

United States
Department of
Agriculture

Forest Service

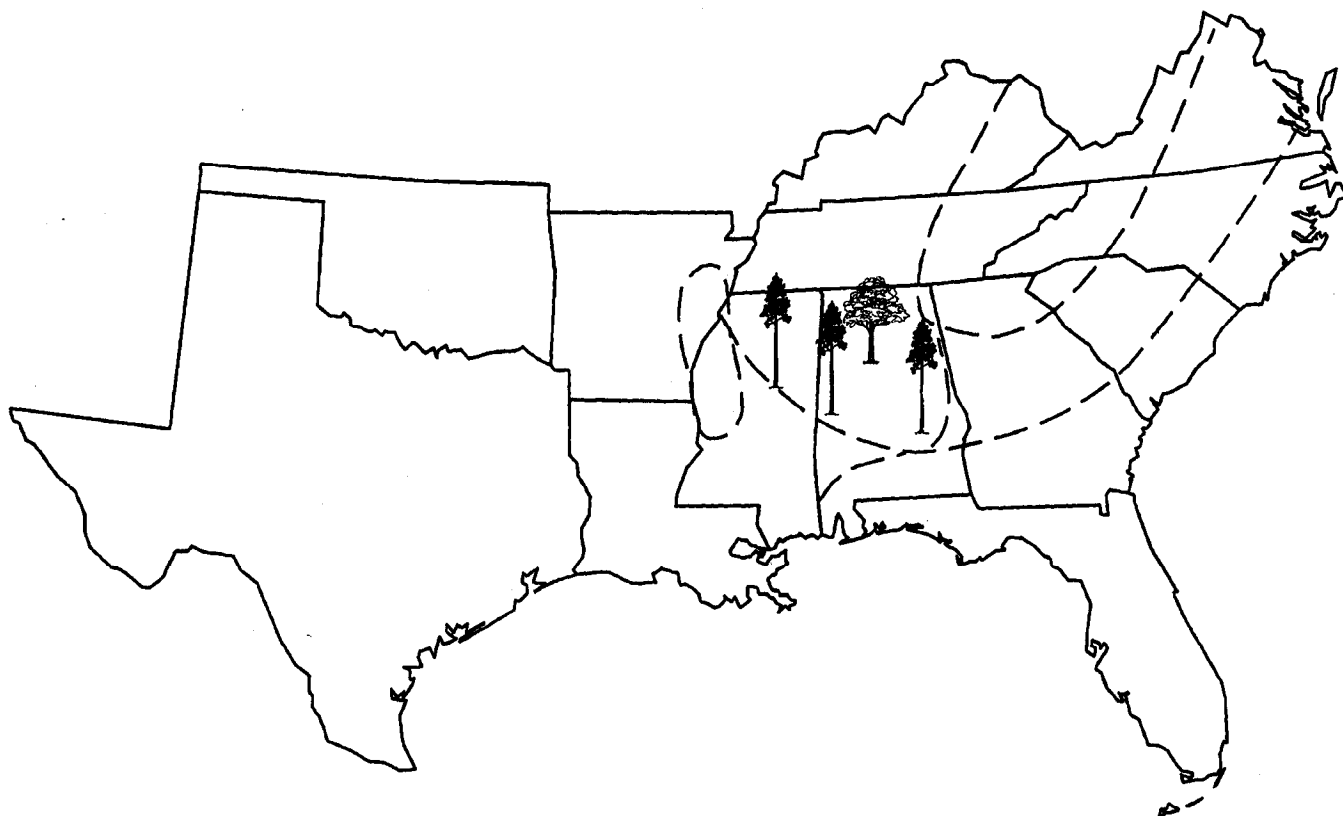


Southern Research
Station

Research Paper
SE-296

Stem Cubic-Foot Volume Tables for Tree Species in the Upper Coastal Plain

ALEXANDER CLARK III
RAY A. SOUTER



The Authors:

Alexander Clark III is Wood Scientist, Utilization of Southern Timber, USDA Forest Service, Forestry Sciences Laboratory, Athens, GA. **Ray A. Souter** is Mathematical Statistician, Biometrics Group, USDA Forest Service, Forestry Sciences Laboratory, Athens, GA.

March 1996
Southern Research Station
P.O. Box 2680
Asheville, North Carolina 28802

Stem Cubic-Foot Volume Tables for Tree Species in the Upper Coastal Plain

**ALEXANDER CLARK III
RAY A. SOUTER**

Contents

	Page
Introduction ,	iv
Purpose and Scope	
Development of Equations	
Literature Cited . . . ,	ix
How To Use Volume Tables	1
Content and Organization	
Finding Volume Estimates	
Index of Volume Tables	3
Volume Estimate Tables	4
List of Figures and Tables	80

Abstract

Stemwood cubic-foot volume inside bark tables are presented for 11 species and 8 species groups based on equations used to estimate timber sale volumes on national forests in the Upper Coastal Plain. Tables are based on form class measurement data for 521 trees sampled in the Upper Coastal Plain and taper data collected across the South. A series of tables is presented for each species based on diameter at breast height (d.b.h.) in combination with total height and height to a 4-inch diameter outside bark (d.o.b.) top. Volume tables are also presented based on d.b.h. in combination with height to a 7-inch d.o.b. top for softwoods and height to a 9-inch d.o.b. top for hardwoods. Sawtimber tables display saw-log stem volume by log (16-foot) and half-log (8-foot) intervals and also show stemwood volume to a 7-inch d.o.b. top for softwoods, to a 9-inch d.o.b. top for hardwoods, and to a 4-inch d.o.b. top for all species. Pulpwood tables show stemwood volume to a 4-inch d.o.b. top in 5-foot height intervals.

Keywords: Saw-log volume, pulpwood volume, form class.

Introduction

Purpose and Scope

Starting in 1995, the standard unit of measure for Federal timber inventories and sales will be the cubic foot rather than the board foot. This change is necessary to provide uniform inventory, accounting, and statistical reporting for all national forests. To accommodate this change in the Southern Region of the USDA Forest Service, Clark and others (1991) developed new equations for converting height and diameter measurements into cubic-foot volume estimates. Because they reflect variations in tree form and taper, the new equations are awkward to solve without a computer. For those who lack the time to solve the equations manually and the equipment expertise for electronic processing, conversion tables have been developed to provide volume estimates for 11 individual species and for 8 species groups that have similar stem form. The tables are based on form class measurement data collected on trees sampled in the Upper Coastal

Plain and taper data collected on trees sampled across the South.

The Southern Region consists of seven geographic areas (fig. i) based on physiographic region, species form and distribution, and Forest Service administrative units (table i). Table ii lists the species and geographic areas for which volume tables are available, and table iii summarizes measurement characteristics of the trees sampled.

A separate set of volume tables is available for many of the species and species groups in other geographic areas of the Southern Region (Clark and Souter 1996a, 1996b, 1996c, 1996d, 1996e, 1996f). When a species volume table for a species measured in the Upper Coastal Plain is not available the Southwide tables should be used (Clark and Souter 1994).

Development of Equations

The volume tables in this paper are based on profile equations developed from taper data collected on 13,469 trees sampled in natural stands across the South. Most of the trees measured were on national forests. All were growing in fully stocked stands. The taper data used to develop and verify the profile equations were collected on 11,472 trees by contractors working for the Southern Region and on 1,997 trees by employees of the Forest Service, Southeastern Forest Experiment Station,¹ SE-4701, Utilization of Southern Timber.

Sample trees were felled and their diameter at breast height (d.b.h.) and total height recorded. The contractors measured diameter outside bark (d.o.b.) and bark thickness at stump height and at 1-inch taper intervals from the stump to the tip of the tree. Diameters were measured with a diameter tape and bark thickness determined at two points with a bark gauge at each measurement height. Trees sampled by the Southeastern Station were measured at

¹ Now called the Southern Research Station.

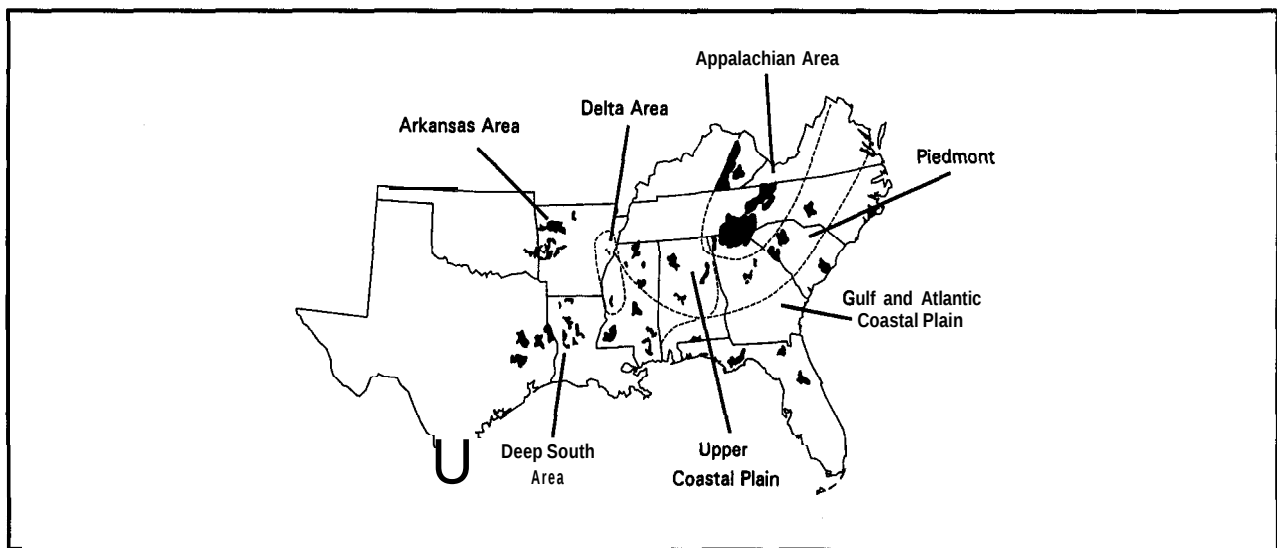


Figure i--Seven geographic areas on which trees were sampled for equation development and verification.

Table i--Geographic areas in the Southern Region with a listing of National Forest System units in each'

Gulf and Atlantic Coastal Plain	Piedmont	Appalachian Area	Upper Coastal Plain	Deep South Area	Arkansas Area	Delta Area
Croatan	Uwharrie	George Washington	Talladega	DeSoto	Ozark	Delta
Francis Marion	Sumter ²	Jefferson	William B. Bankhead	Bienville	Ouachita	St. Francis
Osceola	Oconee	Cherokee	Holly Springs	Kisatchie		
Ocala		Nantahala	Tuskegee	Angelina		
Apalachicola		Chattahoochee	Tombigbee	Davy Crockett		
Conecuh		Sumter ³		Sam Houston		
Savannah River Site		Daniel Boone		Homochitto		
		Pisgah		Sabine		

¹ All units except the Savannah River Forest Station on the Savannah River Site are public-access national forests.

² All districts except Andrew Pickens.

³ Andrew Pickens District.

Table ii--Species and geographic areas for which volume tables are available

Species/group	Code	Geographic area						
		Gulf and Atlantic Coastal Plain	Piedmont	Appalachian	Upper Coastal Plain	Deep South	Arkansas	Delta
Ash, green	544					Y		Y
White	541			Y				
Baldcypress	221	Y						
Basswood	950			Y				
Beech	531					Y		
Birch	370			Y				
Blackgum, lowland	694	Y						
Upland	693			Y		Y		
Buckeye	330			Y				
Cypress, all	12	Y						
Elm	970		Y			Y		Y
Hackberry	460							Y
Hardwoods, hard	500	Y	Y	Y	Y	Y	Y	Y
Soft	300	Y	Y	Y	Y	Y		Y
All	90	Y	Y	Y	Y	Y	Y	Y
Hemlock	261			Y				
Hickory	400		Y		Y	Y	Y	Y
Locust, black	901			Y				
Magnolia	652					Y		
Maple, red	316			Y		Y		
Oak, all	800	Y	Y	Y	Y	Y	Y	Y
All red	83	Y	Y	Y	Y	Y	Y	Y
All white	82		Y	Y	Y	Y	Y	Y
Black	837		Y	Y			Y	Y
Cherrybark	813					Y		
Chestnut	832		Y	Y	Y			
Northern red	833			Y			Y	
Nuttall	828							Y
Overcup	822							Y
Post	835		Y		Y	Y	Y	Y
Scarlet	806		Y	Y	Y			
Southern red	812		Y	Y	Y	Y	Y	Y
Water	827	Y	Y			Y		
White	802	Y	Y	Y	Y	Y	Y	Y
Willow	831	Y						
Pecan	404							Y
Pine, all	100	Y	Y	Y	Y	Y	Y	
Eastern white	129			Y				
Loblolly	131	Y	Y		Y		Y	
Longleaf	121	Y	Y			Y		
All major	11	Y	Y		Y	Y		
All others	13	Y		Y				
Pitch	126			Y				
Pond	128	Y						
Sand	107	Y						
Shortleaf	110		Y	Y	Y	Y	Y	
Slash	111	Y				Y		
Spruce	115					Y		
Virginia	132		Y	Y	Y			
Pondcypress	222	Y						
Sweetbay	653	Y				Y		
Sweetgum	611	Y	Y		Y	Y		Y
Sycamore	731		Y			Y		
Yellow-poplar	621	Y	Y	Y	Y	Y		Y

Table iii--Trees measured for development of Upper Coastal Plain volume tables by species and species groups

Species or species group	Sample trees	All trees						Sawtimber trees					
		D.b.h.		Total height		Height to 4-inch d.o.b. top		Sample trees	D.b.h.		Height to 7- or 9-inch d.o.b. top		Gi rard Form Class
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	
		Mean	Range	Mean	Range	Mean	Range		Mean	Range	Mean	Range	
	Number ^a	-----Inches-----		----Feet----		----Feet----		Number ^b	-----Feet-----				%
All pines	259	14.2	5.8-22.5	77	51-106	64	30- 97	252	14.4	9.0-22.5	54	27-92	al
Shortleaf pine	134	13.6	5.8-22.5	78	51-106	66	30- 97	127	13.9	9.1-22.5	57	28-92	a2
Loblolly pine	90	15.8	9.0-22.5	78	58-105	65	43- 93	90	15.8	9.0-22.5	55	27-87	78
All major pines	224	14.5	5.8-22.5	78	51-106	65	30- 97	217	14.7	9.0-22.5	55	27-92	al
Virginia pine	35	12.2	9.2-16.8	73	57- a5	58	42- 72	35	12.2	9.2-16.8	44	30-64	80
All soft hardwoods	62	15.2	6.5-24.0	96	44-119	77	29-101	57	15.8	11.2-24.0	56	24-82	79
Sweetgum	40	13.9	6.5-20.2	93	44-115	74	29- 93	35	14.8	11.2-20.2	52	24-72	78
Yellow-poplar	22	17.4	11.4-24.0	102	80-119	82	63-101	22	17.4	11.4-24.0	62	36-82	81
All hard hardwoods	200	14.7	5.8-21.0	79	50-110	59	25- 88	181	15.3	11.2-21.0	44	22-77	80
Hickory	44	14.3	6.8-19.3	81	54-100	61	33- a3	40	14.9	11.2-19.3	45	28-61	81
White oak	44	14.9	6.4-20.7	81	56-110	61	30- 88	40	15.5	11.3-20.7	45	22-77	81
Chestnut oak	20	15.1	11.4-20.7	79	65- 92	59	40- 77	20	15.1	11.8-18.7	42	25-56	79
Post oak	23	12.3	5.8-21.0	72	50- a7	53	25- 72	15	14.5	11.8-21.0	42	28-52	78
All white oaks	a7	14.3	5.8-21.0	78	50-110	58	25- 88	75	15.2	11.3-21.0	44	22-77	80
Scarlet oak	37	15.8	11.6-20.6	79	65- 91	60	44- 71	37	15.8	11.6-20.6	44	24-61	80
Southern red oak	32	15.1	8.3-20.5	77	64- 93	59	41- 80	29	15.7	12.3-20.5	46	31-67	77
All red oaks	69	15.5	8.3-20.6	78	64- 93	60	41- 80	66	15.8	11.6-20.6	45	24-67	79
All oaks	156	14.8	5.8-21.0	78	50-110	59	25- 88	141	15.5	11.3-21.0	44	22-77	79
All hardwoods	262	14.8	5.8-24.0	83	44-119	64	25-101	238	15.4	11.2-24.0	47	22-82	80

^{a b} Number of sample trees do not add to species group totals because some species are included in the total but were not sampled sufficiently to develop individual species equations.

groundline, 1 and 2 feet, breast height, and at intervals of approximately 4 feet above breast height. Bark thickness was determined from cross-sectional disks cut from the boles.

Clark and others (1991) compared available segmented-profile polynomial models (Max and Burkhardt 1976; Cao and others 1980; Schlaegel 1983) as potential volume estimators for southern tree species. Because no one model was best for estimating stem volume from the diameter and height of standing trees, they developed a form-class segmented-profile model that uses d.b.h., diameter at 17.3 feet, and total height as independent variables and that combines the better attributes of Schlaegel's form-class model and Max and Burkhardt's segmented-profile model.

The new model divides the stem into four segments--butt (groundline up to 4.5 feet), lower stem (4.5 up to 17.3 feet), middle stem (17.3 to 40 up to 70 percent of total height), and upper stem (40 to 70 percent of total height up to stem tip)--and uses different equation form to estimate diameter, height, and volume for each segment. The segment equations are conditioned so that the joins between segments are continuous. Separate profile equations incorporate height to a 4-inch d.o.b. top for all species, and height to a 7-inch d.o.b. top for softwoods, or height to a 9-inch d.o.b. top for hardwoods.

The form-class segmented-profile model can be used to predict diameter at a known height, height to a known diameter, and volume between

any two heights. The equation forms and coefficients for estimating diameters, heights, and volumes are presented in Clark and others (1991).

The profile equations account for differences in stem taper by including a measure of diameter inside bark (**d.i.b.**) at 17.3 feet or Girard Form **Class**² in each volume estimate, thus, allowing a single form-class segmented-profile equation to serve for a species across the South. However, analysis of the form-class data showed geographic differences in the form class of sawtimber trees with the same d.b.h. and height. Thus, linear equations for estimating **d.i.b.** at 17.3 feet were developed for each species and species group by geographic region. Equations were developed to estimate d.i.b. at 17.3 feet from d.b.h. and total height, from d.b.h. and height to a 4-inch d.o.b. top, and from d.b.h. and height to a 7-inch or **9-inch** d.o.b. top. Because few short pulpwood trees were sampled, an average form class by species group and d.b.h. and height class was used when predicting **stemwood** volume of pulpwood trees ≤ 45 feet in total height or ≤ 30 feet in height to a 4-inch d.o.b. top.

Although the profile equations based on total height can be applied to any trees having both **d.b.h.** ≥ 5.0 inches and total height > 17.3 feet, the total height tables in this book start at 30 feet. The profile model based on d.b.h. and height to a 4-inch d.o.b. top can be applied to any tree with d.b.h. ≥ 5.0 inches and height to a 4-inch d.o.b. top > 17.3 feet, but the tables based on height to a 4-inch d.o.b. top start at 20 feet.

The softwood profile equation based on d.b.h. and height to a 7-inch d.o.b. top is only useful if the trees have a **d.b.h.** ≥ 9.0 inches, and their height to a 7-inch d.o.b. top is > 17.3 feet. The hardwood equation based on d.b.h. and height to a **9-inch** d.o.b. top can only be applied to trees with d.b.h. ≥ 11.0 inches, whose height to a

9-inch d.o.b. top is > 17.3 feet. However, the softwood and hardwood tables based on height to a 7-inch or **9-inch** d.o.b. top, respectively, start at 20 feet.

The form-class segmented-profile equation based on height to a 7-inch or **9-inch** d.o.b. top can only estimate diameters, heights, or volumes from the groundline to these top heights. Therefore, Clark and others (1991) developed nonlinear ratio equations for estimating volume between the 7-inch or **9-inch** d.o.b. top and the 4-inch d.o.b. top. They developed **topwood** ratio equations for each commercially important species by geographic area and for each species **Southwide**.³

² Girard Form Class is the ratio of d.i.b. at 17.3 feet from d.b.h.

³ ASCII data files containing the coefficients used to generate the volume tables presented are available on floppy disk from the Utilization of Southern Timber RWU, Southern Research Station, Forestry Sciences Laboratory, 320 Green Street, Athens, GA 30602-2044.

Literature Cited

- Cao, O.V.; Burkhardt, H.E.; Max, T.A. 1980.** Evaluation of two methods for cubic-volume prediction of loblolly pine to any merchantable limit. *Forest Science*. **26(1):71-80.**
- Clark, Alexander, III; Souter, Ray A. 1994.** Stem cubic-foot volume tables for tree species in the South. Res. Pap. SE-290. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southeastern Forest Experiment Station. 241 p.
- Clark, Alexander, III; Souter, Ray A. 1996a.** Stem cubic-foot volume tables for tree species in the Appalachian Area. Res. Pap. SE-292. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 127 p.
- Clark, Alexander, III; Souter, Ray A. 1996b.** Stem cubic-foot volume tables for tree species in the Arkansas Area. Res. Pap. SE-297. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 70 p.
- Clark, Alexander, III; Souter, Ray A. 1996c.** Stem cubic-foot volume tables for tree species in the Deep South Area. Res. Pap. SE-293. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 131 p.
- Clark, Alexander, III; Souter, Ray A. 1996d.** Stem cubic-foot volume tables for tree species in the Delta Area. Res. Pap. SE-298. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 87 p.
- Clark, Alexander, III; Souter, Ray A. 1996e.** Stem cubic-foot volume tables for tree species in the Gulf and Atlantic Coastal Plain. Res. Pap. SE-294. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 105 p.
- Clark, Alexander, III; Souter, Ray A. 1996f.** Stem cubic-foot volume tables for tree species in the Piedmont. Res. Pap. SE-295. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. **109 p.**
- Clark, Alexander, III; Souter, Ray A.; Schlaegel, Bryce E. 1991.** Stem profile equations for southern tree species. Res. Pap. SE-282. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southeastern Forest Experiment Station. 113 p.
- Max, T.A.; Burkhardt, H.E. 1976.** Segmented polynomial regression applied to taper equations. *Forest Science*. **22(3):283-289.**
- Schlaegel, Bryce E. 1983.** Development of a form class taper model for willow oak. Athens, GA: University of Georgia. 69 p. Ph.D. dissertation.

How To Use Volume Tables

Content and Organization

For each species or species group, this book presents **stemwood** volume in a series of five tables based on varying combinations of d.b.h. and height. The first shows volume for sawtimber trees based on **d.b.h.** and total height. The second shows volume for sawtimber trees based on d.b.h. and height to a 4-inch d.o.b. top. The third shows volume for sawtimber trees based on **d.b.h.** and height to a **7-inch** d.o.b. top for softwoods or height to a Q-inch **d.o.b.** top for hardwoods. The fourth shows volume for pulpwood trees based on **d.b.h.** and total height. The fifth shows pulpwood volume based on **d.b.h.** and height to a 4-inch d.o.b. top. Each sawtimber table displays volume for softwoods (10-inches to 24-inches **d.b.h.**) and hardwoods (**12-inches** to 26-inches **d.b.h.**) in **16-foot** log or in 8-foot half-log intervals in 2-inch d.b.h. classes. The saw-log volume tables also show average form class and volume to a **4-inch** d.o.b. top, and to a **7-inch d.o.b.** top for softwoods, or to a Q-inch d.o.b. top for hardwoods. The pulpwood tables show volume to a 4-inch **d.o.b.** top for trees **5-inches** to **16-inches d.b.h.** in 5-foot height intervals and in 1-inch d.b.h. classes.

Finding Volume Estimates

To use these tables you must know the species or species group, d.b.h., and an expression of height. You can look up stem volume based on total height or height to a 4-inch d.o.b. top for pulpwood; based on total height, or height to a **4-inch** d.o.b. top for sawtimber; or based on height to a 7-inch d.o.b. top for softwood sawtimber or height to a Q-inch d.o.b. top for hardwood sawtimber. For sawtimber trees, you must also know the height to the saw-log merchantable⁴ top

in logs and in half logs. For example, to determine the saw-log and **topwood** volume for an 18-inch, 3-log shortleaf pine with a height to a 7-inch d.o.b. top of 60 feet, refer to the Index of Volume Tables (page 3) for the table number of the shortleaf pine volume table based on **d.b.h.** and height to a 7-inch **d.o.b.** top (table 8). In table 8 locate the volume data for an **18-inch** d.b.h. tree with a height to 7-inch top of 60 feet. If you look across this row you will find the **saw-log** volume under a 3-log merchantable stem (51.8 cubic feet). This same row also shows stem volume to a 7-inch and a 4-inch d.o.b. top and the estimated Girard Form Class of the tree. To estimate the volume of **topwood** between the saw-log merchantable top and 4-inch **d.o.b.** top, subtract the saw-log volume (51.8 cubic feet) from the volume to a 4-inch **d.o.b.** top (57.3 cubic feet) for a result of 5.5 cubic feet.

If you do not know the height to a given top (total height, height to a **4-inch** top, or height to a 7-inch or Q-inch top) for a sawtimber tree, you can use the total height tables for a rough estimate of volume, but only if you know the **d.b.h.** and saw-log merchantable height and have an estimate of Girard Form Class. Form class can be the species average for the geographic area from table iii or the species average for the area in which the tree is growing. For example, to determine the saw-log volume of a 16-inch white oak with a saw-log merchantable height of 2.5 logs, refer to the Index of Volume Tables to find the table number for white oak **based** on d.b.h. and total height (table 51).

⁴ Saw-log merchantable height is (1) the height to local minimum d.o.b. top, or (2) the height where a whorl of three or more branches-whose diameters are equal to or greater than the diameter of the stem-occurs within a 1-foot stem section if there is not a minimum of 8 feet of clear stem above the whorl.

Assume the average form class for white oak in the area the tree was growing is 81 (table iii). In table 51, locate the volume data for merchantable stem and find the tree's saw-log merchantable volume for a 16-inch d.b.h. tree with a form class of 81. Look across the row for the saw-log volume under a merchantable **2.5-log** stem (35.4 cubic feet).

To determine the stem pulpwood volume of an 8-inch d.b.h. **sweetgum** with a height to a 4-inch d.o.b. top of 50 feet, refer to the Index of Volume Tables for the table number based on **d.b.h.** and height to a 4-inch top (table **35**). In table 35, locate the volume data for an 8-inch **d.b.h.** tree with a height to a 4-inch top of 50 feet and find the tree's volume (8.5 cubic feet).

Index of Volume Tables

Tables available for estimating stemwood cubic-foot volume of sawtimber and pulpwood trees in the Upper Coastal Plain by species and tree dimensions measured.

Species/group	Code	Tree dimensions measured				
		D.b.h. and total height		D.b.h. and height to 4-inch d.o.b. top		D.b.h. and height to 7- or O-inch d.o.b. top
		Saw-timber	Pulp-wood	Saw-timber	Pulp-wood	Sawtimber

..... Table number -

Hardwoods, hard	500	41	44	42	45	43
soft	300	26	29	27	30	28
All	90	91	94	92	95	93
Hickory	400	46	49	47	50	46
Oak, all	600	66	89	67	90	66
All red	63	61	84	62	85	63
All white	82	66	69	67	70	66
Chestnut	832	56	59	57	60	58
Post	635	61	64	62	65	63
Scarlet	606	71	74	72	75	73
Southern red	612	76	79	77	60	76
White	602	51	54	52	55	53
Pine, all	100	1	4	2	5	3
Loblolly	131	11	14	12	15	13
All major	11	16	19	17	20	16
Shortleaf	110	6	9	7	10	6
Virginia	132	21	24	22	25	23
Sweetgum	611	31	34	32	35	33
Yellow-poplar	621	36	39	37	40	38

Table 1--Predicted **stemwood** volume to a saw-log merchantable top, and to 7-inch and 4-inch **d.o.b.** tops based on d.b.h., total-tree height and height to a saw-log top for all pine species combined (species **100**) in the Upper Coastal Plain.'

D.b.h. class	Total tree height	Volume to										1-inch d.o.b. top	4-inch d.o.b. top	Girerd Form Class
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0				
<u>nches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>		
10	40	5.6									6.5	8.2	68	
	50	6.1	8.3								8.7	10.6	74	
	60	6.4	8.8								10.6	12.8	78	
	70	6.6	9.2	11.4							12.4	14.9	80	
	80	6.7	9.4	11.8	13.8						14.1	17.0	81	
	90	6.7	9.5	12.1	14.3						15.7	18.9	82	
12	40	7.9	10.4								10.8	11.8	68	
	50	8.7	11.8	14.1							14.1	15.3	74	
	60	9.1	12.6	15.4							17.1	18.5	78	
	70	9.3	13.1	16.3	18.9						20.0	21.6	80	
	80	9.5	13.4	16.9	19.8	22.1					22.7	24.6	81	
	90	9.6	13.6	17.3	20.5	23.1	25.2				25.3	27.5	82	
100	9.7	13.8	17.6	21.0	23.9	26.3				27.9	30.3	82		
14	40	10.7	14.1								15.4	16.1	68	
	50	11.7	16.0	19.1							20.0	20.9	74	
	60	12.3	17.1	20.9	23.7						24.2	25.3	78	
	70	12.6	17.7	22.1	25.6	28.0					28.3	29.5	80	
	80	12.8	18.2	22.9	26.9	30.0					32.1	33.5	81	
	90	13.0	18.5	23.4	27.8	31.4	34.2				35.9	37.5	82	
100	13.1	18.7	23.8	28.4	32.4	35.8	38.4			39.6	41.4	82		
16	50	15.3	20.8	24.9							26.6	27.3	74	
	60	16.0	22.2	27.3	30.9						32.2	33.0	78	
	70	16.4	23.1	28.8	33.3	36.5					37.5	38.5	80	
	80	16.7	23.7	29.8	35.0	39.1	42.0				42.7	43.8	81	
	90	16.9	24.1	30.5	36.2	40.9	44.6	47.2			47.7	49.0	82	
	100	17.0	24.3	31.1	37.1	42.3	46.6	50.0	52.4		52.6	54.1	82	
110	17.1	24.6	31.5	37.7	43.3	48.1	52.2	55.3	57.5	57.5	59.2	83		
18	50	19.2	26.3	31.4							33.9	34.5	74	
	60	20.1	28.0	34.5	39.0						41.1	41.8	78	
	70	20.7	29.1	36.4	42.1	46.2					47.9	48.8	80	
	80	21.0	29.9	37.6	44.2	49.4	53.0				54.5	55.5	81	
	90	21.3	30.4	38.5	45.7	51.7	56.4	59.7			60.9	62.1	82	
	100	21.5	30.7	39.2	46.8	53.4	58.9	63.2	66.3		67.2	68.6	82	
110	21.6	31.0	39.7	47.7	54.7	60.9	65.9	69.9	72.7	73.5	75.0	83		
20	60	24.8	34.6	42.5	48.1						50.9	51.6	78	
	70	25.5	35.9	44.8	51.9	56.9					59.4	60.2	80	
	80	25.9	36.8	46.4	54.5	60.9	65.4				67.6	68.5	81	
	90	26.2	37.4	47.5	56.4	63.8	69.6	73.6			75.6	76.7	82	
	100	26.4	37.9	48.3	57.7	65.9	72.7	78.0	81.7		83.5	84.7	82	
	110	26.6	38.2	49.0	58.8	67.5	75.0	81.3	86.2	89.7	91.2	92.6	83	
22	60	29.9	41.7	51.3	58.1	61.7					61.8	62.4	78	
	70	30.8	43.4	54.2	62.7	68.8	72.0				72.1	72.8	80	
	80	31.3	44.4	56.1	65.9	73.6	79.1	82.0			82.1	82.9	81	
	90	31.6	45.2	57.4	68.1	77.1	84.1	89.0	91.7		91.8	92.8	82	
	100	31.9	45.7	58.4	69.8	79.6	87.9	94.3	98.8	101.4	101.4	102.5	82	
	110	32.1	46.2	59.2	71.0	81.6	90.7	98.3	104.3	108.4	110.8	112.0	83	
24	60	35.6	49.6	61.0	69.1	73.3					73.7	74.2	78	
	70	36.5	51.5		74.6	81.8	85.6				86.0	86.6	80	
	80	37.2	52.8	2 : :	78.3	87.6	94.0	97.5			97.9	98.6	81	
	90	37.6	53.7	68.3	81.0	91.7	100.0	105.9	109.1		109.5	110.4	82	
	100	37.9	54.4	69.4	83.0	94.7	104.5	112.2	117.5	120.5	120.9	121.9	82	
	110	38.1	54.9	70.3	84.4	97.0	107.9	117.0	124.0	129.0	132.2	133.3	83	

^a Includes 1.0-foot stump allowance.

Table 2--Predicted **stemwood** volume to a saw-log merchantable top, and to 7-inch and **4-inch** d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all pine species combined (species **100**) in the Upper Coastal Plain."

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										Girerd Form Class	
		Sew-Log 1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	7-inch d.o.b. top		4-inch d.o.b. top
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>	
10	30	5.5									6.3	7.7	69
	40	6.2	8.3								8.7	10.7	75
	50	6.4	8.9	10.9							10.9	13.4	78
	60	6.6	9.2	11.5							12.9	16.0	80
	70	6.7	9.4	11.8	13.9						14.9	18.5	81
	80	6.8	9.6	12.1	14.3	16.3					16.8	21.0	82
	90	6.8	9.7	12.3	14.6	16.7	18.6				18.6	23.5	82
12	30										10.1	10.9	69
	40	7.9									13.8	15.0	75
	50	8.8	12.7	15.5							17.2	18.8	78
	60	9.4	13.2	16.3	18.9						20.5	22.3	80
	70	9.5	13.5	16.9	19.8	22.2					23.6	25.8	81
	80	9.6	13.6	17.2	20.4	23.1	25.4				26.7	29.3	82
	90	9.7	13.8	17.5	20.8	23.8	26.4	28.6			29.7	32.7	82
14	40	11.9	16.1	18.9							19.3	20.1	75
	50	12.4	17.2	20.9	23.6						24.1	25.1	78
	60	12.7	17.8	22.1	25.5	28.0					28.6	29.8	80
	70	12.9	18.2	22.8	26.7	29.9	32.3				33.0	34.5	81
	80	13.0	18.5	23.3	27.6	31.2	34.2	36.6			37.3	39.0	82
	90	13.1	18.7	23.7	28.2	32.2	35.6	38.5	40.8		41.6	43.5	82
	100	13.2	18.8	23.9	28.6	32.9	36.6	39.9	42.7	44.9	45.8	48.0	83
16	40	15.4	20.9	24.5							25.4	25.9	75
	50	16.1	22.4	27.2	30.5						31.6	32.3	78
	60	16.5	23.2	28.7	33.1	36.3					37.6	38.5	80
	70	16.8	23.7	29.7	34.7	38.8	41.8				43.4	44.4	81
	80	16.9	24.0	30.3	35.8	40.5	44.4	47.3			49.0	50.3	82
	90	17.0	24.3	30.8	36.7	41.8	46.2	49.9	52.7		54.7	56.1	82
	100	17.1	24.4	31.2	37.3	42.7	47.6	51.8	55.3	58.1	60.2	61.8	83
18	40	19.4	26.4	30.9							32.1	32.6	75
	50	20.3	28.2	34.3	38.4						40.0	40.6	78
	60	20.8	29.2	36.2	41.7	45.6					47.6	48.3	80
	70	21.1	29.9	37.4	43.8	48.9	52.6				54.9	55.7	81
	80	21.3	30.3	38.3	45.2	51.1	55.9	59.5	62.0		62.1	63.1	82
	90	21.5	30.6	38.9	46.2	52.7	58.2	62.8	66.3	68.8	69.2	70.3	82
	100	21.6	30.8	39.3	47.0	53.9	60.0	65.2	69.6	73.1	76.3	77.5	83
20	50	25.0	34.7	42.2	47.2						49.4	49.8	78
	60	25.6	36.0	44.6	51.3	56.1					58.7	59.2	80
	70	26.0	36.8	46.1	53.9	60.1	64.7	67.5			67.7	68.3	81
	80	26.3	37.3	47.2	55.7	62.9	68.7	73.1	76.1		76.6	77.3	82
	90	26.4	37.7	47.9	57.0	64.9	71.6	77.2	81.5	84.5	85.3	86.2	82
	100	26.5	38.0	48.4	57.9	66.4	73.8	80.2	85.5	89.8	94.0	95.0	83
22	50	30.2	42.0	50.9	57.0						59.6	60.0	78
	60	31.0	43.5	53.8	61.9	67.6	70.8				70.9	71.3	80
	70	31.4	44.5	55.7	65.1	72.5	78.0	81.4			81.8	82.3	81
	80	31.7	45.1	57.0	67.2	75.9	82.9	88.2	91.7		92.5	93.1	82
	90	31.9	45.5	57.8	68.8	78.3	86.5	93.1	98.3	101.8	103.1	103.7	82
	100	32.0	45.9	58.5	70.0	80.2	89.1	96.8	103.2	108.2	113.6	114.3	83
24	50	35.9	49.9	60.5	67.6						70.8	71.1	78
	60	36.8	51.7	64.0	73.6	80.3	84.0				84.2	84.5	80
	70	37.3	52.8	66.2	77.3	86.2	92.6	96.5			97.1	97.5	81
	80	37.6	53.6	67.7	79.9	90.2	98.5	104.7	108.7		109.8	110.3	82
	90	37.9	54.1	68.8	81.7	93.1	102.7	110.6	116.6	120.8	122.4	122.9	82
	100	38.1	54.5	69.5	83.1	95.3	105.9	115.0	122.5	128.4	134.9	135.5	83

^a Includes 1.0-foot stump allowance.

Table 3--Predicted stemwood volume to a saw-log merchantable top, and to 'l-inch and 4-inch d.o.b. tops based on d.b.h., height to a 'l-inch d.o.b. top and height to a saw-log top for all pine species combined (species 100) in the Upper Coastal Plain.'

D. b. h. class	Height to 7-inch d.o.b. top	Volume to										Gi. rard Form Class	
		1.0	Sew-log 1.5	merchantable 2.0	2.5	height 3.0	(16-foot 3.5	Logs) 4.0	4.5	5.0	7-inch d.o.b. top		4-inch d.o.b. top
Inches	Feet	Cubic feet										Percent	
10	20	5.4									6.1	10.0	69
	30	6.2	8.6								9.8	12.7	77
	40	6.5	9.1	11.4							13.1	15.9	79
	50	6.7	9.4	11.9	14.1	16.1					16.3	19.1	80
	60	6.8	9.5	12.1	14.5	16.8	18.8				19.4	22.3	81
	70	6.8	9.6	12.3	14.8	17.2	19.4	21.4			22.5	25.5	81
12	20	7.7									8.7	11.0	69
	30	8.8	12.0								13.5	15.3	77
	40	9.3	12.9	15.9							17.8	19.6	79
	50	9.5	13.3	16.7	19.5	21.7					22.0	23.8	80
	60	9.6	13.5	17.1	20.3	23.0	25.3				26.0	27.9	81
	70	9.6	13.7	17.4	20.8	23.8	26.5	28.9			30.1	32.0	81
14	80	9.7	13.8	17.6	21.1	24.4	27.3	30.0	32.4		34.1	36.0	82
	40	12.5	17.4	21.1							23.3	24.6	79
	50	12.8	17.9	22.3	25.8	28.4					28.6	29.9	80
	60	12.9	18.2	23.0	27.0	30.4	33.1				33.8	35.1	81
	70	13.0	18.4	23.4	27.8	31.7	35.0	37.7			39.0	40.3	81
	80	13.1	18.6	23.7	28.3	32.5	36.3	39.5	42.2		44.1	45.5	82
16	90	13.1	18.7	23.9	28.7	33.1	37.2	40.8	44.0	46.7	49.2	50.6	82
	100	13.2	18.7	24.0	28.9	33.6	37.8	41.8	45.3	48.5	54.2	55.7	82
	40	16.2	22.5	27.2							29.7	30.6	79
	50	16.6	23.3	28.8	33.2	36.1					36.3	37.3	80
	60	16.8	23.7	29.7	34.9	39.0	42.0				42.8	43.8	81
	70	16.9	23.9	30.3	35.9	40.7	44.8	47.9			49.2	50.2	81
18	80	17.0	24.1	30.7	36.6	41.9	46.5	50.5	53.6		55.6	56.6	82
	90	17.0	24.2	30.9	37.1	42.8	47.8	52.3	56.2	59.3	61.9	63.0	82
	100	17.1	24.3	31.2	37.5	43.4	48.8	53.7	58.0	61.8	68.3	69.4	82
	40	20.5	28.3	34.0							36.9	37.7	79
	50	20.9	29.3	36.2	41.4	44.8					45.0	45.8	80
	60	21.1	29.8	37.4	43.7	48.7	52.2				53.0	53.8	81
20	70	21.3	30.2	38.1	45.1	51.0	55.8	59.4			60.9	61.7	81
	80	21.4	30.4	38.6	46.0	52.6	58.2	62.9	66.5		68.7	69.5	82
	90	21.4	30.6	39.0	46.7	53.7	59.9	65.3	69.9	73.6	76.4	77.3	82
	100	21.5	30.7	39.3	47.2	54.5	61.2	67.1	72.4	76.9	84.2	85.0	82
	50	25.7	36.0	44.4	50.7	54.5					54.8	55.4	80
	60	26.0	36.7	45.9	53.6	59.5	63.5				64.4	65.0	81
22	70	26.1	37.1	46.9	55.3	62.5	68.2	72.3			73.9	74.5	81
	80	26.3	37.4	47.5	56.5	64.5	71.2	76.7	80.9		83.3	83.9	82
	90	26.4	37.6	48.0	57.4	65.9	73.4	79.9	85.3	89.5	92.6	93.3	82
	100	26.4	37.8	48.3	58.0	67.0	75.0	82.2	88.5	93.8	101.9	102.6	82
	50	31.0	43.5	53.6	60.9	65.3					65.5	66.0	80
	60	31.3	44.3	55.4	64.5	71.4	76.0				76.9	77.5	81
24	70	31.5	44.8	56.5	66.7	75.1	81.8	86.5			88.2	88.7	81
	80	31.7	45.2	57.3	68.2	77.6	85.6	92.1	96.8		99.4	99.9	82
	90	31.8	45.4	57.9	69.2	79.4	88.3	96.0	102.3	107.1	110.5	111.1	82
	100	31.9	45.6	58.3	70.0	80.7	90.3	98.9	106.2	112.4	121.6	122.2	82
	50	36.8	51.7	63.5	72.2	77.0					77.3	77.7	80
	60	37.2	52.6	65.7	76.4	84.5	89.7				90.7	91.1	81
26	70	37.5	53.2	67.1	79.1	89.0	96.7	102.1			103.9	104.4	81
	80	37.6	53.6	68.1	80.9	92.0	101.4	108.8	114.3		117.1	117.5	82
	90	37.8	53.9	68.7	82.2	94.1	104.6	113.6	120.9	126.4	130.1	130.6	82
	100	37.9	54.1	69.2	83.1	95.7	107.1	117.1	125.7	132.9	143.1	143.6	82

^a Includes 1.0-foot stump allowance.

Table 4--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all pine species combined (species 1001 in the Upper Coastal Plain.)

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.8	1.5	2.3	1.0	2.6	1.2	2.8	1.3	3.5	2.0	3.9	2.2	4.3	4.6			
7	2.7	3.4	3.8	4.1	5.1	5.7	6.2	6.7	7.2	7.6							
8																	
9	3.7	4.7	4.6	5.9	6.6	5.1	5.6	7.2	6.9	8.8	9.7	7.6	10.6	8.3	11.4	8.9	12.3
10	5.8	7.3	8.2	8.9	10.9	12.0	13.1	14.2	15.2	16.3	17.3	18.3	19.2	20.2	21.2	22.2	
11			9.9	10.8	13.2	14.6	15.9	17.2	18.5	19.7	21.0	22.2	23.4	24.6	25.8	26.9	28.1
12			11.8	12.9	15.7	17.4	19.0	20.5	22.0	23.5	25.0	26.5	27.9	29.3	30.7	32.1	33.6
13			13.9	15.2	18.5	20.4	22.3	24.1	25.9	27.6	29.4	31.1	32.8	34.5	36.1	37.8	39.5
14																	
15					21.4	24.6	23.7	27.2	25.8	29.7	32.1	28.0	34.5	32.1	36.8	34.1	39.2
16					28.0	30.9	33.8	36.5	39.3	41.9	44.6	47.2	49.8	52.3	54.9	57.4	59.9

^a Includes 0.5-foot stump allowance.

