	4.1	3.0	----	2.5	----
7/4	----	.4	.2	.6	6.0	2.1	----
8/4 & above	45.2	54.7	27.3	18.6	14.6	10.1	----
Tmbrs. & SSE	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	15,125	4,797	14,320	8,076	1,125	7,896	26

Table 44.--Elm, Log Grade 2--Lumber grade yield by diameter

No. of Logs	DIB	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)									
		Int. 1/4 Inch			Scrib. Dec. C.				FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE			
		Gross	Net	Over-run	Gross	Net	Over-run											
		In.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.			
24	10	1,260	1,136	-2	1,050	947	19.7	1,134	3.4	1.9	24.5	32.0	1.3	36.9	----			
59	11	3,925	3,658	-1.7	3,160	2,945	22.1	3,595	4.2	3.8	27.9	28.6	7.0	28.5	----			
63	12	4,925	4,431	-6.1	4,180	3,761	25.0	4,703	8.0	3.5	29.4	26.3	8.6	24.2	----			
66	13	6,165	5,545	-4	5,190	4,668	18.3	5,523	6.6	4.2	34.9	26.1	6.8	21.4	----			
64	14	7,255	6,385	-5	6,230	5,483	17.0	6,416	3.9	5.3	32.7	30.1	6.0	19.8	2.2			
47	15	6,505	5,760	-4.9	5,850	5,180	5.8	5,478	12.5	5.7	28.5	26.9	5.4	20.1	.9			
23	16	3,490	3,057	-3.1	3,140	2,750	7.7	2,961	5.3	6.5	35.3	31.2	6.9	14.8	----			
23	17	4,105	3,631	-5.8	3,670	3,246	5.4	3,420	10.0	3.2	33.1	29.6	4.9	19.2	----			
15	18	2,610	2,370	-.7	2,460	2,234	6.8	2,386	13.6	9.2	41.4	21.1	3.5	11.2	----			
8	19	1,730	1,396	-16.7	1,620	1,307	-11.0	1,163	10.1	2.2	49.3	23.2	5.1	10.1	----			
5	20	1,170	1,017	-11.0	1,150	1,000	-9.5	905	13.1	4.5	39.8	25.5	7.4	9.7	----			
4	21	905	671	-21.3	870	645	-18.1	528	3.2	----	40.7	25.8	----	30.3	----			
1	22	355	290	3.1	330	270	10.7	299	10.7	17.4	30.1	29.1	----	12.7	----			
1	23	335	335	-8.1	330	330	-6.7	308	9.4	----	29.2	37.0	22.8	1.6	----			

Distribution by thickness of Log Grade 2 yields

Lumber Thickness	FAS	Sel	IC	2C	3A	3B	Tmbrs. and SSE
In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	64.5	48.6	77.8	76.1	66.5	66.9	----
5/4	8.2	15.1	6.2	7.1	3.6	1.0	----
6/4	8.3	4.3	3.0	2.0	----	3.3	----
7/4	----	----	.1	1.1	4.8	5.3	----
8/4	19.0	32.0	12.9	13.7	25.1	23.5	----
Tmbrs. & SSE	----	----	----	----	----	----	100.0
Total lumber (Bd. ft.)	2,996	1,842	12,745	10,751	2,390	7,903	192