Table 5--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all pine species combined (species **100**) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5	1.7	2.3	2.8	3.0	3.5	3.9											
6	2.2	2.9	3.5	3.9	4.6	5.2	5.8	6.3									
7	2.7	3.6	4.5	5.1	5.9	6.6	7.4	8.1	8.8	9.5							
8																	
9	3.7	4.6	5.4	6.4	7.4	8.3	9.2	10.1	11.0	11.9	12.7	13.6					
10	4.3	5.3	6.9	5.7	8.1	6.7	9.6	7.9	11.0	9.1	12.4	10.2	13.7	11.3	15.0	12.4	13.5
11			9.7	11.4	13.1	14.7	16.3	17.9	19.4	20.9	22.4	23.9	25.3	26.8	28.2	29.7	31.1
12			11.4	13.4	15.4	17.3	19.2	21.0	22.8	24.5	26.3	28.0	29.7	31.4	33.1	34.8	36.5
13			13.3	15.6	17.9	20.1	22.3	24.4	26.4	28.5	30.5	32.5	34.5	36.4	38.4	40.4	42.3
14																	
15					20.6	23.5	23.2	26.4	25.6	29.2	32.0	28.0	34.7	32.7	37.3	35.1	40.0
16					26.7	29.9	33.1	36.2	39.2	42.2	45.2	48.1	51.0	54.0	56.8	59.7	62.6

^a Includes 0.5-foot stump allowance.

Table 6--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for shortleaf pine (species 110) in the Upper Coastal Plain!

D.b.h. class	Total tree height	Volume to										Gi rrrd Fore Class	
		Sau-Log merchantable height (16-foot logs)											
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	'T-inch d.o.b. top		4-inch d.o.b. top
<u>Inches</u>	<u>Feet</u>	<u>- - - - - Cubic feet - - - - -</u>										<u>Percent</u>	
10	40	5.4									6.5	8.1	68
	50	6.0	8.2								9.2	10.9	75
	60	6.3	8.9	11.0							11.5	13.5	79
	70	6.5	9.3	11.7	13.7						13.7	15.9	81
	80	6.6	9.5	12.1	14.4						15.7	18.3	83
	90	6.7	9.7	12.5	14.9	17.0					17.7	20.6	84
12	40	7.8	10.3								10.9	11.9	68
	50	8.7	11.9	14.4							14.8	15.9	75
	60	9.2	12.9	15.9	18.2						18.4	19.6	79
	70	9.5	13.4	16.9	19.8						21.7	23.2	81
	80	9.7	13.8	17.6	20.8	23.4					24.9	26.6	83
	90	9.8	14.1	18.0	21.5	24.5	27.0				28.0	29.9	84
14	100	9.9	14.3	18.4	22.1	25.4	28.2	30.4			31.1	33.2	85
	40	10.7	14.1								15.6	16.3	68
	50	11.9	16.3	19.7							21.0	21.8	75
	60	12.5	17.6	21.8	24.9						26.0	26.9	79
	70	13.0	18.4	23.1	27.0	29.8					30.7	31.8	81
	80	13.2	18.9	24.0	28.4	32.0	34.6				35.2	36.4	83
16	90	13.4	19.2	24.6	29.4	33.5	36.8	39.2			39.6	41.0	84
	100	13.5	19.5	25.1	30.1	34.6	38.4	41.5	43.7		43.9	45.5	85
	50	15.6	21.4	25.8							28.0	28.6	75
	60	16.5	23.0	28.5	32.6						34.6	35.3	79
	70	17.0	24.1	30.2	35.3	39.0					40.8	41.7	81
	80	17.3	24.7	31.4	37.1	41.8	45.2				46.8	47.8	83
18	90	17.6	25.2	32.2	38.5	43.8	48.1	51.3			52.6	53.8	84
	100	17.7	25.6	32.8	39.4	45.3	50.2	54.2	57.2		58.3	59.6	85
	110	17.9	25.8	33.3	40.1	46.4	51.8	56.5	60.2	63.0	64.0	65.4	85
	50	19.8	27.1	32.7	35.8						35.8	36.3	75
	60	20.9	29.2	36.1	41.3						44.2	44.8	79
	70	21.6	30.5	38.3	44.7	49.4					52.1	52.9	81
20	80	22.0	31.4	39.8	47.1	53.0	57.3				59.7	60.6	83
	90	22.3	32.0	40.9	48.7	55.5	61.0	65.0			67.2	68.2	84
	100	22.5	32.4	41.6	50.0	57.4	63.6	68.7	72.5		74.5	75.7	85
	110	22.7	32.8	42.2	50.9	58.8	65.7	71.6	76.3	79.8	81.7	83.0	85
	60	25.9	36.1	44.7	51.0	54.6					54.9	55.4	79
	70	26.7	37.8	47.4	55.3	61.1	64.5				64.7	65.4	81
22	80	27.3	38.8	49.2	58.2	65.5	70.8	74.0			74.2	75.0	83
	90	27.6	39.6	50.5	60.3	68.6	75.3	80.3	83.2		83.4	84.4	84
	100	27.9	40.1	51.5	61.8	70.9	78.7	84.9	89.5	92.3	92.5	93.6	85
	110	28.1	40.5	52.2	62.9	72.6	81.2	88.5	94.3	98.6	101.5	102.7	85
	60	31.4	43.8	54.2	61.8	66.2					66.7	67.2	79
	70	32.4	45.8	57.4	67.0	74.0	78.1				78.6	79.3	81
24	80	33.1	47.1	59.7	70.5	79.3	85.8	89.6			90.1	90.9	83
	90	33.5	48.0	61.2	73.0	83.1	91.2	97.2	100.8		101.4	102.2	84
	100	33.8	48.6	62.3	74.8	85.9	95.3	102.8	108.4	111.8	112.4	113.4	85
	110	34.1	49.1	63.2	76.2	88.0	98.3	107.1	114.2	119.4	123.3	124.4	85
	60	37.4	52.2	64.5	73.6	78.8					79.6	80.1	79
	70	38.6	54.5	68.4	79.8	88.2	93.0				93.8	94.4	81
26	80	39.4	56.1	71.1	84.0	94.5	102.2	106.7			107.6	108.3	83
	90	40.0	57.2	72.9	86.9	99.0	108.7	115.8	120.0		121.0	121.8	84
	100	40.3	57.9	74.3	89.1	102.3	113.4	122.5	129.1	133.1	134.2	135.1	85
	110	40.6	58.5	75.3	90.8	104.8	117.1	127.6	136.0	142.2	147.2	148.2	85

^a Includes 1.0-foot stump allowance.

Table 7--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for shortleaf pine (species 110) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to											Gi rard Form Class
		Seu-Log	merchantable	height	(16-foot	Logs)						7-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top	
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
10	30	5.4									6.3	7.7	69
	40	6.1	8.3								9.2	10.9	76
	50	6.4	9.0	11.1							11.7	13.9	80
	60	6.6	9.3	11.7	13.7						14.1	16.7	82
	70	6.7	9.5	12.1	14.4	16.3					16.4	19.5	83
	80	6.7	9.7	12.4	14.8	16.9					18.7	22.2	84
	90	6.8	9.8	12.6	15.1	17.4	19.5				20.9	24.9	84
12	30										10.2	10.9	69
	40	8.7	12.1	14.4							14.5	15.4	76
	50	9.3	13.0	16.0	18.2						18.4	19.6	80
	60	9.5	13.5	16.9	19.7	21.8					22.1	23.6	82
	70	9.7	13.8	17.5	20.6	23.3	25.4				25.6	27.4	83
	80	9.8	14.0	17.9	21.3	24.3	26.8	28.9			29.1	31.2	84
	90	9.8	14.2	18.1	21.7	25.0	27.8	30.3	32.3		32.6	35.0	84
14	40	12.0	16.5	19.5							20.2	20.9	76
	50	12.7	17.7	21.7	24.7						25.6	26.4	80
	60	13.0	18.4	23.0	26.8	29.6					30.7	31.7	82
	70	13.2	18.9	23.8	28.1	31.6	34.3				35.7	36.8	83
	80	13.4	19.1	24.3	29.0	33.0	36.3	39.0			40.5	41.9	84
	90	13.5	19.3	24.7	29.6	34.0	37.8	41.0	43.6		45.4	46.9	84
	100	13.5	19.5	25.0	30.1	34.7	38.8	42.5	45.6	48.2	50.1	51.8	85
16	40	15.8	21.5	25.5							26.7	27.1	76
	50	16.6	23.2	28.4	32.1						33.7	34.3	80
	60	17.1	24.1	30.1	34.9	38.5					40.4	41.1	82
	70	17.4	24.7	31.1	36.6	41.2	44.7				46.9	47.7	83
	80	17.6	25.1	31.8	37.8	43.0	47.3	50.7	53.1		53.3	54.2	84
	90	17.7	25.3	32.4	38.7	44.3	49.2	53.4	56.7	59.2	59.6	60.7	84
	100	17.8	25.5	32.7	39.3	45.3	50.6	55.3	59.3	62.6	65.8	67.0	85
18	40	20.1	27.3	32.2							33.9	34.2	76
	50	21.1	29.4	36.0	40.6						42.8	43.2	80
	60	21.7	30.6	38.1	44.2	48.6					51.3	51.8	82
	70	22.1	31.3	39.5	46.4	52.1	56.4	59.2			59.5	60.1	83
	80	22.3	31.8	40.4	47.9	54.4	59.8	64.0	66.9		67.6	68.2	84
	90	22.5	32.2	41.0	49.0	56.1	62.2	67.4	71.5	74.5	75.5	76.3	84
	100	22.6	32.4	41.5	49.8	57.3	64.0	69.9	74.9	79.0	83.4	84.3	85
20	50	26.2	36.4	44.4	50.1						52.9	53.2	80
	60	26.9	37.8	47.1	54.5	60.0	63.2				63.3	63.7	82
	70	27.3	38.8	48.8	57.3	64.2	69.5	72.9			73.4	73.9	83
	80	27.6	39.4	49.9	59.2	67.1	73.7	78.9	82.4		83.4	83.9	84
	90	27.8	39.8	50.7	60.5	69.2	76.8	83.1	88.1	91.7	93.2	93.8	84
	100	28.0	40.1	51.3	61.5	70.8	79.0	86.2	92.3	97.3	102.9	103.6	85
22	50	31.7	44.1	53.8	60.6						64.0	64.2	80
	60	32.6	45.9	57.0	66.0	72.5	76.3				76.6	76.9	82
	70	33.2	47.0	59.0	69.3	77.7	84.0	88.0			88.8	89.2	83
	80	33.5	47.7	60.4	71.6	81.2	89.1	95.3	99.5		100.8	101.2	84
	90	33.7	48.2	61.4	73.3	83.8	92.8	100.4	106.4	110.7	112.7	113.1	84
	100	33.9	48.6	62.1	74.5	85.7	95.6	104.3	111.6	117.5	124.4	124.9	85
24	50	37.8	52.5	64.1	72.1						76.1	76.3	80
	60	38.9	54.7	67.9	78.5	86.2	90.7				91.1	91.3	82
	70	39.5	56.0	70.3	82.5	92.4	99.9	104.6			105.6	105.9	83
	80	40.0	56.8	72.0	85.3	96.6	106.0	113.3	118.2		119.9	120.2	84
	90	40.2	57.4	73.1	87.2	99.7	110.4	119.4	126.5	131.6	133.9	134.3	84
	100	40.5	57.9	74.0	88.7	102.0	113.7	124.0	132.7	139.6	147.9	148.3	85

^a Includes 1 .0-foot stump allowance.

Table 8--Predicted **stemwood** volume to a saw-log merchantable top, and to **7-inch** and 4-inch d.o.b. tops based on d.b.h., height to a **7-inch** d.o.b. top and height to a saw-log top for shortleaf pine (species **110**) in the Upper Coastal Plain.'

D.b.h. class	Height to 7-inch d.o.b. top	Volume to										Girard Form Class	
		sew-log 1.0	1.5	merchantable 2.0	2.5	height 3.0	(16-foot 3.5	Logs) 4.0	4.5	5.0	7-inch d.o.b. top		4-inch d.o.b. top
Inches	Feet	Cubic feet										Percent	
10	20	5.1									5.9	11.9	68
	30	6.1	2.5								9.7	12.9	77
	40	6.4	9.1	11.5							13.3	15.7	81
	50	6.6	9.4	12.1	14.4	16.5					16.7	18.8	82
	60	6.7	9.6	12.4	14.9	17.2	19.3				20.0	22.0	83
	70	6.7	9.7	12.5	15.2	17.7	20.0	22.1			23.3	25.1	84
12	20	7.5									8.4	12.2	68
	30	8.8	12.1								13.6	15.7	77
	40	9.3	13.1	16.3							18.3	20.0	81
	50	9.5	13.6	17.2	20.2	22.5					22.8	24.3	82
	60	9.7	13.9	17.7	21.0	24.0	26.4				27.2	28.6	83
	70	9.8	14.0	18.0	21.6	24.9	27.8	30.3			31.5	32.8	84
14	80	9.8	14.1	18.2	22.0	25.5	28.7	31.5	34.0		35.8	37.1	84
	40	12.7	17.9	21.9							24.2	25.5	81
	50	13.1	18.5	23.2	27.0	29.8					30.0	31.2	82
	60	13.2	18.9	23.9	28.3	32.0	34.9				35.7	36.7	83
	70	13.4	19.1	24.4	29.1	33.4	37.0	39.9			41.2	42.2	84
	80	13.4	19.3	24.7	29.7	34.2	38.3	41.9	44.8		46.8	47.7	84
16	90	13.5	19.4	24.9	30.1	34.9	39.3	43.2	46.7	49.7	52.3	53.2	84
	100	13.5	19.5	25.1	30.4	35.4	40.0	44.2	48.1	51.6	57.8	58.6	84
	40	16.7	23.3	28.3							31.1	32.1	81
	50	17.1	24.2	30.2	34.9	38.1					38.4	39.3	82
	60	17.4	24.7	31.2	36.7	41.3	44.6				45.5	46.3	83
	70	17.5	25.0	31.8	37.9	43.2	47.6	51.0			52.5	53.3	84
18	80	17.6	25.2	32.2	38.6	44.4	49.5	53.8	57.3		59.4	60.2	84
	90	17.7	25.4	32.5	39.2	45.3	50.8	55.7	60.0	63.5	66.3	67.1	84
	100	17.7	25.5	32.8	39.6	45.9	51.8	57.2	61.9	66.1	73.2	73.9	84
	40	21.2	29.5	35.7							38.8	39.7	81
	50	21.8	30.7	38.1	43.8	47.6					47.8	48.6	82
	60	22.1	31.3	39.4	46.3	51.8	55.7				56.6	57.3	83
20	70	22.2	31.7	40.2	47.8	54.3	59.6	63.6			65.2	65.9	84
	80	22.4	32.0	40.8	48.8	55.9	62.1	67.3	71.4		73.8	74.4	84
	90	22.5	32.2	41.2	49.5	57.1	63.9	69.9	75.0	79.1	82.3	82.9	84
	100	22.5	32.3	41.5	50.0	58.0	65.2	71.8	77.6	82.7	90.8	91.3	84
	50	26.9	37.9	47.0	53.9	58.1					58.4	59.1	82
	60	27.3	38.7	48.6	57.0	63.5	68.0				69.0	69.6	83
22	70	27.5	39.2	49.7	58.9	66.7	73.1	77.7			79.5	80.0	84
	80	27.7	39.5	50.4	60.1	68.8	76.3	82.5	87.2		89.8	90.4	84
	90	27.8	39.8	50.9	61.1	70.3	78.6	85.8	91.8	96.6	100.1	100.6	84
	100	27.9	39.9	51.2	61.7	71.4	80.3	88.2	95.2	101.2	110.4	110.9	84
	50	32.7	45.9	56.8	64.9	69.8					70.1	70.7	82
	60	33.1	46.9	58.8	68.8	76.5	81.7				82.8	83.3	83
24	70	33.4	47.5	60.1	71.1	80.5	87.9	93.3			95.3	95.7	84
	80	33.6	47.9	60.9	72.7	83.1	91.9	99.2	104.7		107.6	108.1	84
	90	33.7	48.2	61.6	73.8	84.9	94.8	103.3	110.4	116.0	119.9	120.3	84
	100	33.8	48.4	62.0	74.7	86.3	96.9	106.3	114.6	121.6	132.1	132.5	84
	50	39.0	54.7	67.5	77.1	82.7					83.0	83.5	82
	60	39.5	55.9	70.0	81.7	90.8	96.7				97.9	98.3	83
26	70	39.8	56.6	71.5	84.5	95.5	104.3	110.4			112.5	112.9	84
	80	40.1	57.1	72.6	86.5	98.7	109.1	117.6	123.9		127.1	127.4	84
	90	40.2	57.4	73.3	87.8	100.9	112.5	122.5	130.8	137.2	141.5	141.9	84
	100	40.3	57.7	73.8	88.8	102.6	115.1	126.2	135.9	144.0	155.8	156.2	84

^a Includes 1.0-foot stump allowance.

Table g--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for shortleaf pine (species 110) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5	0.7	0.9	1.1	1.3	2.1	2.4											
6	1.6	2.2	2.5	2.7	3.6	4.0	4.4	4.9									
7	2.6	3.3	3.7	4.1	5.2	5.8	6.4	7.0	7.6	8.1							
9	3.5	4.5	5.1	5.5	7.0	7.8	8.6	9.4	10.1	10.9	11.6	12.3					
10	4.6	5.7	6.5	7.2	9.0	9.9	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1	18.0	18.9	19.8
														20.9	22.0	23.1	24.2
11			10.0	11.0	13.6	15.2	16.8	18.3	19.7	21.2	22.6	24.0	25.4	26.8	28.2	29.5	30.9
12			11.9	13.1	16.3	18.2	20.1	21.9	23.6	25.3	27.0	28.7	30.4	32.0	33.7	35.3	36.9
13			14.1	15.5	19.2	21.5	23.6	25.7	27.8	29.8	31.8	33.8	35.8	37.7	39.6	41.5	43.4
14					22.4	25.0	27.5	29.9	32.3	34.7	37.0	39.3	41.6	43.8	46.1	48.3	50.5
15					25.7	28.7	31.6	34.4	37.2	39.9	42.6	45.2	47.8	50.4	53.0	55.6	58.1
16					29.4	32.8	36.1	39.3	42.4	45.5	48.5	51.5	54.5	57.5	60.4	63.3	66.2

^a Includes 0.5-foot stump allowance.

Table IO--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for shortleaf pine (species 110) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.0	1.5	2.0	2.6	3.3	2.7	3.2	4.4	3.7	5.0	5.6	6.2					
7	2.5	3.4	4.2	4.9	5.8	6.6	7.4	8.1	8.9	9.7							
8																	
9	4.1	3.5	4.4	5.5	6.5	5.2	6.3	7.8	9.1	7.3	10.4	8.4	11.6	9.3	10.3	12.8	11.3
10																	
11	5.1	6.7	8.0	9.6	11.2	12.7	14.1	15.6	17.0	18.4	19.8	21.1	22.5	23.8	25.2	26.5	
12				11.4	9.6	11.5	13.7	13.4	15.9	15.2	18.0	20.0	16.9	22.0	18.6	24.0	20.3
13																	
14																	
15																	
16																	

^a Includes 0.5-foot stump allowance.

Table 11 --Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for loblolly pine (species 131) in the Upper Coastal Plain.'

D.b.h. class	Total tree height	Volume to										Girerd Form Class	
		Saw-log merchantable height					(16-foot logs)						
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	7-inch d.o.b. top		4-inch d.o.b. top
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>	
10	40	5.3									6.7	8.1	69
	50	5.7	7.9								8.5	10.2	74
	60	6.0	8.3								10.1	12.2	76
	70	6.1	8.6	10.7							11.6	14.1	78
	80	6.2	8.8	11.0	12.9						13.1	15.9	78
	90	6.3	8.9	11.3	13.3						14.5	17.7	79
12	40	7.7	10.3								10.8	11.7	69
	50	8.3	11.4	13.6							13.7	14.9	74
	60	8.6	12.0	14.7							16.4	17.7	76
	70	8.8	12.4	15.4	17.8						18.8	20.5	78
	80	8.9	12.6	15.9	18.6	20.8					21.3	23.2	78
	90	9.0	12.8	16.2	19.2	21.7					23.6	25.8	79
100	9.1	12.9	16.4	19.6	22.3	24.6				25.9	28.4	80	
14	40	10.5	14.0								15.4	16.1	69
	50	11.3	15.5	18.5							19.5	20.3	74
	60	11.7	16.3	20.0	22.7						23.2	24.3	76
	70	12.0	16.8	21.0	24.3	26.6					26.8	28.0	78
	80	12.2	17.2	21.6	25.3	28.3					30.3	31.7	78
	90	12.3	17.4	22.1	26.1	29.5	32.2				33.7	35.3	79
100	12.4	17.6	22.4	26.7	30.4	33.5	36.0			37.0	38.8	80	
16	50	14.7	20.2	24.2							26.0	26.6	74
	60	15.3	21.3	26.2	29.7						31.0	31.8	76
	70	15.7	22.0	27.4	31.7	34.8					35.7	36.7	78
	80	15.9	22.4	28.2	33.1	37.0	39.7				40.4	41.5	78
	90	16.1	22.8	28.8	34.1	38.5	42.0	44.5			44.9	46.3	79
	100	16.2	23.0	29.2	34.8	39.7	43.8	47.0	49.2		49.4	50.9	80
110	16.3	23.2	29.6	35.4	40.6	45.1	48.8	51.8		53.8	55.5	80	
18	50	18.6	25.6	30.7							33.2	33.8	74
	60	19.4	27.0	33.1	37.6						39.6	40.3	76
	70	19.8	27.8	34.7	40.2	44.0					45.7	46.6	78
	80	20.1	28.4	35.7	41.9	46.8	50.3				51.7	52.7	78
	90	20.3	28.8	36.5	43.2	48.8	53.2	56.4			57.5	58.7	79
	100	20.5	29.1	37.0	44.1	50.2	55.4	59.5	62.3		63.2	64.5	80
110	20.6	29.4	37.4	44.8	51.4	57.1	61.8	65.6	68.2	68.9	70.4	80	
20	60	23.9	33.3	40.9	46.4						49.2	49.8	76
	70	24.5	34.4	42.8	49.6	54.4					56.8	57.6	78
	80	24.9	35.1	44.1	51.8	57.8	62.1				64.2	65.1	78
	90	25.1	35.6	45.0	53.3	60.2	65.7	69.6			71.4	72.5	79
	100	25.3	36.0	45.7	54.4	62.0	68.4	73.4	77.0		78.6	79.8	80
	110	25.5	36.2	46.2	55.3	63.4	70.5	76.3	80.9	84.2	85.6	87.0	80
22	60	29.0	40.3	49.5	56.1	59.6					59.8	60.4	76
	70	29.6	41.6	51.8	60.0	65.8	69.0				69.0	69.8	78
	80	30.1	42.5	53.4	62.6	70.0	75.2	78.0			78.0	78.9	78
	90	30.4	43.1	54.5	64.5	72.9	79.5	84.2			86.8	87.8	79
	100	30.7	43.5	55.3	65.9	75.1	82.8	88.8	93.1		95.5	96.7	80
	110	30.8	43.9	56.0	66.9	76.8	85.3	92.4	98.0	101.9	104.1	105.4	80
24	60	34.5	48.0	59.0	66.8	71.0					71.3	71.9	76
	70	35.3	49.5	61.7	71.5	78.4	82.1				82.4	83.1	78
	80	35.8	50.6	63.6	74.6	83.3	89.5	92.8			93.2	94.0	78
	90	36.2	51.3	64.9	76.8	86.8	94.7	100.3	103.4		103.7	104.6	79
	100	36.5	51.8	65.9	78.4	89.4	98.5	105.8	110.9	113.8	114.1	115.1	80
	110	36.7	52.2	66.6	79.7	91.4	101.5	109.9	116.6	121.3	124.4	125.5	80

^a Includes 1.0-foot stump allowance.

Table 12--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for loblolly pine (species 131) in the Upper Coastal Plain:

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										Girard Form Class	
		Sau-Log 1.0	merchantable 1.5	height 2.0	(16-foot 2.5	togs) 3.0	7-inch 3.5	4-inch 4.0	5.0	6-inch 4.5	7-inch 5.0		
Inches	Feet	Cubic feet										Percent	
10	30	5.2									6.1	7.4	68
	40	5.8	7.9								8.4	10.2	73
	50	6.0	8.4	10.3							10.4	12.8	76
	60	6.2	8.7	10.8							12.3	15.3	78
	70	6.3	8.8	11.1	13.1						14.1	17.7	79
	80	6.3	9.0	11.4	13.5	15.4					15.9	20.1	79
12	90	6.4	9.1	11.5	13.8	15.8	17.6				17.7	22.4	80
	30	7.5									9.7	10.5	68
	40	8.3	11.3								13.2	14.4	73
	50	8.7	12.0	14.7							16.4	17.9	76
	60	8.9	12.4	15.5	17.9						19.5	21.4	78
	70	9.0	12.7	16.0	18.8	21.1					22.5	24.7	79
14	80	9.1	12.9	16.3	19.3	21.9	24.1				25.4	28.0	79
	90	9.2	13.0	16.5	19.7	22.5	25.0	27.2			28.2	31.2	80
	40	11.3	15.3	18.1							18.5	19.3	73
	50	11.8	16.4	19.9	22.5						23.0	24.0	76
	60	12.1	16.9	21.6	24.3	26.7					27.3	28.6	78
	70	12.3	17.3	21.7	25.4	28.5	30.8				31.5	33.0	79
16	80	12.4	17.5	22.1	26.2	29.7	32.6	34.9			35.6	37.4	79
	90	12.5	17.7	22.4	26.7	30.5	33.8	36.6	38.8		39.6	41.7	80
	100	12.5	17.8	22.7	27.1	31.2	34.8	37.9	40.6	42.8	43.6	45.9	80
	40	14.7	20.0	23.5							24.4	24.9	73
	50	15.4	21.3	26.0	29.2						30.3	31.1	76
	60	15.8	22.1	27.4	31.6	34.7					36.0	36.9	78
18	70	16.0	22.6	28.3	33.1	37.0	40.0				41.5	42.6	79
	80	16.2	22.9	28.9	34.1	38.6	42.3	45.2			46.9	48.2	79
	90	16.3	23.1	29.3	34.8	39.7	44.0	47.5	50.3		52.2	53.7	80
	100	16.4	23.3	29.6	35.4	40.6	45.2	49.2	52.7	55.4	57.5	59.2	80
	40	18.7	25.3	29.7							31.0	31.4	73
	50	19.5	27.0	32.8	36.9						38.5	39.0	76
20	60	20.0	28.0	34.6	39.9	43.7					45.6	46.3	78
	70	20.3	28.6	35.7	41.8	46.7	50.4				52.6	53.4	79
	80	20.5	29.0	36.5	43.1	48.7	53.3	56.9	59.3		59.4	60.4	79
	90	20.6	29.2	37.0	44.0	50.2	55.5	59.9	63.3	65.8	66.2	67.3	80
	100	20.7	29.5	37.5	44.7	51.3	57.1	62.1	66.3	69.7	72.9	74.2	80
	50	24.1	33.3	40.5	45.4						47.5	48.0	76
22	60	24.7	34.5	42.7	49.1	53.8					56.4	56.9	78
	70	25.1	35.3	44.1	51.5	57.5	62.0	64.8			64.9	65.6	79
	80	25.3	35.8	45.0	53.1	60.0	65.7	70.0	72.9		73.4	74.1	79
	90	25.5	36.1	45.7	54.3	61.9	68.3	73.7	77.9	80.9	81.7	82.6	80
	100	25.6	36.4	46.2	55.2	63.2	70.3	76.5	81.6	85.7	90.0	91.0	80
	50	29.2	40.3	48.9	54.8						57.5	57.8	76
24	60	29.9	41.8	51.6	59.1	64.9	68.1				68.1	68.6	78
	70	30.4	42.7	53.3	62.3	69.5	74.8	78.1			78.5	79.0	79
	80	30.7	43.3	54.5	64.3	72.5	79.3	84.4	87.9		88.7	89.3	79
	90	30.9	43.7	55.3	65.7	74.8	82.5	89.0	94.0	97.5	98.7	99.4	80
	100	31.0	44.0	55.9	66.8	76.4	85.0	92.4	98.5	103.4	108.7	109.5	80
	50	34.8	48.0	58.2	65.2						68.3	68.6	76
26	60	35.6	49.7	61.4	70.6	77.2	80.8				81.0	81.4	78
	70	36.1	50.8	63.5	74.1	82.6	88.8	92.7			93.3	93.7	79
	80	36.5	51.5	64.8	76.4	86.3	94.2	100.3	104.3		105.4	105.9	79
	90	36.7	52.0	65.8	78.1	88.9	98.1	105.7	111.6	115.7	117.3	117.9	80
	100	36.9	52.4	66.6	79.4	90.9	101.1	109.8	117.1	122.8	129.2	129.8	80

^a Includes 1.0-foot stump allowance.

Table 13--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 7-inch d.o.b. top and height to a saw-log top for loblolly pine (species 131) in the Upper Coastal Plain.^a

D.b.h. class	Height to 7-inch d.o.b. top	Volume to											Girerd Form Class
		Saw-log merchantable height (16-foot Logs)											
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	7-inch d.o.b. top	4-inch d.o.b. top	
Inches	Feet	Cubic feet											Percent
10	20	4.9									5.5	7.9	65
	30	5.7	8.0								9.2	11.4	73
	40	6.1	8.5	10.7							12.4	15.0	76
	50	6.2	8.8	11.2	13.4	15.4					15.6	18.5	78
	60	6.3	9.0	11.4	13.8	16.0	18.0				18.7	22.1	78
	70	6.4	9.1	11.6	14.0	16.3	18.5	20.5			21.7	25.6	79
12	20	7.0									7.8	9.3	65
	30	8.2	11.2								12.6	14.1	73
	40	8.7	12.1	15.0							16.9	18.5	76
	50	8.9	12.5	15.7	18.5	20.7					21.0	22.9	78
	60	9.1	12.8	16.2	19.3	22.0	24.2				25.0	27.1	78
	70	9.1	12.9	16.5	19.7	22.7	25.4	27.7			28.9	31.4	79
14	80	9.2	13.0	16.7	20.0	23.2	26.1	28.7	31.1		32.8	35.6	79
	40	11.8	16.4	20.0							22.2	23.3	76
	50	12.1	17.0	21.2	24.6	27.1					27.4	28.7	78
	60	12.3	17.3	21.8	25.7	29.0	31.7				32.4	34.0	78
	70	12.4	17.5	22.2	26.5	30.2	33.5	36.1			37.4	39.2	79
	80	12.5	17.7	22.5	27.0	31.0	34.6	37.8	40.5		42.4	44.3	79
16	90	12.5	17.8	22.7	27.3	31.6	35.5	39.0	42.2	44.9	47.3	49.5	79
	100	12.6	17.9	22.9	27.6	32.0	36.1	39.9	43.4	46.5	52.2	54.6	80
	40	15.4	21.3	25.8							28.2	29.1	76
	50	15.8	22.1	27.4	31.6	34.5					34.7	35.7	78
	60	16.0	22.6	28.3	33.2	37.2	40.2				41.0	42.2	78
	70	16.2	22.8	28.9	34.2	38.9	42.8	45.9			47.3	48.6	79
18	80	16.3	23.0	29.3	34.9	40.0	44.5	48.3	51.4		53.5	54.9	79
	90	16.3	23.2	29.5	35.4	40.8	45.7	50.0	53.8	57.0	59.6	61.2	79
	100	16.4	23.3	29.8	35.8	41.4	46.6	51.3	55.5	59.3	65.7	67.5	80
	40	19.5	26.9	32.3							35.1	35.8	76
	50	20.0	27.9	34.5	39.5	42.8					43.1	43.9	78
	60	20.3	28.5	35.7	41.7	46.5	50.0				50.8	51.7	78
20	70	20.5	28.9	36.4	43.1	48.8	53.4	57.0			58.5	59.5	79
	80	20.6	29.1	36.9	44.0	50.3	55.7	60.2	63.8		66.0	67.2	79
	90	20.7	29.3	37.3	44.6	51.3	57.3	62.6	67.0	70.6	73.5	74.8	79
	100	20.7	29.4	37.6	45.1	52.1	58.5	64.3	69.4	73.8	81.0	82.4	80
	50	24.7	34.4	42.4	48.4	52.2					52.4	53.1	78
	60	25.0	35.2	43.9	51.2	56.9	60.9				61.8	62.5	78
22	70	25.3	35.6	44.9	52.9	59.8	65.3	69.3			70.9	71.8	79
	80	25.4	35.9	45.5	54.1	61.7	68.2	73.6	77.7		80.0	81.0	79
	90	25.5	36.1	46.0	55.0	63.1	70.3	76.5	81.8	86.0	89.1	90.1	79
	100	25.6	36.3	46.3	55.6	64.1	71.8	78.7	84.8	90.0	98.1	99.2	80
	50	29.9	41.7	51.2	58.3	62.5					62.8	63.3	78
	60	30.3	42.5	53.0	61.7	68.4	72.9				73.9	74.5	78
24	70	30.6	43.1	54.2	63.9	72.0	78.4	83.0			84.8	85.5	79
	80	30.7	43.5	55.0	65.3	74.3	82.0	88.3	93.0		95.6	96.3	79
	90	30.9	43.7	55.6	66.3	76.0	84.6	92.0	98.1	102.9	106.3	107.1	79
	100	31.0	43.9	56.0	67.1	77.3	86.5	94.7	101.9	107.9	117.0	117.9	80
	50	35.6	49.5	60.8	69.0	73.8					74.1	74.6	78
	60	36.1	50.6	63.0	73.2	81.0	86.1				87.1	87.6	78
26	70	36.4	51.3	64.4	75.8	85.3	92.8	98.0			99.9	100.5	79
	80	36.6	51.7	65.4	77.6	88.2	97.2	104.4	109.8		112.6	113.2	79
	90	36.7	52.0	66.1	78.8	90.3	100.3	108.9	116.0	121.4	125.1	125.9	79
	100	36.9	52.3	66.6	79.8	91.8	102.7	112.3	120.6	127.5	137.7	138.5	80

^a Includes 1.0-foot stump allowance.

Table 14--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for loblolly pine (species 131) in the Upper **Coastal Plain.**^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.7	1.8	2.2	1.0	2.5	1.5	2.7	1.6	3.4	2.1	3.8	2.3	4.1	4.4			
7	2.5	3.3	3.7	4.0	4.9	5.4	5.9	6.3	6.7	7.2							
8	3.4	4.4	4.9	5.4	6.6	7.2	7.8	8.4	9.0	9.6	10.2	10.7					
9	4.4	5.6	6.3	6.9	8.5	9.3	10.1	10.8	11.6	12.3	13.1	13.8	14.5	15.2			
10	5.5	7.0	7.9	8.6	10.5	11.5	12.5	13.5	14.4	15.3	16.2	17.1	18.0	18.9	19.8	20.7	
11			9.6	10.5	12.8	14.0	15.2	16.4	17.5	18.6	19.8	20.9	21.9	23.0	24.1	25.2	26.2
12			11.4	12.5	15.3	16.7	18.2	19.6	20.9	22.3	23.6	24.9	26.2	27.5	28.8	30.1	31.4
13			13.4	14.8	18.0	19.7	21.4	23.0	24.6	26.2	27.8	29.3	30.9	32.4	33.9	35.4	36.9
14																	
15					20.9	24.0	22.9	26.3	24.8	28.6	26.7	28.6	30.5	32.3	34.1	35.9	37.7
16					27.3	30.0	32.5	30.8	32.9	35.0	37.1	39.2	41.3	43.3	45.3	47.4	49.4
									37.5	39.9	42.3	44.7	47.0	49.3	51.7	54.0	56.2

^a Includes 0.5-foot stump allowance.

Table 15--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch **d.o.b.** top for loblolly pine (species 131) in the Upper **Coastal Plain.**^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.1	1.7	2.1	2.7	3.4	2.7	3.7	2.8	3.3	4.3	3.7	4.9	5.5	6.0			
7	2.6	3.4	4.3	4.8	5.6	6.3	7.0	7.7	8.4	9.1							
8	3.5	4.4	5.2	6.1	7.0	7.9	8.8	9.7	10.5	11.3	12.2	13.0					
9	4.1	5.5	6.5	7.5	8.7	9.8	10.8	11.9	12.9	13.9	14.9	15.9	16.9	17.9			
10	5.0	6.7	7.9	9.1	10.5	11.8	13.1	14.3	15.6	16.8	18.0	19.2	20.4	21.6	22.7	23.9	
11			9.4	10.9	12.5	14.1	15.6	17.1	18.5	20.0	21.4	22.8	24.2	25.6	27.0	28.4	29.8
12			11.1	12.9	14.8	16.6	18.4	20.1	21.8	23.5	25.1	26.8	28.4	30.1	31.7	33.3	34.9
13			13.0	15.0	17.2	19.3	21.4	23.4	25.3	27.3	29.2	31.1	33.0	34.9	36.8	38.6	40.5
14					19.8	22.3	24.6	26.9	29.2	31.4	33.6	35.8	37.9	40.1	42.2	44.4	46.5
15					22.7	25.4	28.1	30.7	33.3	35.8	38.3	40.8	43.3	45.7	48.1	50.6	53.0
16					25.7	28.8	31.8	34.8	37.7	40.5	43.3	46.1	48.9	51.7	54.5	57.2	59.9

^a Includes 0.5-foot stump allowance.

Table 16--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for major southern pines combined (species 11) in the Upper Coastal Plain."

D.b.h. class	Total tree height	Volume to										Girard Form Class				
		Saw-log					merchantable height (16-foot logs)						T-inch		4-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b.		top	d.o.b.	top	
Inches	Feet	Cubic feet														Percent
10	40	5.4										6.5	8.1	68		
	50	6.0	8.1									8.7	10.6	74		
	60	6.3	8.7	10.7								10.7	12.8	77		
	70	6.4	9.0	11.3								12.5	15.0	79		
	80	6.5	9.3	11.7	13.7							14.3	17.1	81		
	90	6.6	9.4	12.0	14.2							15.9	19.1	82		
12	40	7.8	10.3									10.7	11.7	68		
	50	8.6	11.7	14.0								14.1	15.3	74		
	60	9.0	12.5	15.3								17.2	18.6	77		
	70	9.2	13.0	16.2	18.8							20.1	21.7	79		
	80	9.4	13.3	16.8	19.7	22.1						22.9	24.8	81		
	90	9.5	13.5	17.2	20.4	23.1	25.3					25.7	27.8	82		
14	100	9.6	13.7	17.5	20.9	23.9	26.4					28.3	30.7	82		
	40	10.6	14.0									15.3	16.0	68		
	50	11.6	15.9	19.0								20.0	20.9	74		
	60	12.2	17.0	20.8	23.7							24.4	25.4	77		
	70	12.5	17.6	22.0	25.5	28.1						28.5	29.7	79		
	80	12.8	18.1	22.8	26.8	30.0	32.3					32.5	33.9	81		
16	90	12.9	18.4	23.4	27.7	31.4	34.4					36.4	37.9	82		
	100	13.0	18.6	23.8	28.4	32.5	35.9	38.6				40.2	41.9	82		
	50	15.1	20.7	24.8								26.7	27.3	74		
	60	15.9	22.1	27.2	30.9							32.4	33.2	77		
	70	16.3	23.0	28.7	33.3	36.6						37.9	38.9	79		
	80	16.6	23.6	29.8	35.0	39.2	42.2					43.2	44.3	81		
18	90	16.8	24.0	30.5	36.2	41.0	44.8	47.6				48.4	49.6	82		
	100	17.0	24.3	31.0	37.1	42.4	46.8	50.3	52.9			53.5	54.9	82		
	110	17.1	24.5	31.4	37.8	43.4	48.3	52.4	55.7	58.1		58.5	60.0	83		
	50	19.2	26.2	31.4								34.1	34.6	74		
	60	20.1	28.0	34.4	39.1							41.4	42.1	77		
	70	20.6	29.1	36.3	42.2	46.4						48.4	49.3	79		
20	80	21.0	29.8	37.6	44.3	49.6	53.4					55.2	56.2	81		
	90	21.3	30.4	38.6	45.8	51.9	56.7	60.2				61.8	62.9	82		
	100	21.5	30.7	39.3	46.9	53.6	59.2	63.7	66.9			68.3	69.5	82		
	110	21.6	31.0	39.8	47.8	54.9	61.1	66.3	70.5	73.5		74.7	76.1	83		
	60	24.8	34.5	42.5	48.2	51.4						51.4	52.0	77		
	70	25.5	35.9	44.8	52.0	57.2	60.1					60.1	60.8	79		
22	80	25.9	36.8	46.5	54.6	61.2	65.9					68.5	69.4	81		
	90	26.2	37.5	47.6	56.5	64.0	70.0	74.3				76.7	77.7	82		
	100	26.5	37.9	48.4	57.9	66.1	73.1	78.6	82.6			84.8	85.9	82		
	110	26.7	38.3	49.1	58.9	67.7	75.4	81.9	87.0	90.7		92.8	94.0	83		
	60	30.0	41.7	51.3	58.3	62.1						62.4	63.0	77		
	70	30.8	43.4	54.2	62.9	69.2	72.7					73.0	73.7	79		
24	80	31.4	44.5	56.2	66.1	74.0	79.7	82.9				83.2	84.0	81		
	90	31.7	45.3	57.6	68.3	77.4	84.7	89.9	92.9			93.2	94.1	82		
	100	32.0	45.9	58.6	70.0	80.0	88.4	95.1	99.9	102.7		103.0	104.0	82		
	110	32.2	46.3	59.4	71.3	81.9	91.2	99.0	105.3	109.7		112.7	113.8	83		
	60	35.6	49.7	61.1	69.4	73.9						74.4	74.9	77		
	70	36.6	51.6	64.5	74.9	82.7	86.5					87.0	87.7	79		
26	80	37.3	53.0	66.8	78.6	88.1	94.8	98.7				99.2	100.0	81		
	90	37.7	53.9	68.5	81.3	92.1	100.8	107.0	110.6			111.2	112.0	82		
	100	38.1	54.6	69.7	83.3	95.2	105.2	113.1	118.9	122.3		122.3	123.8	82		
	110	38.3	55.1	70.6	84.8	97.5	108.6	117.9	125.2	130.6		134.5	135.5	83		

^a Includes 1.0-foot stump allowance.

Table 17--Predicted **stemwood** volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for major southern pines combined (species **11**) in the Upper Coastal **Plain.**^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										Girard Form Class	
		Saw-Log 1.0 1.5	merchantable 2.0 2.5	height 3.0 3.5	(16-foot 4.0 4.5	Logs) 5.0	7-inch d.o.b. top	4-inch d.o.b. top					
Inches	Feet	Cubic feet										Percent	
10	30	5.3									6.0	7.4	67
	40	6.0	8.1								8.6	10.5	74
	50	6.3	8.7	10.7							10.9	13.3	78
	60	6.5	9.1	11.3							13.1	15.9	80
	70	6.6	9.3	11.7	13.8						15.1	18.5	81
	80	6.7	9.5	12.0	14.3	16.3					17.2	21.1	82
	90	6.7	9.6	12.2	14.6	16.7	18.6				19.1	23.6	82
12	30	7.6									9.6	10.5	67
	40	8.6	11.6								13.6	14.7	74
	50										17.2	18.6	78
	60	9.3	9.0	12.5	13.0	15.3	16.2	18.8			20.6	22.3	80
	70										23.9	25.9	81
	80	9.4	9.5	13.3	13.6	16.8	17.2	20.4	19.7	22.2	23.2	25.5	82
	90	9.6	13.7	17.5	20.8	23.9	26.5	28.8			30.2	33.0	82
14	40	11.6	15.8	18.6							19.0	19.8	74
	50	12.3	17.0	20.7	23.4						24.0	25.0	78
	60	12.6	17.7	22.0	25.4	28.0					28.7	29.9	80
	70	12.8	18.1	22.8	26.7	30.0	32.5				33.3	34.7	81
	80	12.9	18.4	23.3	27.6	31.3	34.4	36.8			37.8	39.4	82
	90	13.0	18.6	23.7	28.3	32.3	35.8	38.8	41.1		42.2	44.1	82
	100	13.1	18.8	24.0	28.7	33.0	36.9	40.2	43.1	45.4	46.6	48.7	83
16	40	15.2	20.5	24.1							25.1	25.6	74
	50	16.0	22.2	27.0	30.4						31.6	32.3	78
	60	16.4	23.1	28.6	33.1	36.3					37.8	38.6	80
	70	16.7	23.6	29.7	34.8	38.9	42.1				43.8	44.8	81
	80	16.9	24.0	30.4	36.0	40.7	44.7	47.7			49.7	50.8	82
	90	17.0	24.3	30.9	36.8	42.0	46.5	50.3	53.3	55.5	55.5	56.8	82
	100	17.1	24.5	31.3	37.4	43.0	47.9	52.3	55.9	58.8	61.3	62.7	83
18	40	19.2	26.0	30.4							31.8	32.2	74
	50	20.2	28.0	34.1	38.3						40.0	40.5	78
	60	20.8	29.2	36.2	41.7	45.8					47.9	48.5	80
	70	21.1	29.9	37.5	43.9	49.1	53.0				55.5	56.2	81
	80	21.3	30.3	38.4	45.4	51.4	56.3	60.1	62.7		62.9	63.8	82
	90	21.5	30.7	39.0	46.5	53.1	58.7	63.4	67.1	69.7	70.3	71.3	82
	100	21.6	30.9	39.5	47.3	54.3	60.5	65.9	70.4	74.0	77.6	78.7	83
20	50	24.9	34.5	42.0	47.1						49.4	49.8	78
	60	25.6	36.0	44.6	51.4	56.3					59.1	59.5	80
	70	26.0	36.8	46.2	54.1	60.5	65.2	68.2			68.4	69.0	81
	80	26.3	37.4	47.3	56.0	63.3	69.3	73.9	77.0		77.6	78.3	82
	90	26.5	37.8	48.1	57.3	65.4	72.3	78.0	82.5	85.7	86.7	87.5	82
	100	26.6	38.2	48.7	58.3	66.9	74.5	81.1	86.6	91.0	95.7	96.5	83
22	50	30.1	41.8	50.7	56.9						59.7	60.0	78
	60	31.0	43.5	53.9	62.1	67.9	71.3				71.4	71.8	80
	70	31.5	44.5	55.9	65.4	73.0	78.7	82.2			82.7	83.1	81
	80	31.8	45.3	57.2	67.6	76.5	83.7	89.2	92.8		93.8	94.3	82
	90	32.0	45.8	58.2	69.3	79.0	87.3	94.2	99.6	103.3	104.7	105.3	82
	100	32.2	46.1	58.9	70.5	80.9	90.1	98.0	104.6	109.8	115.6	116.3	83
24	50	35.8	49.7	60.3	67.6						71.0	71.2	78
	60	36.8	51.7	64.1	73.8	80.7	84.6				84.8	85.1	80
	70	37.4	53.0	66.4	77.7	86.8	93.4	97.5			98.2	98.6	81
	80	37.8	53.8	68.0	80.4	90.9	99.4	105.9	110.2		111.4	111.9	82
	90	38.1	54.4	69.2	82.4	93.9	103.8	111.9	118.2	122.6	124.4	124.9	82
	100	38.3	54.9	70.1	83.8	96.2	107.0	116.4	124.2	130.4	137.3	137.9	83

^a Includes 1.0-foot stump allowance.