Table 45.--Elm Log Grade 3--Lumber grade yield by diameter

No. of Logs	Scale						Lumber Tally	NHLA Lumber Grade Yields (Actual)							
	Int. 1/4 inch			Scrib. Dec. C.				FAS	SeI	IC	2C	3A	3B	Tmbrs and SSE	
	Gross	Net	Over-run	Gross	Net	Over-run									
	In.	Bd. ft.	Pct.	Bd. ft.	Pct.	Bd. ft.	Pct.	Bd. ft.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.	
5	8	130	130	-4.6	90	90	37.8	124	----	----	8.9	31.5	3.2	56.4	
28	9	1,125	1,003	-.5	930	829	20.4	998	----	.5	14.2	27.8	8.0	49.5	
42	10	2,155	1,916	1.9	1,740	1,547	26.2	1,952	1.9	1.1	16.8	33.2	10.8	36.2	
10	11	660	550	-8.9	510	425	17.9	501	----	----	3.8	51.9	1.6	42.7	
13	12	1,010	877	-.1	860	747	17.3	876	1.6	2.0	21.2	41.2	13.0	21.0	
10	13	945	738	-.9	790	617	2.7	745	2.7	----	16.1	41.3	5.0	34.9	
3	14	295	250	8.0	260	220	22.7	270	----	----	27.8	48.9	----	23.3	
6	15	715	598	1.3	660	552	9.8	606	----	6.5	15.0	40.9	4.6	33.0	
8	16	1,170	955	1.8	1,060	865	12.4	972	10.3	.4	21.5	42.5	7.8	17.5	
3	17	560	504	7.9	500	450	20.9	544	----	----	15.8	51.3	.9	32.0	
2	18	400	319	-14.1	370	295	-7.1	274	5.1	----	15.7	45.6	----	33.6	
2	19	450	439	-11.2	420	410	-4.9	390	----	----	23.8	38.2	4.9	33.1	

Distribution by thickness of Log Grade 3 yields

Lumber Thickness	FAS	SeI	IC	2C	3A	3B	Tmbrs. and SSE
	In.	Pct.	Pct.	Pct.	Pct.	Pct.	Pct.
4/4 & below	49.2	27.9	78.7	74.9	51.6	65.1	----
5/4	11.4	24.4	14.5	10.3	9.8	.7	----
6/4	5.4	----	.5	----	----	.9	----
7/4	----	----	----	1.8	2.9	10.0	----
8/4 & above	34.0	47.7	6.3	13.0	35.7	23.3	----
Tmbrs. & SSE	----	----	----	----	----	----	----
Total lumber (Bd. ft.)	185	86	1,403	3,238	582	2,758	----

Table 46.--Clear cutting requirements

Nominal log length	Fraction of log length required in clear cutting			
	5/6	3/4	2/3	1/2
Ft.	Ft.-In.	Ft.-In.	Ft.-In.	Ft.-In.
8	----	0-0	----	4-0
9	----	0-6	----	4-6
10	8-4	----	6-8	5-0
11	9-2	----	7-3	5-6
12	10-0	----	8-0	6-0
13	10-10	----	8-8	6-6
14	11-8	----	9-4	7-0
15	12-6	----	10-0	7-6
16	13-4	----	10-8	8-0

Tables Showing Lumber Yield by Grade and Diameter

<u>Table No</u>	<u>Species</u>	<u>Log Grade</u>	<u>Page on Which Shown</u>	<u>Table No.</u>	<u>Species</u>	<u>Log Grade</u>	<u>Page on Which Shown</u>
1	Basswood	1	8	25	Red Oak (Upland)	1	32
2	Basswood	2	9	26	Red Oak (Upland)	2	33
3	Basswood	3	10	27	Red Oak (Upland)	3	34
4	Yellow Birch	1	11	28	White Oak (Lowland)	1	35
5	Yellow Birch	2	12	29	White Oak (Lowland)	2	36
6	Yellow Birch	3	13	30	White Oak (Lowland)	3	37
7	Sap Gum	1	14	31	White Oak (Upland)	1	38
8	Sap Gum	2	15	32	White Oak (Upland)	2	39
9	Sap Gum	3	16	33	White Oak (Upland)	3	40
10	Hard Maple	1	17	34	Yellow-Poplar	1	41
11	Hard Maple	2	18	35	Yellow-Poplar	2	42
12	Hard Maple	3	19	36	Yellow-Poplar	3	43
13	Black Oak	1	20	37	Beech	1	44
14	Black Oak	2	21	38	Beech	2	45
15	Black Oak	3	22	39	Beech	3	46
16	Chestnut Oak (WHAD)	1	23	40	Cottonwood	1	47
17	Chestnut Oak (WHAD)	2	24	41	Cottonwood	2	48
18	Chestnut Oak (WHAD)	3	25	42	Cottonwood	3	49
19	Chestnut Oak (WHND)	1	26	43	Elm	1	50
20	Chestnut Oak (WHND)	2	27	44	Elm	2	51
21	Chestnut Oak (WHND)	3	28	45	Elm	3	52
22	Red Oak (Lowland)	1	29				
23	Red Oak (Lowland)	2	30				
24	Red Oak (Lowland)	3	31				

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