Table 18--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 7-inch d.o.b. top and height to a saw-log top for major southern pines combined (species 11) in the Upper Coastal Plain.'

D.b.h. class	Height to 7-inch d.o.b. top	Volume to													Girard Form Class
		Saw-log			merchantable			height (16-foot			Logs)			7-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0		d.o.b. top	d.o.b. top		
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>													<u>Percent</u>
10	20	5.1										5.8	10.2	67	
	30	6.0	8.3									9.5	12.4	76	
	40	6.4	8.9	11.2								12.9	15.6	79	
	50	6.5	9.2	11.7	14.0	15.9						16.2	18.8	80	
	60	6.6	9.4	12.0	14.4	16.7	18.7					19.3	21.9	81	
	70	6.7	9.5	12.2	14.7	17.1	19.3	21.3				22.5	25.1	81	
12	20	7.3										8.2	10.9	67	
	30	8.6	11.8									13.2	15.0	76	
	40	9.1	12.7	15.7								17.6	19.3	79	
	50	9.3	13.1	16.5	19.4	21.6						21.9	23.5	80	
	60	9.5	13.4	17.0	20.2	23.0	25.3					26.0	27.7	81	
	70	9.5	13.6	17.3	20.7	23.8	26.5	28.9				30.1	31.8	81	
14	80	9.6	13.7	17.5	21.1	24.4	27.4	30.1	32.4			34.2	35.9	82	
	40	12.3	17.2	20.9								23.1	24.4	79	
	50	12.6	17.8	22.2	25.8	28.3						28.6	29.8	80	
	60	12.8	18.1	22.9	27.0	30.5	33.1					33.9	35.1	81	
	70	12.9	18.4	23.3	27.8	31.7	35.1	37.8				39.1	40.4	81	
	80	13.0	18.5	23.6	28.3	32.6	36.4	39.7	42.5			44.3	45.6	82	
16	90	13.0	18.6	23.8	28.7	33.2	37.3	41.0	44.3	47.0		49.5	50.8	82	
	100	13.1	18.7	24.0	29.0	33.7	38.0	42.0	45.6	48.8		54.6	56.0	82	
	40	16.1	22.3	27.0								29.5	30.5	79	
	50	16.5	23.1	28.7	33.1	36.1						36.3	37.3	80	
	60	16.7	23.6	29.7	34.9	39.1	42.2					43.0	43.9	81	
	70	16.8	23.9	30.3	36.0	40.9	45.0	48.1				49.5	50.5	81	
18	80	16.9	24.1	30.7	36.7	42.1	46.8	50.8	54.0			56.0	57.0	82	
	90	17.0	24.2	31.0	37.2	42.9	48.1	52.6	56.6	59.8		62.5	63.5	82	
	100	17.0	24.3	31.2	37.6	43.6	49.0	54.0	58.5	62.3		68.9	69.9	82	
	40	20.3	28.1	33.9								36.8	37.5	79	
	50	20.8	29.2	36.1	41.5	44.9						45.1	45.9	80	
	60	21.1	29.8	37.4	43.8	48.9	52.4					53.3	54.0	81	
20	70	21.2	30.2	38.2	45.2	51.2	56.1	59.8				61.3	62.1	81	
	80	21.4	30.4	38.7	46.2	52.8	58.6	63.4	67.1			69.3	70.1	82	
	90	21.5	30.6	39.1	46.9	54.0	60.3	65.8	70.5	74.3		77.2	78.0	82	
	100	21.5	30.8	39.4	47.4	54.8	61.6	67.7	73.0	77.7		85.1	85.9	82	
	50	25.6	36.0	44.4	50.8	54.7						55.0	55.6	80	
	60	26.0	36.7	46.0	53.8	59.8	63.9					64.8	65.4	81	
22	70	26.2	37.2	47.0	55.6	62.8	68.6	72.9				74.5	75.1	81	
	80	26.3	37.5	47.7	56.8	64.9	71.8	77.4	81.7			84.1	84.8	82	
	90	26.4	37.7	48.2	57.7	66.3	74.0	80.6	86.1	90.5		93.7	94.3	82	
	100	26.5	37.9	48.5	58.4	67.4	75.6	82.9	89.4	94.8		103.2	103.9	82	
	50	31.0	43.5	53.6	61.1	65.6						65.8	66.3	80	
	60	31.4	44.4	55.6	64.8	71.9	76.6					77.5	78.0	81	
24	70	31.7	45.0	56.8	67.0	75.6	82.5	87.3				89.1	89.6	81	
	80	31.8	45.3	57.6	68.6	78.2	86.3	93.0	97.9			100.5	101.1	82	
	90	32.0	45.6	58.2	69.6	80.0	89.1	96.9	103.4	108.4		111.9	112.4	82	
	100	32.1	45.8	58.6	70.5	81.3	91.1	99.8	107.4	113.7		123.2	123.8	82	
	50	36.9	51.7	63.6	72.4	77.4						77.7	78.2	80	
	60	37.3	52.8	66.0	76.8	85.1	90.4					91.5	91.9	81	
26	70	37.7	53.5	67.5	79.6	89.7	97.6	103.1				105.0	105.5	81	
	80	37.9	53.9	68.4	81.4	92.7	102.3	110.0	115.6			118.5	118.9	82	
	90	38.0	54.2	69.2	82.7	94.9	105.6	114.7	122.3	128.0		131.8	132.3	82	
	100	38.1	54.5	69.7	83.7	96.5	108.1	118.3	127.1	134.5		145.1	145.6	82	

^a Includes 1.0-foot stump allowance.

Table 19--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for major southern pines combined (species 11) in the Upper Coastal Plain.^a

D. b. h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.8	1.5	2.3	1.0	2.6	1.2	2.8	1.3	3.5	2.0	3.9	2.2	4.2	4.6			
7	2.6	3.4	3.8	4.1	5.1	5.6	6.1	6.7	7.2	7.6							
8	3.6	4.5	5.1	5.6	6.8	7.5	8.2	8.9	9.6	10.3	10.9	11.5					
11:	4.6	5.8	5.8	7.2	6.5	8.1	8.9	7.1	10.8	8.7	12.0	9.7	13.1	10.6	11.4	14.2	15.3
11																	
12					11.8	9.9	10.8	12.9	13.2	15.7	14.6	17.4	15.9	18.0	20.6	17.3	22.2
13																	
14																	
15																	
16																	

^a Includes 0.5foot stump allowance.

Table 20--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for major southern pines combined (species 11) in the Upper Coastal Plain.

D. b. h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.2	1.6	2.2	2.8	3.4	2.7	3.8	2.8	3.3	4.4	3.8	5.0	5.6	6.2			
7	2.6	3.5	4.3	4.9	5.7	6.5	7.2	8.0	8.7	9.4							
8	3.6	4.5	5.3	6.2	7.2	8.1	9.1	10.0	10.9	11.8	12.7	13.6					
9	4.2	5.6	6.6	7.6	8.9	10.1	11.2	12.3	13.4	14.5	15.6	16.7	17.7	18.8			
10	5.2	6.8	8.0	9.3	10.8	12.2	13.6	14.9	16.2	17.6	18.9	20.1	21.4	22.7	23.9	25.2	
11																	
12																	
13																	
14																	
15																	
16																	

^a Includes 0.5-foot stump allowance.

Table 21--Predicted **stemwood** volume to a saw-log merchantable top, and to **7-inch** and **4-inch d.o.b.** tops based on **d.b.h.**, total-tree height and height to a saw-log top for Virginia pine (species **132**) in the Upper Coastal Plain?

D.b.h. class	Total tree height	Volume to											Girard Form Class	
		Saw-log merchantable height					(16-foot togs)					1-inch		4-inch
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top		
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>	
10	40	6.7	9.2								9.2	10.4	81	
	50	6.8	9.4								10.3	12.1	80	
	60	6.8	9.5								11.4	13.7	80	
	70	6.9	9.5	11.8							12.5	15.3	80	
	80	6.9	9.6	12.0							13.5	16.9	80	
	90	6.9	9.6	12.1	14.3						14.6	18.5	80	
12	40	9.6	13.2								14.3	15.1	81	
	50	9.7	13.5	16.2							16.4	17.5	80	
	60	9.8	13.6	16.7							18.4	19.9	80	
	70	9.9	13.7	17.0	19.7						20.5	22.3	80	
	80	9.9	13.8	17.2	20.2	22.5					22.5	24.7	80	
	90	9.9	13.8	17.4	20.5	23.1					24.5	27.0	80	
14	100	9.9	13.9	17.5	20.8	23.6	25.9				26.5	29.4	80	
	40	13.1	17.9								20.0	20.6	81	
	50	13.2	18.3	22.0							23.1	24.0	80	
	60	13.3	18.5	22.8	25.7						26.1	27.3	80	
	70	13.4	18.7	23.2	26.8						29.1	30.5	80	
	80	13.5	18.8	23.5	27.5	30.6					32.1	33.8	80	
16	90	13.5	18.8	23.7	27.9	31.5	34.2				35.1	37.0	80	
	100	13.5	18.9	23.8	28.3	32.1	35.3	37.7			38.0	40.2	80	
	50	17.3	23.9	28.7							30.6	31.4	80	
	60	17.4	24.2	29.7	33.6						34.7	35.7	80	
	70	17.5	24.4	30.3	35.0	38.2					38.8	40.0	80	
	80	17.6	24.5	30.6	35.9	39.9	42.7				42.8	44.3	80	
18	90	17.6	24.6	30.9	36.5	41.1	44.7				46.9	48.5	80	
	100	17.6	24.6	31.1	36.9	41.9	46.1	49.3			50.9	52.8	80	
	110	17.7	24.7	31.2	37.2	42.6	47.2	50.9	53.8		54.9	57.0	80	
	50	21.9	30.3	36.4							39.1	39.8	80	
	60	22.0	30.6	37.6	42.5						44.4	45.3	80	
	70	22.1	30.8	38.3	44.3	48.3					49.6	50.7	80	
20	80	22.2	31.0	38.8	45.4	50.5	54.0				54.9	56.1	80	
	90	22.3	31.1	39.1	46.1	52.0	56.5	59.5			60.1	61.5	80	
	100	22.3	31.2	39.3	46.7	53.1	58.3	62.4	65.0		65.2	66.9	80	
	110	22.4	31.2	39.5	47.1	53.9	59.7	64.5	68.1		70.4	72.3	80	
	60	27.2	37.8	46.4	52.5						55.2	55.9	80	
	70	27.3	38.0	47.3	54.6	59.7					61.7	62.7	80	
22	80	27.4	38.2	47.9	56.0	62.4	66.6				68.2	69.4	80	
	90	27.5	38.4	48.3	56.9	64.2	69.8	73.5			74.7	76.1	80	
	100	27.6	38.5	48.6	57.6	65.5	72.0	77.0	80.3		81.2	82.8	80	
	110	27.6	38.6	48.8	58.2	66.5	73.7	79.6	84.1	87.0	87.7	89.4	80	
	60	32.9	45.7	56.2	63.5						67.0	67.7	80	
	70	33.1	46.0	57.2	66.1	72.2					75.0	75.9	80	
24	80	33.2	46.3	57.9	67.8	75.5	80.6				83.0	84.0	80	
	90	33.3	46.4	58.4	68.9	77.7	84.4	88.9			90.9	92.1	80	
	100	33.3	46.6	58.8	69.7	79.3	87.1	93.2	97.2		98.9	100.2	80	
	110	33.4	46.7	59.0	70.4	80.4	89.1	96.3	101.7	105.3	106.8	108.3	80	
	60	39.1	54.4	66.8	75.5	79.8					80.0	80.7	80	
	70	39.3	54.8	68.1	78.7	85.9	89.5				89.6	90.4	80	
26	80	39.5	55.1	68.9	80.6	89.8	96.0	99.1			99.1	100.1	80	
	90	39.6	55.3	69.5	82.0	92.4	100.5	105.8			108.6	109.7	80	
	100	39.7	55.4	69.9	83.0	94.3	103.7	110.9	115.6		118.1	119.4	80	
	110	39.7	55.5	70.3	83.7	95.7	106.1	114.6	121.0	125.3	127.6	129.0	80	

^a includes 1.0-foot stump allowance.

Table 22--Predicted **stemwood** volume to a saw-log merchantable top, and to 7-inch and **4-inch d.o.b.** tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for Virginia pine (species 132) in the Upper Coastal Plain:

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										I-inch d.o.b. top	4-inch d.o.b. top	Gi rard Fore Class
		Sau-Log 1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	(16-foot Logs)			
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>		
10	30	6.6										8.4	9.5	79
	40	6.7	9.2									10.0	12.0	80
	50	6.8	9.4									11.6	14.5	80
	60	6.9	9.6	11.9								13.1	16.9	80
	70	6.9	9.6	12.1	14.2							14.6	19.2	81
	80	6.9	9.7	12.2	14.4							16.1	21.6	81
12	90	7.0	9.7	12.3	14.6	16.7						17.6	23.9	81
	30	9.5	12.6									12.9	13.5	79
	40	9.7	13.3	15.8								15.8	17.0	80
	50	9.8	13.6	16.6								18.6	20.3	80
	60	9.9	13.7	17.0	19.7							21.4	23.6	80
	70	10.0	13.8	17.3	20.3	22.8						24.2	26.9	81
14	80	10.0	13.9	17.5	20.6	23.4	25.8					26.9	30.1	81
	90	10.0	14.0	17.6	20.9	23.9	26.5	28.8				29.7	33.3	81
	40	13.2	18.0	21.3								22.0	22.8	80
	50	13.4	18.4	22.5	25.4							26.1	27.2	80
	60	13.5	18.7	23.1	26.7	29.4						30.2	31.6	80
	70	13.5	18.8	23.5	27.5	30.8	33.4					34.2	35.9	81
16	80	13.6	18.9	23.7	28.0	31.7	34.8	37.4				38.1	40.2	81
	90	13.6	19.0	23.9	28.4	32.4	35.9	38.9	41.3			42.1	44.5	81
	100	13.7	19.0	24.0	28.7	32.8	36.6	39.9	42.8	45.2		46.0	48.7	81
	40	17.2	23.5	27.8								29.0	29.5	80
	50	17.5	24.1	29.3	33.0							34.5	35.2	80
	60	17.6	24.4	30.1	34.7	38.2						39.8	40.8	80
18	70	17.7	24.6	30.6	35.8	40.0	43.3					45.1	46.3	81
	80	17.7	24.7	30.9	36.5	41.3	45.3	48.4				50.4	51.8	81
	90	17.8	24.8	31.2	37.0	42.1	46.6	50.4	53.5			55.6	57.3	81
	100	17.8	24.9	31.4	37.3	42.8	47.6	51.9	55.5	58.6		60.9	62.7	81
	40	21.8	29.7	35.0								36.8	37.2	80
	50	22.1	30.4	37.0	41.7							43.7	44.3	80
20	60	22.3	30.8	38.0	43.8	48.2						50.5	51.2	80
	70	22.4	31.1	38.7	45.2	50.5	54.6					57.2	58.1	81
	80	22.5	31.2	39.1	46.1	52.1	57.1	61.0	63.7			63.9	65.0	81
	90	22.5	31.4	39.4	46.7	53.2	58.8	63.5	67.3	70.1		70.6	71.8	81
	100	22.6	31.5	39.7	47.2	54.0	60.1	65.4	70.0	73.7		77.3	78.6	81
	50	27.3	37.5	45.6	51.3							53.9	54.4	80
22	60	27.5	38.0	46.9	54.0	59.3						62.3	62.9	80
	70	27.6	38.3	47.7	55.7	62.2	67.1	70.4				70.6	71.3	81
	80	27.7	38.6	48.3	56.8	64.2	70.2	75.0	78.3			78.9	79.7	81
	90	27.8	38.7	48.7	57.6	65.6	72.4	78.2	82.8	86.1		87.1	88.1	81
	100	27.9	38.8	49.0	58.2	66.6	74.1	80.6	86.1	90.6		95.4	96.4	81
	50	33.0	45.4	55.1	61.9							65.2	65.5	80
24	60	33.3	46.0	56.7	65.3	71.5	75.2					75.3	75.8	80
	70	33.4	46.4	57.7	67.3	75.1	81.0	84.8				85.4	85.9	81
	80	33.5	46.6	58.4	68.7	77.5	84.8	90.5	94.3			95.4	96.0	81
	90	33.6	46.8	58.9	69.7	79.2	87.5	94.4	99.9	103.8		105.3	106.0	81
	100	33.7	47.0	59.2	70.4	80.5	89.5	97.3	103.9	109.2		115.2	116.0	81
	50	39.3	54.0	65.6	73.6							77.5	77.8	80
26	60	39.6	54.7	67.5	77.6	85.0	89.2					89.5	89.9	80
	70	39.8	55.2	68.6	80.0	89.3	96.2	100.6				101.4	101.9	81
	80	39.9	55.5	69.4	81.7	92.1	100.8	107.4	111.9			113.3	113.8	81
	90	40.0	55.7	70.0	82.9	94.2	104.0	112.1	118.6	123.1		125.1	125.7	81
	100	40.1	55.9	70.5	83.7	95.7	106.4	115.6	123.4	129.7		136.9	137.5	81

* Includes 1.0-foot stump allowance.

Table 23--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 7-inch d.o.b. top and height to a saw-log top for Virginia pine (species 132) in the Upper Coastal Plain.^a

D. b. h. class	Height to T-inch d.o.b. top	Volume to											Cirard Form Class
		sau-Log merchantable					height (16-foot Logs)					7-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top	
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
10	20	6.3									7.2	8.6	77
	30	6.7	9.3								10.6	13.0	79
	40	6.8	9.5	12.0							13.9	17.7	80
	50	6.9	9.7	12.3	14.6	16.8					17.1	22.8	81
	60	6.9	9.7	12.4	14.9	17.3	19.5				20.2	28.1	81
	70	7.0	9.8	12.5	15.1	17.5	19.9	22.1			23.4	33.8	81
12	20	9.1									10.2	10.9	77
	30	9.6	12.1								14.7	15.8	79
	40	9.8	13.6	16.8							18.9	20.6	80
	50	9.9	13.8	17.3	20.3	22.8					23.1	25.5	81
	60	10.0	14.0	17.6	20.9	23.8	26.3				27.1	30.4	81
	70	10.0	14.0	17.8	21.2	24.4	27.3	29.9			31.2	35.5	81
14	80	10.1	14.1	17.9	21.5	24.8	27.9	30.8	33.3		35.3	40.6	81
	40	13.4	18.4	22.4							24.9	25.8	80
	50	13.5	18.8	23.3	27.0	29.9					30.1	31.4	81
	60	13.6	18.9	23.7	28.0	31.6	34.5				35.3	37.0	81
	70	13.6	19.0	24.0	28.5	32.6	36.1	39.0			40.5	42.7	81
	80	13.7	19.1	24.2	28.9	33.2	37.1	40.6	43.5		45.6	48.3	81
16	90	13.7	19.2	24.4	29.2	33.7	37.9	41.7	45.1	48.0	50.7	54.1	81
	100	13.7	19.2	24.5	29.4	34.1	38.4	42.5	46.2	49.5	55.9	59.8	81
	40	17.4	24.0	29.0							31.8	32.3	80
	50	17.6	24.4	30.2	34.8	38.0					38.3	39.0	81
	60	17.7	24.7	30.8	36.1	40.5	43.9				44.8	45.7	81
	70	17.8	24.8	31.2	37.0	42.0	46.2	49.6			51.2	52.4	81
18	80	17.9	25.0	31.5	37.5	42.9	47.8	51.9	55.3		57.6	59.1	81
	90	17.9	25.0	31.7	37.9	43.6	48.8	53.5	57.6	61.0	63.9	65.8	81
	100	17.9	25.1	31.8	38.2	44.1	49.6	54.6	59.2	63.2	70.3	72.6	81
	40	22.1	30.3	36.4							39.6	39.9	80
	50	22.3	30.9	38.0	43.6	47.3					47.6	48.0	81
	60	22.5	31.2	38.9	45.4	50.7	54.5				55.5	56.1	81
20	70	22.5	31.4	39.4	46.5	52.6	57.7	61.6			63.3	64.1	81
	80	22.6	31.5	39.8	47.2	53.9	59.8	64.7	68.7		71.1	72.1	81
	90	22.7	31.7	40.0	47.8	54.8	61.2	66.9	71.7	75.7	78.9	80.1	81
	100	22.7	31.7	40.2	48.2	55.5	62.3	68.4	73.9	78.7	86.7	88.1	81
	50	27.5	38.1	46.8	53.4	57.6					57.9	58.2	81
	60	27.7	38.5	47.9	55.8	62.0	66.4				67.4	67.8	81
22	70	27.8	38.7	48.5	57.2	64.5	70.6	75.0			76.8	77.4	81
	80	27.9	38.9	49.0	58.1	66.2	73.2	79.1	83.6		86.2	86.9	81
	90	28.0	39.1	49.3	58.8	67.4	75.1	81.8	87.5	92.1	95.6	96.4	81
	100	28.0	39.1	49.6	59.3	68.3	76.5	83.9	90.4	96.0	105.0	105.9	81
	50	33.3	46.0	56.4	64.3	69.0					69.4	69.6	81
	60	33.5	46.5	57.8	67.2	74.6	79.5				80.6	80.9	81
24	70	33.7	46.8	58.6	69.0	77.7	84.8	89.9			91.8	92.2	81
	80	33.8	47.1	59.2	70.1	79.8	88.1	94.9	100.1		103.0	103.4	81
	90	33.8	47.2	59.6	71.0	81.3	90.4	98.4	105.0	110.3	114.1	114.6	81
	100	33.9	47.4	59.9	71.6	82.4	92.1	100.9	108.6	115.1	125.2	125.8	81
	50	39.6	54.7	67.0	76.1	81.6					81.9	82.0	81
	60	39.9	55.3	68.7	79.7	88.3	93.9				95.1	95.3	81
26	70	40.1	55.7	69.7	81.9	92.1	100.3	106.1			108.2	108.5	81
	80	40.2	56.0	70.4	83.3	94.7	104.4	112.3	118.2		121.3	121.6	81
	90	40.3	56.2	70.9	84.3	96.5	107.2	116.5	124.2	130.1	134.3	134.7	81
	100	40.3	56.3	71.3	85.1	97.8	109.3	119.6	128.5	136.1	147.3	147.8	81

^a Includes 1.0-foot stump allowance.

Table 24--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for Virginia pine (species 132) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.8	1.4	0.9	2.2	2.4	1.0	2.6	1.1	4.0	2.3	4.2	2.3	4.4	4.7			
7	2.7	3.4	3.8	4.1	5.8	6.2	6.5	6.9	7.2	7.6							
8	3.7	4.7	5.2	5.6	7.8	8.3	8.8	9.2	9.7	10.2	10.7	11.2					
9	4.9	6.0	6.7	7.3	9.9	10.6	11.2	11.9	12.5	13.2	13.8	14.4	15.1	15.7			
10	6.1	7.5	8.4	9.1	12.4	13.2	14.0	14.8	15.6	16.4	17.2	18.0	18.8	19.6	20.4	21.2	
11			10.2	11.1	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	22.9	23.9	24.9	25.9	26.8
12			12.2	13.3	18.0	19.2	20.4	21.5	22.7	23.9	25.1	26.3	27.4	28.6	29.8	31.0	32.1
13			14.4	15.7	21.1	22.5	24.0	25.4	26.8	28.2	29.5	30.9	32.3	33.7	35.1	36.5	37.9
14																	
15					24.5	28.2	30.1	26.2	32.0	27.8	33.9	29.5	31.1	32.7	34.4	36.0	37.6
									35.8	37.6	39.5	41.4	43.2	45.1	47.0	48.8	50.7
16					32.1	34.3	36.5	38.6	40.7	42.9	45.0	47.1	49.3	51.4	53.5	55.6	57.8

^a Includes 0.5-foot stump allowance.

Table 25--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for Virginia pine (species 132) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.3	1.8	2.3	2.9	3.6	2.8	3.3	4.4	3.7	5.0	4.1	5.5	6.1	6.6			
7	2.8	3.7	4.6	5.8	6.5	7.1	7.8	8.5	9.2	9.8							
8	3.9	4.8	5.6	7.3	8.2	9.0	9.9	10.7	11.5	12.3	13.2	14.0					
9	4.5	5.9	7.0	9.1	10.1	11.2	12.2	13.2	14.2	15.2	16.2	17.2	18.1	19.1			
10	5.6	7.3	8.5	11.1	12.3	13.6	14.8	16.0	17.2	18.3	19.5	20.7	21.9	23.1	24.2	25.4	
11			10.2	13.3	14.8	16.2	17.6	19.0	20.4	21.8	23.2	24.6	26.0	27.4	28.8	30.2	31.6
12			12.0	15.7	17.4	19.1	20.7	22.4	24.0	25.7	27.3	28.9	30.5	32.2	33.8	35.4	37.0
13			14.1	18.3	20.3	22.2	24.1	26.0	27.9	29.8	31.7	33.6	35.5	37.3	39.2	41.1	42.9
14																	
15					23.4	26.7	29.3	25.6	31.8	27.8	30.0	34.2	32.2	34.3	36.5	38.6	40.8
									36.7	39.2	41.6	44.0	46.5	48.9	51.3	53.8	56.2
16					30.3	33.2	36.0	38.8	41.6	44.3	47.1	49.8	52.6	55.3	58.1	60.8	63.5

^a Includes 0.5-foot stump allowance.

Table 26--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.^a

D.b.h. class	Total tree height	Volume to											Gi rard Form Class
		saw-log merchantable height (16-foot Logs)											
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top	
<u>inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
12	40										5.0	9.7	59
	50	8.4									9.3	13.0	68
	60										11.9	16.0	73
	70	8.4	12.7								14.1	18.7	75
	80	9.6	13.2								16.1	21.3	77
	90	9.8	13.5	16.7							17.9	23.8	79
14	100	9.9	13.7	17.1							19.7	26.2	79
	40	10.0									10.9	13.3	59
	50	11.4	14.9								15.3	17.9	68
	60	12.3	16.3								18.9	21.9	73
	70	12.8	17.3	20.9							22.2	25.7	75
	80	13.2	17.9	22.0	25.1						25.2	29.2	77
16	90	13.4	18.4	22.7	26.3						28.1	32.6	79
	100	13.6	18.7	23.3	27.2	30.4					30.9	35.9	79
	50	14.9	19.4								21.4	23.4	68
	60	16.1	21.4	25.3							26.3	28.8	73
	70	16.7	22.6	27.4							30.7	33.7	75
	80	17.2	23.5	28.7	32.9						34.9	38.3	77
18	90	17.5	24.0	29.7	34.4	38.0					38.9	42.8	79
	100	17.8	24.5	30.4	35.5	39.7					42.8	47.2	79
	110	17.9	24.8	31.0	36.4	41.0	44.7				46.5	51.4	80
	50	18.9	24.6								28.0	29.8	68
	60	20.3	27.1	32.1							34.3	36.5	73
	70	21.2	28.7	34.6	38.9						40.1	42.7	75
20	80	21.8	29.7	36.4	41.6	45.3					45.6	48.7	77
	90	22.2	30.5	37.6	43.6	48.1					50.8	54.3	79
	100			38.6	45.0	50.3	54.3				55.9	59.9	79
	110	22.5	31.0	39.3	46.1	52.0	56.7	60.2			60.9	65.3	80
	50	23.4	30.4	34.9							35.2	36.8	68
	60	25.2	33.5	39.7							43.1	45.2	73
22	70	26.2	35.4	42.8	48.1						50.5	52.9	75
	80	27.0	36.7	45.0	51.4	55.9					57.4	60.2	77
	90	27.5	37.7	46.5	53.8	59.5	63.3				64.0	67.2	79
	100	27.8	38.3	47.6	55.6	62.1	67.1	70.5			70.5	74.1	79
	110	28.1	38.8	48.5	57.0	64.2	70.0	74.3			76.8	80.8	80
	60	30.5	40.5	48.0	52.5						52.9	54.7	73
24	70	31.8	42.9	51.8	58.2						61.9	64.1	75
	80	32.7	44.5	54.4	62.3	67.7					70.4	73.0	77
	90	33.3	45.6	56.3	65.2	72.0	76.7				78.5	81.5	79
	100	33.7	46.4	57.7	67.3	75.2	81.2	85.3			86.4	89.8	79
	110	34.0	47.0	58.7	69.0	77.7	84.7	90.0	93.7		94.2	97.9	80
	60	36.3	48.3	57.2	62.5						63.5	65.2	73
26	70	37.9	51.1	61.7	69.3	73.8					74.3	76.4	75
	80	38.9	53.0	64.8	74.1	80.6	84.5				84.5	86.9	77
	90	39.6	54.3	67.0	77.6	85.7	91.3				94.3	97.1	79
	100	40.2	55.3	68.7	80.2	89.6	96.6	101.5			103.9	107.0	79
	110	40.5	56.0	69.9	82.2	92.5	100.9	107.1	111.5		113.2	116.7	80
	60	42.6	56.7	67.2	73.4						75.0	76.6	73
28	70	44.5	60.0	72.5	81.4	86.7					87.8	89.7	75
	80	45.7	62.2	76.1	87.0	94.6	99.2				99.9	102.1	77
	90	46.6	63.8	78.7	91.1	100.6	107.2	111.2			111.5	114.0	79
	100	47.2	64.9	80.6	94.1	105.1	113.5	119.2			122.8	125.6	79
	110	47.6	65.8	82.1	96.5	108.6	118.4	125.8	130.9		133.8	137.0	80

^a Includes 1 .0-foot stump allowance.

Table 27--Predicted stemwood volume to a saw-log merchantable top, and to 5-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all soft hardwoods combined (species 300) in the Upper Coastal Plain."

D.b.h. class	Height to 4-inch d.o.b. top	Volume to											Girerd Form Class
		Saw-log	merchantable	height	(16-foot	togs)	5.0	9-inch	4-inch				
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. too	d.o.b. ton	
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
12	30										5.8	10.2	64
	40	8.8									10.5	14.1	72
	50	9.3	12.5								13.0	17.6	75
	60	9.6	13.1								15.2	21.0	77
	70	9.8	13.5	16.6							17.3	24.2	79
	80	9.9	13.7	17.0							19.3	27.3	79
	90	10.0	13.9	17.3	20.3						21.2	30.3	80
14	40	12.0	15.7								16.4	19.0	72
	50	12.7	17.1								20.3	23.6	75
	60	13.1	17.8	21.6							23.9	28.0	77
	70	13.4	18.3	22.5	25.9						27.3	32.2	79
	80	13.6	18.7	23.1	26.9	30.0					30.5	36.4	79
	90	13.7	18.9	23.5	27.6	31.1					33.8	40.4	80
	100	13.8	19.1	23.8	28.1	31.8	35.1				36.9	44.4	80
16	40	15.7	20.5								22.6	24.5	72
	50	16.6	22.3	26.5							28.0	30.6	75
	60	17.2	23.3	28.2	31.9						33.0	36.2	77
	70	17.5	24.0	29.4	33.8	37.2					37.8	41.6	79
	80	17.8	24.4	30.1	35.0	39.1	42.2				42.4	46.9	79
	90	17.9	24.7	30.7	36.0	40.4	44.2				47.0	52.0	80
	100	18.0	24.9	31.1	36.7	41.5	45.7	49.2			51.5	57.2	80
18	40	19.9	26.0								29.3	30.9	72
	50	21.1	28.2	33.4							36.4	38.4	75
	60	21.8	29.5	35.7	40.3						42.9	45.4	77
	70	22.2	30.3	37.2	42.7	46.9					49.2	52.2	79
	80	22.5	30.9	38.2	44.3	49.3	53.3				55.3	58.8	79
	90	22.7	31.3		45.5	51.1	55.8	59.5			61.3	65.2	80
	100	22.9	31.6	46.4	52.4	57.7	62.1	65.6			67.1	71.6	80
20	40	24.5	32.1	36.5							36.7	38.0	72
	50	26.1	34.9	41.3	45.3						45.5	47.2	75
	60	26.9	36.5	44.1	49.7	53.5					53.8	55.8	77
	70	27.5	37.5	45.9	52.6	57.8	61.4				61.6	64.0	79
	80	27.8	38.2	47.1	54.6	60.8	65.6	69.0			69.3	72.1	79
	90		48.0	56.1	63.0	68.7	73.2	76.6			76.8	80.0	80
	100	28.1	38.7	48.7	57.2	64.7	71.1	76.4	80.7	84.0	84.2	87.8	80
22	50	31.6	42.2	49.9	54.7						55.5	56.9	75
	60	32.6	44.2	53.3	60.1	64.6					65.6	67.2	77
	70	33.3	45.4	55.5	63.6	69.8	74.1				75.2	77.2	79
	80	33.7	46.2	57.0	66.1	73.5	79.2	83.3			84.5	86.8	79
	90	34.0	46.8	58.1	67.9	76.2	83.0	88.4	92.4		93.6	96.3	80
	100	34.2	47.2	58.9	69.2	78.2	85.9	92.3	97.4	101.3	102.7	105.7	80
	24	50	37.6	50.3	59.4	65.0						66.4	67.5
60		38.9	52.6	63.4	71.5	76.8					78.4	79.8	77
70		39.6	54.1	66.1	75.7	83.0	88.0				89.8	91.5	79
80		40.2	55.0	67.9	78.6	87.4	94.1	98.9			101.0	102.9	79
90		40.5	55.7	69.2	80.8	90.6	98.7	105.0	109.7		111.9	114.2	80
100		40.8	56.3	70.1	82.4	93.1	102.2	109.7	115.7	120.3	122.8	125.3	80
26		50	44.2	59.0	69.7	76.3						78.1	79.1
	60	45.6	61.7	74.5	83.8	90.0					92.2	93.4	77
	70	46.6	63.5	77.5	88.8	97.3	103.1				105.7	107.1	79
	80	47.2	64.6	79.7	92.3	102.5	110.4	115.9			118.8	120.5	79
	90	47.6	65.5	81.2	94.8	106.3	115.7	123.1	128.5		131.7	133.6	80
	100	47.9	66.1	82.3	96.7	109.2	119.8	128.6	135.7	140.9	144.4	146.6	80

^a Includes 1.0-foot stump allowance.

Table 28--Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.^a

D.b.h. class	Height to O-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Gi rard Form Class
		Saw-log	merchantable	height	(16-foot	logs)	5.0							
Inches	Feet	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0				Percent
12	20	8.0										9.0	18.9	67
	30	9.0	12.2									14.0	21.1	73
	40	9.5	13.1	16.5								19.1	25.2	77
	50	9.8	13.6	17.2	20.5	23.5						23.9	29.7	79
	60	10.0	13.9	17.6	21.1	24.4	27.5					28.5	34.1	80
	70	10.1	14.1	17.9	21.5	25.0	28.3	31.3				33.1	38.6	80
	80	10.1	14.2	18.1	21.8	25.4	28.8	32.1	35.2			37.7	43.2	81
14	40	13.0	17.8	21.8								24.7	30.0	77
	50	13.4	18.5	23.0	27.0	30.3						30.6	35.6	79
	60	13.6	18.9	23.7	28.0	31.9	35.3					36.4	41.2	80
	70	13.7	19.1	24.1	28.7	33.0	36.8	40.2				42.1	46.8	80
	80	13.8	19.3	24.4	29.2	33.7	37.9	41.7	45.1			47.7	52.4	81
	90	13.9	19.4	24.6	29.6	34.2	38.6	42.7	46.5	49.9		53.4	58.0	81
	100	13.9	19.5	24.8	29.8	34.6	39.2	43.5	47.5	51.3		58.9	63.6	81
16	40	17.0	23.1	28.0								31.1	35.9	77
	50	17.5	24.1	29.7	34.4	38.0						38.4	42.9	79
	60	17.8	24.6	30.7	36.1	40.6	44.3					45.5	49.8	80
	70	18.0	24.9	31.3	37.1	42.2	46.7	50.5				52.4	56.7	80
	80	18.1	25.2	31.7	37.8	43.3	48.3	52.7	56.6			59.3	63.5	81
	90	18.2	25.3	32.0	38.3	44.1	49.5	54.3	58.7	62.6		66.2	70.3	81
	100	18.3	25.4	32.3	38.7	44.7	50.3	55.5	60.3	64.7		73.0	77.1	81
18	40	21.6	29.2	35.0								38.5	42.9	77
	50	22.2	30.4	37.4	42.9	46.9						47.3	51.4	79
	60	22.6	31.1	38.7	45.1	50.5	54.6					55.8	59.8	80
	70	22.8	31.6	39.5	46.5	52.7	57.9	62.1				64.2	68.1	80
	80	23.0	31.9	40.0	47.5	54.2	60.2	65.3	69.5			72.5	76.3	81
	90	23.1	32.1	40.4	48.2	55.3	61.8	67.5	72.6	76.9		80.7	84.5	81
	100	23.1	32.2	40.7	48.7	56.1	63.0	69.2	74.8	79.8		88.9	92.7	81
20	40	26.7	36.0	42.9								46.7	50.8	77
	50	27.5	37.6	45.9	52.4	56.8						57.2	61.0	79
	60	27.9	38.4	47.6	55.3	61.5	66.1					67.3	71.0	80
	70	28.2	39.0	48.6	57.1	64.4	70.5	75.2				77.3	80.9	80
	80	28.4	39.3	49.3	58.4	66.4	73.4	79.3	84.1			87.2	90.7	81
	90	28.5	39.6	49.9	59.3	67.8	75.5	82.3	88.1	92.9		96.9	100.5	81
	100	28.6	39.8	50.2	60.0	68.9	77.1	84.5	91.1	96.8		106.7	110.2	81
22	50	33.3	45.4	55.3	62.8	67.7						68.1	71.7	79
	60	33.8	46.5	57.4	66.5	73.7	78.8					80.1	83.6	80
	70	34.2	47.2	58.7	68.8	77.4	84.3	89.5				91.8	95.2	80
	80	34.4	47.6	59.6	70.4	79.9	88.1	94.8	100.1			103.4	106.8	81
	90	34.6	47.9	60.3	71.5	81.7	90.7	98.6	105.2	110.6		114.9	118.3	81
	100	34.7	48.2	60.8	72.4	83.1	92.7	101.4	109.0	115.6		126.3	129.7	81
24	50	39.7	54.1	65.7	74.3	79.7						80.1	83.6	79
	60	40.3	55.3	68.2	78.8	87.1	92.7					94.0	97.4	80
	70	40.7	56.1	69.8	81.7	91.6	99.5	105.3				107.7	111.0	80
	80	41.0	56.7	70.9	83.6	94.7	104.1	111.8	117.7			121.2	124.4	81
	90	41.2	57.1	71.7	85.0	96.9	107.4	116.5	124.0	130.0		134.6	137.8	81
	100	41.3	57.4	72.3	86.0	98.5	109.9	119.9	128.7	136.2		147.9	151.1	81
26	50	46.6	63.4	76.9	86.8	92.7						93.1	96.5	79
	60	47.3	65.0	79.9	92.2	101.6	107.8					109.2	112.4	80
	70	47.8	65.9	81.9	95.6	107.0	116.0	122.5				125.0	128.1	80
	80	48.1	66.6	83.2	97.9	110.7	121.6	130.3	136.9			140.5	143.6	81
	90	48.4	67.0	84.1	99.5	113.4	125.5	135.9	144.5	151.1		156.0	159.0	81
	100	48.5	67.4	84.8	100.8	115.4	128.5	140.1	150.1	158.5		171.3	174.3	81

^a Includes 1.0-foot stump allowance.

Table 29--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all soft hardwoods combined (species 300) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5	0.9	1.1	1.7	1.9	2.0	2.1											
6	2.1	2.3	2.6	2.9	3.1	3.4	3.7	4.0									
7	2.9	3.2	3.6	4.1	4.4	4.8	5.3	5.7	6.2	6.6							
8																	
9	3.8 4.8	4.2 5.4	4.8 6.2	5.4 7.0	5.8 7.5	6.5 8.3	9.1 7.1	9.8 7.7	10.6 8.2	11.3 8.8	12.0 9.3	12.7 9.8	13.3	14.0			
10	6.0	6.7	7.7	8.7	9.3	10.3	11.3	12.3	13.2	14.1	15.0	15.8	16.6	17.5	18.3	19.1	
11			9.4	10.5	11.3	12.6	13.8	15.0	16.1	17.2	18.2	19.3	20.3	21.3	22.3	23.3	24.3
12			11.2	12.6	13.6	15.1	16.5	17.9	19.2	20.5	21.8	23.1	24.3	25.5	26.7	27.9	29.1
13			13.2	14.9	16.0	17.8	19.5	21.1	22.7	24.2	25.7	27.2	28.6	30.1	31.5	32.9	34.3
14					18.6	20.7	22.6	24.5	26.4	28.2	29.9	31.6	33.3	35.0	36.7	38.3	39.9
15					21.4	23.8	26.0	28.2	30.4	32.4	34.4	36.4	38.4	40.3	42.2	44.1	45.9
16					24.4	27.1	29.7	32.2	34.6	37.0	39.3	41.5	43.7	45.9	48.1	50.2	52.4

^a Includes 0.5-foot stump allowance.

Table 30--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	1.3 1.9	1.3 1.9	3.5 2.7	3.7 2.8	4.3 3.3	3.7 4.9	5.4	6.0									
7	2.9	3.5	4.2	4.8	5.5	6.2	6.9	7.6	8.3	9.0							
8	3.6	4.3	5.3	6.0	7.0	7.8	8.7	9.6	10.4	11.2	12.0	12.8					
9	4.6	5.4	6.6	7.4	8.6	9.7	10.7	11.7	12.7	13.7	14.7	15.6	16.6	17.5			
10	5.6	6.6	8.1	9.0	10.4	11.7	13.0	14.2	15.4	16.5	17.7	18.8	20.0	21.1	22.2	23.3	
11			9.7	10.8	12.4	14.0	15.5	16.9	18.3	19.7	21.0	22.4	23.7	25.0	26.3	27.6	28.9
12			11.5	12.8	14.7	16.5	18.2	19.9	21.5	23.1	24.7	26.3	27.8	29.3	30.9	32.4	33.9
13			13.4	14.9	17.1	19.2	21.2	23.1	25.0	26.8	28.7	30.5	32.3	34.0	35.8	37.6	39.3
14					19.7	22.1	24.4	26.6	28.7	30.9	33.0	35.0	37.1	39.1	41.1	43.1	45.1
15					22.5	25.2	27.8	30.3	32.8	35.2	37.6	39.9	42.3	44.6	46.9	49.1	51.4
16					25.5	28.6	31.5	34.3	37.1	39.9	42.5	45.2	47.8	50.4	53.0	55.6	58.1

^a Includes 0.5-foot stump allowance.

Table 31--Predicted **stemwood** volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for sweetgum (species 611) in the Upper Coastal Plain.*

D.b.h. class	Total tree height	Volume to											Girard Form Class	
		Saw-log merchantable height (16-foot logs)									9-inch	4-inch		
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top		
<u>nches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>	
12	40											5.0	10.3	64
	50	8.2										9.9	13.4	70
	60	8.7	11.8									12.1	16.2	73
	70	9.1	12.4									14.1	18.8	75
	80	9.4	12.8	15.8								15.9	21.2	77
	90	9.5	13.1	16.3								17.6	23.6	77
	100	9.7	13.4	16.6								19.2	26.0	78
14	40	10.0										12.1	14.1	64
	50	11.2	14.9									15.9	18.4	70
	60	12.0	16.2									19.3	22.2	73
	70	12.5	17.0	20.7								22.3	25.8	75
	80	12.8	17.6	21.6	24.9							25.2	29.2	77
	90	13.1	18.0	22.3	25.9							28.0	32.5	77
	100	13.3	18.3	22.8	26.7	29.9						30.6	35.7	78
16	50	14.7	19.6									22.2	24.2	70
	60	15.7	21.2	25.4								26.8	29.2	73
	70	16.4	22.3	27.1	30.7							31.0	33.9	75
	80	16.9	23.1	28.3	32.6							35.1	38.4	77
	90	17.2	23.6	29.2	33.9	37.6						38.9	42.8	77
	100	17.5	24.0	29.9	34.9	39.2	42.4					42.6	47.0	78
	110	17.7	24.4	30.4	35.7	40.3	44.1					46.3	51.1	79
18	50	18.7	24.9	28.9								29.0	30.7	70
	60	20.0	26.9	32.3								35.0	37.2	73
	70	20.9	28.3	34.4	39.0							40.6	43.1	75
	80	21.5	29.3	36.0	41.3	45.2						45.8	48.8	77
	90	21.9	30.0	37.1	43.0	47.8						50.9	54.4	77
	100	22.3	30.5	37.9	44.3	49.7	53.8					55.8	59.7	78
	110	22.5	30.9	38.6	45.3	51.2	55.9	59.6				60.6	65.0	79
20	50	23.2	30.8	35.8								36.5	38.1	70
	60	24.8	33.4	39.9	44.0							44.1	46.0	73
	70	25.9	35.1	42.6	48.2							51.1	53.4	75
	80	26.6	36.3	44.5	51.1	55.9						57.7	60.5	77
	90	27.2	37.1	45.9	53.3	59.1	63.2					64.1	67.3	77
	100	27.6	37.8	46.9	54.8	61.4	66.6	70.1				70.4	74.0	78
	110	28.0	38.3	47.7	56.1	63.3	69.2	73.7				76.5	80.5	79
22	60	30.1	40.5	48.4	53.3							54.0	55.8	73
	70	31.4	42.5	51.7	58.4	62.5						62.6	64.8	75
	80	32.3	44.0	54.0	62.0	67.7						70.8	73.4	77
	90	33.0	45.1	55.6	64.5	71.6	76.5					78.7	81.7	77
	100	33.5	45.9	56.9	66.5	74.5	80.6	85.0				86.4	89.7	78
	110	33.9	46.5	57.9	68.0	76.7	83.8	89.3	93.2			93.9	97.6	79
24	60	35.9	48.2	57.7	63.6							64.9	66.6	73
	70	37.5	50.7	61.6	69.6	74.5						75.3	77.3	75
	80	38.6	52.5	64.3	73.9	80.7	84.9					85.1	87.5	77
	90	39.4	53.7	66.3	76.9	85.3	91.2					94.7	97.4	77
	100	40.0	54.7	67.8	79.2	88.7	96.1	101.2				103.9	107.0	78
	110	40.5	55.4	69.0	81.0	91.4	99.9	106.4	111.0			113.0	116.4	79
26	60	42.2	56.7	67.8	74.7							76.7	78.3	73
	70	44.1	59.6	72.4	81.8	87.6						89.0	90.9	75
	80	45.4	61.7	75.6	86.8	94.8	99.7					100.7	102.9	77
	90	46.3	63.2	77.9	90.4	100.2	107.1	111.4				111.9	114.5	77
	100	47.1	64.3	79.7	93.1	104.2	112.9	118.9	122.8			122.9	125.7	78
	110	47.7	65.2	81.1	95.2	107.3	117.3	125.0	130.4			133.6	136.8	79

* Includes 1.0-foot stump allowance.

Table 32--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for sweetgum (species 611) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to													Gi Form Class
		Saw-log 1.0	1.3	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top			
Inches	Feet	Cubic feet													Percent
12	30	7.6									8.0	10.4	67		
	40	8.5									10.5	14.1	73		
	50	9.0	12.2									17.5	75		
	60	9.3	12.7								12.5	20.7	77		
	70	9.5	13.1	16.1							16.7	23.9	77		
	80	9.7	13.3	16.5							18.5	26.9	78		
	90	9.8	13.5	16.8	19.8						20.3	29.9	78		
14	40	11.6	15.5								16.5	19.0	73		
	50	12.3	16.7	20.0							20.1	23.5	75		
	60	12.8	17.4	21.2							23.6	27.8	77		
	70	13.1	17.9	22.0	25.4						26.9	32.0	77		
	80	13.3	18.2	22.6	26.3	29.5					30.0	36.0	78		
	90	13.5	18.5	23.0	27.0	30.4					33.1	40.0	78		
	100	13.6	18.7	23.3	27.5	31.2	34.4				36.2	43.9	79		
16	40	15.3	20.3								22.8	24.6	73		
	50	16.2	21.9	26.1							28.0	30.5	75		
	60	16.8	22.8	27.8	31.5						32.8	36.0	77		
	70	17.2	23.5	28.8	33.2	36.7					37.5	41.3	77		
	80	17.5	23.9	29.6	34.4	38.4	41.7				42.0	46.5	78		
	90	17.7	24.3	30.1	35.3	39.7	43.5				46.5	51.6	78		
	100	17.9	24.5	30.5	35.9	40.7	44.9	48.4			50.8	56.6	79		
18	40	19.4	25.8								29.6	31.1	73		
	50	20.6	27.8	33.1							36.4	38.4	75		
	60	21.4	29.0	35.2	39.9						42.8	45.3	77		
	70	21.9	29.8	36.5	42.1	46.4					49.0	51.9	77		
	80	22.3	30.4	37.5	43.6	48.6	52.6				54.9	58.4	78		
	90	22.6	30.8	38.2	44.7	50.3	54.9	58.7			60.8	64.8	78		
	100	22.8	31.2	38.7	45.5	51.5	56.7	61.1	64.7		66.6	71.1	79		
20	40	24.0	31.9	36.6							37.1	38.3	73		
	50	25.5	34.4	40.9	45.2						45.7	47.2	75		
	60	26.5	35.9	43.5	49.3	53.2					53.7	55.7	77		
	70	27.1	36.9	45.2	51.9	57.2	60.9				61.4	63.8	77		
	80	27.6	37.6	46.4	53.8	60.0	64.9	68.5			69.0	71.7	78		
	90	28.0	38.2	47.2	55.2	62.1	67.8	72.4	75.9		76.3	79.5	78		
	100	28.2	38.6	47.9	56.3	63.6	70.0	75.4	79.8	83.1	83.6	87.2	79		
22	50	31.0	41.7	49.5	54.6						55.7	57.0	75		
	60	32.1	43.5	52.7	59.4	64.3					65.6	67.2	77		
	70	32.9	44.8	54.7	62.9	69.2	73.6				75.0	76.9	77		
	80	33.5	45.6	56.2	65.2	72.6	78.4	82.7			84.2	86.5	78		
	90	33.9	46.3	57.3	66.9	75.1	82.0	87.5	91.6		93.2	95.8	78		
	100	34.3	46.8	58.1	68.2	77.0	84.7	91.1	96.4	100.4	102.1	105.1	79		
24	50	37.0	49.7	59.0	65.0						66.7	67.7	75		
	60	38.3	51.9	62.7	71.0	76.5					78.4	79.7	77		
	70	39.3	53.4	65.2	74.9	82.3	87.5				89.7	91.3	77		
	80	40.0	54.4	67.0	77.6	86.4	93.3	98.3			100.7	102.6	78		
	90	40.5	55.2	68.2	79.6	89.4	97.5	104.0	108.9		111.5	113.7	78		
	100	40.9	55.8	69.2	81.2	91.7	100.8	108.4	114.6	119.3	122.2	124.6	79		
26	50	43.5	58.4	69.3	76.3						78.5	79.4	75		
	60	45.1	61.0	73.7	83.3	89.7					92.3	93.4	77		
	70	46.2	62.7	76.6	87.9	96.6	102.7				105.6	107.0	77		
	80	47.0	64.0	78.7	91.2	101.4	109.4	115.3			118.6	120.2	78		
	90	47.7	64.9	80.2	93.5	105.0	114.4	122.0	127.6	131.3	131.3	133.1	78		
	100	48.1	65.6	81.3	95.4	107.7	118.3	127.2	134.3	139.8	143.8	145.9	79		

^a Includes 1.0-foot stump allowance.

Table 33--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 0-inch d.o.b. top and height to a saw-log top for sweetgum (species 611) in the Upper Coastal Plain.'

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										Oirard Form Class	
		Saw-Log 1.0 1.5	merchantable 2.0 2.5	height 3.0 3.5	(li-foot 4.0 4.5	Logs) 5.0	9-inch d.o.b. top	4-inch d.o.b. top					
Inches	Feet	Cubic feet										Percent	
12	20	7.5									8.6	17.6	68
	30	8.7	12.1								13.9	20.8	75
	40	9.3	12.9	16.2							18.8	25.0	77
	50	9.6	13.3	16.9	20.2	23.2					23.5	29.4	78
	60	9.8	13.6	17.3	20.7	24.0	27.1				28.1	33.8	79
	70	10.0	13.8	17.5	21.1	24.5	27.8	30.9			32.7	38.2	79
	80	10.1	14.0	17.7	21.4	24.9	28.3	31.5	34.6		37.1	42.6	79
14	40	12.7	17.5	21.6							24.4	30.1	77
	50	13.2	18.1	22.6	26.6	29.9					30.3	35.7	78
	60	13.4	18.5	23.3	27.6	31.5	34.9				36.0	41.2	79
	70	13.6	18.8	23.7	28.2	32.5	36.3	39.7			41.6	46.7	79
	80	13.8	19.0	24.0	28.7	33.1	37.2	41.0	44.5		47.2	52.1	79
	90	13.9	19.2	24.2	29.0	33.6	37.9	42.0	45.8	49.2	52.7	57.6	79
	100	14.0	19.3	24.4	29.3	34.0	38.4	42.7	46.7	50.4	58.2	63.0	79
16	40	16.7	22.8	27.7							30.9	36.2	77
	50	17.3	23.7	29.3	34.1	37.8					38.1	43.1	78
	60	17.6	24.2	30.2	35.6	40.2	44.0				45.1	50.0	79
	70	17.9	24.6	30.8	36.5	41.6	46.2	50.0			52.0	56.7	79
	80	18.1	24.9	31.2	37.2	42.6	47.6	52.1	56.0		58.8	63.4	79
	90	18.2	25.1	31.6	37.7	43.4	48.7	53.5	57.9	61.8	65.5	70.1	79
	100	18.3	25.2	31.8	38.0	43.9	49.4	54.6	59.4	63.8	72.2	76.7	79
18	40	21.2	28.8	34.8							38.3	43.4	77
	50	21.9	30.0	36.9	42.5	46.6					47.0	51.8	78
	60	22.4	30.7	38.1	44.6	50.0	54.3				55.5	60.1	79
	70	22.7	31.2	38.9	45.9	52.1	57.4	61.7			63.8	68.3	79
	80	23.0	31.5	39.5	46.8	53.5	59.4	64.6	69.0		72.0	76.4	79
	90	23.2	31.8	39.9	47.5	54.5	60.9	66.6	71.8	76.2	80.1	84.4	79
	100	23.3	32.0	40.2	48.0	55.2	62.0	68.2	73.8	78.9	88.1	92.5	79
20	40	26.2	35.6	42.6							46.6	51.4	77
	50	27.1	37.0	45.4	52.0	56.6					57.0	61.6	78
	60	27.7	38.0	47.0	54.7	61.0	65.8				67.0	71.5	79
	70	28.2	38.6	48.0	56.4	63.7	69.9	74.7			76.9	81.3	79
	80	28.5	39.0	48.7	57.6	65.6	72.6	78.6	83.5		86.7	91.0	79
	90	28.7	39.3	49.3	58.4	66.9	74.5	81.3	87.2	92.2	96.4	100.6	79
	100	28.9	39.6	49.7	59.1	67.9	76.0	83.3	90.0	95.8	106.0	110.1	79
22	50	32.9	44.9	54.8	62.5	67.6					68.0	72.5	78
	60	33.7	46.0	56.8	65.9	73.2	78.5				79.9	84.2	79
	70	34.2	46.7	58.0	68.0	76.6	83.7	89.2			91.5	95.7	79
	80	34.5	47.3	58.9	69.5	79.0	87.2	94.1	99.6		103.0	107.1	79
	90	34.8	47.7	59.6	70.6	80.6	89.6	97.6	104.4	109.9	114.4	118.5	79
	100	35.0	48.0	60.1	71.4	81.9	91.5	100.1	107.8	114.5	125.7	129.7	79
	24	50	39.3	53.4	65.1	74.0	79.6					80.0	84.4
60		40.1	54.8	67.5	78.2	86.6	92.5				93.9	98.1	79
70		40.8	55.7	69.1	80.8	90.8	98.9	105.0			107.5	111.6	79
80		41.2	56.3	70.2	82.6	93.6	103.2	111.1	117.2		120.9	124.9	79
90		41.5	56.8	71.0	83.9	95.7	106.2	115.4	123.1	129.3	134.1	138.1	79
100		41.8	57.2	71.6	84.9	97.2	108.4	118.5	127.4	135.1	147.3	151.2	79
26		50	46.2	62.8	76.3	86.5	92.7					93.2	97.5
	60	47.2	64.4	79.2	91.5	101.1	107.7				109.2	113.3	79
	70	47.9	65.4	81.0	94.7	106.2	115.5	122.2			124.8	128.9	79
	80	48.5	66.2	82.3	96.8	109.6	120.6	129.6	136.4		140.3	144.3	79
	90	48.9	66.8	83.3	98.4	112.1	124.2	134.7	143.5	150.5	155.6	159.5	79
	100	49.2	67.2	84.0	99.6	113.9	126.9	138.5	148.7	157.4	170.8	174.7	79

^a includes 1.0-foot stump allowance.

Table 34--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for **sweetgum** (species **611**) in the Upper Coastal Plain.*

D.b.h. class	Total-tree height (feet)																													
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110													
Inches	Cubic feet																													
5																														
6	0.6	1.0	0.8	2.0	2.3	1.5	2.6	1.6	3.0	1.8	3.3	2.0	3.6	3.9																
7	2.5	2.9	3.4	3.8	4.3	4.8	5.2	5.6	6.0	6.4																				
8	3.4	3.9	4.5	5.2	5.9	6.5	7.0	7.6	8.1	8.7	9.2	9.7																		
9	4.4	5.0	5.9	6.7	7.6	8.3	9.1	9.8	10.5	11.2	11.9	12.5	13.2	13.8																
10	5.5	6.3	7.3	8.3	9.5	10.4	11.4	12.3	13.2	14.0	14.9	15.7	16.5	17.3	18.1	18.9														
11			9.0	10.2	11.6	12.8	13.9	15.0	16.1	17.1	18.2	19.2	20.2	21.2	22.1	23.1	24.1													
12			10.8	12.2	13.9	15.3	16.7	18.0	19.3	20.6	21.8	23.0	24.2	25.4	26.6	27.7	28.9													
13			12.7	14.5	16.4	18.1	19.7	21.3	22.8	24.3	25.7	27.2	28.6	30.0	31.3	32.7	34.1													
14																														
15					22.0	19.1	24.3	21.1	26.5	23.0	24.8	28.6	30.6	26.6	32.6	28.3	30.0	34.6	31.7	36.5	38.4	33.3	34.9	40.2	36.5	42.1	38.1	43.9	39.7	45.7
16					25.1	27.7	30.2	32.6	34.9	37.2	39.4	41.6	43.8	45.9	48.0	50.1	52.2													

* Includes 0.5-foot stump allowance.

Table 35--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for **sweetgum** (species **611**) in the Upper Coastal Plain:

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																													
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100													
Inches	Cubic feet																													
5																														
6	2.0	1.6	2.1	2.6	3.3	2.4	3.5	2.6	3.1	4.1	3.5	4.7	5.2	5.7																
7	2.5	3.2	3.9	4.6	5.4	6.1	6.7	7.4	8.1	8.7																				
8																														
9	3.3	4.1	4.0	5.0	6.3	5.0	5.9	7.4	6.8	8.5	9.5	7.7	10.5	8.5	11.5	9.3	10.1	12.5	10.9	13.5	11.7	14.4	12.5	15.3	16.3	17.2				
10	5.1	6.1	7.7	9.0	10.3	11.6	12.8	14.0	15.1	16.3	17.4	18.5	19.7	20.8	21.8	22.9														
11			9.2	10.8	12.4	13.9	15.3	16.7	18.1	19.4	20.8	22.1	23.4	24.7	26.0	27.3	28.5													
12			11.0	12.8	14.6	16.4	18.0	19.7	21.3	22.9	24.4	26.0	27.5	29.0	30.5	32.0	33.5													
13			12.8	14.9	17.1	19.1	21.0	22.9	24.8	26.6	28.4	30.2	32.0	33.7	35.5	37.2	38.9													
14																														
15					22.5	19.7	22.0	25.2	24.3	27.7	30.2	26.4	32.6	28.6	30.7	35.0	32.7	37.4	34.8	39.7	36.8	42.0	38.8	44.3	40.8	42.8	44.7	46.5	48.8	51.0
16					25.6	28.6	31.5	34.3	37.0	39.7	42.3	45.0	47.5	50.1	52.7	55.2	57.7													

* Includes 0.5-foot stump allowance.

Table 36--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for yellow-poplar (species 621) in the Upper Coastal Plain.^a

D.b.h. class	Total tree height	Volume to										Girerd Form Class	
		1.0	Saw-log 1.5	merchantable 2.0	2.5	height 3.0	(16-foot logs) 3.5	4.0	4.5	5.0	9-inch d.o.b. top		4-inch d.o.b. top
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>	
12	40										6.7	9.8	63
	50	8.0									10.2	13.1	71
	60	8.6	11.8								12.6	16.1	75
	70	9.0	12.4								14.8	18.8	77
	80	9.2	12.9	16.0							16.8	21.4	79
	90	9.4	13.2	16.5							18.7	23.9	80
	100	9.5	13.4	16.9	19.8						20.5	26.3	81
14	40	9.7									11.7	13.6	63
	50	11.1	14.8								15.8	18.1	71
	60	11.9	16.2	19.4							19.4	22.1	75
	70	12.3	17.1	20.9							22.7	25.9	77
	80	12.7	17.7	21.9	25.2						25.7	29.4	79
	90	12.9	18.1	22.6	26.3						28.6	32.9	80
	100	13.0	18.4	23.1	27.1	30.4					31.5	36.2	81
16	50	14.6	19.5								21.9	23.8	71
	60	15.6	21.3	25.5							26.8	29.1	75
	70	16.3	22.4	27.4	31.0						31.2	34.1	77
	80	16.7	23.2	28.7	33.0						35.4	38.7	79
	90	17.0	23.8	29.6	34.5	38.2					39.5	43.2	80
	100	17.2	24.3	30.3	35.6	39.9	43.2				43.4	47.6	81
	110	17.4	24.5	30.9	36.5	41.2	45.0				47.2	52.0	82
18	50	18.6	24.8								28.7	30.4	71
	60	19.9	27.1	32.4							35.0	37.1	75
	70	20.7	28.5	34.8	39.3						40.8	43.3	77
	80	21.3	29.5	36.5	41.9	45.7					46.3	49.3	79
	90	21.6	30.2	37.7	43.8	48.6					51.6	55.0	80
	100	21.9	30.7	38.5	45.2	50.7	54.8				56.7	60.6	81
	110	22.1	31.1	39.2	46.3	52.3	57.2	60.8			61.8	66.1	82
20	50	23.1	30.7	35.5							36.1	37.7	71
	60	24.7	33.6	40.1							44.0	46.0	75
	70	25.7	35.4	43.1	48.7						51.4	53.7	77
	80	26.4	36.6	45.2	51.9	56.6					58.3	61.1	79
	90	26.9	37.5	46.7	54.3	60.1	64.1				65.0	68.2	80
	100	27.2	38.1	47.7	56.0	62.7	67.8	71.3			71.5	75.1	81
	110	27.5	38.6	48.6	57.3	64.8	70.8	75.2			77.9	81.9	82
22	60	30.0	40.8	48.7	53.5						54.0	55.8	75
	70	31.3	43.0	52.3	59.1	63.0					63.0	65.2	77
	80	32.1	44.5	54.8	63.0	68.7					71.6	74.1	79
	90	32.7	45.5	56.6	65.8	72.9	77.7				79.8	82.7	80
	100	33.1	46.3	57.9	67.9	76.1	82.2	86.5			87.8	91.1	81
	110	33.4	46.9	58.9	69.6	78.5	85.8	91.2	95.0		95.7	99.4	82
24	60	35.9	48.6	58.1	63.8						65.0	66.7	75
	70	37.4	51.3	62.4	70.4	75.1					75.8	77.8	77
	80	38.4	53.1	65.4	75.1	81.9	85.9				86.1	88.4	79
	90	39.1	54.3	67.5	78.5	86.9	92.7				96.0	98.7	80
	100	39.6	55.2	69.1	81.0	90.7	98.0	103.1			105.6	108.7	81
	110	39.9	55.9	70.3	82.9	93.6	102.2	108.7	113.2		115.1	118.5	82
26	60	42.3	57.2	68.3	75.0						76.8	78.4	75
	70	44.0	60.3	73.4	82.8	88.3					89.6	91.5	77
	80	45.2	62.4	76.9	88.3	96.2	101.0				101.8	104.0	79
	90	46.0	63.9	79.4	92.3	102.1	108.9	113.1			113.5	116.1	80
	100	46.6	65.0	81.3	95.2	106.6	115.2	121.1	124.9		124.9	127.8	81
	110	47.0	65.8	82.7	97.5	110.0	120.2	127.7	133.0		136.1	139.3	82

^a Includes 1.0-foot stump allowance.

Table 37--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for yellow-poplar (species 621) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to											Girard Form Class
		Saw-log 1.0	merchantable 1.5	2.0	2.5	height 3.0	(16-foot 3.5	Logs) 4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top	
Inches	Feet	Cubic feet											Percent
12	30	7.9									8.9	10.8	71
	40	8.5									11.2	14.2	75
	50	8.8	12.1								13.1	17.3	77
	60	9.0	12.5								14.9	20.3	78
	70	9.2	12.7	15.8							16.7	23.2	78
	80	9.2	12.9	16.1							18.4	26.0	79
	90	9.3	13.0	16.3	19.2						20.1	28.9	79
14	40	11.7	15.8								16.9	19.2	75
	50	12.2	16.7	19.9							20.1	23.3	77
	60	12.5	17.2	20.9							23.2	27.2	78
	70	12.6	17.5	21.6	24.9						26.2	31.0	78
	80	12.8	17.7	22.0	25.7	28.7					29.1	34.8	79
	90	12.8	17.9	22.4	26.3	29.6					31.9	38.5	79
	100	12.9	18.0	22.6	26.7	30.3	33.4				34.7	42.2	79
16	40	15.5	20.7								23.1	24.9	75
	50	16.1	21.9	26.1							27.7	30.2	77
	60	16.4	22.6	27.4	31.1						32.1	35.2	78
	70	16.7	23.0	28.3	32.6	35.9					36.3	40.1	78
	80	16.8	23.3	28.9	33.6	37.5					40.5	45.0	79
	90	16.9	23.5	29.3	34.4	38.7	42.3				44.5	49.7	79
	100	17.0	23.7	29.7	35.0	39.6	43.6	46.9			48.6	54.5	79
18	40	19.7	26.3								30.0	31.5	75
	50	20.5	27.8	33.1							36.1	38.1	77
	60	21.0	28.7	34.8	39.4						41.8	44.4	78
	70	21.3	29.3	35.9	41.3	45.4					47.4	50.5	78
	80	21.5	29.7	36.7	42.6	47.5	51.3				52.9	56.5	79
	90	21.6	29.9	37.3	43.6	49.6	53.5	57.0			58.3	62.4	79
	100	21.7	30.1	37.7	44.4	50.2	55.2	59.3	62.7		63.6	68.3	79
20	40	24.5	32.6	37.3							37.6	38.8	75
	50	25.4	34.5	41.0	45.0						45.2	46.9	77
	60	26.0	35.6	43.1	48.7	52.4					52.5	54.6	78
	70	26.4	36.3	44.5	51.1	56.1	59.5				59.5	62.1	78
	80	26.7	36.8	45.5	52.7	58.7	63.2				66.4	69.4	79
	90	26.9	37.1	46.1	54.0	60.6	66.0	70.3			73.2	76.7	79
	100	27.0	37.4	46.7	54.9	62.0	68.1	73.2	77.2		79.9	83.9	79
22	50	30.9	41.8	49.7	54.5						55.2	56.6	77
	60	31.6	43.2	52.3	59.0	63.4					64.1	65.9	78
	70	32.1	44.1	54.0	61.9	67.9	71.9				72.7	74.9	78
	80	32.4	44.6	55.1	63.9	71.0	76.5	80.4			81.2	83.7	79
	90	32.7	45.1	56.0	65.4	73.3	79.9	85.0	88.7		89.5	92.4	79
	100	32.8	45.4	56.6	66.5	75.1	82.4	88.5	93.3	96.9	97.8	101.0	79
24	50	37.0	49.9	59.2	64.9						66.1	67.3	77
	60	37.8	51.5	62.3	70.2	75.4					76.8	78.3	78
	70	38.4	52.6	64.4	73.7	80.8	85.6				87.1	88.9	78
	80	38.8	53.3	65.8	76.2	84.6	91.0	95.6			97.2	99.3	79
	90	39.0	53.8	66.8	77.9	87.4	95.1	101.1	105.4		107.2	109.6	79
	100	39.3	54.2	67.5	79.3	89.5	98.2	105.3	111.0	115.2	117.1	119.9	79
26	50	43.5	58.7	69.6	76.2						77.9	78.9	77
	60	44.5	60.6	73.3	82.5	88.5					90.5	91.7	78
	70	45.2	61.9	75.7	86.6	94.9	100.4				102.6	104.2	78
	80	45.7	62.7	77.3	89.5	99.3	106.8	112.1			114.5	116.4	79
	90	46.0	63.3	78.5	91.6	102.6	111.6	118.6	123.6		126.3	128.4	79
	100	46.2	63.8	79.4	93.2	105.1	115.2	123.6	130.2	135.1	137.9	140.3	79

^a Includes 1.0-foot stump allowance.

Table 38--Predicted stemwood volume to a saw-log merchantable top, and to Q-inch and 4-inch d.o.b. tops based on d.b.h., height to a Q-inch d.o.b. top and height to a saw-log top for yellow-poplar (species 621) in the Upper Coastal Plain:

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Girard Form Class
		Saw-log 1.0	1.5	merchantable 2.0	2.5	height (16-foot 3.0	Logs) 3.5	4.0	4.5	5.0				
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>		
12	20	7.2										8.2	13.0	66
	30	8.4	11.7									13.5	18.3	74
	40	9.1	12.7	16.0								18.6	23.8	78
	50	9.4	13.2	16.8	20.1	23.1						23.4	29.4	80
	60	9.5	13.5	17.3	20.8	24.1	27.1					28.1	35.0	81
	70	9.6	13.7	17.6	21.3	24.7	28.0	31.0				32.8	40.5	82
	80	9.7	13.8	17.8	21.6	25.2	28.6	31.9	34.9			37.4	46.1	82
14	40	12.5	17.3	21.3								24.1	27.8	78
	50	12.9	18.1	22.6	26.5	29.8						30.1	34.3	80
	60	13.1	18.5	23.4	27.7	31.6	34.9					36.0	40.7	81
	70	13.2	18.7	23.8	28.5	32.8	36.6	39.9				41.7	47.1	82
	80	13.3	18.9	24.2	29.0	33.6	37.7	41.5	44.8			47.4	53.4	82
	90	13.4	19.0	24.4	29.4	34.1	38.5	42.6	46.3	49.7		53.0	59.7	82
	100	13.5	19.1	24.6	29.7	34.6	39.2	43.5	47.5	51.2		58.7	66.0	82
16	40	16.4	22.6	27.5								30.5	33.3	78
	50	17.0	23.6	29.3	34.0	37.5						37.9	41.1	80
	60	17.3	24.2	30.4	35.8	40.3	43.9					45.0	48.6	81
	70	17.5	24.6	31.1	36.9	42.0	46.5	50.1				52.0	56.1	82
	80	17.6	24.8	31.5	37.7	43.2	48.2	52.6	56.3			59.0	63.5	82
	90	17.7	25.0	31.9	38.2	44.1	49.4	54.3	58.6	62.4		65.9	70.8	82
	100	17.7	25.1	32.1	38.6	44.7	50.4	55.6	60.3	64.6		72.7	78.2	82
18	40	20.9	28.7	34.4								37.8	40.0	78
	50	21.6	30.0	37.0	42.4	46.3						46.7	49.2	80
	60	22.0	30.8	38.4	44.9	50.2	54.2					55.3	58.2	81
	70	22.2	31.2	39.3	46.4	52.6	57.7	61.8				63.8	67.0	82
	80	22.4	31.5	39.9	47.5	54.2	60.1	65.2	69.3			72.1	75.7	82
	90	22.5	31.8	40.3	48.2	55.4	61.9	67.6	72.6	76.7		80.4	84.3	82
	100	22.6	31.9	40.7	48.8	56.3	63.2	69.4	75.0	79.9		88.7	93.0	82
20	40	26.0	35.4	42.3								45.9	47.8	78
	50	26.8	37.1	45.5	51.9	56.2						56.6	58.6	80
	60	27.3	38.1	47.3	55.1	61.2	65.6					66.8	69.2	81
	70	27.6	38.7	48.5	57.1	64.3	70.3	74.8				76.9	79.5	82
	80	27.8	39.1	49.3	58.4	66.5	73.5	79.3	83.9			86.9	89.7	82
	90	28.0	39.4	49.9	59.4	68.1	75.7	82.4	88.2	92.8		96.7	99.9	82
	100	28.1	39.6	50.3	60.2	69.2	77.5	84.8	91.4	97.0		106.5	110.0	82
22	50	32.6	45.0	55.0	62.4	67.1						67.5	69.2	80
	60	33.2	46.2	57.3	66.4	73.4	78.4					79.6	81.5	81
	70	33.6	46.9	58.7	68.9	77.4	84.2	89.3				91.4	93.6	82
	80	33.8	47.4	59.7	70.6	80.1	88.2	94.9	100.0			103.1	105.6	82
	90	34.0	47.8	60.4	71.8	82.1	91.1	98.9	105.4	110.6		114.7	117.4	82
	100	34.2	48.0	60.9	72.7	83.5	93.3	101.9	109.5	115.9		126.3	129.2	82
24	50	39.0	53.7	65.4	73.9	79.1						79.5	81.0	80
	60	39.7	55.1	68.1	78.8	86.9	92.3					93.6	95.2	81
	70	40.2	56.0	69.9	81.8	91.7	99.5	105.1				107.4	109.2	82
	80	40.5	56.6	71.1	83.9	95.0	104.4	112.0	117.7			121.0	123.1	82
	90	40.7	57.0	71.9	85.4	97.4	108.0	116.9	124.4	130.1		134.5	136.8	82
	100	40.8	57.3	72.6	86.6	99.2	110.6	120.7	129.4	136.6		147.9	150.4	82
26	50	45.9	63.1	76.7	86.4	92.1						92.5	93.8	80
	60	46.8	64.8	80.0	92.2	101.5	107.5					108.8	110.2	81
	70	47.3	65.8	82.1	95.9	107.3	116.1	122.3				124.7	126.3	82
	80	47.6	66.6	83.5	98.4	111.3	122.0	130.6	136.9			140.4	142.2	82
	90	47.9	67.1	84.5	100.2	114.1	126.3	136.6	145.0	151.4		156.0	158.0	82
	100	48.1	67.4	85.3	101.6	116.3	129.5	141.0	151.0	159.2		171.5	173.6	82

^a Includes 1.0-foot stump allowance.

Table 39--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for yellow-poplar (species 621) in the Upper Coastal Plain.'

D.b.h. class	Total-tree height (feet)																								
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110								
Inches	Cubic feet																								
5																									
6	1.4	1.8	2.0	1.5	2.3	1.6	2.6	1.8	3.0	1.9	3.4	2.2	3.7	4.0											
7	2.5	2.8	3.3	3.7	4.3	4.7	5.2	5.6	6.1	6.5															
8	3.3	3.8	4.4	5.0	5.7	6.4	7.0	7.6	8.1	8.7	9.2	9.8													
9	4.3	4.9	5.7	6.4	7.4	8.2	9.0	9.7	10.5	11.2	11.9	12.6	13.3	13.9											
10	5.4	6.1	7.1	8.1	9.2	10.3	11.2	12.2	13.1	14.0	14.9	15.8	16.6	17.4	18.3	19.1									
11			8.7	9.9	11.3	12.6	13.8	14.9	16.0	17.1	18.2	19.3	20.3	21.3	22.3	23.3	24.3								
12			10.5	11.9	13.6	15.1	16.5	17.9	19.2	20.5	21.8	23.1	24.3	25.6	26.8	28.0	29.2								
13			12.4	14.0	16.0	17.8	19.5	21.1	22.7	24.3	25.8	27.3	28.7	30.2	31.6	33.0	34.4								
14																									
15					21.5	18.7	20.7	22.9	22.7	26.2	28.4	24.6	30.5	32.6	28.3	30.0	34.6	31.8	36.6	30.6	33.5	35.2	36.8	38.5	40.1
16					24.6	27.3	29.9	32.4	34.9	37.2	39.5	41.8	44.1	46.3	48.5	50.6	52.8								

^a Includes 0.5foot stump allowance.

Table 40--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for yellow-poplar (species 621) in the Upper Coastal Plain.'

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																							
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100							
Inches	<u>Cubic feet</u>																							
5																								
6	1.6	1.9	2.0	2.5	3.1	2.4	3.6	2.6	3.1	4.1	3.5	4.6	5.1	5.6										
7	2.5	3.1	3.8	4.7	5.3	6.0	6.6	7.2	7.8	8.5														
8																								
9	3.2	4.0	4.9	3.9	4.9	6.1	6.0	7.4	6.8	8.4	9.4	7.6	10.3	8.4	11.2	9.1	9.9	10.6	11.3	12.1				
10	5.0	6.0	7.5	9.1	10.3	11.4	12.6	13.6	14.7	15.8	16.8	17.9	18.9	20.0	21.0	22.0								
11			9.0	10.9	12.4	13.7	15.0	16.3	17.6	18.8	20.1	21.3	22.5	23.7	25.0	26.2	27.4							
12			10.7	13.0	14.6	16.2	17.7	19.2	20.7	22.2	23.6	25.1	26.5	27.9	29.3	30.7	32.1							
13			12.6	15.2	17.1	18.9	20.7	22.4	24.1	25.8	27.5	29.1	30.8	32.4	34.0	35.7	37.3							
14																								
15					22.6	19.8	21.8	25.0	23.9	27.3	25.9	29.6	31.8	27.8	34.0	29.7	31.7	36.1	33.5	35.4	37.3	39.2	41.0	42.9
16					25.7	28.4	31.0	33.5	36.0	38.5	41.0	43.4	45.8	48.2	50.5	52.9	55.3							

^a Includes 0.5foot stump allowance.

Table 41--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.^a

D.b.h. class	Total tree height	Volume to											Girard Form Class
		Saw-log merchantable height (16-foot logs)											
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top	
<u>inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
12	40										4.9	9.7	62
	50	8.2									9.7	13.1	70
	60	8.9	12.1								12.3	16.1	75
	70	9.3	12.8								14.5	18.9	78
	80	9.5	13.3	16.4							16.5	21.5	80
	90	9.7	13.6	17.0							18.4	24.0	81
	100	9.8	13.9	17.5							20.2	26.5	82
14	40	9.8									11.2	13.4	62
	50	11.3	15.1								15.6	18.0	70
	60	12.2	16.6								19.2	22.2	75
	70	12.7	17.6	21.4							22.4	26.0	78
	80	13.1	18.2	22.5							25.5	29.6	80
	90	13.3	18.7	23.3	27.0						28.3	33.1	81
	100	13.5	19.0	23.9	28.0						31.1	36.5	82
16	50	14.9	19.8								21.6	23.8	70
	60	16.1	21.8	25.9							26.6	29.2	75
	70	16.8	23.1	28.1							31.1	34.2	78
	80	17.2	23.9	29.5	33.7						35.3	39.0	80
	90	17.6	24.5	30.6	35.4	39.0					39.3	43.6	81
	100	17.8	25.0	31.3	36.7	40.9					43.3	48.0	82
	110	18.0	25.3	31.9	37.7	42.4	46.0				47.1	52.4	83
18	50	19.0	25.1								28.3	30.3	70
	60	20.4	27.7	32.9							34.8	37.2	75
	70	21.3	29.3	35.7	39.9						40.7	43.6	78
	80	21.9	30.4	37.5	42.8						46.3	49.6	80
	90	22.3	31.2	38.8	45.0	49.4					51.6	55.4	81
	100	22.6	31.7	39.8	46.6	51.9	55.7				56.8	61.1	82
	110	22.9	32.2	40.5	47.8	53.7	58.3	61.7			61.8	66.6	83
20	50	23.5	31.1	35.6							35.8	37.5	70
	60	25.4	34.3	40.7							43.9	46.1	75
	70	26.5	36.3	44.1	49.4						51.4	54.0	78
	80	27.2	37.7	46.4	53.0	57.3					58.4	61.4	80
	90	27.7	38.6	48.1	55.7	61.2	64.9				65.2	68.6	81
	100	28.1	39.3	49.3	57.6	64.1	68.9				71.8	75.6	82
	110	28.4	39.8	50.2	59.2	66.5	72.1	76.3			78.2	82.5	83
22	60	30.8	41.6	49.4	53.8						53.9	55.9	75
	70	32.1	44.1	53.5	59.9						63.1	65.5	78
	80	33.0	45.7	56.3	64.2	69.5					71.8	74.6	80
	90	33.7	46.9	58.3	67.5	74.1	78.7				80.1	83.3	81
	100	34.1	47.7	59.8	69.9	77.7	83.5	87.5			88.2	91.8	82
	110	34.4	48.3	60.9	71.7	80.6	87.4	92.5	96.0		96.1	100.1	83
24	60	36.7	49.7	58.9	64.1						64.9	66.7	75
	70	38.4	52.6	63.8	71.3	75.7					75.9	78.1	78
	80	39.4	54.5	67.1	76.6	82.8					86.4	88.9	80
	90	40.2	55.9	69.5	80.4	88.4	93.7				96.4	99.3	81
	100	40.7	56.9	71.2	83.3	92.6	99.5	104.2			106.1	109.4	82
	110	41.1	57.6	72.6	85.5	96.0	104.2	110.2	114.4		115.7	119.3	83
26	60	43.2	58.4	69.3	75.4						76.8	78.5	75
	70	45.1	61.8	75.0	83.8	88.9					89.8	91.9	78
	80	46.4	64.1	78.9	90.0	97.3	101.7				102.2	104.5	80
	90	47.3	65.7	81.7	94.5	103.8	110.1	114.0			114.0	116.7	81
	100	47.9	66.9	83.7	97.9	108.9	116.9	122.4			125.6	128.6	82
	110	48.4	67.8	85.3	100.4	112.8	122.4	129.4	134.4		136.9	140.3	83

^a Includes 1 .0-foot stump allowance.

Table 42--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all hard hardwoods combined (species 500) in the Upper Coastal Plain:

D.b.h. class	Height to 4-inch d.o.b. top	Volume to											Girard Form Class
		1.0	Sau-Log 1.5	merchantable 2.0	2.5	height 3.0	(16-foot logs) 3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top	
Inches	Feet	Cubic feet											Percent
12	30	8.0									8.7	10.9	71
	40	8.8									11.2	14.6	76
	50	9.2	12.7								13.5	18.0	78
	60	9.5	13.1								15.5	21.2	80
	70	9.6	13.4	16.7							17.4	24.3	81
	80	9.7	13.6	17.0							19.3	27.4	81
	90	9.8	13.8	17.3	20.4						21.1	30.4	81
14	40	12.1	16.3								17.2	19.7	76
	50	12.7	17.4	20.8							20.9	24.2	78
	60	13.0	18.0	22.0							24.3	28.5	80
	70	13.2	18.4	22.7	26.2						27.5	32.6	81
	80	13.4	18.7	23.3	27.1	30.3					30.7	36.6	81
	90	13.5	18.9	23.6	27.8	31.3					33.8	40.6	81
	100	13.6	19.0	23.9	28.3	32.1	35.4				36.8	44.6	82
16	40	15.9	21.3								23.7	25.6	76
	50	16.7	22.8	27.2							28.8	31.4	78
	60	17.1	23.6	28.7	32.6						33.6	36.8	80
	70	17.4	24.1	29.8	34.3	37.7					38.2	42.1	81
	80	17.6	24.5	30.5	35.5	39.6					42.7	47.3	81
	90	17.7	24.8	31.0	36.3	40.9	44.7				47.1	52.4	81
	100	17.9	25.0	31.3	37.0	41.9	46.1	49.7			51.5	57.5	82
18	40	20.2	27.0								30.8	32.3	76
	50	21.2	28.9	34.4							37.5	39.5	78
	60	21.8	30.0	36.4	41.2						43.7	46.3	80
	70	22.2	30.7	37.7	43.4	47.7					49.8	52.9	81
	80	22.4	31.1	38.6	44.9	50.0	54.0				55.7	59.4	81
	90	22.6	31.5	39.3	46.0	51.8	56.4	60.1			61.6	65.8	81
	100	22.7	31.7	39.8	46.9	53.1	58.3	62.7	66.2		67.3	72.1	82
20	40	25.1	33.5	38.2							38.5	39.8	76
	50	26.3	35.8	42.5	46.7						46.9	48.6	78
	60	27.0	37.1	45.1	50.9	54.7					54.8	57.0	80
	70	27.5	38.0	46.7	53.6	58.8	62.4				62.5	65.0	81
	80	27.8	38.6	47.8	55.5	61.8	66.6				69.9	72.9	81
	90	28.0	39.0	48.6	56.9	63.9	69.6	74.1			77.3	80.7	81
	100	28.2	39.3	49.2	58.0	65.5	72.0	77.3	81.6		84.5	88.4	82
22	50	31.9	43.4	51.5	56.5						57.3	58.7	78
	60	32.8	45.0	54.6	61.6	66.1					67.0	68.7	80
	70	33.4	46.1	56.6	64.9	71.2	75.4				76.3	78.4	81
	80	33.8	46.8	57.9	67.2	74.7	80.5	84.5			85.4	87.9	81
	90	34.0	47.3	58.9	68.9	77.3	84.2	89.6	93.5		94.4	97.3	81
	100	34.2	47.7	59.7	70.2	79.3	87.1	93.5	98.5	102.3	103.3	106.5	82
24	50	38.1	51.7	61.4	67.2						68.5	69.7	78
	60	39.2	53.7	65.0	73.3	78.7					80.1	81.6	80
	70	39.8	54.9	67.4	77.3	84.7	89.7				91.3	93.1	81
	80	40.3	55.8	69.0	80.1	88.9	95.7	100.5			102.2	104.3	81
	90	40.6	56.4	70.2	82.1	92.1	100.2	106.5	111.1		113.0	115.4	81
	100	40.9	56.9	71.1	83.6	94.5	103.6	111.2	117.1	121.6	123.6	126.3	82
26	50	44.8	60.8	72.1	78.9						72.7	81.7	78
	60	46.1	63.1	76.4	86.1	92.3					85.4	95.6	80
	70	46.9	64.6	79.2	90.8	99.4	105.2				107.5	109.0	81
	80	47.4	65.6	81.1	94.0	104.4	112.3	117.8			120.3	122.2	81
	90	47.8	66.3	82.5	96.4	108.1	117.6	124.9	130.2		133.0	135.1	81
	100	48.1	66.8	83.6	98.2	110.9	121.6	130.4	137.4	142.5	145.5	147.9	82

⁸ Includes 1.0-foot stump allowance.

Table 43--Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Gr Form Class
		Saw-log		merchantable		height		(16-foot		Logs)				
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0				
<u>inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>		
12	20	8.3									9.4	14.5	74	
	30	9.1	12.5								14.5	18.6	78	
	40	9.4	13.2	16.7							19.3	23.0	80	
	50	9.6	13.5	17.2	20.5	23.6					24.0	27.4	80	
	60	9.7	13.7	17.5	21.0	24.4	27.5				28.5	31.9	81	
	70	9.7	13.8	17.6	21.3	24.8	28.2	31.3			33.1	36.3	81	
	80	9.8	13.8	17.8	21.5	25.2	28.6	31.9	35.0		37.6	40.8	81	
14	40	12.9	18.0	22.2							25.1	28.4	80	
	50	13.2	18.4	23.1	27.2	30.5					30.9	34.0	80	
	60	13.3	18.7	23.6	28.1	32.0	35.5				36.6	39.5	81	
	70	13.4	18.8	23.9	28.6	33.0	36.8	40.3			42.2	45.0	81	
	80	13.5	19.0	24.1	29.0	33.6	37.8	41.6	45.1		47.8	50.5	81	
	90	13.5	19.0	24.3	29.3	34.0	38.4	42.6	46.4	49.9	53.3	56.0	81	
	100	13.6	19.1	24.4	29.5	34.3	38.9	43.3	47.3	51.1	58.8	61.5	81	
16	40	17.0	23.5	28.7							31.9	34.8	80	
	50	17.3	24.1	30.0	34.8	38.6					38.9	41.7	80	
	60	17.5	24.5	30.7	36.2	40.9	44.7				45.8	48.5	81	
	70	17.7	24.7	31.2	37.1	42.3	46.9	50.7			52.7	55.3	81	
	80	17.8	24.9	31.5	37.7	43.3	48.3	52.8	56.7		59.5	62.0	81	
	90	17.8	25.0	31.8	38.1	44.0	49.4	54.3	58.7	62.6	66.3	68.7	81	
	100	17.9	25.1	31.9	38.4	44.5	50.1	55.4	60.2	64.6	73.0	75.5	81	
18	40	21.7	29.8	36.0							39.5	42.3	80	
	50	22.1	30.6	37.8	43.5	47.7					48.0	50.6	80	
	60	22.3	31.1	38.8	45.5	51.0	55.2				56.4	58.8	81	
	70	22.5	31.4	39.5	46.7	52.9	58.3	62.6			64.6	67.0	81	
	80	22.6	31.6	39.9	47.5	54.3	60.3	65.5	69.9		72.8	75.1	81	
	90	22.7	31.8	40.2	48.1	55.2	61.8	67.6	72.8	77.1	81.0	83.2	81	
	100	22.8	31.9	40.5	48.5	56.0	62.9	69.2	74.9	80.0	89.1	91.3	81	
20	40	26.9	36.8	44.1							48.1	50.7	80	
	50	27.4	37.9	46.5	53.3	57.8					58.2	60.6	80	
	60	27.7	38.5	47.9	55.8	62.2	66.9				68.2	70.5	81	
	70	27.9	38.9	48.7	57.4	64.8	71.0	75.8			78.0	80.2	81	
	80	28.1	39.1	49.3	58.4	66.6	73.7	79.8	84.6		87.7	89.9	81	
	90	28.2	39.3	49.7	59.2	67.9	75.7	82.5	88.4	93.3	97.4	99.5	81	
	100	28.3	39.5	50.0	59.8	68.8	77.1	84.6	91.3	97.1	107.1	109.2	81	
22	50	33.3	45.9	56.2	64.1	69.1					69.5	71.8	80	
	60	33.7	46.7	57.9	67.3	74.7	79.9				81.2	83.4	81	
	70	33.9	47.1	58.9	69.2	78.0	85.1	90.5			92.7	94.8	81	
	80	34.1	47.5	59.6	70.6	80.2	88.6	95.5	100.9		104.2	106.3	81	
	90	34.3	47.7	60.2	71.5	81.8	91.0	99.0	105.8	111.3	115.6	117.6	81	
	100	34.4	47.9	60.6	72.3	83.0	92.8	101.6	109.4	116.1	127.0	129.0	81	
	24	50	39.7	54.7	66.8	75.9	81.4					81.8	84.0	80
60		40.2	55.6	68.8	79.8	88.3	94.1				95.5	97.6	81	
70		40.5	56.2	70.1	82.2	92.4	100.6	106.5			108.9	110.9	81	
80		40.7	56.6	71.0	83.9	95.2	104.8	112.7	118.8		122.3	124.2	81	
90		40.9	56.9	71.7	85.1	97.1	107.8	117.1	124.8	130.9	135.6	137.5	81	
100		41.0	57.1	72.1	86.0	98.6	110.1	120.3	129.2	136.8	148.8	150.7	81	
26		50	46.8	64.3	78.3	88.7	94.9					95.3	97.4	80
	60	47.3	65.4	80.8	93.4	103.1	109.6				111.0	113.0	81	
	70	47.7	66.1	82.3	96.4	108.1	117.4	124.0			126.5	128.5	81	
	80	48.0	66.6	83.4	98.3	111.4	122.5	131.5	138.2		141.9	143.8	81	
	90	48.1	66.9	84.1	99.8	113.8	126.1	136.7	145.5	152.3	157.2	159.1	81	
	100	48.3	67.2	84.7	100.9	115.6	128.9	140.6	150.8	159.4	172.5	174.3	81	

^a Includes 1.0-foot stump allowance.

Table 44--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all hard hardwoods combined (species 500) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.6	1.7	2.1	1.0	2.3	1.4	2.6	1.5	2.8	1.6	3.1	1.8	3.4	3.7			
7	2.5	3.1	3.4	3.8	4.1	4.6	5.1	5.5	5.9	6.3							
8																	
9	3.4	4.4	4.2	5.4	4.7	6.1	6.7	5.2	5.6	7.3	8.2	6.3	6.9	9.0	9.7	7.5	10.5
10	5.6	6.8	7.6	8.4	9.2	10.3	11.3	12.2	13.2	14.1	14.9	15.8	16.7	17.5	18.4	19.2	
11			9.3	10.3	11.3	12.6	13.8	15.0	16.1	17.2	18.3	19.4	20.4	21.5	22.5	23.5	24.5
12			11.2	12.4	13.6	15.1	16.6	18.0	19.4	20.7	22.0	23.3	24.5	25.8	27.0	28.2	29.4
13			13.3	14.7	16.0	17.9	19.6	21.3	22.9	24.5	26.0	27.5	29.0	30.5	31.9	33.3	34.7
14					18.7	20.8	22.9	24.8	26.7	28.5	30.3	32.1	33.8	35.5	37.2	38.9	40.5
15					21.6	24.0	26.4	28.6	30.8	32.9	35.0	37.0	39.0	40.9	42.9	44.8	46.7
16					24.7	27.5	30.1	32.7	35.2	37.6	39.9	42.2	44.5	46.7	48.9	51.1	53.3

^a Includes 0.5-foot stump allowance.

Table 45--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5	1.5	1.9	2.4	2.7	3.1	3.6											
6	2.1	2.6	3.2	3.6	4.2	4.8	5.3	5.8									
7	2.6	3.3	4.0	4.8	5.5	6.2	6.9	7.6	8.2	8.9							
8	3.4	4.3	5.1	6.1	7.0	7.9	8.7	9.5	10.3	11.1	11.9	12.7					
9	4.3	5.4	6.4	7.6	8.7	9.8	10.8	11.8	12.7	13.7	14.6	15.6	16.5	17.5			
10	5.4	6.6	7.9	9.3	10.7	11.9	13.1	14.3	15.4	16.6	17.7	18.8	20.0	21.1	22.2	23.3	
11			9.5	11.2	12.8	14.3	15.7	17.1	18.4	19.8	21.1	22.4	23.7	25.1	26.3	27.6	28.9
12			11.2	13.3	15.1	16.8	18.5	20.1	21.7	23.3	24.8	26.4	27.9	29.4	30.9	32.4	33.9
13			13.2	15.6	17.6	19.6	21.6	23.5	25.3	27.1	28.9	30.7	32.4	34.2	35.9	37.7	39.4
14					20.4	22.7	24.9	27.1	29.2	31.2	33.3	35.3	37.3	39.3	41.3	43.3	45.3
15					23.3	26.0	28.5	30.9	33.3	35.7	38.0	40.3	42.6	44.9	47.1	49.4	51.6
16					26.5	29.5	32.3	35.1	37.8	40.4	43.1	45.7	48.2	50.8	53.3	55.9	58.4

^a Includes 0.5-foot stump allowance.

Table 46--Predicted **stemwood** volume to a saw-log merchantable top, and to 0-inch and **4-inch** d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for hickory (species **400**) in the Upper **Coastal** Plain."

D.b.h. class	Total tree height	Volume to										Girard Form Class	
		Saw-log merchantable height (16-foot logs)					9-inch		4-inch				
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top		d.o.b. top
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>	
12	40										4.0	8.9	59
	50	7.8									9.4	12.7	69
	60	8.6	11.9								12.5	16.0	75
	70	9.1	12.7								15.0	19.1	78
	80	9.4	13.3	16.6							17.3	21.9	80
	90	9.6	13.7	17.2							19.5	24.7	82
	100	9.8	14.0	17.7	20.9						21.5	27.4	83
14	40	9.0									10.1	12.3	59
	50	10.7	14.4								15.0	17.4	69
	60	11.8	16.2								19.1	22.0	75
	70	12.5	17.4	21.3							22.8	26.2	78
	80	12.9	18.2	22.6	26.0						26.2	30.2	80
	90	13.2	18.7	23.5	27.5						29.4	34.0	82
	100	13.4	19.1	24.2	28.5	31.9					32.5	37.7	83
16	50	14.1	18.9								20.8	22.9	69
	60	15.5	21.3	25.5							26.3	28.9	75
	70	16.4	22.8	28.0							31.4	34.5	78
	80	16.9	23.8	29.7	34.1						36.1	39.7	80
	90	17.3	24.5	30.8	36.0	39.7					40.5	44.6	82
	100	17.6	25.0	31.7	37.4	41.8					44.9	49.5	83
	110	17.8	25.4	32.4	38.5	43.5	47.3				49.1	54.2	84
18	50	17.9	24.0								27.3	29.2	69
	60	19.7	27.0	32.4							34.4	36.8	75
	70	20.8	28.9	35.5	40.0						41.0	43.8	78
	80	21.5	30.2	37.6	43.2	47.0					47.2	50.4	80
	90	22.0	31.1	39.1	45.6	50.4					53.0	56.8	82
	100	22.4	31.8	40.2	47.4	53.0	57.2				58.7	62.9	83
	110	22.7	32.3	41.1	48.8	55.1	60.0	63.6			64.3	68.9	84
20	50	22.2	29.7	34.3							34.4	36.2	69
	60	24.4	33.4	40.1							43.4	45.6	75
	70	25.8	35.8	43.9	49.4						51.7	54.3	78
	80	26.7	37.4	46.6	53.5	58.1					59.5	62.4	80
	90	27.3	38.6	48.4	56.4	62.3	66.3				66.9	70.3	82
	100	27.8	39.4	49.8	58.7	65.6	70.7				74.1	77.9	83
	110	28.1	40.0	50.8	60.3	68.2	74.2	78.7			81.1	85.3	84
22	60	29.6	40.5	48.6	53.1						53.3	55.3	75
	70	31.3	43.4	53.2	59.9						63.5	65.8	78
	80	32.4	45.4	56.4	64.8	70.4					73.0	75.7	80
	90	33.1	46.8	58.7	68.4	75.5	80.3				82.1	85.2	82
	100	33.7	47.7	60.4	71.1	79.5	85.6	89.8			90.9	94.5	83
	110	34.1	48.5	61.6	73.1	82.6	89.9	95.3	99.1		99.6	103.5	84
	24	60	35.3	48.3	57.9	63.3						64.1	66.0
70		37.3	51.8	63.5							76.3	78.5	78
80		38.6	54.1	67.3	71.4	75.9					87.8	90.3	80
90		39.6	55.7	70.0	77.2	83.9	95.7				98.7	101.6	82
100		40.2	56.9	71.9	84.7	94.7	102.0	107.0			109.3	112.6	83
110		40.7	57.8	73.4	87.1	98.4	107.1	113.5	118.0		119.7	123.3	84
26		60	41.6	56.8	68.0	74.3						75.8	77.6
	70	43.9	60.9	74.6	83.9	89.2					90.2	92.3	78
	80	45.4	63.6	79.0	90.7	98.5	103.2				103.8	106.1	80
	90	46.5	65.5	82.2	95.8	105.7	112.4	116.5			116.7	119.4	82
	100	47.3	66.9	84.5	99.5	111.2	119.8	125.7			129.3	132.3	83
	110	47.9	68.0	86.3	102.3	115.6	125.8	133.4	138.7		141.6	145.0	84

* Includes 1.0-foot stump allowance.

Table 47--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and **4-inch** d.o.b. tops based on **d.b.h.**, height to a **4-inch** d.o.b. top and height to a saw-log top for hickory (species **400**) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										Cirerd Form Class	
		Sew-log 1.0	merchantable 1.5	height 2.0	(16-foot 2.5	Logs) 3.0	5.0	9-inch 3.5	4-inch 4.0				
Inches	Feet	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top	Percent
Cubic feet													
12	30	7.5									8.1	10.4	69
	40	8.6									11.3	14.5	76
	50	9.1	12.6								14.1	18.3	79
	60	9.4	13.2	16.3							16.6	21.9	81
	70	9.6	13.5	16.9							19.0	25.3	82
	80	9.7	13.8	17.4	20.5						21.3	28.7	82
	90	9.8	14.0	17.7	21.0						23.5	32.0	83
14	40	11.7	15.9								17.3	19.6	76
	50	12.5	17.2	20.9							21.6	24.6	79
	60	12.9	18.0	22.2	25.5						25.6	29.4	81
	70	13.2	18.5	23.1	26.9						29.4	34.0	82
	80	13.4	18.8	23.7	27.8	31.3					33.1	38.4	82
	90	13.5	19.1	24.1	28.5	32.4	35.6				36.7	42.8	83
	100	13.6	19.3	24.4	29.1	33.2	36.8	39.9			40.3	47.2	83
16	40	15.4	20.8								23.7	25.5	76
	50	16.4	22.6	27.3							29.6	31.9	79
	60	16.9	23.6	29.0	33.2						35.2	38.0	81
	70	17.3	24.3	30.2	35.1	38.9					40.5	43.9	82
	80	17.5	24.7	31.0	36.4	40.9	44.4				45.7	49.7	82
	90	17.7	25.0	31.6	37.3	42.3	46.5	49.8			50.7	55.3	83
	100	17.8	25.3	32.0	38.0	43.3	48.0	51.9	55.2		55.7	60.9	83
18	40	19.6	26.4	30.6							30.8	32.1	76
	50	20.8	28.7	34.5	38.4						38.4	40.2	79
	60	21.5	30.0	36.8	42.0	45.6					45.7	47.9	81
	70	22.0	30.8	38.3	44.4	49.2					52.6	55.3	82
	80	22.3	31.4	39.3	46.1	51.7	56.1				59.3	62.5	82
	90	22.5	31.8	40.0	47.3	53.5	58.7	62.9			65.9	69.5	83
	100	22.7	32.1	40.6	48.2	54.9	60.7	65.6	69.6		72.5	76.5	83
20	40	24.2	32.7	37.8							38.5	39.6	76
	50	25.8	35.5	42.7	47.3						48.1	49.5	79
	60	26.7	37.1	45.5	51.9	56.2					57.1	58.9	81
	70	27.2	38.1	47.3	54.8	60.7	64.8				65.8	67.9	82
	80	27.6	38.8	48.6	56.9	63.8	69.2	73.2			74.2	76.8	82
	90	27.9	39.3	49.5	58.4	66.0	72.4	77.6	81.4		82.5	85.4	83
	100	28.1	39.7	50.2	59.5	67.8	74.9	80.9	85.8	89.6	90.7	94.0	83
22	50	31.3	43.0	51.7	57.2						58.6	59.8	79
	60	32.4	45.0	55.1	62.8	68.0					69.6	71.1	81
	70	33.1	46.2	57.3	66.4	73.4	78.4				80.2	82.0	82
	80	33.5	47.1	58.9	68.9	77.2	83.7	88.4			90.5	92.6	82
	90	33.9	47.7	60.0	70.7	79.9	87.6	93.8	98.4		100.6	103.0	83
	100	34.1	48.1	60.8	72.1	82.0	90.6	97.8	103.7	108.2	110.6	113.3	83
24	50	37.3	51.2	61.5	68.1						70.1	71.1	79
	60	38.6	53.6	65.6	74.7	80.9					83.2	84.4	81
	70	39.5	55.1	68.3	79.1	87.3	93.2				95.8	97.3	82
	80	40.0	56.1	70.1	82.0	91.8	99.6	105.1			108.2	109.9	82
	90	40.4	56.8	71.4	84.2	95.1	104.2	111.5	116.9		120.3	122.2	83
	100	40.7	57.4	72.4	85.8	97.6	107.8	116.4	123.3	128.5	132.2	134.5	83
26	50	43.9	60.2	72.2	79.9						82.5	83.3	79
	60	45.4	63.0	77.1	87.7	94.9					97.9	99.0	81
	70	46.4	64.8	80.2	92.8	102.5	109.3				112.8	114.0	82
	80	47.1	66.0	82.4	96.3	107.8	116.8	123.3			127.3	128.7	82
	90	47.6	66.8	83.9	98.9	111.7	122.3	130.8	137.1	141.2	141.5	143.2	83
	100	47.9	67.5	85.1	100.8	114.6	126.5	136.5	144.6	150.7	155.6	157.5	83

^a Includes 1 .0-foot stump allowance.

Table 48--Predicted stemwood volume to a saw-log merchantable top, and to 0-inch and 4-inch d.o.b. tops based on d.b.h., height to a 0-inch d.o.b. top and height to a saw-log top for hickory (species 400) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Girard Form Class
		sau-log 1.0	1.5	merchantable 2.0	2.5	height 3.0	(16-foot 3.5	Logs) 4.0	4.5	5.0				
Inches	Feet	Cubic feet												Percent
12	20	7.9										9.1	14.5	73
	30	8.9	12.5									14.5	18.8	79
	40	9.3	13.3	16.8								19.5	23.5	81
	50	9.6	13.6	17.4	20.9	24.0						24.3	28.2	82
	60	9.7	13.8	17.7	21.4	24.9	28.0					29.1	32.9	82
	70	9.8	13.9	18.0	21.8	25.4	28.8	32.0				33.8	37.6	82
	80	9.8	14.0	18.1	22.0	25.8	29.3	32.7	35.9			38.4	42.3	83
14	40	12.8	18.0	22.4							25.4	28.8	81	
	50	13.1	18.6	23.4	27.7	31.1					31.5	34.8	82	
	60	13.3	18.9	24.0	28.7	32.8	36.3				37.5	40.7	82	
	70	13.4	19.1	24.3	29.3	33.8	37.9	41.5			43.4	46.5	82	
	80	13.5	19.2	24.6	29.7	34.4	38.9	42.9	46.5		49.2	52.4	83	
	90	13.6	19.3	24.8	30.0	34.9	39.6	43.9	47.9	51.5	55.0	58.2	83	
	100	13.6	19.4	24.9	30.2	35.3	40.1	44.6	48.9	52.9	60.8	64.0	83	
16	40	16.8	23.5	28.9							32.3	35.2	81	
	50	17.2	24.3	30.4	35.6	39.5					39.8	42.6	82	
	60	17.5	24.7	31.2	37.0	42.0	46.0				47.2	49.9	82	
	70	17.6	25.0	31.7	37.9	43.5	48.4	52.4			54.5	57.2	82	
	80	17.8	25.2	32.1	38.5	44.5	49.9	54.7	58.8		61.7	64.4	83	
	90	17.8	25.3	32.3	39.0	45.2	50.9	56.2	60.9	65.1	68.9	71.6	83	
	100	17.9	25.4	32.5	39.3	45.7	51.7	57.3	62.5	67.2	76.0	78.7	83	
18	40	21.4	29.8	36.4							40.1	42.7	81	
	50	21.9	30.8	38.3	44.5	48.9					49.3	51.8	82	
	60	22.2	31.3	39.4	46.5	52.4	57.0				58.2	60.7	82	
	70	22.4	31.7	40.1	47.8	54.5	60.3	64.9			67.1	69.5	82	
	80	22.6	31.9	40.6	48.6	55.9	62.4	68.0	72.7		75.8	78.2	83	
	90	22.7	32.1	40.9	49.2	56.8	63.8	70.1	75.7	80.4	84.5	86.9	83	
	100	22.8	32.2	41.2	49.7	57.6	64.9	71.7	77.9	83.4	93.2	95.6	83	
20	40	26.5	36.8	44.6							48.9	51.2	81	
	50	27.2	38.0	47.2	54.5	59.5					59.9	62.1	82	
	60	27.6	38.7	48.6	57.1	64.1	69.3				70.6	72.8	82	
	70	27.8	39.2	49.5	58.8	66.8	73.6	78.8			81.1	83.3	82	
	80	28.0	39.5	50.1	59.8	68.6	76.3	82.9	88.3		91.6	93.8	83	
	90	28.1	39.7	50.6	60.6	69.9	78.3	85.7	92.2	97.6	102.0	104.2	83	
	100	28.3	39.9	50.9	61.2	70.8	79.7	87.8	95.1	101.5	112.4	114.6	83	
22	50	33.0	46.1	57.0	65.6	71.2					71.6	73.6	82	
	60	33.5	47.0	58.8	68.9	77.0	82.8				84.2	86.2	82	
	70	33.8	47.5	59.9	70.9	80.4	88.3	94.2			96.7	98.7	82	
	80	34.0	47.9	60.7	72.3	82.7	91.8	99.4	105.5		109.1	111.1	83	
	90	34.2	48.2	61.2	73.3	84.3	94.2	103.0	110.5	116.6	121.4	123.4	83	
	100	34.3	48.4	61.6	74.0	85.5	96.1	105.6	114.2	121.6	133.7	135.6	83	
24	50	39.4	54.9	67.8	77.7	84.0					84.4	86.3	82	
	60	39.9	56.0	69.9	81.8	91.2	97.7				99.2	101.1	82	
	70	40.3	56.6	71.3	84.3	95.4	104.4	111.1			113.8	115.6	82	
	80	40.6	57.1	72.2	85.9	98.1	108.7	117.5	124.4		128.3	130.1	83	
	90	40.8	57.4	72.9	87.1	100.1	111.7	121.9	130.6	137.5	142.7	144.5	83	
	100	41.0	57.7	73.4	88.1	101.6	114.0	125.1	135.0	143.5	157.0	158.8	83	
26	50	46.3	64.5	79.5	90.9	97.9					98.3	100.1	82	
	60	47.0	65.7	82.1	95.8	106.6	113.9				115.5	117.2	82	
	70	47.4	66.6	83.7	98.8	111.6	122.0	129.5			132.4	134.1	82	
	80	47.8	67.1	84.8	100.8	114.9	127.1	137.2	144.9		149.1	150.8	83	
	90	48.0	67.5	85.6	102.2	117.3	130.8	142.5	152.4	160.1	165.7	167.4	83	
	100	48.2	67.8	86.2	103.3	119.1	133.5	146.4	157.7	167.4	182.3	184.0	83	

^a Includes 1.0-foot stump allowance.

Table 49--Predicted **stemwood** volume to a **4-inch** d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for hickory (species **400**) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.6	1.7	2.2	1.4	2.4	1.5	2.7	1.7	2.8	1.8	3.2	2.0	3.6	3.9			
7	2.5	3.1	3.4	3.8	4.1	4.6	5.1	5.6	6.1	6.6							
8																	
9	3.3	4.3	4.1	5.3	4.6	6.0	6.6	5.1	5.5	7.1	8.1	6.2	6.9	9.0	7.6	9.8	10.6
10	5.4	6.7	7.5	8.3	8.9	10.1	11.2	12.3	13.3	14.3	15.3	16.3	17.2	18.1	19.0	19.9	
11			9.1	10.2	10.9	12.4	13.7	15.0	16.3	17.5	18.7	19.9	21.0	22.1	23.3	24.4	25.4
12			11.0	12.2	13.1	14.8	16.5	18.0	19.5	21.0	22.4	23.8	25.2	26.5	27.9	29.2	30.5
13			12.9	14.4	15.5	17.5	19.4	21.3	23.1	24.8	26.5	28.1	29.7	31.3	32.9	34.5	36.0
14					18.1	20.4	22.6	24.8	26.9	28.9	30.8	32.8	34.6	36.5	38.3	40.1	41.9
15					20.8	23.5	26.1	28.6	31.0	33.3	35.5	37.7	39.9	42.0	44.2	46.2	48.3
16					23.8	26.9	29.8	32.6	35.3	38.0	40.5	43.1	45.5	48.0	50.4	52.8	55.1

^a Includes **0.5-foot** stump allowance.

Table 50--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for hickory (species **400**) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.1	1.5	2.6	1.9	3.2	2.4	3.6	2.7	3.2	4.2	3.6	4.8	5.4	6.0			
7	2.6	3.3	4.0	4.7	5.5	6.3	7.0	7.7	8.4	9.1							
8																	
9	3.3	4.2	4.2	5.3	6.3	5.1	6.0	7.5	8.7	7.0	9.8	7.9	10.9	8.8	12.0	9.7	10.6
10	5.2	6.5	7.8	9.1	10.6	12.0	13.3	14.6	15.9	17.1	18.4	19.6	20.8	22.0	23.2	24.4	
11			9.3	11.0	12.7	14.3	15.9	17.5	19.0	20.5	21.9	23.4	24.8	26.2	27.6	29.0	30.4
12			11.1	13.0	15.0	16.9	18.8	20.6	22.4	24.1	25.8	27.5	29.2	30.8	32.5	34.1	35.8
13			13.0	15.2	17.5	19.8	21.9	24.0	26.1	28.1	30.0	32.0	34.0	35.9	37.8	39.7	41.6
14					20.2	22.8	25.3	27.7	30.0	32.4	34.6	36.9	39.1	41.3	43.5	45.7	47.9
15					23.2	26.1	28.9	31.7	34.3	37.0	39.6	42.1	44.7	47.2	49.7	52.2	54.6
16					26.3	29.6	32.8	35.9	38.9	41.9	44.8	47.7	50.6	53.4	56.3	59.1	61.9

^a Includes **0.5-foot** stump allowance.

Table 51--Predicted **stemwood** volume to a saw-log merchantable top, and to 0-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for white oak (species **802**) in the Upper Coastal Plain."

D.b.h. class	Total tree height	Volume to											Girard Form Class
		Saw-log merchantable height (16-foot Logs)											
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top	
Inches	Feet	Cubic feet											Percent
12	40										4.8	9.8	61
	50	8.5									9.9	13.5	71
	60	9.3	12.6								13.0	16.8	76
	70	9.7	13.4								15.5	19.9	79
	80	10.0	14.0	17.4							17.7	22.8	81
	90	10.2	14.4	18.0							19.8	25.6	83
	100	10.4	14.6	18.5	21.7						21.8	28.2	84
14	40	9.9									11.0	13.5	61
	50	11.6	15.5								16.0	18.6	71
	60	12.6	17.2								20.0	23.1	76
	70	13.2	18.3	22.4							23.6	27.3	79
	80	13.7	19.1	23.7							27.0	31.3	81
	90	14.0	19.6	24.5	28.5						30.2	35.1	83
	100	14.2	20.0	25.2	29.6	33.0					33.2	38.8	84
16	50	15.2	20.2								22.2	24.4	71
	60	16.5	22.5	26.9							27.6	30.4	76
	70	17.3	24.0	29.3							32.6	35.9	79
	80	17.9	24.9	30.9	35.4						37.3	41.1	81
	90	18.3	25.6	32.1	37.3	41.1					41.7	46.1	83
	100	18.5	26.1	33.0	38.7	43.2					46.0	50.9	84
	110	18.7	26.5	33.6	39.8	44.9	48.7				50.2	55.7	85
18	50	19.3	25.7								29.0	31.0	71
	60	21.0	28.6	34.1							36.1	38.6	76
	70	22.0	30.4	37.1	41.7						42.6	45.6	79
	80	22.7	31.6	39.2	44.9	48.7					48.8	52.2	81
	90	23.2	32.5	40.7	47.3	52.1					54.6	58.5	83
	100	23.5	33.1	41.8	49.1	54.7	58.9				60.3	64.7	84
	110	23.8	33.6	42.6	50.4	56.8	61.7	65.4			65.8	70.7	85
20	50	23.9	31.7	36.4							36.6	38.4	71
	60	25.9	35.3	42.1							45.5	47.8	76
	70	27.2	37.6	45.9	51.5						53.7	56.4	79
	80	28.1	39.1	48.5	55.5	60.2					61.5	64.6	81
	90	28.7	40.2	50.3	58.4	64.4	68.4				68.9	72.4	83
	100	29.1	40.9	51.6	60.6	67.6	72.7				76.1	80.0	84
	110	29.4	41.5	52.6	62.3	70.2	76.3	80.8			83.1	87.5	85
22	60	31.4	42.8	51.0	55.7						55.9	57.9	76
	70	33.0	45.5	55.6	62.3						66.0	68.4	79
	80	34.0	47.4	58.7	67.2	72.8					75.4	78.3	81
	90	34.7	48.7	60.9	70.8	77.9	82.8				84.5	87.8	83
	100	35.3	49.6	62.5	73.4	81.9	88.1	92.3			93.4	97.0	84
	110	35.6	50.3	63.7	75.4	85.0	92.4	97.8	101.6		102.0	106.0	85
24	60	37.5	50.9	60.8	66.3						67.2	69.1	76
	70	39.3	54.2	66.2	74.3	78.9					79.3	81.5	79
	80	40.5	56.4	69.9	80.0	86.7					90.7	93.3	81
	90	41.4	58.0	72.5	84.3	92.8	98.6				101.6	104.6	83
	100	42.0	59.1	74.4	87.4	97.5	104.9	110.0			112.3	115.6	84
	110	42.5	59.9	75.9	89.8	101.2	110.0	116.5	121.0		122.6	126.4	85
26	60	44.0	59.8	71.4	77.8						79.4	81.1	76
	70	46.2	63.7	77.8	87.2	92.6					93.7	95.8	79
	80	47.6	66.3	82.1	94.0	101.9	106.6				107.2	109.6	81
	90	48.6	68.1	85.2	99.0	109.0	115.8	119.9			120.1	122.9	83
	100	49.4	69.4	87.4	102.7	114.5	123.2	129.1			132.7	135.8	84
	110	49.9	70.4	89.1	105.5	118.9	129.1	136.8	142.1		145.0	148.4	85

^a Includes 1.0-foot stump allowance.

Table 52--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for white oak (species 802) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Gi rard Fore Class
		1.0	Sau-log 1.5	merchantable 2.0	2.5	height (16-foot logs) 3.0	3.5	4.0	4.5	5.0				
Inches	Feet	Cubic feet										Percent		
12	30	8.1									8.6	11.1	70	
	40	9.2									11.7	15.3	77	
	50	9.7	13.3								14.3	19.1	80	
	60	10.0	13.9								16.8	22.6	82	
	70	10.2	14.2	17.7							19.0	26.1	83	
	80	10.3	14.5	18.1							21.2	29.4	83	
	90	10.4	14.6	18.4	21.7						23.4	32.8	84	
14	40	12.5	16.8								18.0	20.6	77	
	50	13.3	18.2	21.8							22.3	25.6	80	
	60	13.7	18.9	23.2							26.2	30.3	82	
	70	13.9	19.4	24.0	27.9						29.9	34.9	83	
	80	14.1	19.7	24.6	28.8	32.3					33.6	39.4	83	
	90	14.2	19.9	25.1	29.5	33.4	36.7				37.1	43.8	84	
	100	14.3	20.1	25.4	30.1	34.2	37.9				40.7	48.2	84	
16	40	16.4	22.0								24.8	26.7	77	
	50	17.4	23.7	28.5							30.7	33.1	80	
	60	17.9	24.7	30.2	34.5						36.1	39.2	82	
	70	18.2	25.4	31.4	36.3	40.2					41.4	45.1	83	
	80	18.5	25.8	32.2	37.6	42.1	45.7				46.5	50.9	83	
	90	18.6	26.1	32.7	38.5	43.6	47.7	51.1			51.6	56.5	84	
	100	18.8	26.3	33.1	39.3	44.6	49.3	53.3	56.5		56.5	62.2	84	
18	40	20.8	27.9	32.1							32.2	33.6	77	
	50	22.0	30.1	36.0							39.8	41.7	80	
	60	22.7	31.3	38.3	43.5						46.9	49.3	82	
	70	23.1	32.1	39.7	45.9	50.7					53.8	56.7	83	
	80	23.4	32.7	40.7	47.6	53.2	57.7				60.5	63.9	83	
	90	23.6	33.1	41.4	48.8	55.1	60.3	64.5			67.1	71.0	84	
	100	23.8	33.3	42.0	49.7	56.5	62.3	67.2	71.2		73.6	78.0	84	
20	40	25.8	34.4	39.6							40.2	41.4	77	
	50	27.2	37.2	44.5	49.1						49.8	51.3	80	
	60	28.1	38.7	47.3	53.7	58.0					58.7	60.7	82	
	70	28.6	39.7	49.1	56.7	62.5	66.6				67.4	69.7	83	
	80	29.0	40.4	50.3	58.7	65.6	71.1	75.0			75.8	78.5	83	
	90	29.2	40.9	51.2	60.2	67.9	74.3	79.4	83.3		84.1	87.2	84	
	100	29.4	41.2	51.9	61.3	69.7	76.8	82.8	87.7	91.4	92.3	95.8	84	
22	50	33.0	45.0	53.8	59.4						60.7	61.9	80	
	60	34.0	46.9	57.2	64.9	70.1					71.6	73.2	82	
	70	34.7	48.1	59.4	68.5	75.6	80.5				82.1	84.0	83	
	80	35.1	48.9	60.9	71.0	79.4	85.9	90.6			92.4	94.6	83	
	90	35.4	49.5	62.0	72.9	82.1	89.9	96.0	100.5		102.5	105.0	84	
	100	35.7	49.9	62.8	74.2	84.3	92.9	100.1	105.9	110.4	112.5	115.4	84	
	24	50	39.3	53.6	64.0	70.6						72.5	73.5	80
60		40.5	55.9	68.1	77.3	83.4					85.5	86.9	82	
70		41.3	57.3	70.7	81.6	89.9	95.7				98.1	99.7	83	
80		41.8	58.3	72.5	84.5	94.4	102.1	107.6			110.4	112.3	83	
90		42.2	59.0	73.8	86.7	97.7	106.9	114.1	119.4		122.5	124.6	84	
100		42.5	59.5	74.8	88.4	100.3	110.5	119.0	125.9	131.1	134.5	136.9	84	
26		50	46.2	62.9	75.2	82.8						85.3	86.2	80
	60	47.6	65.6	79.9	90.7	97.8					100.7	101.8	82	
	70	48.5	67.3	83.0	95.7	105.4	112.2				115.5	116.8	83	
	80	49.2	68.4	85.1	99.2	110.8	119.8	126.2			129.9	131.5	83	
	90	49.6	69.2	86.6	101.8	114.7	125.4	133.8	140.0	144.0	144.1	145.9	84	
	100	49.9	69.9	87.8	103.7	117.7	129.6	139.6	147.6	153.7	158.2	160.2	84	

^a Includes 1.0-foot stump allowance.

Table 53--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for white oak (species 802) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to													Gi rard Form Class
		Saw-log		merchantable		height		(li-foot		logs)		9-inch		4-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top			
<u>inches</u>	<u>Feet</u>	<u>Cubic feet</u>													<u>Percent</u>
12	20	8.6										9.8	14.4	75	
	30	9.6	13.4									15.4	19.5	80	
	40	10.1	14.1	17.8								20.5	24.7	82	
	50	10.3	14.5	18.4	22.0	25.2						25.5	29.7	83	
	60	10.5	14.7	18.7	22.5	26.1	29.3					30.4	34.6	83	
	70	10.5	14.8	18.9	22.9	26.6	30.1	33.4				35.3	39.6	83	
	80	10.6	14.9	19.1	23.1	27.0	30.7	34.2	37.5			40.1	44.5	83	
14	40	13.7	19.0	23.6							26.7	30.3	82		
	50	14.0	19.6	24.6	29.0	32.6					33.0	36.6	83		
	60	14.2	19.9	25.2	30.0	34.3	38.0				39.2	42.8	83		
	70	14.3	20.1	25.5	30.6	35.3	39.5	43.3			45.3	49.0	83		
	80	14.4	20.2	25.7	31.0	35.9	40.5	44.7	48.5		51.3	55.1	83		
	90	14.4	20.3	25.9	31.3	36.4	41.2	45.7	49.9	53.7	57.3	61.2	84		
	100	14.5	20.4	26.1	31.5	36.7	41.7	46.4	50.9	55.0	63.3	67.2	84		
16	40	17.8	24.7	30.4							33.9	37.1	82		
	50	18.2	25.5	31.8	37.2	41.3					41.7	44.9	83		
	60	18.5	25.9	32.6	38.6	43.8	48.1				49.3	52.6	83		
	70	18.6	26.1	33.1	39.5	45.3	50.4	54.7			56.8	60.1	83		
	80	18.7	26.3	33.5	40.1	46.3	51.9	56.9	61.3		64.3	67.7	83		
	90	18.8	26.5	33.7	40.5	47.0	52.9	58.4	63.4	67.8	71.7	75.1	84		
	100	18.9	26.6	33.9	40.9	47.5	53.7	59.5	64.9	69.8	79.1	82.6	84		
18	40	22.6	31.2	38.1							42.1	45.0	82		
	50	23.1	32.2	40.0	46.5	51.2					51.6	54.5	83		
	60	23.4	32.7	41.1	48.5	54.7	59.5				60.8	63.8	83		
	70	23.6	33.0	41.7	49.7	56.7	62.8	67.7			70.0	73.0	83		
	80	23.7	33.3	42.2	50.5	58.0	64.8	70.8	75.7		79.0	82.1	83		
	90	23.8	33.4	42.5	51.1	59.0	66.3	72.9	78.7	83.8	88.1	91.2	84		
	100	23.9	33.6	42.8	51.5	59.7	67.3	74.4	80.9	86.7	97.1	100.2	84		
20	40	27.9	38.5	46.7							51.2	54.0	82		
	50	28.5	39.7	49.2	56.9	62.2					62.6	65.3	83		
	60	28.9	40.3	50.6	59.4	66.8	72.3				73.7	76.4	83		
	70	29.1	40.8	51.4	61.0	69.4	76.6	82.2			84.6	87.4	83		
	80	29.3	41.1	52.0	62.1	71.2	79.3	86.3	92.0		95.5	98.4	83		
	90	29.4	41.3	52.4	62.8	72.4	81.2	89.0	95.9	101.6	106.3	109.2	84		
	100	29.5	41.4	52.7	63.4	73.3	82.6	91.1	98.7	105.5	117.1	120.0	84		
22	50	34.5	48.0	59.4	68.4	74.3					74.8	77.4	83		
	60	34.9	48.8	61.1	71.6	80.2	86.4				87.9	90.5	83		
	70	35.2	49.3	62.1	73.6	83.5	91.9	98.2			100.9	103.5	83		
	80	35.4	49.7	62.8	74.9	85.7	95.3	103.4	109.9		113.7	116.4	83		
	90	35.6	49.9	63.4	75.8	87.3	97.7	106.9	114.9	121.4	126.5	129.3	84		
	100	35.7	50.1	63.8	76.5	88.5	99.5	109.5	118.5	126.3	139.3	142.0	84		
	24	50	41.1	57.1	70.5	81.0	87.7					88.2	90.6	83	
60		41.6	58.1	72.6	84.9	94.9	101.9				103.5	106.0	83		
70		42.0	58.7	73.9	87.3	99.0	108.6	115.8			118.7	121.2	83		
80		42.2	59.1	74.7	88.9	101.7	112.8	122.2	129.5		133.7	136.3	83		
90		42.4	59.5	75.4	90.1	103.6	115.8	126.5	135.7	143.1	148.7	151.3	84		
100		42.5	59.7	75.8	91.0	105.0	117.9	129.7	140.1	149.1	163.6	166.2	84		
26		50	48.2	67.0	82.6	94.7	102.2					102.7	105.0	83	
	60	48.9	68.2	85.1	99.4	110.9	118.8				120.5	122.8	83		
	70	49.3	68.9	86.6	102.3	115.8	126.8	134.9			138.0	140.4	83		
	80	49.6	69.4	87.7	104.2	119.0	131.9	142.6	150.9		155.5	157.9	83		
	90	49.8	69.8	88.4	105.6	121.3	135.4	147.8	158.3	166.7	172.8	175.2	84		
	100	50.0	70.1	89.0	106.7	123.0	138.0	151.6	163.6	174.0	190.0	192.5	84		

^a Includes 1.0-foot stump allowance.

Table 54--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for white oak (species 802) in the Upper Coastal Plain.'

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.8	1.8	2.3	1.0	2.6	1.1	2.9	1.5	3.1	1.8	3.5	2.2					
7	2.7	3.3	3.7	4.1	4.5	5.0	5.5	6.0	6.5	7.0							
8	3.6	4.4	4.9	5.4	6.0	6.7	7.4	8.1	8.7	9.3	9.9	10.5					
9	4.6	5.7	6.3	7.0	7.7	8.7	9.5	10.4	11.2	12.0	12.8	13.6	14.3	15.0			
10	5.7	7.1	7.9	8.7	9.6	10.8	11.9	13.0	14.0	15.0	16.0	16.9	17.9	18.8	19.7	20.6	
11			9.6	10.7	11.8	13.2	14.5	15.8	17.1	18.3	19.5	20.7	21.8	22.9	24.1	25.2	26.3
12			11.5	12.8	14.1	15.8	17.4	19.0	20.5	21.9	23.4	24.8	26.1	27.5	28.8	30.1	31.5
13			13.5	15.0	16.6	18.6	20.5	22.4	24.1	25.9	27.5	29.2	30.8	32.4	34.0	35.5	37.1
14																	
15					22.3	19.3	21.7	24.9	23.9	27.5	26.0	28.1	30.1	32.0	34.0	35.9	37.7
16					25.4	28.4	31.4	30.0	33.9	34.6	36.9	39.1	41.3	43.4	45.5	47.6	49.7
										39.5	42.1	44.6	47.1	49.5	51.9	54.3	56.7

^a Includes 0.5-foot stump allowance.

Table 55--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for white oak (species 802) in the Upper Coastal Plain.'

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.3	1.7	2.1	2.8	3.5	2.7	3.0	4.0	3.5	4.6	4.0	5.2	5.8	6.4			
7	2.8	3.5	4.3	5.1	5.9	6.7	7.4	8.2	8.9	9.6							
8	3.6	4.5	4.5	5.6	6.7	5.4	6.5	8.0	9.2	7.5	10.4	8.4	11.5	9.3	12.6	10.2	11.1
9													13.7	14.7	15.7	16.8	17.8
10	5.6	6.9	8.2	9.8	11.2	12.6	13.9	15.3	16.5	17.8	19.0	20.3	21.5	22.7	23.9	25.1	
11																	
12			11.6	9.8	11.7	13.8	13.4	15.8	15.1	17.8	16.7	19.6	21.4	18.2	23.2	19.7	24.9
13																	
14																	
15																	
16																	

^a Includes 0.5-foot stump allowance.

Table 56--Predicted **stemwood** volume to a saw-log merchantable top, and to 0-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for chestnut oak (species **832**) in the Upper Coastal Plain.'

D.b.h. class	Total tree height	Volume to										Girard Form Class	
		seu-Log		merchantable		height (16-foot logs)		9-inch		4-inch			
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top		d.o.b. top
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>	
12	40	8.0									9.8	11.6	72
	50	8.5	11.6								11.8	14.3	76
	60	8.8	12.2								13.7	16.7	78
	70	9.0	12.6								15.4	19.0	79
	80	9.1	12.8	16.0							17.0	21.3	79
	90	9.2	13.0	16.3							18.6	23.5	80
	100	9.2	13.1	16.6	19.5						20.1	25.7	80
14	40	11.0	14.6								14.6	16.0	72
	50	11.7	16.0								17.7	19.7	76
	60	12.1	16.8	20.3							20.5	23.0	78
	70	12.4	17.3	21.3							23.2	26.2	79
	80	12.5	17.6	21.9	25.2						25.7	29.3	79
	90	12.7	17.9	22.4	26.1						28.2	32.4	80
	100	12.7	18.0	22.8	26.8	30.0				30.6	35.4	80	
16	50	15.4	21.0								24.2	25.9	76
	60	16.0	22.1	26.6							28.1	30.4	78
	70	16.3	22.8	27.9	31.5						31.8	34.6	79
	80	16.5	23.2	28.8	33.1						35.4	38.6	79
	90	16.7	23.5	29.4	34.3	37.9					38.8	42.6	80
	100	16.8	23.7	29.9	35.1	39.3					42.3	46.6	80
	110	16.9	23.9	30.2	35.8	40.4	44.0			45.7	50.4	81	
18	50	19.7	26.8	31.2							31.4	33.0	76
	60	20.4	28.1	33.8							36.6	38.7	78
	70	20.8	29.0	35.5	40.0						41.5	44.0	79
	80	21.1	29.5	36.7	42.1	45.8					46.2	49.2	79
	90	21.3	29.9	37.4	43.6	48.1					50.8	54.3	80
	100	21.5	30.2	38.0	44.7	49.9	53.8				55.4	59.2	80
	110	21.6	30.5	38.5	45.5	51.3	55.9	59.3		59.8	64.2	81	
20	50	24.5	33.2	38.6							39.5	41.0	76
	60	25.3	34.9	42.0	46.0						46.1	48.0	78
	70	25.9	36.0	44.0	49.6						52.3	54.6	79
	80	26.3	36.7	45.4	52.2	56.7					58.3	61.0	79
	90	26.5	37.2	46.4	54.0	59.6	63.4				64.1	67.3	80
	100	26.7	37.5	47.1	55.3	61.8	66.6				69.9	73.5	80
	110	26.9	37.8	47.7	56.3	63.6	69.2	73.4		75.6	79.6	81	
22	60	30.8	42.4	50.9	55.8						56.5	58.3	78
	70	31.5	43.7	53.5	60.2	64.1					64.2	66.3	79
	80	32.0	44.5	55.2	63.3	68.8					71.5	74.1	79
	90	32.3	45.1	56.3	65.5	72.3	76.9				78.8	81.7	80
	100	32.5	45.6	57.2	67.1	75.0	80.8	84.8			85.9	89.2	80
	110	32.7	45.9	57.9	68.4	77.1	83.9	89.0	92.5		92.9	96.6	81
24	60	36.9	50.6	60.8	66.6						67.9	69.5	78
	70	37.7	52.2	63.8	71.8	76.5					77.1	79.1	79
	80	38.2	53.2	65.8	75.5	82.0	85.9				86.1	88.4	79
	90	38.6	53.9	67.2	78.2	86.3	91.7				94.8	97.5	80
	100	38.9	54.4	68.3	80.1	89.5	96.4	101.1			103.3	106.4	80
	110	39.1	54.9	69.1	81.6	92.0	100.1	106.1	110.3		111.8	115.2	81
26	60	43.4	59.6	71.5	78.3						80.3	81.8	78
	70	44.4	61.4	75.1	84.5	89.9					91.2	93.1	79
	80	45.0	62.6	77.4	88.8	96.5	101.0				101.8	104.0	79
	90	45.5	63.5	79.1	91.9	101.4	107.9	111.8			112.1	114.6	80
	100	45.8	64.1	80.3	94.2	105.2	113.3	118.9			122.3	125.1	80
	110	46.1	64.6	81.3	95.9	108.1	117.7	124.7	129.6		132.3	135.5	81

* Includes 1.0-foot stump allowance.

Table 57--Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for chestnut oak (species 832) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to													Girard Form Class
		Saw-Log merchantable height (16-foot Logs)													
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top			
Inches	Feet	Cubic feet													Percent
12	30	8.8									10.8	12.3	79		
	40	9.0	12.3								12.5	15.1	79		
	50	9.1	12.6								14.2	17.9	79		
	60	9.1	12.8	15.7							15.8	20.7	79		
	70	9.2	12.9	16.0							17.4	23.4	79		
	80	9.2	12.9	16.2							18.9	26.1	80		
	90	9.2	13.0	16.3	19.3						20.5	28.8	80		
14	40	12.4	16.9								18.6	20.5	79		
	50	12.5	17.3	20.8							21.4	24.2	79		
	60	12.6	17.5	21.5							24.2		79		
	70	12.7	17.7	21.9	25.3						26.9	R - 9	79		
	80	12.7	17.8	22.2	25.9	29.0					29.7	35.0	80		
	90	12.7	17.9	22.4	26.4	29.7					32.4	38.6	80		
	100	12.8	17.9	22.6	26.7	30.3	33.5				35.1	42.1	80		
16	40	16.3	22.2								25.3	26.8	79		
	50	16.5	22.8	27.3							29.3	31.5	79		
	60	16.7	23.1	28.2	32.0						33.3	36.1	79		
	70	16.7	23.3	28.7	33.1	36.5					37.3	40.7	79		
	80	16.8	23.4	29.1	34.0	37.9	41.0				41.2	45.3	80		
	90	16.8	23.5	29.4	34.6	38.9	42.5				45.1	49.9	80		
	100	16.9	23.6	29.7	35.0	39.7	43.7	47.1			49.0	54.5	80		
18	40	20.9	28.2	32.5							32.7	33.9	79		
	50	21.1	29.0	34.6							38.0		79		
	60	21.3	29.4	35.8	40.5						43.3	46.5	79		
	70	21.4	29.7	36.5	42.1	46.3					48.5	51.3	79		
	80	21.5	29.8	37.1	43.1	48.0	51.9				53.7	57.0	80		
	90	21.5	30.0	37.4	43.9	49.3	53.8	57.4			58.9	62.8	80		
	100	21.6	30.1	37.7	44.5	50.3	55.4	59.5	62.9		64.1	68.4	80		
20	40	25.9	35.0	40.2							40.8	41.8	79		
	50	26.2	35.9	42.9	47.1						47.6	49.0	79		
	60	26.5	36.5	44.3	50.1	53.9					54.3	56.1	79		
	70	26.6	36.8	45.3	52.0	57.2	60.7				60.9	63.2	79		
	80	26.7	37.0	45.9	53.4	59.4	64.0	67.3			67.5	70.2	80		
	90	26.8	37.2	46.4	54.3	61.0	66.5	70.8	74.0		74.0	77.1	80		
	100	26.8	37.3	46.8	55.1	62.3	68.4	73.5	77.6		80.5	84.1	80		
22	50	31.9	43.7	52.0	57.1						58.1	59.3	79		
	60	32.2	44.3	53.8	60.8	65.3					66.3	67.8	79		
	70	32.4	44.7	54.9	63.1	69.2	73.4				74.4	76.3	79		
	80	32.5	45.0	55.7	64.7	72.0	77.5	81.4			82.4	84.7	80		
	90	32.6	45.2	56.3	65.9	73.9	80.5	85.7	89.4		90.4	93.1	80		
	100	32.7	45.4	56.8	66.8	75.5	82.9	89.0	93.8	97.4	98.4	101.4	80		
24	50	38.2	52.1	62.0	68.1						69.6	70.6	79		
	60	38.5	52.9	64.2	72.4	77.8					79.4	80.7	79		
	70	38.7	53.4	65.6	75.2	82.5	87.4				89.1	90.7	79		
	80	38.9	53.8	66.5	77.2	85.7	92.3	96.9			98.7	100.6	80		
	90	39.0	54.0	67.2	78.6	88.1	95.9	102.0	106.4		108.3	110.5	80		
	100	39.1	54.2	67.7	79.6	90.0	98.7	105.9	111.6	115.9	117.9	120.4	80		
26	50	45.0	61.4	72.9	80.0						82.0	82.8	79		
	60	45.4	62.3	75.5	85.1	91.3					93.5	94.7	79		
	70	45.7	62.9	77.1	88.4	96.9	102.6				105.0	106.3	79		
	80	45.8	63.3	78.2	90.7	100.7	108.4	113.7			116.3	118.0	80		
	90	46.0	63.6	79.1	92.4	103.6	112.7	119.7	124.8		127.6	129.6	80		
	100	46.1	63.8	79.7	93.6	105.7	115.9	124.4	131.0	135.9	138.9	141.1	80		

^a Includes 1.0-foot stump allowance.

Table 58--Predicted stemwood volume to a saw-log merchantable top, and to S-inch and 4-inch d.o.b. tops based on d.b.h., height to a S-inch d.o.b. top and height to a saw-log top for chestnut oak (species 832) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to											Girerd Form Class
		Saw-Log merchantable height (16-foot Logs)											
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top	
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
12	20	8.8									10.1	12.7	79
	30	9.0	12.7								14.5	17.6	79
	40	9.2	12.9	16.3							18.8	22.4	79
	50	9.2	13.1	16.6	19.9	22.7					23.1	27.0	79
	60	9.3	13.2	16.8	20.2	23.4	26.3				27.3	31.6	79
	70	9.3	13.2	16.9	20.4	23.8	26.9	29.8			31.5	36.1	79
	80	9.3	13.2	17.0	20.6	24.0	27.3	30.4	33.4		35.7	40.6	79
14	40	12.66	17.66	21.8							24.5	27.6	79
	50	12.77	17.88	22.4	26.3	29.5					29.8	33.1	79
	60	12.8	18.0	22.7	27.0	30.8	34.0				35.1	38.7	79
	70	12.8	18.0	22.9	27.4	31.6	35.3	38.5			40.3	44.1	79
	80	12.8	18.1	23.1	27.7	32.1	36.1	39.7	43.0		45.5	49.6	79
	90	12.9	18.2	23.2	27.9	32.4	36.6	40.6	44.2	47.4	50.7	55.0	79
	100	12.9	18.2	23.3	28.1	32.7	37.1	41.2	45.0	48.6	55.9	60.4	79
16	40	16.6	23.0	28.1							31.2	33.9	79
	50	16.7	23.4	29.1	33.8	37.3					37.6	40.6	79
	60	16.8	23.6	29.6	34.9	39.4	43.0				44.0	47.2	79
	70	16.9	23.7	29.9	35.5	40.6	44.9	48.6			50.4	53.8	79
	80	16.9	23.8	30.1	36.0	41.4	46.2	50.5	54.1		56.8	60.4	79
	90	17.0	23.8	30.3	36.3	41.9	47.1	51.8	56.0	59.7	63.1	66.9	79
	100	17.0	23.9	30.4	36.6	42.4	47.8	52.8	57.4	61.5	69.5	73.4	79
18	40	21.2	29.2	35.3							38.8	41.2	79
	50	21.3	29.7	36.7	42.2	46.2					46.5	49.2	79
	60	21.5	29.9	37.4	43.8	49.1	53.1				54.3	57.1	79
	70	21.5	30.1	37.8	44.8	50.8	55.9	60.0			61.9	65.0	79
	80	21.6	30.2	38.1	45.4	51.9	57.7	62.7	66.8		69.6	72.8	79
	90	21.6	30.3	38.4	45.9	52.7	59.0	64.6	69.5	73.6	77.3	80.7	79
	100	21.7	30.4	38.5	46.2	53.3	59.9	66.0	71.4	76.2	84.9	88.5	79
20	40	26.3	36.2	43.4							47.2	49.5	79
	50	26.5	36.7	45.2	51.8	56.2					56.5	59.0	79
	60	26.7	37.1	46.1	53.8	60.0	64.5				65.7	68.3	79
	70	26.8	37.3	46.7	55.1	62.3	68.2	72.8			74.9	77.6	79
	80	26.8	37.4	47.1	55.9	63.8	70.6	76.4	81.0		84.0	86.9	79
	90	26.9	37.5	47.4	56.5	64.8	72.3	78.9	84.5	89.2	93.1	96.2	79
	100	26.9	37.6	47.7	57.0	65.6	73.6	80.7	87.1	92.7	102.2	105.4	79
22	50	32.3	44.6	54.6	62.3	67.2					67.6	69.8	79
	60	32.4	45.0	55.9	64.9	72.1	77.2				78.4	80.8	79
	70	32.6	45.3	56.6	66.5	75.0	81.9	87.0			89.2	91.7	79
	80	32.6	45.5	57.1	67.6	76.9	84.9	91.6	96.8		99.9	102.6	79
	90	32.7	45.6	57.5	68.4	78.2	87.0	94.7	101.2	106.5	110.6	113.5	79
	100	32.8	45.7	57.8	69.0	79.3	88.6	97.1	104.5	110.9	121.3	124.3	79
24	50	38.6	53.2	65.0	73.9	79.3					79.7	81.8	79
	60	38.8	53.7	66.5	77.1	85.4	91.0				92.3	94.6	79
	70	38.9	54.0	67.4	79.1	88.9	96.8	102.5			104.8	107.3	79
	80	39.0	54.3	68.1	80.4	91.3	100.6	108.2	114.0		117.3	119.9	79
	90	39.1	54.4	68.5	81.4	93.0	103.2	112.1	119.5	125.4	129.8	132.5	79
	100	39.2	54.6	68.9	82.1	94.2	105.2	115.0	123.6	130.9	142.3	145.1	79
26	50	45.4	62.6	76.3	86.5	92.5					92.9	94.9	79
	60	45.7	63.2	78.1	90.4	99.8	106.1				107.4	109.6	79
	70	45.9	63.6	79.2	92.8	104.1	113.1	119.5			121.9	124.2	79
	80	46.0	63.8	80.0	94.4	106.9	117.6	126.3	132.8		136.3	138.8	79
	90	46.1	64.1	80.5	95.5	109.0	120.8	131.0	139.4	146.0	150.7	153.3	79
	100	46.2	64.2	81.0	96.4	110.5	123.2	134.5	144.3	152.6	165.1	167.8	79

^a Includes 1.0-foot stump allowance.

Table 59--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for chestnut oak (species 832) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	1.3	1.8	2.2	1.5	2.5	1.6	2.7	1.8	3.3	2.2	3.6	2.4					
7								3.8	4.1								
8	2.5	3.1	3.5	3.8	4.7	5.0	5.4	5.8	6.1	6.5							
9	3.4	4.3	4.1	5.3	4.6	6.0	6.6	5.1	6.2	8.0	6.7	7.3	7.7	8.2	8.7	9.2	9.6
10	5.4	6.7	7.5	8.3	10.0		8.7	9.3	10.0	10.6	11.2	11.8	12.4	13.0	13.6		
							10.9	11.7	12.5	13.3	14.0	14.8	15.6	16.3	17.1	17.8	18.5
11			19.0	10.2	12.2	13.9	17.3	18.3	16.2	20.8	18.1	19.0	20.0	20.9	21.8	22.7	23.6
12			13.0	14.4	17.4	18.8	20.3	21.6	23.0		21.7	22.8	23.9	25.0	26.1	27.2	28.3
13											24.3	25.7	27.0	28.3	29.6	30.8	32.1
14																	
15					23.4	20.3	22.0	23.6	25.2	26.8	28.4	29.9	31.5	33.0	34.5	36.0	37.4
16					26.7	28.9	31.2	29.1	30.9	32.7	34.5	36.3	38.0	39.7	41.5	43.2	44.9
								33.3	35.3	37.4	39.4	41.4	43.4	45.4	47.3	49.3	51.2

^a Includes 0.5-foot stump allowance.

Table 60--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for chestnut oak (species 832) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.0	1.5	2.6	1.9	3.1	2.4	3.8	2.8	3.2	4.3	3.6						
7								4.7	5.2	5.7							
8	2.6	3.2	3.9	5.0	5.6	6.2	6.7	7.3	7.9	8.4							
9	3.4	4.3	4.2	5.3	5.0	6.3	8.1	6.4	8.9	7.1	7.8	8.5	9.2	9.9	10.6	11.3	12.0
10	5.3	6.5	7.7	9.9	10.9	10.9	19.8	10.6	11.4	12.3	13.1	13.9	14.8	15.6	16.4		
								12.9	13.9	14.9	15.9	16.9	17.9	18.9	19.9	20.9	21.8
11			19.3	14.9	15.6	17.8	18.3	16.7	21.9	19.0	20.2	21.4	22.5	23.7	24.8	26.0	27.2
12			13.1	16.6	18.2	19.8	21.4	23.0	24.6	26.3	23.8	25.2	26.5	27.9	29.2	30.6	31.9
13											27.7	29.3	30.9	32.4	34.0	35.6	37.1
14																	
15					21.1	24.2	23.0	24.8	26.6	28.4	30.2	32.0	33.8	35.6	37.4	39.2	41.0
16					27.5	28.9	38.3	30.5	32.5	34.6	36.6	38.6	40.7	42.7	44.7	46.7	48.8
								34.6	36.9	39.2	41.5	43.8	46.1	48.4	50.7	53.0	55.2

^a Includes 0.5-foot stump allowance.

Table 61--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and 4-inch **d.o.b.** tops based on d.b.h., total-tree height and height to a saw-log top for post oak (species **835**) in the Upper Coastal Plain.*

D.b.h. class	Total tree height	Volume to										Girard Form Class		
		saw-log		merchantable		height		(16-foot logs)		9-inch			4-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top		d.o.b. top	
<u>Inches</u>	<u>Feet</u>	<u>- - - - - Cubic feet - - - - -</u>										<u>Percent</u>		
12	40	8.4									10.1	12.1	74	
	50	8.8									11.7	14.5	76	
	60	9.0	12.4								13.1	16.6	77	
	70	9.2	12.7								14.4	18.7	78	
	80	9.3	12.9								15.7	20.8	78	
	90	9.4	13.1	16.3							16.9	22.8	78	
	100	9.5	13.2	16.5							18.1	24.7	78	
14	40	11.4									15.0	16.6	74	
	50	12.0	16.3								17.6	19.8	76	
	60	12.3	17.0								19.9	22.8	77	
	70	12.5	17.4	21.2							22.1	25.7	78	
	80	12.7	17.6	21.8							24.3	28.5	78	
	90	12.8	17.9	22.2	25.7						26.4	31.3	78	
	100	12.9	18.0	22.5	26.3					28.4	34.0	78		
16	50	15.7	21.4								24.0	26.0	76	
	60	16.1	22.2	26.5							27.4	30.0	77	
	70	16.4	22.7	27.7							30.6	33.8	78	
	80	16.6	23.1	28.5	32.5						33.7	37.5	78	
	90	16.8	23.4	29.1	33.6						36.7	41.1	78	
	100	16.9	23.6	29.5	34.4	38.2					39.7	44.7	78	
	110	17.0	23.7	29.8	35.0	39.3	42.6			42.7	48.2	79		
18	50	19.9	27.1								31.3	33.1	76	
	60	20.5	28.1	33.6							35.8	38.1	77	
	70	20.8	28.8	35.1	39.3						40.1	42.9	78	
	80	21.1	29.3	36.1	41.2						44.2	47.6	78	
	90	21.3	29.6	36.8	42.6	46.7					48.3	52.2	78	
	100	21.5	29.9	37.4	43.6	48.4	51.9				52.3	56.8	78	
	110	21.6	30.1	37.8	44.4	49.8	53.9			56.3	61.3	79		
20	50	24.6	33.5	38.7							39.3	40.9	76	
	60	25.3	34.8	41.6							45.0	47.2	77	
	70	25.8	35.6	43.4	48.6						50.5	53.1	78	
	80	26.1	36.2	44.7	50.9	55.1					55.9	58.9	78	
	90	26.4	36.6	45.5	52.6	57.7					61.1	64.7	78	
	100	26.6	36.9	46.2	53.9	59.8	64.2				66.3	70.3	78	
	110	26.7	37.2	46.7	54.9	61.5	66.6	70.4		71.4	75.9	79		
22	60	30.7	42.2	50.4	54.9						55.2	57.2	77	
	70	31.3	43.2	52.6	58.8						62.0	64.4	78	
	80	31.7	43.9	54.1	61.7	66.7					68.6	71.5	78	
	90	32.0	44.4	55.2	63.7	69.9	74.1				75.1	78.4	78	
	100	32.2	44.7	55.9	65.3	72.5	77.7	81.3			81.5	85.2	78	
	110	32.4	45.0	56.5	66.5	74.5	80.6	85.2			87.9	92.0	79	
24	60	36.6	50.2	60.0	65.4						66.4	68.1	77	
	70	37.2	51.4	62.6	70.1	74.4					74.6	76.8	78	
	80	37.7	52.2	64.4	73.4	79.4					82.6	85.2	78	
	90	38.1	52.8	65.7	75.9	83.3	88.2				90.4	93.4	78	
	100	38.4	53.3	66.6	77.7	86.3	92.6	96.9			98.2	101.6	78	
	110	38.6	53.7	67.3	79.1	88.7	96.0	101.5	105.3		105.9	109.7	79	
26	60	43.0	59.0	70.4	76.8						78.4	80.1	77	
	70	43.8	60.4	73.6	82.3	87.3					88.2	90.2	78	
	80	44.3	61.4	75.7	86.2	93.2	97.4				97.7	100.1	78	
	90	44.8	62.1	77.2	89.1	97.8	103.7				107.0		78	
	100	45.1	62.6	78.2	91.3	101.3	108.7	113.7			116.2	119.5	78	
	110	45.4	63.0	79.1	92.9	104.1	112.8	119.1	123.6		125.3	128.8	79	

* Includes 1.0-foot stump allowance.

Table 62--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and **4-inch** d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for post oak (species **835**) in the Upper Coastal Plain.'

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										0-inch		4-inch		Girard Form Class
		sew-log 1.0 1.5	merchantable 2.0 2.5	height 3.0 3.5	(16-foot 4.0 4.5	togs) 5.0	d.o.b. top	d.o.b. top								
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>														<u>Percent</u>
12	30	8.6										9.9	11.9	75		
	40	9.0										11.8	15.1	77		
	50	9.3	12.7									13.5	18.2	77		
	60	9.4	12.9									15.1	21.1	78		
	70	9.5	13.1	16.2								16.6	24.0	78		
	80	9.6	13.2	16.5								18.2	26.9	78		
	90	9.6	13.3	16.7	19.6							19.6	29.7	79		
14	40	12.4	16.6									18.1	20.4	77		
	50	12.7	17.3	20.8								21.1	24.4	77		
	60	12.9	17.7	21.6								24.1	28.3	78		
	70	13.0	17.9	22.1	25.6							27.0	32.1	78		
	80	13.1	18.1	22.4	26.2	29.4						29.8	35.9	78		
	90	13.1	18.2	22.7	26.7	30.2						32.6	39.7	79		
	100	13.2	18.3	22.9	27.0	30.7	34.0					35.4	43.4	79		
16	40	16.2	21.8									24.8	26.5	77		
	50	16.6	22.6	27.1								29.2	31.6	77		
	60	16.9	23.1	28.2	32.1							33.5	36.6	78		
	70	17.0	23.4	28.9	33.3	36.9						37.7	41.5	78		
	80	17.1	23.6	29.3	34.2	38.3	41.5					41.9	46.4	78		
	90	17.2	23.8	29.7	34.8	39.3	43.1					46.9	51.2	79		
	100	17.3	23.9	29.9	35.3	40.1	44.3	47.8				50.1	56.0	79		
18	40	20.6	27.6	31.9								32.1	33.4	77		
	50	21.1	28.7	34.3								38.0	39.8	77		
	60	21.4	29.3	35.7	40.6							43.7	46.1	78		
	70	21.6	29.7	36.6	42.2	46.6						49.2	52.2	78		
	80	21.8	30.0	37.2	43.3	48.4	52.4					54.7	58.2	78		
	90	21.9	30.2	37.6	44.1	49.7	54.4	58.2				60.2	64.2	79		
	100	22.0	30.4	37.9	44.7	50.7	55.9	60.3	63.9			65.7	70.2	79		
20	40	25.4	34.1	39.3								40.0	41.1	77		
	50	26.1	35.5	42.4	46.9							47.5	49.0	77		
	60	26.5	36.2	44.1	50.0	54.1						54.7	56.4	78		
	70	26.8	36.7	45.2	52.1	57.4	61.2					61.8	64.1	78		
	80	26.9	37.1	45.9	53.5	59.7	64.6	68.2				68.7	71.5	78		
	90	27.1	37.3	46.5	54.5	61.3	67.1	71.7	75.2			75.6	78.8	79		
	100	27.2	37.5	46.9	55.2	62.6	69.0	74.4	78.7	82.1		82.5	86.1	79		
22	50	31.6	42.9	51.3	56.6							57.9	59.1	77		
	60	32.1	43.9	53.4	60.5	65.4						66.7	68.3	78		
	70	32.4	44.5	54.7	63.0	69.4	73.9					75.4	77.3	78		
	80	32.7	44.9	55.6	64.7	72.2	78.1	82.4				83.9	86.2	78		
	90	32.8	45.2	56.3	65.9	74.2	81.1	86.6	90.8			92.4	95.0	79		
	100	33.0	45.5	56.8	66.9	75.7	83.4	89.9	95.1	99.1		100.8	103.8	79		
	24	50	37.7	51.2	61.0	67.4							69.2	70.2	77	
60		38.3	52.3	63.5	72.0	77.7						79.8	81.1	78		
70		38.7	53.0	65.1	75.0	82.6	87.9					90.1	91.7	78		
80		39.0	53.5	66.2	77.0	85.9	92.8	97.9				100.4	102.2	78		
90		39.2	53.9	67.0	78.5	88.3	96.5	103.0	107.8			110.5	112.7	79		
100		39.3	54.2	67.6	79.6	90.1	99.2	106.8	113.0	117.7		120.6	123.1	79		
26		50	44.3	60.1	71.7	79.0							81.4	82.3	77	
	60	45.0	61.4	74.6	84.5	91.2						93.9	95.0	78		
	70	45.5	62.3	76.5	88.0	96.9	103.0					106.1	107.4	78		
	80	45.8	62.9	77.8	90.4	100.8	108.9	114.8				118.1	119.7	78		
	90	46.0	63.3	78.7	92.1	103.6	113.2	120.8	126.4			130.1	131.9	79		
	100	46.2	63.7	79.4	93.5	105.8	116.4	125.3	132.5	138.0		142.0	144.0	79		

^a includes 1.0-foot stump allowance.

Table 63--Predicted **stemwood** volume to a saw-log merchantable top, and to O-inch and **4-inch** d.o.b. tops based on d.b.h., height to a g-inch d.o.b. top and height to a saw-log top for post oak (species **835**) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch		4-inch		Girerd Form Class
		Sew-log		merchantable		height		(16-foot		logs)		d.o.b. top		d.o.b. top		
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0						
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>														<u>Percent</u>
12	20	8.3										9.5	17.8		73	
	30	9.0	12.6									14.5	18.8		77	
	40	9.3	13.1	16.5								19.2	22.1		78	
	50	9.5	13.3	16.9	20.3	23.4						23.8	26.0		79	
	60	9.6	13.4	17.2	20.7	24.1	27.2					28.3	30.1		79	
	70	9.6	13.5	17.3	21.0	24.5	27.8	31.0				32.8	34.3		79	
	80	9.7	13.6	17.4	21.1	24.7	28.2	31.5	34.7			37.3	38.5		79	
14	40	12.8	17.8	22.1								25.2	28.3		78	
	50	13.0	18.1	22.8	27.1	30.6						31.0	33.3		79	
	60	13.1	18.3	23.2	27.8	31.9	35.6					36.7	38.6		79	
	70	13.2	18.5	23.5	28.2	32.6	36.7	40.4				42.4	44.0		79	
	80	13.3	18.6	23.6	28.5	33.1	37.5	41.5	45.2			48.0	49.4		79	
	90	13.3	18.6	23.8	28.7	33.4	38.0	42.3	46.3	50.0		53.6	54.8		79	
	100	13.4	18.7	23.8	28.9	33.7	38.3	42.8	47.0	51.1		59.2	60.3		79	
16	40	16.8	23.2	28.6								32.1	35.5		78	
	50	17.1	23.7	29.6	34.8	38.9						39.3	41.8		79	
	60	17.2	24.0	30.2	35.9	41.0	45.2					46.4	48.4		79	
	70	17.3	24.2	30.6	36.6	42.1	47.0	51.3				53.4	55.1		79	
	80	17.4	24.3	30.8	37.0	42.8	48.2	53.1	57.4			60.4	61.9		79	
	90	17.5	24.4	31.0	37.3	43.3	49.0	54.2	59.1	63.4		67.4	68.6		79	
	100	17.5	24.5	31.1	37.6	43.7	49.6	55.1	60.3	65.1		74.3	75.4		79	
18	40	21.3	29.3	35.9								40.0	43.6		78	
	50	21.7	30.0	37.4	43.6	48.3						48.7	51.5		79	
	60	21.9	30.4	38.2	45.2	51.2	56.1					57.4	59.6		79	
	70	22.0	30.6	38.7	46.1	52.8	58.7	63.6				66.0	67.8		79	
	80	22.1	30.8	39.0	46.7	53.8	60.3	66.1	71.1			74.5	76.0		79	
	90	22.2	30.9	39.2	47.1	54.5	61.4	67.8	73.6	78.6		83.0	84.3		79	
	100	22.3	31.0	39.4	47.4	55.1	62.3	69.0	75.3	80.9		91.4	92.6		79	
20	40	26.4	36.2	44.1								48.7	52.6		78	
	50	26.8	37.1	46.0	53.5	58.9						59.3	62.2		79	
	60	27.1	37.6	47.1	55.5	62.7	68.2					69.7	72.0		79	
	70	27.3	37.9	47.7	56.7	64.8	71.8	77.4				80.0	81.9		79	
	80	27.4	38.1	48.1	57.5	66.1	73.9	80.8	86.5			90.2	91.8		79	
	90	27.5	38.2	48.4	58.1	67.1	75.4	83.0	89.8	95.5		100.4	101.8		79	
	100	27.6	38.4	48.7	58.5	67.8	76.5	84.6	92.0	98.7		110.5	111.8		79	
22	50	32.5	44.9	55.6	64.4	70.5						71.0	74.1		79	
	60	32.9	45.5	56.9	66.9	75.4	81.7					83.3	85.8		79	
	70	33.1	45.9	57.7	68.4	78.0	86.2	92.7				95.5	97.5		79	
	80	33.2	46.1	58.2	69.4	79.7	88.9	97.0	103.5			107.6	109.3		79	
	90	33.3	46.3	58.6	70.2	80.9	90.8	99.8	107.7	114.3		119.6	121.2		79	
	100	33.4	46.5	58.9	70.7	81.8	92.2	101.8	110.5	118.3		131.7	133.0		79	
24	50	38.8	53.5	66.1	76.3	83.3						83.8	87.1		79	
	60	39.2	54.2	67.7	79.5	89.3	96.5					98.2	100.8		79	
	70	39.4	54.7	68.6	81.3	92.5	102.0	109.4				112.4	114.6		79	
	80	39.6	55.0	69.3	82.6	94.6	105.4	114.7	122.2			126.6	128.5		79	
	90	39.8	55.2	69.8	83.4	96.1	107.7	118.2	127.3	134.9		140.7	142.4		79	
	100	39.9	55.4	70.1	84.1	97.2	109.4	120.7	130.8	139.9		154.8	156.2		79	
26	50	45.6	62.8	77.5	89.3	97.2						97.7	101.2		79	
	60	46.1	63.6	79.4	93.1	104.4	112.5					114.4	117.2		79	
	70	46.4	64.2	80.6	95.3	108.3	119.2	127.6				130.9	133.2		79	
	80	46.6	64.6	81.3	96.8	110.8	123.3	134.0	142.5			147.3	149.3		79	
	90	46.7	64.9	81.9	97.9	112.6	126.1	138.1	148.6	157.2		163.7	165.4		79	
	100	46.9	65.1	82.3	98.6	113.9	128.1	141.2	152.9	163.2		180.0	181.5		79	

^a Includes 1.0-foot stump allowance.

Table 64--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for post oak (species 835) in the Upper Coastal Plain.'

D.b.h. class	Total-tree height (feet)																	
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	
<u>Inches</u>	<u>Cubic feet</u>																	
5																		
6	0.7	1.8	2.3	1.0	2.5	1.4	2.8	1.7	3.4	2.2	3.6	2.3	3.8	4.0				
7	2.6	3.2	3.6	4.0	4.8	5.1	5.5	5.8	6.1	6.4								
8	3.5	4.3	4.8	5.3	6.4	6.9	7.3	7.7	8.2	8.6	9.0	9.4						
9	4.5	5.5	6.2	6.8	8.2	8.8	9.4	10.0	10.5	11.1	11.6	12.2	12.7	13.2				
10	5.6	6.9	7.7	8.5	10.3	11.0	11.7	12.5	13.2	13.9	14.6	15.2	15.9	16.6	17.3	17.9		
11			9.4	10.4	12.5	13.4	14.3	15.2	16.1	16.9	17.8	18.6	19.4	20.3	21.1	21.9	22.7	
12			11.2	12.4	15.0	16.1	17.1	18.2	19.2	20.3	21.3	22.3	23.3	24.3	25.3	26.3	27.2	
13			13.2	14.7	17.6	18.9	20.2	21.5	22.7	23.9	25.1	26.3	27.5	28.7	29.8	31.0	32.1	
14					20.5	22.0	23.5	25.0	26.4	27.8	29.2	30.6	32.0	33.4	34.7	36.1	37.4	
15					23.6	25.4	27.1	28.8	30.4	32.1	33.7	35.3	36.9	38.4	40.0	41.6	43.1	
16					26.9	28.9	30.9	32.8	34.7	36.6	38.4	40.2	42.0	43.8	45.6	47.4	49.2	

^a Includes 0.5-foot stump allowance.

Table 65--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for post oak (species 835) in the Upper Coastal Plain.'

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																	
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Inches	Cubic feet																	
5																		
6	2.2	1.6	2.0	2.7	3.3	2.5	3.9	2.9	3.3	4.4	5.4	5.9						
7	2.7	3.4	4.1	5.1	5.7	6.4	7.0	7.6	8.2	8.8								
8																		
9	3.6	4.5	4.4	5.6	6.6	5.3	8.1	6.5	9.1	7.3	10.0	8.1	10.9	8.8	11.8	9.6	12.7	
10	5.5	6.8	8.1	9.9	11.0	12.2	13.2	14.3	15.4	16.4	17.5	18.5	19.6	20.6	21.7	22.7		
11			9.8	11.9	13.2	14.5	15.8	17.1	18.4	19.6	20.9	22.1	23.3	24.5	25.8	27.0	28.2	
12			11.6	14.1	15.6	17.2	18.7	20.2	21.6	23.1	24.5	26.0	27.4	28.8	30.2	31.7	33.1	
13			13.6	16.4	18.3	20.0	21.8	23.5	25.2	26.9	28.5	30.2	31.8	33.5	35.1	36.8	38.4	
14																		
15					24.1	21.1	26.5	23.1	25.1	28.7	30.9	27.1	33.2	29.0	30.9	35.3	32.9	
16					27.4	30.0	32.6	35.1	37.6	40.0	42.5	44.9	47.3	49.7	52.2	54.5	56.9	

^a Includes 0.5-foot stump allowance.

Table 66--Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all white oaks combined (species 82) in the Upper Coastal Plain.^a

D.b.h. class	Total tree height	Volume to										Gi rard Form Class
		1.0	saw-Log	merchantable	height (16-foot	3.5	4.0	4.5	5.0	9-inch	4-inch	
Inches	Feet		1.5	2.0	2.5	3.0	3.5	4.0	4.5	d.o.b. top	d.o.b. top	Percent
12	40									4.9	9.6	62
	50	8.3								9.7	13.1	71
	60	8.9	12.2							12.3	16.2	76
	70	9.4	12.9							14.6	19.0	78
	80	9.6	13.4	16.6						16.7	21.7	80
	90	9.8	13.8	17.2						18.6	24.3	82
14	100	10.0	14.1	17.7						20.4	26.8	83
	40		9.7							11.0	13.3	62
	50		11.3	15.0						15.5	18.0	71
	60		12.2	16.6						19.2	22.3	76
	70	12.8	17.7	21.5						22.5	26.2	78
	80	13.2	18.4	22.7						25.6	29.9	80
16	90	13.4	18.8	23.5	27.3					28.4	33.4	82
	100	13.6	19.2	24.1	28.3					31.4	36.9	83
	50	14.8	19.7							21.5	23.7	71
	60	16.0	21.8	26.0						26.6	29.3	76
	70	16.8	23.1	28.2						31.2	34.4	78
	80	17.3	24.0	29.7	33.9					35.5	39.2	80
18	90	17.6	24.7	30.8	35.7	39.3				39.6	43.9	82
	100	17.9	25.1	31.6	36.6	41.2				43.6	48.4	83
	110	18.0	25.5	32.2	IX-X	42.7	46.4			47.5	52.9	83
	50	18.8	25.0							28.2	30.2	71
	60	20.3	27.7	32.9						34.8	37.2	76
	70	21.3	29.4	35.7	40.0					40.8	43.7	78
20	80	21.9	30.5	37.7	43.0					46.5	49.9	80
	90	22.4	31.3	39.0	45.2	49.8				51.9	55.8	82
	100	22.7	31.9	40.0	46.9	52.2	56.1			57.2	61.5	83
	110	22.9	32.3	40.8	48.1	54.2	58.8	62.2		62.3	67.2	83
	50	23.3	30.9	35.5						35.6	37.4	71
	60	25.2	34.2	40.7						43.9	46.1	76
22	70	26.4	36.3	44.2	49.5					51.5	54.1	78
	80	27.1	37.7	46.6	53.2	57.6				58.7	61.8	80
	90	27.7	38.7	48.3	55.9	61.5	65.3			65.6	69.1	82
	100	28.1	39.5	49.5	58.0	64.6	69.4			72.3	76.2	83
	110	28.4	40.0	50.5	59.5	66.9	72.7	76.9		78.8	83.2	83
	60	30.6	41.5	49.3	53.8					53.9	55.9	76
24	70	32.0	44.0	53.6	60.0					63.3	65.7	78
	80	32.9	45.8	56.4	64.5	69.8				72.1	74.9	80
	90	33.6	47.0	58.5	67.8	74.5	79.1			80.6	83.8	82
	100	34.1	47.8	60.0	70.2	78.2	84.0	88.0		88.8	92.4	83
	110	34.4	48.5	61.2	72.1	81.1	88.0	93.2	96.7	96.8	100.9	83
	60	36.5	49.5	58.8	64.1					64.8	66.7	76
26	70	38.2	52.5	63.8	71.4	75.8				76.1	78.3	78
	80	39.3	54.5	67.3	76.8	83.1				86.7	89.3	80
	90	40.1	56.0	69.7	80.7	88.8	94.2			96.9	99.9	82
	100	40.6	57.0	71.5	83.7	93.2	100.1	104.9		106.8	110.2	83
	110	41.1	57.8	72.9	85.9	96.6	104.9	111.0	115.2	116.5	120.2	83
	60	42.9	58.1	69.1	75.3					76.7	78.4	76
28	70	44.9	61.7	75.0	83.9	89.1				90.0	92.0	78
	80	46.2	64.1	79.0	90.2	97.7	102.1			102.5	105.0	80
	90	47.1	65.8	81.9	94.8	104.3	110.7	114.6		114.6	117.4	82
	100	47.8	67.0	84.0	98.3	109.4	117.6	123.2		126.4	129.4	83
	110	48.3	68.0	85.6	100.9	113.5	123.2	130.3	135.3	137.8	141.3	83

^a includes 1 .O-foot stump allowance.

Table 67--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all white oaks combined (species 62) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to													Girard Form Class
		Saw-Log merchantable height (16-foot togs)													
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top			
Inches	Feet	Cubic feet													Percent
12	30	8.1										9.0	11.1	72	
	40	9.0										11.5	14.8	77	
	50	9.4	12.9									13.7	18.2	79	
	60	9.6	13.3									15.7	21.4	80	
	70	9.8	13.6	16.9								17.6	24.5	81	
	80	9.9	13.8	17.3								19.4	27.5	82	
14	90	10.0	14.0	17.5	20.6							21.2	30.5	82	
	40	12.2	16.5									17.5	19.9	77	
	50	12.8	17.6	21.0								21.0	24.4	79	
	60	13.1	18.2	22.2								24.4	28.6	80	
	70	13.4	18.6	23.0	26.5							27.6	32.7	81	
	80	13.5	18.9	23.5	27.4	30.6						30.8	36.7	82	
16	90	13.6	19.1	23.9	28.0	31.6						33.8	40.7	82	
	100	13.7	19.2	24.2	28.5	32.4	35.6					36.9	44.7	82	
	40	16.0	21.5									23.9	25.8	77	
	50	16.8	23.0	27.4								29.0	31.5	79	
	60	17.2	23.8	29.0	32.8							33.7	37.0	80	
	70	17.5	24.3	30.0	34.5	38.0						38.3	42.2	81	
18	80	17.7	24.7	30.7	35.7	39.8						42.8	47.4	82	
	90	17.8	25.0	31.2	36.6	41.2	44.9					47.2	52.5	82	
	100	17.9	25.1	31.6	37.3	42.2	46.4	49.9				51.5	57.6	82	
	40	20.4	27.3									31.0	32.5	77	
	50	21.3	29.1	34.7								37.6	39.7	79	
	60	21.9	30.2	36.7	41.5							43.9	46.5	80	
20	70	22.2	30.8	38.0	43.7	47.9						49.9	53.1	81	
	80	22.5	31.3	38.9	45.2	50.3	54.2					55.8	59.5	82	
	90	22.7	31.6	39.5	46.3	52.0	56.7	60.4				61.6	65.9	82	
	100	22.8	31.9	40.0	47.2	53.4	58.6	63.0	66.5			67.4	72.2	82	
	40	25.2	33.7	38.5								38.8	40.0	77	
	50	26.4	36.0	42.8	47.0							47.1	48.8	79	
22	60	27.1	37.3	45.3	51.2	55.0						55.0	57.1	80	
	70	27.5	38.2	46.9	53.9	59.1						62.6	65.2	81	
	80	27.8	38.7	48.0	55.8	62.0	66.8					70.0	73.1	82	
	90	28.0	39.1	48.8	57.2	64.2	69.9	74.4				77.3	80.8	82	
	100	28.2	39.4	49.5	58.3	65.9	72.3	77.6	81.8			84.6	88.5	82	
	50	32.0	43.6	51.8	56.8							57.5	58.9	79	
24	60	32.8	45.2	54.9	61.9	66.4						67.1	68.9	80	
	70	33.4	46.2	56.8	65.2	71.5	75.7					76.4	78.6	81	
	80	33.8	46.9	58.2	67.5	75.0	80.8	84.8				85.5	88.0	82	
	90	34.0	47.4	59.2	69.2	77.7	84.5	89.9	93.7			94.5	97.4	82	
	100	34.2	47.8	59.9	70.5	79.7	87.5	93.8	98.9	102.6		103.3	106.6	82	
	50	38.2	52.0	61.7	67.6							68.8	70.0	79	
26	60	39.2	53.9	65.3	73.6	78.9						80.3	81.8	80	
	70	39.8	55.1	67.7	77.6	85.0	90.0					91.4	93.3	81	
	80	40.3	55.9	69.3	80.4	89.3	96.0	100.7				102.3	104.5	82	
	90	40.6	56.5	70.5	82.4	92.4	100.6	106.8	111.3			113.0	115.5	82	
	100	40.8	57.0	71.4	84.0	94.9	104.0	111.6	117.5	121.8		123.7	126.5	82	
	50	44.9	61.1	72.4	79.3							81.0	82.0	79	
28	60	46.0	63.3	76.7	86.4	92.6						94.5	95.8	80	
	70	46.8	64.8	79.5	91.1	99.7	105.5					107.6	109.2	81	
	80	47.3	65.7	81.4	94.4	104.8	112.6	118.1				120.5	122.3	82	
	90	47.7	66.4	82.8	96.8	108.5	118.0	125.3	130.5			133.1	135.3	82	
	100	48.0	67.0	83.8	98.6	111.4	122.1	130.9	137.8	142.8		145.6	148.1	82	

^a Includes 1.0-foot stump allowance.

Table 66--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all white oaks combined (species 82) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Gi rard Form Class
		Saw-log		merchantable		height		(16-foot logs)						
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0				
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>	
12	20	8.3									9.5	14.1	74	
	30	9.3	12.9								14.8	18.8	79	
	40	9.7	13.5	17.0							19.7	23.5	80	
	50	9.9	13.9	17.6	21.0	24.1					24.4	28.1	81	
	60	10.0	14.1	17.9	21.6	24.9	28.0				29.1	32.7	82	
	70	10.1	14.2	18.2	21.9	25.5	28.8	31.9			33.7	37.3	82	
	80	10.2	14.3	18.3	22.1	25.8	29.3	32.6	35.8		38.3	41.9	82	
14	40	13.1	18.3	22.5							25.5	28.7	80	
	50	13.4	18.8	23.5	27.6	31.0					31.4	34.5	81	
	60	13.6	19.1	24.1	28.6	32.6	36.0				37.1	40.3	82	
	70	13.7	19.2	24.4	29.2	33.6	37.5	40.9			42.8	45.9	82	
	80	13.8	19.4	24.7	29.6	34.2	38.5	42.3	45.8		48.5	51.6	82	
	90	13.8	19.5	24.8	29.9	34.7	39.2	43.3	47.2	50.7	54.1	57.2	82	
	100	13.9	19.6	25.0	30.1	35.0	39.7	44.1	48.2	52.0	59.8	62.8	82	
16	40	17.1	23.7	28.9							32.2	35.1	80	
	50	17.5	24.4	30.4	35.3	39.0					39.4	42.2	81	
	60	17.7	24.8	31.2	36.7	41.4	45.3				46.4	49.2	82	
	70	17.9	25.1	31.7	37.6	42.9	47.5	51.4			53.4	56.2	82	
	80	18.0	25.3	32.0	38.2	43.9	49.1	53.6	57.5		60.3	63.1	82	
	90	18.1	25.4	32.3	38.7	44.7	50.1	55.1	59.6	63.5	67.2	69.9	82	
	100	18.1	25.5	32.5	39.0	45.2	51.0	56.3	61.2	65.6	74.0	76.8	82	
18	40	21.7	29.9	36.2							39.8	42.5	80	
	50	22.2	30.9	38.1	44.0	48.1					48.5	51.1	81	
	60	22.5	31.4	39.2	46.0	51.5	55.8				57.0	59.5	82	
	70	22.7	31.7	39.9	47.2	53.6	59.0	63.3			65.3	67.9	82	
	80	22.8	32.0	40.4	48.1	55.0	61.1	66.4	70.7		73.7	76.2	82	
	90	22.9	32.1	40.7	48.7	56.0	62.6	68.5	73.7	78.1	82.0	84.5	82	
	100	23.0	32.3	41.0	49.2	56.7	63.8	70.1	75.9	81.0	90.2	92.7	82	
20	40	26.8	36.9	44.3							48.3	50.9	80	
	50	27.4	38.1	46.9	53.7	58.3					58.6	61.1	81	
	60	27.8	38.7	48.3	56.3	62.8	67.5				68.8	71.2	82	
	70	28.0	39.2	49.2	58.0	65.5	71.8	76.6			78.8	81.1	82	
	80	28.2	39.5	49.8	59.1	67.4	74.6	80.7	85.5		88.7	91.0	82	
	90	28.3	39.7	50.2	59.9	68.7	76.6	83.5	89.5	94.4	98.5	100.9	82	
	100	28.4	39.8	50.5	60.5	69.7	78.1	85.7	92.4	98.3	108.3	110.7	82	
22	50	33.2	46.1	56.5	64.5	69.5					69.9	72.3	81	
	60	33.7	46.9	58.3	67.8	75.3	80.5				81.8	84.1	82	
	70	33.9	47.4	59.4	69.8	78.7	85.9	91.3			93.6	95.8	82	
	80	34.1	47.8	60.1	71.3	81.0	89.5	96.5	101.9		105.3	107.5	82	
	90	34.3	48.0	60.7	72.3	82.7	92.0	100.1	107.0	112.5	116.8	119.1	82	
	100	34.4	48.2	61.1	73.0	84.0	93.9	102.8	110.7	117.4	128.4	130.6	82	
24	50	39.6	54.8	67.1	76.3	81.9					82.3	84.5	81	
	60	40.1	55.8	69.2	80.3	88.9	94.8				96.2	98.3	82	
	70	40.5	56.4	70.6	82.9	93.2	101.4	107.4			109.9	112.0	82	
	80	40.7	56.9	71.5	84.6	96.1	105.8	113.8	119.9		123.4	125.6	82	
	90	40.9	57.2	72.2	85.9	98.1	109.0	118.3	126.1	132.3	136.9	139.0	82	
	100	41.0	57.5	72.7	86.8	99.7	111.3	121.7	130.7	138.4	150.4	152.5	82	
26	50	46.5	64.4	78.6	89.1	95.3					95.7	97.9	81	
	60	47.1	65.5	81.2	94.0	103.8	110.3				111.7	113.8	82	
	70	47.6	66.3	82.8	97.1	108.9	118.3	125.0			127.5	129.6	82	
	80	47.8	66.8	83.9	99.1	112.4	123.6	132.7	139.5		143.2	145.2	82	
	90	48.1	67.2	84.7	100.6	114.9	127.4	138.1	146.9	153.8	158.8	160.8	82	
	100	48.2	67.5	85.3	101.8	116.7	130.2	142.1	152.5	161.1	174.3	176.3	82	

^a Includes 1.0-foot stump allowance.

Table 69--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all white oaks combined (species 62) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																	
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	
Inches	Cubic feet																	
5	0.8	1.1	1.6	1.8	1.9	2.2												
6	1.8	2.3	2.5	2.8	3.1	3.4	3.8	4.1										
7	2.6	3.2	3.6	4.0	4.3	4.8	5.3	5.8	6.2	6.6								
8																		
9	3.5	4.5	4.3	5.5	6.1	4.8	5.3	6.8	5.8	7.5	8.3	6.5	9.2	7.1	10.0	7.7	10.7	
10	5.6	6.9	7.6	8.5	9.3	10.4	11.4	12.4	13.4	14.3	15.2	16.1	17.0	17.8	18.7	19.5		
11			9.3	10.3	11.4	12.7	14.0	15.2	16.3	17.5	18.6	19.7	20.7	21.8	22.8	23.9	24.9	
12			11.2	12.4	13.6	15.2	16.7	18.2	19.6	20.9	22.3	23.6	24.8	26.1	27.4	28.6	29.8	
13			13.2	14.6	16.1	17.9	19.7	21.4	23.1	24.7	26.3	27.8	29.3	30.8	32.3	33.7	35.2	
14					18.7	20.9	23.0	25.0	26.9	28.7	30.6	32.4	34.1	35.9	37.6	39.3	40.9	
15					21.6	24.1	26.4	28.7	31.0	33.1	35.2	37.3	39.3	41.3	43.3	45.2	47.2	
16					24.6	27.5	30.2	32.8	35.3	37.8	40.2	42.5	44.8	47.1	49.4	51.6	53.8	

^a Includes 0.5-foot stump allowance.

Table 70--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all white oaks combined (species 82) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																	
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	
Inches	Cubic feet																	
5																		
6	2.2	1.7	2.1	2.8	3.4	2.7	3.0	3.9	3.5	4.5	4.0	5.1	5.7	6.2				
7	2.7	3.4	4.2	5.1	5.8	6.5	7.2	7.8	8.5	9.2								
8	3.5	4.4	5.3	6.4	7.3	8.1	9.0	9.8	10.6	11.4	12.2	12.9						
9	4.4	5.5	6.5	7.9	9.0	10.0	11.0	12.0	13.0	13.9	14.9	15.8	16.7	17.7				
10	5.4	6.7	7.9	9.6	10.9	12.1	13.3	14.5	15.7	16.8	17.9	19.0	20.1	21.2	22.3	23.4		
11		9.5	11.4	13.0	14.5	15.9	17.3	18.6	20.0	21.3	22.6	23.9	25.2	26.5	27.8	29.1		
12		11.2	13.5	15.3	17.0	18.7	20.3	21.9	23.5	25.0	26.5	28.1	29.6	31.1	32.6	34.1		
13		13.1	15.8	17.8	19.8	21.7	23.6	25.5	27.3	29.1	30.8	32.6	34.3	36.1	37.8	39.5		
14				20.6	22.9	25.1	27.2	29.3	31.4	33.4	35.5	37.5	39.5	41.5	43.4	45.4		
15				23.5	26.1	28.6	31.1	33.5	35.8	38.1	40.4	42.7	45.0	47.2	49.5	51.7		
16				26.7	29.6	32.4	35.2	37.9	40.6	43.2	45.8	48.3	50.9	53.4	56.0	58.5		

^a Includes 0.5-foot stump allowance.

Table 7 1 --Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for scarlet oak (species 806) in the Upper Coastal Plain."

D.b.h. class	Total tree height	Volume to										Girard Form Class	
		Saw-log		merchantable		height		(16-foot		Logs)			9-inch
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top	
<u>nches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
12	40	8.7									11.3	13.1	79
	50	8.8	12.3								12.6	15.1	79
	60	9.0	12.6								13.8	17.2	80
	70	9.1	12.8								15.1	19.2	80
	80	9.2	12.9	16.1							16.3	21.2	80
	90	9.2	13.1	16.4							17.5	23.2	80
	100	9.3	13.1	16.6							18.7	25.1	80
14	40	12.0	16.3								16.5	18.0	79
	50	12.2	17.0								18.7	20.9	79
	60	12.4	17.4								20.9	23.7	80
	70	12.6	17.6	21.6							23.0	26.5	80
	80	12.7	17.8	22.1							25.1	29.2	80
	90	12.8	18.0	22.5	26.1						27.2	32.0	80
	100	12.9	18.1	22.7	26.7						29.2	34.7	80
16	50	16.1	22.3								25.6	27.5	79
	60	16.4	22.9	27.5							28.7	31.3	80
	70	16.6	23.2	28.5							31.8	34.9	80
	80	16.8	23.5	29.1	33.3						34.9	38.6	80
	90	16.9	23.7	29.6	34.3	37.7					37.9	42.2	80
	100	17.0	23.9	29.9	35.0	39.0					40.8	45.8	80
	110	17.1	24.0	30.2	35.6	40.0	43.4				43.8	49.3	80
18	50	20.6	28.4	33.1							33.3	35.1	79
	60	20.9	29.1	35.0							37.6	39.9	80
	70	21.2	29.6	36.2	40.7						41.7	44.5	80
	80	21.5	29.9	37.1	42.4						45.8	49.2	80
	90	21.6	30.2	37.7	43.6	48.0					49.8	53.7	80
	100	21.8	30.4	38.1	44.6	49.6	53.2				53.9	58.3	80
	110	21.9	30.6	38.5	45.3	50.8	55.1				57.9	62.8	80
20	50	25.6	35.3	41.1							42.0	43.6	79
	60	26.0	36.1	43.4							47.4	49.5	80
	70	26.4	36.7	44.9	50.4						52.7	55.3	80
	80	26.7	37.2	46.0	52.5	56.9					57.9	61.0	80
	90	26.9	37.5	46.7	54.1	59.5	63.1				63.1	66.7	80
	100	27.1	37.8	47.3	55.2	61.4	66.0				68.3	72.3	80
	110	27.3	38.0	47.7	56.1	63.0	68.3	72.2			73.4	78.0	80
22	60	31.7	43.9	52.7	57.6						58.2	60.1	80
	70	32.2	44.7	54.6	61.2						64.8	67.2	80
	80	32.5	45.2	55.8	63.8	69.1					71.3	74.1	80
	90	32.8	45.6	56.7	65.7	72.2	76.6				77.8	81.0	80
	100	33.1	46.0	57.4	67.1	74.6	80.0	83.8			84.2	87.9	80
	110	33.3	46.2	58.0	68.1	76.5	82.9	87.6			90.5	94.7	80
24	60	37.9	52.5	62.9	68.8						70.0	71.8	80
	70	38.5	53.3	65.2	73.1	77.6					78.0	80.2	80
	80	38.9	54.0	66.7	76.1	82.4					85.9	88.5	80
	90	39.3	54.5	67.8	78.4	86.1	91.3				93.7	96.7	80
	100	39.6	54.9	68.6	80.1	89.0	95.5	100.0			101.5	104.9	80
	110	39.8	55.3	69.2	81.3	91.2	98.9	104.5	108.4		109.2	113.0	80
26	60	44.7	61.8	74.1	80.9						82.8	84.5	80
	70	45.4	62.8	76.7	85.9	91.3					92.3	94.4	80
	80	45.9	63.6	78.4	89.6	96.9	101.3				101.7	104.1	80
	90	46.3	64.2	79.7	92.2	101.3	107.4				111.0	113.8	80
	100	46.7	64.7	80.7	94.2	104.6	112.3	117.6			120.2	123.4	80
	110	47.0	65.1	81.5	95.7	107.3	116.2	122.9	127.5		129.4	133.0	80

*Includes 1.0-foot stump allowance.

Table 72--Predicted **stemwood** volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., height to a **4-inch** d.o.b. top and height to a saw-log top for scarlet oak (species **806**) in the Upper Coastal Plain.

D.b.h. class	Height to 4-inch d.o.b. top	Volume to												9-inch d.o.b. top	4-inch d.o.b. top	Gi rrrd Form Class
		Saw-log 1.0	1.5	merchantable 2.0	2.5	height 3.0	(16-foot 3.5	logs) 4.0	5.0	4.5	5.0	6.0				
<u>Inches</u>	<u>Feet</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<u>Percent</u>
12	30	8.3											9.8	11.7		75
	40	8.9											12.0	15.2		78
	50	9.1	12.7										14.0	18.4		79
	60	9.3	13.0										15.9	21.6		80
	70	9.4	13.3	16.5									17.8	24.6		81
	80	9.5	13.4	16.8									19.6	27.7		81
	90	9.6	13.5	17.0	20.2								21.4	30.7		81
14	40	12.2	16.7										18.2	20.5		78
	50	12.6	17.4	21.1									21.7	24.8		79
	60	12.9	17.9	22.0									24.9	29.0		80
	70	13.0	18.2	22.6	26.3								28.1	33.1		81
	80	13.1	18.4	23.0	27.0	30.3							31.3	37.1		81
	90	13.2	18.6	23.4	27.6	31.2	34.3						34.4	41.1		81
	100	13.3	18.7	23.6	28.0	31.9	35.3						37.4	45.1		81
16	40	16.1	21.9										25.0	26.7		78
	50	16.7	23.0	27.6									29.9	32.3		79
	60	17.0	23.6	28.9	33.0								34.5	37.6		80
	70	17.2	24.0	29.7	34.4	38.1							39.1	42.9		81
	80	17.4	24.3	30.3	35.4	39.7	43.0						43.6	48.0		81
	90	17.5	24.5	30.7	36.1	40.8	44.8	48.0					48.0	53.2		81
	100	17.6	24.6	31.0	36.7	41.7	46.1	49.8					52.4	58.2		81
18	40	20.6	27.9	32.3									32.4	33.8		78
	50	21.3	29.2	35.1									38.9	40.7		79
	60	21.7	30.0	36.7	41.8								45.0	47.4		80
	70	22.0	30.5	37.8	43.6	48.2							51.0	54.0		81
	80	22.2	30.9	38.5	44.9	50.3	54.5						56.9	60.5		81
	90	22.4	31.2	39.0	45.9	51.8	56.7	60.6					62.8	66.8		81
	100	22.5	31.4	39.4	46.6	52.9	58.4	63.0	66.7				68.6	73.2		81
20	40	25.6	34.6	39.9									40.6	41.7		78
	50	26.5	36.3	43.5	48.1								48.7	50.2		79
	60	27.0	37.3	45.5	51.7	55.9							56.5	58.4		80
	70	27.4	37.9	46.8	54.0	59.6	63.5						64.1	66.5		81
	80	27.6	38.4	47.7	55.6	62.1	67.3	71.0					71.5	74.4		81
	90	27.8	38.7	48.4	56.8	64.0	70.0	74.8	78.4				78.9	82.2		81
	100	28.0	39.0	48.9	57.7	65.4	72.1	77.7	82.3	85.8			86.2	89.9		81
22	50	32.2	44.1	52.7	58.3								59.5	60.8		79
	60	32.9	45.3	55.2	62.7	67.7							69.0	70.6		80
	70	33.3	46.1	56.8	65.5	72.2	76.9						78.3	80.3		81
	80	33.6	46.6	57.9	67.5	75.3	81.4	85.9					87.4	89.8		81
	90	33.9	47.0	58.7	68.9	77.6	84.8	90.5	94.8				96.4	99.1		81
	100	34.1	47.4	59.3	70.0	79.3	87.4	94.1	99.5	103.7			105.4	108.5		81
	24	50	38.5	52.6	62.9	69.4								71.2	72.3	
60		39.3	54.1	65.9	74.7	80.6							82.6	84.0		80
70		39.9	55.0	67.8	78.1	86.0	91.5						93.7	95.4		81
80		40.3	55.7	69.1	80.4	89.7	97.0	102.2					104.7	106.6		81
90		40.6	56.2	70.1	82.2	92.5	101.0	107.8	112.8				115.5	117.8		81
100		40.8	56.6	70.8	83.5	94.6	104.1	112.0	118.5	123.3			126.2	128.8		81
26		50	45.4	61.9	74.0	81.6								84.0	84.9	
	60	46.4	63.7	77.5	87.8	94.7							97.4	98.5		80
	70	47.0	66.8	79.7	91.8	101.0	107.4						110.5	111.9		81
	80	47.5	65.6	81.3	94.6	105.4	113.9	120.0					123.3	125.0		81
	90	47.8	66.2	82.5	96.6	108.7	118.7	126.6	132.4				136.1	138.0		81
	100	48.1	66.7	83.3	98.2	111.1	122.3	131.6	139.0	144.7			148.7	150.9		81

* Includes 1 .0-foot stump allowance.

Table 73--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for scarlet oak (species 806) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Gi rard Form Class
		Saw-Log 1.0	merchantable 1.5	2.0	2.5	height 3.0	(16-foot logs) 3.5	4.0	4.5	5.0				
Inches	Feet	Cubic feet										Percent		
12	20	8.1										9.3	15.7	73
	30	9.0	12.6									14.6	18.8	78
	40	9.4	13.2	16.8								19.5	22.8	80
	50	9.6	13.6	17.3	20.8	24.0						24.3	27.1	81
	60	9.7	13.7	17.6	21.3	24.7	27.9					29.1	31.5	81
	70	9.8	13.9	17.8	21.6	25.2	28.6	31.9				33.7	36.0	81
	80	9.9	14.0	17.9	21.8	25.5	29.1	32.5	35.7			38.4	40.4	81
14	40	12.8	18.0	22.4							25.4	28.6	80	
	50	13.1	18.4	23.3	27.5	31.1					31.4	34.1	81	
	60	13.3	18.7	23.8	28.4	32.5	36.2				37.3	39.7	81	
	70	13.4	18.9	24.1	28.9	33.4	37.5	41.2			43.1	45.3	81	
	80	13.5	19.0	24.3	29.3	34.0	38.4	42.5	46.1		48.9	50.9	81	
	90	13.5	19.1	24.5	29.6	34.4	39.0	43.4	47.4	51.1	54.7	56.5	82	
	100	13.6	19.2	24.6	29.8	34.8	39.5	44.0	48.3	52.3	60.4	62.1	82	
16	40	16.9	23.5	28.9							32.3	35.4	80	
	50	17.3	24.1	30.2	35.3	39.3					39.7	42.3	81	
	60	17.5	24.5	30.9	36.7	41.6	45.7				46.9	49.2	81	
	70	17.6	24.8	31.4	37.5	43.0	47.8	52.0			54.1	56.1	81	
	80	17.7	24.9	31.7	38.0	43.9	49.2	54.0	58.2		61.2	63.1	81	
	90	17.8	25.1	31.9	38.4	44.5	50.2	55.4	60.2	64.3	68.2	70.0	82	
	100	17.9	25.2	32.1	38.7	45.0	50.9	56.5	61.6	66.3	75.3	76.9	82	
18	40	21.5	29.8	36.3							40.1	43.2	80	
	50	22.0	30.6	38.1	44.2	48.7					49.1	51.7	81	
	60	22.3	31.1	39.1	46.1	51.9	56.5				57.8	60.1	81	
	70	22.5	31.5	39.7	47.2	53.9	59.6	64.3			66.5	68.5	81	
	80	22.6	31.7	40.2	48.0	55.1	61.5	67.2	71.9		75.1	77.0	81	
	90	22.7	31.8	40.5	48.5	56.0	62.9	69.1	74.7	79.4	83.6	85.4	82	
	100	22.8	32.0	40.7	49.0	56.7	63.9	70.6	76.7	82.2	92.1	93.8	82	
20	40	26.7	36.8	44.6							48.9	52.0	80	
	50	27.3	37.9	47.0	54.2	59.2					59.6	62.2	81	
	60	27.7	38.6	48.3	56.6	63.5	68.7				70.1	72.4	81	
	70	27.9	39.0	49.1	58.1	66.0	72.7	78.0			80.4	82.5	81	
	80	28.1	39.3	49.6	59.1	67.7	75.3	81.9	87.2		90.7	92.5	81	
	90	28.2	39.5	50.0	59.9	68.9	77.1	84.5	91.0	96.4	100.9	102.6	82	
	100	28.3	39.6	50.3	60.4	69.8	78.5	86.5	93.7	100.0	111.0	112.7	82	
22	50	33.2	46.0	56.8	65.2	70.9					71.3	73.9	81	
	60	33.7	46.8	58.4	68.3	76.4	82.2				83.6	85.9	81	
	70	34.0	47.3	59.4	70.2	79.6	87.3	93.3			95.8	97.9	81	
	80	34.2	47.7	60.1	71.5	81.7	90.6	98.2	104.2		107.9	109.8	81	
	90	34.3	47.9	60.6	72.4	83.2	92.9	101.6	109.0	115.1	120.0	121.7	82	
	100	34.4	48.1	61.0	73.1	84.3	94.6	104.0	112.4	119.8	132.0	133.6	82	
24	50	39.7	54.9	67.6	77.4	83.6					84.1	86.7	81	
	60	40.3	55.9	69.6	81.2	90.4	97.0				98.5	100.8	81	
	70	40.6	56.5	70.8	83.5	94.4	103.3	110.0			112.7	114.8	81	
	80	40.9	56.9	71.7	85.0	97.0	107.4	116.1	122.9		126.9	128.7	81	
	90	41.0	57.2	72.3	86.2	98.8	110.2	120.2	128.8	135.7	140.9	142.6	82	
	100	41.2	57.5	72.8	87.0	100.2	112.3	123.3	133.0	141.4	154.9	156.5	82	
26	50	46.8	64.6	79.3	90.6	97.6					98.0	100.7	81	
	60	47.5	65.8	81.7	95.1	105.8	113.1				114.7	117.0	81	
	70	47.9	66.5	83.2	97.9	110.5	120.7	128.3			131.2	133.2	81	
	80	48.2	67.0	84.2	99.8	113.7	125.6	135.6	143.2		147.5	149.4	81	
	90	48.4	67.4	85.0	101.2	115.9	129.1	140.6	150.3	158.0	163.7	165.4	82	
	100	48.5	67.6	85.5	102.2	117.6	131.6	144.3	155.4	165.0	179.9	181.5	82	

^a Includes 1 .0-foot stump allowance.

Table 74--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for scarlet oak (species 806) in the Upper Coastal Plain.'

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5	0.5	1.3	1.4	1.5	2.2	2.3											
6	1.6	2.0	2.3	2.5	3.4	3.6	3.8	4.0									
7	2.3	2.9	3.3	3.6	4.8	5.1	5.4	5.7	6.0	6.3							
8	3.2	4.0	4.4	4.9	6.5	6.9	7.4	7.8	8.2	8.6	9.0	9.4					
IX	4.1	5.2	5.8	6.4	8.4	9.0	9.5	10.1	10.6	11.2	11.7	12.2	12.7	13.3			
	5.2	6.5	7.3	8.1	10.6	11.3	12.0	12.7	13.3	14.0	14.7	15.4	16.0	16.7	17.4	18.0	
11			8.9	9.9	13.0	13.8	14.7	15.5	16.4	17.2	18.0	18.8	19.7	20.5	21.3	22.1	22.9
12			10.8	12.0	15.6	16.6	17.6	18.7	19.7	20.7	21.7	22.7	23.6	24.6	25.6	26.6	27.6
13			12.7	14.2	18.4	19.7	20.9	22.1	23.3	24.5	25.6	26.8	28.0	29.2	30.3	31.5	32.6
14					21.5	22.9	24.4	25.8	27.2	28.5	29.9	31.3	32.7	34.0	35.4	36.7	38.1
15					24.8	26.5	28.1	29.7	31.3	32.9	34.5	36.1	37.7	39.3	40.8	42.4	44.0
16					28.4	30.3	32.1	34.0	35.8	37.7	39.5	41.3	43.1	44.9	46.7	48.5	50.2

* Includes 0.5-foot stump allowance.

Table 75--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for scarlet oak (species 8081 in the Upper Coastal Plain.'

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.0	1.5	2.6	1.9	3.2	2.5	3.9	2.9	3.4	4.4	3.8	5.0	5.5	6.1			
7	2.5	3.2	4.0	5.0	5.7	6.4	7.1	7.7	8.4	9.0							
8	3.3	4.2	5.1	6.4	7.3	8.1	8.9	9.7	10.5	11.3	12.1	12.8					
9																	
10	4.2	5.2	6.5	5.3	6.3	7.8	8.0	9.8	11.0	9.0	10.0	12.2	11.0	13.4	12.0	14.5	12.9
11			9.4	11.7	13.2	14.6	16.0	17.4	18.7	20.0	21.4	22.7	24.0	25.3	26.6	27.9	29.2
12			11.1	13.9	15.6	17.3	18.9	20.5	22.1	23.6	25.2	26.7	28.2	29.7	31.2	32.7	34.2
13			13.0	16.3	18.3	20.2	22.1	23.9	25.7	27.5	29.3	31.1	32.8	34.6	36.3	38.1	39.8
14					21.2	23.4	25.5	27.6	29.7	31.7	33.8	35.8	37.8	39.8	41.8	43.8	45.8
15					24.3	26.8	29.2	31.6	34.0	36.3	38.6	40.9	43.2	45.5	47.7	50.0	52.3
16					27.6	30.4	33.2	35.9	38.5	41.2	43.8	46.4	49.0	51.5	54.1	56.6	59.2

* Includes 0.5-foot stump allowance.

Table 76--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops

based on d.b.h., total-tree height and height to a saw-log top for southern red oak (species 812) in the Upper Coastal Plain!

D.b.h. class	Total tree height	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Girard Form Class
		saw-log		merchantable		height (16-foot togs)								
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.0			
<u>nches</u>	<u>Feet</u>	<u>Cubic feet</u>												<u>Percent</u>
12	40											4.4	9.5	61
	50	7.9										8.8	12.7	69
	60	8.5										11.4	15.6	73
	70	8.9	12.3									13.5	18.2	75
	80	9.2	12.7									15.4	20.7	77
	90	9.4	13.0	16.3								17.1	23.1	78
	100	9.5	13.3	16.7								18.8	25.5	79
14	40	9.5										10.7	13.1	61
	50	10.9	14.5									14.9	17.5	69
	60	11.7	15.9									18.4	21.4	73
	70	12.2	16.8	20.5								21.5	25.1	75
	80	12.6	17.4	21.5								24.4	28.5	77
	90	12.8	17.8	22.2	25.8							27.1	31.8	78
	100	13.0	18.1	22.8	26.7							29.7	35.1	79
16	50	14.3	19.0									20.9	23.0	69
	60	15.4	20.8	24.9								25.6	28.2	73
	70	16.0	22.0	26.8								29.8	33.0	75
	80	16.5	22.8	28.2	32.3							33.9	37.5	77
	90	16.8	23.4	29.1	33.8	37.3						37.7	41.9	78
	100	17.1	23.8	29.8	35.0	39.1						41.4	46.1	79
	110	17.3	24.1	30.4	35.8	40.4	44.0					45.1	50.3	80
18	50	18.2	24.1									27.4	29.3	69
	60	19.5	26.4	31.6								33.5	35.9	73
	70	20.4	27.9	34.1	38.3							39.1	41.9	75
	80	21.0	29.0	35.7	41.0							44.4	47.7	77
	90	21.4	29.7	36.9	42.9	47.3						49.5	53.2	78
	100	21.7	30.2	37.8	44.4	49.5	53.3					54.5	58.6	79
	110	22.0	30.6	38.5	45.5	51.3	55.8	59.1				59.3	63.9	80
20	50	22.5	29.8	34.4								34.6	36.3	69
	60	24.2	32.7	39.1								42.3	44.4	73
	70	25.3	34.6	42.1	47.3							49.4	51.9	75
	80	26.0	35.8	44.2	50.7	55.0						56.1	59.1	77
	90	26.5	36.7	45.7	53.1	58.5	62.2					62.6	65.9	78
	100	26.9	37.4	46.8	54.9	61.3	66.0					68.9	72.6	79
	110	27.2	37.9	47.6	56.2	63.4	68.9	73.1				75.0	79.2	80
22	60	29.3	39.7	47.4	51.7							52.0	53.9	73
	70	30.7	41.9	51.1	57.4							60.7	63.0	75
	80	31.6	43.5	53.6	61.4	66.6						69.0	71.6	77
	90	32.2	44.5	55.4	64.3	70.9	75.4					76.9	80.0	78
	100	32.7	45.3	56.7	66.5	74.2	79.9	83.8				84.6	88.1	79
	110	33.0	46.0	57.7	68.1	76.8	83.5	88.5	92.0			92.2	96.0	80
24	60	35.0	47.3	56.4	61.7							62.5	64.3	73
	70	36.6	50.0	60.9	68.4	72.7						73.0	75.1	75
	80	37.6	51.8	63.9	73.2	79.4						83.0	85.4	77
	90	38.4	53.1	66.0	76.6	84.5	89.8					92.6	95.3	78
	100	39.0	54.1	67.6	79.2	88.4	95.2	99.8				101.9	105.0	79
	110	39.4	54.8	68.8	81.2	91.5	99.5	105.4	109.6			111.0	114.5	80
26	60	41.2	55.6	66.3	72.5							74.0	75.6	73
	70	43.0	58.8	71.5	80.3	85.4						86.4	88.3	75
	80	44.3	60.9	75.1	86.0	93.3	97.6					98.2	100.4	77
	90	45.2	62.4	77.6	90.0	99.3	105.5	109.3				109.5	112.1	78
	100	45.8	63.5	79.4	93.0	103.9	111.8	117.3				120.5	123.4	79
	110	46.3	64.4	80.9	95.4	107.4	116.9	123.8	128.7			131.3	134.5	80

* Includes 1.0-foot stump allowance.

Table 77--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and **4-inch** d.o.b. tops based on d.b.h., height to a **4-inch** d.o.b. top and height to a saw-log top for southern red oak (species **812**) in the Upper Coastal Plain.'

D.b.h. class	Height to 4-inch d.o.b. top	Volume to												Girard Form Class	
		Saw-Log		merchantable		height		(16-foot		logs)		5.0			9-inch
Inches	Feet	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top	d.o.b. top	d.o.b. top	Percent
12	30												6.0	10.2	66
	40	8.4											10.0	14.0	72
	50	8.9	12.1										12.2	17.4	75
	60	9.2	12.5										14.1	20.6	76
	70		9.3	12.9	15.9								15.9	23.7	77
	80		9.5	13.1	16.3								17.7	26.7	78
	90		9.5	13.2	16.5								19.3	29.7	78
14	40	11.5	15.3										16.1	18.8	72
	50	12.1	16.5										19.8	23.3	75
	60	12.5	17.1	20.9									23.1	27.5	76
	70	12.8	17.6	21.6	25.1								26.3	31.6	77
	80	12.9	17.8	22.2	25.9	29.0							29.5	35.7	78
	90	13.1	18.1	22.5	26.5	30.0							32.5	39.6	78
	100	13.2	18.2	22.8	27.0	30.7	33.9						35.5	43.5	78
16	40	15.1	20.1										22.4	24.4	72
	50		15.9	21.6	25.8								27.6	30.2	75
	60		16.4	22.4	27.3	31.1							32.4	35.6	76
	70		16.8	23.0	28.3	32.7	36.2						37.0	40.9	77
	80		17.0	23.4	29.0	33.8	37.9	41.1					41.5	46.0	78
	90		17.2	23.7	29.5	34.6	39.1	42.9					45.9	51.1	78
	100		17.3	23.9	29.9	35.2	40.0	44.2	47.7				50.3	56.1	78
18	40	19.2	25.4										29.3	30.7	72
	50	20.3	27.3	32.7									36.0	38.0	75
	60	20.9	28.5	34.6	39.3								42.3	44.8	76
	70	21.3	29.2	35.9	41.4	45.7							48.4	51.4	77
	80	21.6	29.7	36.7	42.8	47.9	51.9						54.3	57.8	78
	90	21.8	30.0	37.4	43.8	49.4	54.1	58.0					60.2	64.1	78
	100	22.0	30.3	37.8	44.6	50.6	55.8	60.3	63.9				65.9	70.4	78
20	40	23.7	31.5	36.2									36.7	37.9	72
	50	25.1	33.8	40.3	44.6								45.2	46.7	75
	60	25.9	35.2	42.8	48.6	52.5							53.1	55.0	76
	70	26.4	36.1	44.3	51.1	56.4	60.2						60.8	63.1	77
	80	26.7	36.7	45.4	52.9	59.1	64.0	67.6					68.2	70.9	78
	90	27.0	37.2	46.2	54.2	61.0	66.8	71.4	74.9				75.6	78.7	78
	100	27.2	37.5	46.8	55.1	62.5	68.9	74.3	78.7	82.2			82.8	86.3	78
22	50	30.4	41.0	48.8	54.0								55.1	56.4	75
	60	31.4	42.7	51.8	58.7	63.5							64.8	66.4	76
	70	32.0	43.8	53.7	61.9	68.2	72.7						74.2	76.1	77
	80	32.5	44.5	55.0	64.0	71.4	77.3	81.7					83.3	85.5	78
	90	32.8	45.0	56.0	65.6	73.8	80.7	86.3	90.5				92.3	94.8	78
	100	33.0	45.4	56.7	66.8	75.6	83.3	89.8	95.1	99.2			101.1	104.0	78
24	50	36.3	48.9	58.2	64.2								65.9	67.0	75
	60	37.5	50.9	61.7	69.9	75.5							77.6	78.8	76
	70	38.2	52.2	64.0	73.6	81.1	86.4						88.7	90.3	77
	80	38.7	53.1	65.5	76.2	85.0	92.0	97.0					99.6	101.5	78
	90	39.1	53.7	66.7	78.1	87.9	96.0	102.6	107.5				110.4	112.5	78
	100	39.4	54.2	67.5	79.5	90.0	99.1	106.8	113.0	117.8			121.0	123.3	78
26	50	42.7	57.4	68.3	75.3								77.6	78.5	75
	60	44.0	59.8	72.5	82.1	88.6							91.3	92.4	76
	70	44.9	61.3	75.2	86.4	95.2	101.3						104.4	105.7	77
	80	45.5	62.4	77.0	89.5	99.8	107.9	113.8					117.3	118.8	78
	90	46.0	63.1	78.3	91.7	103.1	112.7	120.3	126.0	129.8			129.9	131.7	78
	100	46.3	63.7	79.4	93.4	105.7	116.3	125.3	132.5	138.1			142.4	144.4	78

Includes 1.0-foot stump allowance.

Table 78--Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for southern red oak (species 812) in the Upper Coastal Plain.'

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										Girard Fon Class		
		Saw-log	merchantable	height	(16-foot	Logs)	5.0	9-inch	4-inch					
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top		
Inches	Feet	Cubic feet											Percent	
12	20	7.6									8.7	16.1	69	
	30	8.7	12.0								13.8	18.1	74	
	40	9.2	12.7	16.0							18.6	21.7	76	
	50	9.4	13.1	16.6	19.8	22.8					23.1	25.7	77	
	60	9.6	13.3	16.9	20.3	23.5	26.5				27.6	29.8	78	
	70	9.7	13.4	17.1	20.6	24.0	27.2	30.2			31.9	33.9	78	
14	80	9.7	13.5	17.2	20.8	24.3	27.6	30.8	33.8		36.3	38.1	78	
	40	12.5	17.2	21.3							24.1	27.0	76	
	50	12.8	17.7	22.2	26.1	29.4					29.8	32.2	77	
	60	13.0	18.1	22.7	27.0	30.8	34.2				35.3	37.3	78	
	70	13.2	18.3	23.1	27.5	31.7	35.5	38.9			40.7	42.6	78	
	80	13.3	18.4	23.3	27.9	32.3	36.3	40.1	43.5		46.1	47.8	78	
16	90	13.3	18.5	23.5			37.0	41.0	44.7	48.1	51.5	53.0	79	
	100	13.4	18.6	23.6	28.2	32.7	37.4	41.6	45.5	49.3	56.9	58.3	79	
	40	16.4	22.4	27.3							30.5	33.3	76	
	50	16.8	23.2	28.7	33.4	37.1					37.5	39.7	77	
	60	17.1	23.6	29.5	34.8	39.3	43.1				44.2	46.2	78	
	70	17.2	23.8	30.0	35.6	40.7	45.1	48.9			50.9	52.6	78	
18	80	17.4	24.0	30.3	36.1	41.5	46.5	50.9	54.7		57.5	59.1	78	
	90	17.5	24.2	30.5	36.6	42.2	47.4	52.2	56.6	60.5	64.1	65.5	79	
	100	17.5	24.3	30.7	36.9	42.7	48.1	53.2	58.0	62.3	70.6	71.9	79	
	40	20.8	28.3	34.3							37.8	40.5	76	
	50	21.3	29.3	36.1	41.7	45.8					46.2	48.4	77	
	60	21.7	29.8	37.2	43.6	49.0	53.2				54.4	56.2	78	
20	70	21.9	30.2	37.8	44.7	50.8	56.1	60.4			62.4	64.1	78	
	80	22.0	30.5	38.3	45.5	52.1	58.0	63.1	67.5		70.4	71.9	78	
	90	22.1	30.6	38.6				59.3	65.0	70.1	74.5	78.4	79.7	79
	100	22.2	30.8	38.9	46.1	53.0	60.3	66.4	72.1	77.1	86.3	87.5	79	
	40	25.7	35.0	42.0							46.0	48.6	76	
	50	26.4	36.2	44.4	51.0	55.6					56.0	58.1	77	
22	60	26.8	36.9	45.8	53.4	59.8	64.5				65.7	67.6	78	
	70	27.1	37.3	46.6	54.9	62.2	68.3	73.2			75.4	77.0	78	
	80	27.3	37.6	47.2	56.0	63.9	70.8	76.8	81.7		84.9	86.3	78	
	90	27.4	37.9	47.6	56.7	65.0	72.6	79.4	85.3	90.2	94.3	95.6	79	
	100	27.5	38.0	47.9	57.2	65.9	74.9	81.2	87.8	93.6	103.8	105.0	79	
	50	32.0	43.8	53.6	61.3	66.4					66.8	68.9	77	
24	60	32.5	44.7	55.3	64.4	71.7	77.0				78.3	80.1	78	
	70	32.8	45.2	56.4	66.3	74.8	81.9	87.3			89.6	91.2	78	
	80	33.1	45.6	57.1	67.5	76.9	85.1	92.0	97.5		100.9	102.3	78	
	90	33.2	45.9	57.6	68.5	78.4	87.3	95.2	102.0	107.5	112.0	113.3	79	
	100	33.4	46.1	58.0	69.2	79.5	89.0	97.6	105.3	112.0	123.1	124.3	79	
	50	38.2	52.2	63.7	72.6	78.3					78.7	80.7	77	
26	60	38.8	53.2	65.8	76.3	84.8	90.7				92.1	93.8	78	
	70	39.2	53.9	67.0	78.7	88.6	96.8	102.8			105.3	106.8	78	
	80	39.4	54.3	67.9	80.2	91.2	100.7	108.6	114.8		118.4	119.7	78	
	90	39.6	54.6	68.6	81.4	93.0	103.4	112.6	120.3	126.6	131.4	132.6	79	
	100	39.8	54.9	69.1	82.2	94.4	105.5	115.5	124.4	132.0	144.3	145.4	79	
	50	44.9	61.3	74.7	81.9	91.2					91.6	93.6	77	
28	60	45.6	62.5	77.1	89.4	99.0	105.6				107.1	108.8	78	
	70	46.1	63.3	78.7	92.2	103.6	112.9	119.7			122.3	123.8	78	
	80	46.4	63.8	79.7	94.0	106.7	117.6	126.7	133.5		137.4	138.8	78	
	90	46.6	64.2	80.5	95.4	108.9	121.0	131.5	140.3	147.3	152.4	153.6	79	
	100	46.8	64.5	81.1	96.4	110.6	123.5	135.0	145.2	153.9	167.3	168.5	79	

*Includes 1.0-foot stump allowance.

Table 79--Predicted **stemwood** volume to a **4-inch** d.o.b. top in pulpwood trees based on **d.b.h.** and total-tree height for southern red oak (species **812**) in the Upper Coastal Plain.'

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.6	1.2	2.1	0.7	2.3	0.8	2.6	1.0	2.7	1.1	3.0	1.5	3.3	3.6			
7	2.5	3.1	3.5	3.8	4.0	4.5	4.9	5.3	5.7	6.1							
8																	
9	3.4	4.4	4.2	5.4	4.7	6.1	6.7	5.2	5.5	7.1	8.0	6.1	6.7	8.7	7.3	9.4	10.2
10	5.5	6.8	7.6	8.5	9.0	10.0	10.9	11.9	12.7	13.6	14.5	15.3	16.1	16.9	17.7	18.5	
11			9.3	10.3	11.0	12.2	13.4	14.5	15.6	16.7	17.7	18.7	19.7	20.7	21.7	22.6	23.6
12			11.1	12.4	13.2	14.7	16.1	17.4	18.7	20.0	21.2	22.5	23.7	24.8	26.0	27.2	28.3
13			13.2	14.7	15.6	17.3	19.0	20.6	22.1	23.6	25.1	26.5	27.9	29.3	30.7	32.1	33.4
14					18.2	20.2	22.1	24.0	25.8	27.5	29.2	30.9	32.6	34.2	35.8	37.4	39.0
15					21.0	23.3	25.5	27.6	29.7	31.7	33.7	35.6	37.5	39.4	41.3	43.1	44.9
16					23.9	26.6	29.1	31.6	33.9	36.2	38.5	40.7	42.8	45.0	47.1	49.2	51.3

^a Includes 0.5-foot stump allowance.

Table 80--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for southern red oak (species **812**) in the Upper Coastal Plain:

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.1	1.6	2.0	2.7	3.3	2.5	3.6	2.7	3.2	4.2	3.6	4.7	5.3	5.8			
7	2.7	3.4	4.1	4.7	5.4	6.1	6.8	7.4	8.1	8.7							
8																	
9	3.5	4.4	4.3	5.4	6.5	5.2	5.9	7.3	6.8	8.4	9.5	7.7	10.5	8.5	11.5	9.3	10.1
10	5.4	6.7	8.0	8.9	10.2	11.5	12.7	13.9	15.0	16.2	17.3	18.4	19.5	20.6	21.7	22.8	
11			9.6	10.7	12.3	13.7	15.2	16.6	17.9	19.3	20.6	21.9	23.2	24.5	25.8	27.1	28.3
12			11.4	12.7	14.5	16.2	17.9	19.5	21.1	22.7	24.2	25.7	27.2	28.8	30.2	31.7	33.2
13			13.3	14.8	16.9	18.9	20.8	22.7	24.5	26.4	28.1	29.9	31.7	33.4	35.1	36.8	38.5
14																	
15					22.3	19.5	24.9	21.8	24.0	27.4	26.2	29.9	32.3	28.3	30.3	34.6	32.4
16					25.3	28.3	31.1	33.9	36.6	39.2	41.9	44.4	47.0	49.6	52.1	54.6	57.1

^a Includes 0.5-foot stump allowance.

Table **81--Predicted stemwood** volume to a saw-log merchantable top, and to 0-inch and **4-inch** d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all red oaks combined (species **83**) in the Upper Coastal Plain!

D.b.h. class	Total tree height	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Gi rard Form Class
		sau-Log		merchantable		height	(16-foot		logs)	5.0				
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5					
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>												<u>Percent</u>
12	40	7.7									8.3	10.9	68	
	50	8.4									10.7	13.7	73	
	60	8.9	12.2								12.6	16.3	76	
	70	9.1	12.7								14.3	18.6	78	
	80	9.3	13.0								15.9	20.9	79	
	90	9.4	13.2	16.5							17.4	23.1	79	
14	100	9.5	13.4	16.8							1a.9	25.3	80	
	40	10.7									13.3	15.1	68	
	50	11.7	15.7								16.6	19.0	73	
	60	12.3	16.8								19.5	22.5	76	
	70	12.6	17.4	21.2							22.2	25.8	78	
	80	12.9	17.9	22.1							24.7	28.9	79	
16	90	13.0	18.2	22.7	26.2						27.1	32.0	79	
	100	13.2	1a.4	23.1	27.0						29.5	35.0	80	
	50	15.4	20.7								23.0	25.0	73	
	60	16.2	22.1	26.3							27.0	29.7	76	
	70	16.7	23.0	27.9							30.8	34.0	78	
	80	17.0	23.6	29.0	33.1						34.4	38.1	79	
18	90	17.2	24.0	29.8	34.4	37.8					37.9	42.1	79	
	100	17.4	24.3	30.4	35.5	39.4					41.2	46.1	80	
	110	17.5	24.5	30.8	36.2	40.6	44.0				44.6	50.0	80	
	50	19.7	26.4								30.1	31.9	73	
	60	20.7	28.1	33.5							35.4	37.8	76	
	70	21.3	29.2	35.5	39.7						40.4	43.3	78	
20	80	21.7	30.0	36.9	42.0						45.2	48.6	79	
	90	22.0	30.5	37.9	43.8	48.0					49.8	53.7	79	
	100	22.2	30.9	38.6	45.1	50.0	53.7				54.3	58.7	80	
	110	22.4	31.2	39.2	46.1	51.6	55.9				58.8	63.6	80	
	50	24.4	32.7	37.6							37.9	39.6	73	
	60	25.7	34.9	41.5							44.8	46.9	76	
22	70	26.5	36.3	44.0	49.2						51.1	53.7	78	
	80	27.0	37.2	45.8	52.1	56.3					57.2	60.2	79	
	90	27.4	37.9	47.0	54.2	59.5	63.0				63.1	66.6	79	
	100	27.6	38.4	47.9	55.8	62.0	66.5				68.9	72.8	80	
	110	27.9	38.7	48.6	57.0	63.9	69.2	73.2			74.5	78.9	80	
	60	31.2	42.4	50.3	54.8						55.0	57.0	76	
24	70	32.2	44.1	53.5	59.7						62.9	65.2	78	
	80	32.8	45.2	55.6	63.2	68.3					70.4	73.2	79	
	90	33.3	46.0	57.0	65.8	72.2	76.5				77.7	80.9	79	
	100	33.6	46.6	58.1	67.7	75.2	80.6	86.4			84.8	88.4	80	
	110	33.9	47.1	58.9	69.2	77.6	84.0	88.7			91.8	95.8	80	
	60	37.3	50.6	60.1	65.4						66.2	68.0	76	
26	70	38.5	52.6	63.8	71.2	75.5					75.7	77.9	78	
	80	39.2	54.0	66.3	75.4	81.5					84.8	87.3	79	
	90	39.8	54.9	68.1	78.5	86.1	91.2				93.5	96.5	79	
	100	40.2	55.6	69.4	80.8	89.7	96.1	100.6			102.1	105.5	80	
	110	40.5	56.2	70.3	82.6	92.5	100.1	105.8	109.7		110.6	114.3	80	
	60	44.0	59.5	70.7	76.9						78.3	80.0	76	
28	70	45.3	61.9	75.0	83.7	88.7					89.6	91.6	78	
	80	46.2	63.5	78.0	88.7	95.8	100.0				100.3	102.7	79	
	90	46.9	64.7	80.0	92.3	101.2	107.2				110.8	113.5	79	
	100	47.4	65.5	81.6	95.0	105.4	113.0	118.2			120.9	124.0	80	
	110	47.7	66.1	82.7	97.1	108.7	117.7	124.3	128.9		131.0	134.4	80	

Includes 1 .0-foot stump allowance.

Table 82--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all red oaks combined (species 83) in the Upper Coastal Plain.^a

D.b.h. class	Height to 4-inch d.o.b. top	Volume to											Girard Form Class
		Seu-Log merchantable height (16-foot Logs)										9-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top	d.o.b. top	
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>											<u>Percent</u>
12	30	7.9									8.6	10.8	71
	40	8.7									10.9	14.3	75
	50	9.0	12.4								12.9	17.6	77
	60	9.3	12.8								14.7	20.6	79
	70	9.4	13.1	16.2							16.5	23.6	79
	80	9.5	13.3	16.5							18.2	26.6	80
	90	9.6	13.4	16.8	19.8						19.8	29.5	80
14	40	12.0	16.0								16.9	19.4	75
	50	12.5	17.0								20.3	23.7	77
	60	12.8	17.6	21.5							23.4	27.7	79
	70	13.0	18.0	22.2	25.6						26.5	31.7	79
	80	13.1	18.3	22.7	26.4						29.4	35.6	80
	90	13.2	18.5	23.1	27.1	30.5					32.4	39.4	80
	100	13.3	18.6	23.3	27.5	31.2	34.4				35.2	43.2	80
16	40	15.8	21.1								23.3	25.2	75
	50	16.5	22.4	26.7							28.1	30.7	77
	60	16.9	23.2	28.2	31.9						32.7	36.0	79
	70	17.2	23.7	29.1	33.5	36.8					37.0	41.0	79
	80	17.4	24.1	29.8	34.6	38.6					41.3	46.0	80
	90	17.5	24.3	30.3	35.5	39.8	43.5				45.5	50.9	80
	100	17.6	24.5	30.7	36.1	40.8	44.9	48.3			49.6	55.7	80
18	40	20.1	26.8								30.4	31.9	75
	50	21.1	28.5	33.9							36.7	38.8	77
	60	21.6	29.5	35.8	40.4						42.7	45.3	79
	70	22.0	30.2	37.0	42.5	46.6					48.4	51.6	79
	80	22.2	30.6	37.9	43.9	48.8	52.6				54.1	57.8	80
	90	22.4	31.0	38.5	45.0	50.5	55.0	58.5			59.6	63.9	80
	100	22.5	31.2	39.0	45.8	51.8	56.8	61.0	64.4		65.1	70.0	80
20	40	25.0	33.2	37.8							38.1	39.3	75
	50	26.2	35.4	41.9	45.9						46.1	47.8	77
	60	26.9	36.6	44.3	49.9	53.6					53.6	55.7	79
	70	27.3	37.5	45.9	52.5	57.6					60.9	63.5	79
	80	27.6	38.0	46.9	54.4	60.4	65.0				68.0	71.0	80
	90	27.8	38.4	47.7	55.7	62.4	67.9	72.2			75.0	78.5	80
	100	28.0	38.7	48.3	56.7	64.0	70.2	75.3	79.4		81.9	85.9	80
22	50	31.8	43.0	50.8	55.6						56.3	57.7	77
	60	32.7	44.5	53.7	60.5	64.8					65.5	67.3	79
	70	33.2	45.5	55.6	63.7	69.7	73.7				74.4	76.6	79
	80	33.6	46.2	56.9	65.9	73.1	78.6	82.5			83.1	85.7	80
	90	33.9	46.7	57.9	67.5	75.6	82.2	87.3	91.0		91.7	94.7	80
	100	34.1	47.0	58.6	68.8	77.5	85.0	91.1	95.9	99.5	100.2	103.5	80
	24	50	38.0	51.3	60.6	66.2						67.4	68.6
60		39.0	53.1	64.1	72.1	77.2					78.5	80.0	79
70		39.7	54.3	66.4	75.9	83.0	87.7				89.1	91.0	79
80		40.2	55.1	67.9	78.5	87.1	93.5	98.1			99.6	101.7	80
90		40.5	55.7	69.1	80.5	90.1	97.9	103.9	108.2		109.9	112.3	80
100		40.7	56.2	69.9	82.0	92.4	101.2	108.4	114.1	118.3	120.0	122.8	80
26		50	44.8	60.3	71.2	77.8						79.5	80.5
	60	46.0	62.5	75.4	84.7	90.6					92.5	93.8	79
	70	46.8	63.9	78.0	89.2	97.4	103.0				105.0	106.6	79
	80	47.3	64.9	79.9	92.3	102.3	109.8	115.0			117.3	119.2	80
	90	47.7	65.6	81.2	94.6	105.8	114.9	121.9	126.9		129.5	131.6	80
	100	48.0	66.1	82.2	96.4	108.5	118.8	127.2	133.9	138.7	141.4	143.9	80

^a Includes 1.0-foot stump allowance.

Table 83--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and **4-inch** d.o.b. tops based on d.b.h., height to a **9-inch** d.o.b. top and height to a saw-log top for all red oaks combined (species 83) in the Upper Coastal Plain.'

D.b.h. class	Height to 9-inch d.o.b. top	Volume to										9-inch d.o.b. top	4-inch d.o.b. top	Girard Form Class
		Saw-log	merchantable	height	(16-foot	Logs)								
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0				
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>		
12	20	8.0										9.2	16.0	73
	30	8.8	12.2									14.1	18.3	77
	40	9.1	12.8	16.1								18.8	21.9	78
	50	9.2	13.0	16.6	19.9	22.9						23.3	25.9	79
	60	9.3	13.2	16.9	20.4	23.6	26.7					27.8	30.0	79
	70	9.4	13.3	17.0	20.6	24.1	27.3	30.4				32.2	34.2	80
	80	9.4	13.4	17.2	20.8	24.4	27.8	31.0	34.1			36.6	38.4	80
14	40	12.6	17.5	21.7								24.6	27.6	78
	50	12.9	18.0	22.5	26.5	29.8						30.1	32.6	79
	60	13.0	18.2	23.0	27.3	31.2	34.6					35.7	37.8	79
	70	13.1	18.4	23.3	27.9	32.1	35.9	39.2				41.1	43.0	80
	80	13.2	18.5	23.5	28.2	32.6	36.7	40.5	43.9			46.5	48.2	80
	90	13.2	18.5	23.6	28.5	33.1	37.4	41.4	45.1	48.5		51.9	53.5	80
	100	13.2	18.6	23.8	28.7	33.4	37.8	42.0	46.0	49.7		57.3	58.8	80
16	40	16.8	23.1	28.1								31.2	34.2	78
	50	17.1	23.7	29.3	34.1	37.7						38.1	40.5	79
	60	17.3	24.0	30.1	35.4	39.9	43.6					44.8	46.8	79
	70	17.4	24.2	30.5	36.2	41.3	45.7	49.5				51.4	53.2	80
	80	17.5	24.4	30.8	36.7	42.2	47.1	51.5	55.3			58.0	59.7	80
	90	17.5	24.5	31.0	37.2	42.8	48.1	52.9	57.2	61.0		64.6	66.1	80
	100	17.6	24.6	31.2	37.5	43.3	48.8	53.9	58.6	62.9		71.2	72.5	80
18	40	21.5	29.3	35.3								38.8	41.7	78
	50	21.9	30.1	37.1	42.6	46.7						47.0	49.4	79
	60	22.1	30.6	38.1	44.5	49.8	53.9					55.1	57.1	79
	70	22.3	30.9	38.7	45.6	51.7	56.9	61.1				63.1	64.9	80
	80	22.4	31.1	39.1	46.4	53.0	58.9	63.9	68.1			71.0	72.6	80
	90	22.5	31.2	39.4	47.0	53.9	60.3	65.9	70.9	75.1		78.9	80.4	80
	100	22.5	31.4	39.6	47.4	54.6	61.3	67.4	72.9	77.9		86.8	88.2	80
20	40	26.7	36.3	43.4								47.2	50.1	78
	50	27.2	37.4	45.7	52.3	56.7						57.1	59.4	79
	60	27.5	38.0	47.0	54.7	60.9	65.4					66.7	68.7	79
	70	27.8	38.3	47.8	56.2	63.4	69.4	74.0				76.2	77.9	80
	80	27.9	38.6	48.4	57.2	65.1	72.0	77.8	82.5			85.6	87.2	80
	90	28.0	38.8	48.8	58.0	66.4	73.9	80.5	86.2	91.0		95.0	96.4	80
	100	28.1	38.9	49.1	58.6	67.3	75.3	82.5	89.0	94.6		104.3	105.7	80
22	50	33.2	45.4	55.3	62.9	67.8						68.2	70.5	79
	60	33.6	46.1	56.9	66.0	73.1	78.2					79.5	81.5	79
	70	33.8	46.6	58.0	67.9	76.4	83.2	88.4				90.6	92.4	80
	80	34.0	46.9	58.7	69.2	78.5	86.6	93.2	98.5			101.7	103.3	80
	90	34.1	47.2	59.2	70.2	80.1	88.9	96.6	103.2	108.5		112.7	114.2	80
	100	34.2	47.3	59.6	70.9	81.3	90.7	99.2	106.7	113.1		123.7	125.0	80
24	50	39.7	54.1	65.8	74.5	79.9						80.3	82.7	79
	60	40.1	55.0	67.8	78.4	86.6	92.2					93.5	95.5	79
	70	40.5	55.6	69.1	80.7	90.5	98.4	104.1				106.5	108.2	80
	80	40.7	56.0	69.9	82.3	93.2	102.5	110.1	115.9			119.4	120.9	80
	90	40.8	56.3	70.6	83.5	95.1	105.4	114.3	121.8	127.7		132.2	133.6	80
	100	41.0	56.6	71.0	84.4	96.6	107.6	117.5	126.1	133.4		145.0	146.3	80
26	50	46.8	63.7	77.3	87.2	93.2						93.6	95.9	79
	60	47.3	64.8	79.6	91.8	101.2	107.4					108.7	110.7	79
	70	47.7	65.5	81.2	94.7	106.0	114.9	121.2				123.7	125.5	80
	80	48.0	66.0	82.2	96.6	109.2	119.8	128.5	134.9			138.6	140.1	80
	90	48.2	66.3	82.9	98.0	111.5	123.4	133.6	142.0	148.5		153.3		80
	100	48.3	66.6	83.5	99.1	113.3	126.1	137.4	147.2	155.4		168.1	E - 4	80

^a Includes 1.0-foot stump allowance.

Table 84--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all red oaks combined (species 83) in the Uooer Coastal Plain.'

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5 ^a																	
6 ^b	0.5	1.6	0.7	2.0	2.2	1.3	2.4	1.4	2.8	1.7	3.1	1.8	3.3	3.6			
7	2.3	2.9	3.2	3.6	4.2	4.6	4.9	5.3	5.6	6.0							
8																	
9	4.3	3.3	4.0	5.3	4.5	5.9	6.5	5.0	5.8	7.6	6.3	8.3	6.8	8.9	9.6	7.3	10.2
10	5.4	6.7	7.5	8.3	9.6	10.4	11.3	12.1	12.9	13.7	14.5	15.2	16.0	16.7	17.4	18.2	
11			9.2	10.2	11.8	12.9	13.9	14.9	15.9	16.8	17.8	18.7	19.6	20.5	21.4	22.3	23.2
12			11.1	12.3	14.2	15.5	16.7	18.0	19.1	20.3	21.4	22.5	23.6	24.7	25.8	26.9	27.9
13			13.2	14.6	16.8	18.4	19.8	21.3	22.7	24.0	25.4	26.7	28.0	29.3	30.5	31.8	33.1
14																	
15					22.7	19.7	21.5	24.8	23.2	26.8	24.8	28.7	30.6	26.5	32.4	28.1	34.2
16					26.0	28.3	30.6	32.8	34.9	37.0	39.1	41.1	43.1	45.1	47.0	49.0	50.9

^a Includes 0.5-foot stump allowance.

^b Cylindrical volume assumed below breast height.

Table 85--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all red oaks combined (species 83) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5 ^a																	
6 ^b	1.9	1.4	2.5	1.8	3.0	2.3	3.4	2.5	3.0	4.0	3.4	4.5	5.0	5.5			
7	2.5	3.1	3.8	4.5	5.2	5.9	6.5	7.2	7.8	8.4							
8	3.3	4.1	5.0	5.9	6.7	7.6	8.3	9.1	9.9	10.7	11.4	12.2					
9	4.2	5.2	6.3	7.4	8.4	9.4	10.4	11.4	12.3	13.2	14.1	15.0	15.9	16.8			
10	5.3	6.5	7.7	9.1	10.4	11.6	12.7	13.8	14.9	16.0	17.1	18.2	19.3	20.3	21.4	22.4	
11			9.4	11.0	12.5	13.9	15.3	16.6	17.9	19.2	20.5	21.7	23.0	24.2	25.5	26.7	28.0
12			11.2	13.1	14.8	16.4	18.0	19.6	21.1	22.6	24.1	25.6	27.1	28.5	30.0	31.4	32.8
13			13.1	15.3	17.3	19.2	21.1	22.9	24.6	26.4	28.1	29.8	31.5	33.2	34.8	36.5	38.2
14					20.1	22.3	24.4	26.4	28.4	30.4	32.4	34.4	36.3	38.2	40.1	42.0	43.9
15					23.0	25.5	27.9	30.2	32.5	34.8	37.0	39.2	41.4	43.6	45.8	48.0	50.1
16					26.2	29.0	31.7	34.3	36.9	39.5	42.0	44.5	47.0	49.4	51.9	54.3	56.7

^a Includes 0.5-foot stump allowance.

^b Cylindrical volume assumed below breast height.

Table 86--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all oaks combined (species 800) in the Upper Coastal Plain.'

D.b.h. class	Total tree height	Volume to										O-inch d.o.b. top	4-inch d.o.b. top	Girard Form Class
		Saw-log merchantable height (16-foot Logs)												
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0				
<u>nches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>		
12	40										5.0	9.9	63	
	50	8.3									9.9	13.2	71	
	60	8.9	12.1								12.3	16.1	75	
	70	9.2	12.8								14.5	18.8	78	
	80	9.5	13.2	16.4							16.4	21.4	80	
	90	9.6	13.5	16.9							18.2	23.8	81	
	100	9.8	13.8	17.3							19.9	26.2	82	
14	40	9.9									11.5	13.6	63	
	50	11.4	15.1								15.7	19.2	71	
	60	12.2	16.6								19.2	22.2	75	
	70	12.7	17.5	21.3							22.3	25.9	78	
	80	13.0	18.2	22.4							25.2	29.4	80	
	90	13.3	18.6	23.2	26.8						28.0	32.8	81	
	100	13.4	18.9	23.7	27.8						30.7	36.1	82	
16	50	15.0	19.9								21.8	23.9	71	
	60	16.0	21.8	25.9							26.6	29.2	75	
	70	16.7	23.0	28.0							30.9	34.1	78	
	80	17.2	23.8	29.4	33.6						35.0	38.7	80	
	90	17.5	24.4	30.4	35.2	38.7					39.0	43.2	81	
	100	17.7	24.8	31.1	36.4	40.5					42.8	47.6	82	
	110	17.9	25.1	31.7	37.4	42.0	45.5				46.5	51.8	82	
18	50	19.0	25.3								28.5	30.5	71	
	60	20.4	27.7	32.9							34.8	37.2	75	
	70	21.3	29.3	35.6	39.8						40.6	43.4	78	
	80	21.9	30.3	37.4	42.6						46.0	49.3	80	
	90	22.3	31.0	38.6	44.7	49.1					51.1	55.0	81	
	100	22.5	31.6	39.6	46.3	51.4	55.2				56.2	60.5	82	
	110	22.8	32.0	40.3	47.4	53.3	57.8				61.1	65.9	82	
20	50	23.6	31.3	35.9							36.0	37.8	71	
	60	25.3	34.3	40.8							44.0	46.1	75	
	70	26.4	36.3	44.0	49.2						51.2	53.8	78	
	80	27.1	37.5	46.3	52.7	57.0					58.1	61.1	80	
	90	27.6	38.4	47.8	55.3	60.8	64.4				64.7	68.1	81	
	100	28.0	39.1	49.0	57.2	63.6	68.3				71.0	75.0	82	
	110	28.2	39.6	49.8	58.7	65.9	71.5	75.6			77.3	81.7	82	
22	60	30.8	41.7	49.5	53.8						54.0	56.0	75	
	70	32.1	44.0	53.4	59.7						62.9	65.3	78	
	80	32.9	45.6	56.1	63.9	69.2					71.4	74.1	80	
	90	33.5	46.7	58.0	67.1	73.6	78.1				79.5	82.7	81	
	100	34.0	47.5	59.4	69.4	77.1	82.8	86.7			87.4	91.0	82	
	110	34.3	48.1	60.4	71.2	79.9	86.6	91.6			95.1	99.1	82	
24	60	36.7	49.7	59.0	64.2						65.0	66.8	75	
	70	38.3	52.5	63.7	71.2	75.5					75.7	77.9	78	
	80	39.3	54.3	66.9	76.2	82.4					85.9	88.4	80	
	90	40.0	55.6	69.1	79.9	87.8	93.1				95.7	98.6	81	
	100	40.6	56.6	70.8	82.7	91.9	98.7	103.3			105.2	108.5	82	
	110	41.0	57.3	72.1	84.8	95.2	103.2	109.2	113.3		114.5	118.2	82	
26	60	43.2	58.5	69.4	75.5						76.9	78.6	75	
	70	45.1	61.7	74.9	83.7	88.7					89.6	91.6	78	
	80	46.3	63.9	78.6	89.6	96.9	101.2				101.6	104.0	80	
	90	47.1	65.4	81.3	93.9	103.2	109.4				113.2	115.9	81	
	100	47.7	66.6	83.2	97.2	108.0	116.0	121.4			124.4	127.5	82	
	110	48.2	67.4	84.7	99.7	111.9	121.3	128.3	133.1		135.5	138.9	82	

^a Includes 1.0-foot stump allowance.

Table 87--Predicted stemwood volume to a saw-log merchantable top, and to O-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all oaks combined (species 800) in the Upper Coastal Plain.'

D.b.h. class	Height to 4-inch d.o.b. top	Volume to													Gi rard Form Class
		Saw-log merchantable height (16-foot Logs)													
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top			
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>													<u>Percent</u>
12	30	8.1									8.9	11.0	71		
	40	8.8									11.3	14.6	76		
	50	9.2	12.7								13.4	17.9	78		
	60	9.5	13.1								15.3	21.1	80		
	70	9.6	13.4	16.5							17.1	24.1	80		
	80	9.7	13.6	16.9							18.9	27.1	81		
	90	9.8	13.7	17.2	20.2						20.6	30.1	81		
14	40	12.1	16.3								17.3	19.7	76		
	50	12.7	17.3	20.7							20.7	24.1	78		
	60	13.0	17.9	21.9							24.0	28.2	80		
	70	13.2	18.3	22.6	26.1						27.1	32.3	80		
	80	13.3	18.6	23.1	26.9	30.1					30.2	36.2	81		
	90	13.4	18.8	23.5	27.6	31.0					33.2	40.1	81		
	100	13.5	18.9	23.7	28.0	31.8	35.0				36.1	44.0	81		
16	40	16.0	21.4								23.7	25.6	76		
	50	16.7	22.7	27.1							28.6	31.2	78		
	60	17.1	23.5	28.6	32.4						33.3	36.6	80		
	70	17.4	24.0	29.6	34.0	37.4					37.7	41.7	80		
	80	17.6	24.4	30.3	35.2	39.2					42.1	46.8	81		
	90	17.7	24.6	30.8	36.0	40.5	44.2				46.4	51.8	81		
	100	17.8	24.8	31.1	36.7	41.5	45.7	49.1			50.7	56.7	81		
18	40	20.3	27.1								30.8	32.3	76		
	50	21.2	28.9	34.3							37.3	39.3	78		
	60	21.8	29.9	36.3	41.0						43.4	46.0	80		
	70	22.1	30.6	37.5	43.1	47.3					49.3	52.4	80		
	80	22.4	31.0	38.4	44.6	49.6	53.5				55.0	58.8	81		
	90	22.5	31.3	39.0	45.7	51.3	55.9	59.5			60.7	65.0	81		
	100	22.7	31.6	39.5	46.5	52.6	57.8	62.1	65.5		66.3	71.2	81		
20	40	25.2	33.6	38.3							38.6	39.8	76		
	50	26.3	35.8	42.5	46.6						46.7	48.4	78		
	60	27.0	37.0	44.9	50.6	54.4					54.4	56.5	80		
	70	27.4	37.8	46.4	53.3	58.4					61.8	64.4	80		
	80	27.7	38.4	47.5	55.1	61.3	66.0				69.1	72.2	81		
	90	28.0	38.8	48.3	56.5	63.4	69.0	73.4			76.3	79.8	81		
	100	28.1	39.1	48.9	57.5	65.0	71.3	76.5	80.7		83.4	87.3	81		
22	50	32.0	43.4	51.4	56.3						57.0	58.4	78		
	60	32.8									66.4	68.2	80		
	70	33.3	44.9	54.4	61.3	64.5	65.7	70.7	74.8		75.5	77.7	80		
	80										84.4	87.0	81		
	90	33.7	34.0	46.6	47.1	57.6	58.6	66.8	68.4	74.1	76.7	83.4	79.7	92.5	
											83.7	88.7			
	100	34.2	47.4	59.3	69.7	78.7	86.3	92.5	97.4	101.1	101.9	105.2	81		
24	50	38.2	51.7	61.3	67.0						68.3	69.5	78		
	60	39.2	53.6	64.8	73.0	78.2					79.5	81.0	80		
	70	39.8	54.8	67.1	76.8	84.1	88.9				90.4	92.2	80		
	80	40.2	55.6	68.7	79.5	88.2	94.9	99.5			101.1	103.2	81		
	90	40.6	56.2	69.8	81.5	91.3	99.3	105.4	109.9		111.6	114.0	81		
	100	40.8	56.6	70.7	83.0	93.7	102.7	110.0	115.9	120.1	121.9	124.8	81		
26	50	44.9	60.8	72.0	78.7						80.4	81.4	78		
	60	46.1	63.0	76.1	85.7	91.7					93.7	95.0	80		
	70	46.8	64.4	78.8	90.2	98.7	104.3				106.5	108.1	80		
	80	47.4	65.3	80.7	93.4	103.6	111.3	116.7			119.0	120.9	81		
	90	47.7	66.0	82.0	95.7	107.2	116.5	123.7	128.8		131.4	133.5	81		
	100	48.0	66.6	83.0	97.5	110.0	120.5	129.1	135.9	140.8	143.6	146.1	81		

* Includes 1.0-foot stump allowance.

Table 88--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all oaks combined (species 800) in the Upper Coastal Plain.^a

D.b.h. class	Height to 9-inch d.o.b. top	Volume to													Girard Form Class
		saw-log merchantable height (16-foot Logs)													
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	9-inch d.o.b. top	4-inch d.o.b. top			
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>													<u>Percent</u>
12	20	8.3									9.5	14.5	74		
	30	9.0	12.6								14.5	18.5	78		
	40	9.3	13.2	16.6							19.2	22.7	79		
	50	9.5	13.4	17.1	20.4	23.5					23.8	27.1	80		
	60	9.6	13.6	17.4	20.9	24.2	27.3				28.4	31.5	80		
	70	9.7	13.7	17.5	21.2	24.7	28.0	31.1			32.9	35.8	81		
	80	9.7	13.8	17.7	21.4	25.0	28.4	31.7	34.8		37.3	40.2	81		
14	40	12.9	17.9	22.1							25.0	28.2	79		
	50	13.1	18.3	23.0	27.0	30.4					30.7	33.7	80		
	60	13.3	18.6	23.5	27.9	31.8	35.2				36.3	39.1	80		
	70	13.4	18.8	23.8	28.5	32.7	36.6	40.0			41.9	44.6	81		
	80	13.4	18.9	24.0	28.8	33.3	37.5	41.3	44.8		47.4	50.0	81		
	90	13.5	18.9	24.2	29.1	33.8	38.2	42.2	46.0	49.5	52.9	55.4	81		
	100	13.5	19.0	24.3	29.3	34.1	38.6	42.9	47.0	50.7	58.4	60.9	81		
16	40	17.0	23.4	28.5							31.7	34.7	79		
	50	17.3	24.0	29.9	34.7	38.3					38.7	41.4	80		
	60	17.5	24.4	30.6	36.0	40.6	44.4				45.5	48.1	80		
	70	17.6	24.6	31.0	36.9	42.0	46.6	50.4			52.3	54.8	81		
	80	17.7	24.8	31.4	37.4	43.0	48.0	52.4	56.3		59.0	61.4	81		
	90	17.8	24.9	31.6	37.8	43.7	49.0	53.9	58.3	62.1	65.7	68.1	81		
	100	17.8	25.0	31.8	38.2	44.2	49.8	55.0	59.8	64.1	72.4	74.7	81		
18	40	21.6	29.7	35.8							39.4	42.2	79		
	50	22.0	30.5	37.6	43.3	47.4					47.8	50.3	80		
	60	22.3	31.0	38.6	45.2	50.6	54.8				56.0	58.4	80		
	70	22.5	31.3	39.3	46.4	52.6	57.9	62.1			64.1	66.5	81		
	80	22.6	31.5	39.7	47.2	53.9	59.9	65.0	69.3		72.2	74.5	81		
	90	22.7	31.6	40.0	47.8	54.9	61.3	67.1	72.2	76.5	80.3	82.5	81		
	100	22.7	31.7	40.2	48.2	55.6	62.4	68.6	74.3	79.3	88.3	90.5	81		
20	40	26.9	36.7	44.0							47.9	50.6	79		
	50	27.4	37.8	46.3	53.0	57.5					57.9	60.4	80		
	60	27.7	38.3	47.6	55.5	61.8	66.5				67.7	70.0	80		
	70	27.9	38.7	48.5	57.0	64.4	70.5	75.2			77.4	79.6	81		
	80	28.0	39.0	49.0	58.1	66.2	73.2	79.1	83.9		87.0	89.1	81		
	90	28.1	39.2	49.4	58.8	67.4	75.1	81.9	87.7	92.5	96.6	98.7	81		
	100	28.2	39.3	49.7	59.4	68.4	76.5	83.9	90.5	96.3	106.1	108.2	81		
22	50	33.3	45.8	56.0	63.7	68.7					69.1	71.5	80		
	60	33.6	46.5	57.6	66.9	74.2	79.3				80.6	82.9	80		
	70	33.9	47.0	58.6	68.8	77.5	84.5	89.8			92.0	94.2	81		
	80	34.1	47.3	59.4	70.2	79.7	87.9	94.7	100.1		103.3	105.4	81		
	90	34.2	47.6	59.9	71.1	81.3	90.3	98.2	104.9	110.3	114.6	116.6	81		
	100	34.3	47.7	60.3	71.8	82.5	92.2	100.8	108.5	115.0	125.8	127.8	81		
	24	50	39.7	54.6	66.5	75.5	81.0					81.4	83.7	80	
60		40.2	55.5	68.5	79.3	87.7	93.5				94.8	97.0	80		
70		40.5	56.0	69.8	81.8	91.8	99.8	105.7			108.1	110.1	81		
80		40.7	56.4	70.7	83.4	94.5	104.0	111.8	117.8		121.2	123.2	81		
90		40.9	56.7	71.3	84.6	96.5	107.0	116.1	123.7	129.8	134.3	136.3	81		
100		41.0	56.9	71.8	85.5	98.0	109.3	119.4	128.2	135.6	147.4	149.3	81		
26		50	46.7	64.1	78.0	88.2	94.3					94.7	97.0	80	
	60	47.3	65.2	80.4	92.9	102.5	108.8				110.2	112.3	80		
	70	47.7	65.9	82.0	95.8	107.4	116.5	123.0			125.5	127.5	81		
	80	47.9	66.4	83.0	97.8	110.7	121.6	130.4	137.0		140.7	142.6	81		
	90	48.1	66.7	83.8	99.2	113.0	125.2	135.6	144.2	150.9	155.8	157.7	81		
	100	48.2	67.0	84.3	100.3	114.8	127.9	139.5	149.6	158.0	170.8	172.7	81		

^a Includes 1 .0-foot stump allowance.

Table 89--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all oaks combined (species 800) in the Upper Coastal Plain.^a

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.6	0.8	1.4	1.5	1.6	1.8											
7	1.7	2.1	2.3	2.6	2.8	3.2	3.5	3.7									
8	2.5	3.1	3.4	3.8	4.2	4.6	5.1	5.5	5.9	6.3							
9																	
10	3.4	4.4	4.2	5.4	4.6	6.0	5.1	6.7	5.7	7.4	8.2	6.3	6.9	9.0	7.5	9.7	10.4
11																	
12																	
13																	
14																	
15																	
16																	

^a Includes 0.5-foot stump allowance.

Table 90--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all oaks combined (species 800) in the Upper Coastal Plain.^a

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5																	
6	2.1	1.5	2.6	1.9	3.2	2.4	3.7	2.7	3.1	4.2	3.6	4.8	5.3	5.8			
7	2.6	3.3	4.0	4.8	5.5	6.2	6.9	7.5	8.2	8.8							
8																	
9	3.4	4.3	4.3	5.4	6.4	5.1	6.1	7.7	8.7	7.0	9.8	7.9	10.7	8.7	11.7	9.5	10.3
10																	
11																	
12																	
13																	
14																	
15																	
16																	

^a Includes 0.5-foot stump allowance.

Table 91--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.'

D.b.h. class	Total tree height	Volume to												Girard Form Class		
		Saw-log		merchantable		height		(16-foot logs)		5.0		9-inch			4-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b.	top	d.o.b.		top	
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>												<u>Percent</u>		
12	40											6.0	10.4	65		
	50	8.5										10.4	13.6	72		
	60	9.1	12.3									12.6	16.3	76		
	70	9.4	12.9									14.6	18.9	78		
	80	9.6	13.3	16.4								16.4	21.4	79		
	90	9.7	13.6	16.9								18.1	23.7	80		
14	100	9.8	13.8	17.2								19.7	26.0	81		
	40	10.5											14.4	65		
	50	11.7	15.6									15.6	18.7	72		
	60	12.4	16.9									19.6	22.5	76		
	70	12.9	17.7	21.5								22.5	26.0	78		
	80	13.2	18.2	22.4								25.3	29.4	79		
16	90	13.4	18.6	23.1	26.7							28.0	32.7	80		
	100	13.5	18.9	23.6	27.6							30.6	35.9	81		
	50	15.4	20.4									22.5	24.6	72		
	60	16.4	22.1	26.3								27.0	29.6	76		
	70	16.9	23.2	28.1								31.2	34.3	78		
	80	17.3	23.9	29.4	33.5							35.1	38.7	79		
18	90	17.6	24.4	30.3	35.0	38.5						38.8	43.0	80		
	100	17.8	24.8	31.0	36.2	40.2						42.5	47.2	81		
	110	17.9	25.0	31.5	37.0	41.6	45.1					46.0	51.3	82		
	50	19.6	26.0									29.4	31.3	72		
	60	20.8	28.1	33.4								35.3	37.7	76		
	70	21.5	29.5	35.7	40.0							40.8	43.6	78		
20	80	22.0	30.4	37.3	42.6							45.9	49.2	79		
	90	22.4	31.0	38.5	44.5	48.9						50.9	54.7	80		
	100	22.6	31.5	39.3	45.9	51.0	54.8					55.7	60.0	81		
	110	22.8	31.8	39.9	47.0	52.7	57.2					60.5	65.2	82		
	50	24.3	32.2	36.8								37.1	38.8	72		
	60	25.8	34.8	41.3								44.6	46.7	76		
22	70	26.7	36.5	44.2	49.4							51.5	54.0	78		
	80	27.3	37.6	46.2	52.7	57.0						58.0	61.0	79		
	90	27.7	38.4	47.6	55.0	60.4	64.1					64.3	67.8	80		
	100	28.0	39.0	48.7	56.8	63.1	67.8					70.5	74.3	81		
	110	28.3	39.4	49.4	58.1	65.2	70.7	74.8				76.5	80.8	82		
	60	31.3	42.2	50.1	54.5							54.7	56.7	76		
24	70	32.4	44.3	53.6	59.9							63.2	65.6	78		
	80	33.2	45.6	56.0	63.8	69.0						71.3	74.0	79		
	90	33.7	46.6	57.7	66.7	73.2	77.7					79.1		80		
	100	34.1	47.3	59.0	68.8	76.5	82.1	86.0				86.6	E - 1	81		
	110	34.3	47.8	59.9	70.4	79.1	85.7	90.6				94.1	98.0	82		
	60	37.4	50.4	59.7	65.0							65.8	67.6	76		
26	70	38.7	52.8	63.9	71.4	75.8						76.0	78.2	78		
	80	39.6	54.4	66.8	76.1	82.3						85.7	88.3	79		
	90	40.2	55.6	68.8	79.5	87.3	92.6					95.1	98.0	80		
	100	40.6	56.4	70.3	82.0	91.2	97.9	102.5				104.3	107.5	81		
	110	41.0	57.0	71.5	83.9	94.2	102.1	108.0	112.1			113.2	116.9	82		
	60	44.0	59.2	70.2	76.4							77.8	79.5	76		
28	70	45.5	62.1	75.1	84.0	89.0						89.9	91.9	78		
	80	46.6	64.0	78.5	89.4	96.7	101.0					101.4	103.8	79		
	90	47.3	65.3	80.9	93.4	102.6	108.7					112.5	115.2	80		
	100	47.8	66.3	82.7	96.4	107.1	115.0	120.4				123.4	126.4	81		
	110	48.2	67.1	84.0	98.6	110.7	120.0	126.9	131.7			134.0	137.4	82		

* Includes 1.0-foot stump allowance.

Table 92--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and **4-inch** d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for soft and hard hardwoods combined (species **90**) in the Upper Coastal Plain."

D.b.h. class	Height to 4-inch d.o.b. top	Volume to										Girard Form Class					
		Saw-log					merchantable height (16-foot logs)							9-inch		4-inch	
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	d.o.b. top			d.o.b. top			
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>										<u>Percent</u>					
12	30	8.4									9.3	11.4	72				
	40	9.0									11.6	14.8	76				
	50	9.4	12.8								13.6	18.1	78				
	60	9.6	13.2								15.5	21.1	79				
	70	9.7	13.4	16.6							17.2	24.1	80				
	80	9.8	13.6	16.9							19.0	27.1	80				
	90	9.8	13.7	17.2	20.2						20.6	30.0	81				
14	40	12.4	16.6								17.6	20.0	76				
	50	12.9	17.5	20.9							21.0	24.3	78				
	60	13.1	18.1	22.0							24.1	28.3	79				
	70	13.3	18.4	22.7	26.1						27.2	32.3	80				
	80	13.4	18.6	23.1	26.9	30.0					30.2	36.2	80				
	90	13.5	18.8	23.5	27.5	31.0					33.1	40.0	81				
	100	13.6	18.9	23.7	28.0	31.7	34.9				36.0	43.8	81				
16	40	16.3	21.7								24.1	26.0	76				
	50	16.9	23.0	27.3							28.9	31.4	78				
	60	17.3	23.7	28.7	32.5						33.4	36.7	79				
	70	17.5	24.1	29.7	34.1	37.5					37.8	41.7	80				
	80	17.7	24.4	30.3	35.2	39.2					42.1	46.7	80				
	90	17.8	24.7	30.7	36.0	40.4	44.1				46.3	51.6	81				
	100	17.9	24.8	31.1	36.6	41.4	45.5	48.9			50.4	56.5	81				
18	40	20.7	27.5								31.3	32.8	76				
	50	21.5	29.1	34.6							37.6	39.6	78				
	60	22.0	30.1	36.4	41.1						43.5	46.1	79				
	70	22.3	30.7	37.6	43.1	47.3					49.3	52.4	80				
	80	22.5	31.0	38.4	44.6	49.5	53.4				54.9	58.6	80				
	90	22.6	31.3	39.0	45.6	51.2	55.7	59.3			60.5	64.8	81				
	100	22.7	31.6	39.4	46.4	52.4	57.5	61.8	65.2		66.0	70.8	81				
20	40	25.7	34.1	38.9							39.2	40.4	76				
	50	26.6	36.1	42.8	46.9						47.1	48.7	78				
	60	27.2	37.2	45.0	50.8	54.5					54.5	56.7	79				
	70	27.6	37.9	46.5	53.3	58.4					61.8	64.4	80				
	80	27.9	38.4	47.5	55.0	61.1	65.8				68.9	72.0	80				
	90	28.0	38.8	48.2	56.3	63.2	68.7	73.1			76.0	79.5	81				
	100	28.2	39.1	48.8	57.3	64.7	71.0	76.2	80.3		82.9	86.9	81				
22	50	32.3	43.7	51.8	56.7						57.4	58.8	78				
	60	33.1	45.1	54.6	61.4	65.9					66.6	68.4	79				
	70	33.5	46.0	56.3	64.5	70.6	74.7				75.5	77.6	80				
	80	33.8	46.6	57.6	66.7	74.0	79.5	83.5			84.2	86.7	80				
	90	34.1	47.1	58.4	68.2	76.4	83.1	88.3	92.1		92.8	95.7	81				
	100	34.2	47.4	59.1	69.4	78.3	85.9	92.1	97.0	100.6	101.3	104.7	81				
24	50	38.6	52.1	61.7	67.5						68.7	69.9	78				
	60	39.5	53.8	65.0	73.1	78.3					79.7	81.2	79				
	70	40.0	54.9	67.1	76.8	84.0	88.9				90.3	92.1	80				
	80	40.4	55.6	68.6	79.4	88.0	94.6	99.2			100.8	102.9	80				
	90	40.6	56.1	69.7	81.3	91.0	98.9	105.0	109.4		111.1	113.6	81				
	100	40.8	56.5	70.5	82.7	93.3	102.2	109.5	115.3	119.5	121.3	124.1	81				
26	50	45.4	61.3	72.5	79.2						80.9	81.9	78				
	60	46.4	63.3	76.4	85.8	91.9					93.8	95.1	79				
	70	47.1	64.5	78.9	90.2	98.6	104.2				106.4	107.9	80				
	80	47.5	65.4	80.6	93.2	103.3	111.0	116.3			118.7	120.5	80				
	90	47.8	66.0	81.8	95.4	106.8	116.0	123.2	128.2		130.8	132.9	81				
	100	48.1	66.4	82.8	97.1	109.5	119.9	128.5	135.2	140.1	142.9	145.3	81				

* Includes 1 .0-foot stump allowance.

Table 93--Predicted **stemwood** volume to a saw-log merchantable top, and to **9-inch** and 4-inch d.o.b. tops based on d.b.h., height to a 0-inch d.o.b. top and height to a saw-log top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.'

D.b.h. class	Height to 9-inch d.o.b. top	Volume to (16-foot Logs)										9-inch d.o.b. top		4-inch d.o.b. top		Girard Form Class
		1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0						
<u>Inches</u>	<u>Feet</u>	<u>Cubic feet</u>														<u>Percent</u>
12	20	8.3										9.5	14.8			72
	30	9.2	12.7									14.6	19.2			78
	40	9.5	13.3	16.7								19.3	23.9			79
	50	9.7	13.6	17.2	20.6	23.6						24.0	28.7			80
	60	9.7	13.7	17.5	21.1	24.4	27.4					28.5	33.4			81
	70	9.8	13.8	17.7	21.4	24.9	28.2	31.2				33.0	38.0			81
	80	9.9	13.9	17.8	21.6	25.2	28.6	31.9	35.0			37.5	42.7			81
14	40	13.1	18.1	22.3								25.2	28.7			79
	50	13.3	18.5	23.2	27.2	30.5						30.9	34.5			80
	60	13.4	18.8	23.7	28.1	32.0	35.4					36.5	40.2			81
	70	13.5	18.9	24.0	28.7	32.9	36.8	40.2				42.1	45.9			81
	80	13.6	19.0	24.2	29.1	33.6	37.7	41.6	45.0			47.6	51.5			81
	90	13.6	19.1	24.4	29.3	34.0	38.4	42.5	46.3	49.7		53.2	57.2			81
	100	13.7	19.2	24.5	29.5	34.4	38.9	43.2	47.2	51.0		58.7	62.8			81
16	40	17.2	23.6	28.7								31.9	34.7			79
	50	17.5	24.3	30.0	34.8	38.5						38.9	41.8			80
	60	17.7	24.6	30.8	36.2	40.9	44.6					45.7	48.7			81
	70	17.8	24.8	31.3	37.1	42.3	46.8	50.6				52.5	55.6			81
	80	17.9	25.0	31.6	37.7	43.2	48.3	52.7	56.5			59.3	62.4			81
	90	17.9	25.1	31.8	38.1	43.9	49.3	54.2	58.6	62.4		66.0	69.3			81
	100	18.0	25.2	32.0	38.4	44.5	50.1	55.3	60.1	64.4		72.7	76.0			81
18	40	21.9	29.9	36.0								39.5	41.9			79
	50	22.3	30.8	37.9	43.5	47.6						47.9	50.4			80
	60	22.5	31.2	38.9	45.5	50.9	55.0					56.2	58.7			81
	70	22.7	31.5	39.5	46.7	52.9	58.1	62.4				64.4	67.0			81
	80	22.8	31.7	40.0	47.5	54.2	60.2	65.3	69.6			72.5	75.2			81
	90	22.9	31.9	40.3	48.1	55.2	61.7	67.4	72.5	76.8		80.6	83.3			81
	100	22.9	32.0	40.5	48.5	55.9	62.8	69.0	74.6	79.6		88.7	91.4			81
20	40	27.1	37.0	44.2								48.0	50.1			79
	50	27.6	38.0	46.6	53.2	57.7						58.1	60.2			80
	60	27.9	38.6	47.9	55.8	62.1	66.7					67.9	70.1			81
	70	28.1	39.0	48.8	57.4	64.7	70.8	75.5				77.7	79.9			81
	80	28.3	39.3	49.4	58.4	66.5	73.5	79.5	84.2			87.3	89.6			81
	90	28.4	39.5	49.8	59.2	67.8	75.5	82.3	88.1	92.9		96.9	99.2			81
	100	28.4	39.6	50.1	59.8	68.8	77.0	84.4	90.9	96.7		106.5	108.9			81
22	50	33.6	46.1	56.3	64.0	68.9						69.3	71.2			80
	60	33.9	46.8	58.0	67.2	74.5	79.6					80.9	82.8			81
	70	34.2	47.3	59.0	69.2	77.8	84.8	90.1				92.3	94.3			81
	80	34.3	47.7	59.7	70.6	80.1	88.3	95.1	100.4			103.7	105.7			81
	90	34.5	47.9	60.3	71.6	81.7	90.8	98.7	105.3	110.7		115.0	117.0			81
	100	34.6	48.1	60.7	72.3	83.0	92.7	101.3	109.0	115.5		126.2	128.3			81
24	50	40.1	54.9	66.9	75.7	81.2						81.6	83.3			80
	60	40.5	55.8	68.9	79.7	88.1	93.7					95.1	96.8			81
	70	40.8	56.4	70.2	82.2	92.2	100.2	106.0				108.4	110.1			81
	80	41.0	56.8	71.1	83.9	95.0	104.5	112.3	118.2			121.6	123.4			81
	90	41.1	57.1	71.8	85.1	97.0	107.6	116.6	124.2	130.2		134.8	136.6			81
	100	41.3	57.3	72.2	86.0	98.5	109.9	119.9	128.7	136.1		147.9	149.7			81
26	50	47.2	64.5	78.4	88.6	94.6						95.0	96.5			80
	60	47.7	65.6	80.9	93.3	102.8	109.1					110.5	112.0			81
	70	48.0	66.3	82.4	96.3	107.8	116.9	123.4				125.9	127.4			81
	80	48.3	66.8	83.5	98.3	111.2	122.1	130.9	137.4			141.1	142.7			81
	90	48.4	67.1	84.3	99.8	113.6	125.8	136.2	144.8	151.4		156.3	157.9			81
	100	48.6	67.4	84.8	100.9	115.4	128.6	140.1	150.2	158.6		171.4	173.0			81

Includes 1.0-foot stump allowance.

Table 94--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.*

D.b.h. class	Total-tree height (feet)																
	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110
Inches	Cubic feet																
5																	
6	0.6	1.0	1.2	1.4	1.6	1.6	3.0	1.7	3.3	1.9	3.6	3.8					
7	2.6	3.2	3.5	3.9	4.3	4.8	5.2	5.6	6.0	6.3							
8	3.5	4.6	4.3	5.6	4.8	6.2	5.2	6.8	5.9	7.6	6.5	8.4	9.1	7.0	9.8	7.6	10.5
10	5.7	7.0	7.7	8.6	9.6	10.5	11.4	12.3	13.2	14.0	14.9	15.7	16.5	17.3	18.1	18.8	
11			9.5	10.5	11.7	12.9	14.0	15.1	16.2	17.2	18.2	19.2	20.2	21.2	22.1	23.1	24.0
12			11.4	12.6	14.1	15.5	16.8	18.1	19.4	20.7	21.9	23.1	24.2	25.4	26.6	27.7	28.8
13			13.5	14.9	16.6	18.3	19.9	21.4	22.9	24.4	25.8	27.2	28.6	30.0	31.4	32.7	34.1
14					19.4	21.3	23.2	25.0	26.7	28.5	30.1	31.8	33.4	35.0	36.6	38.1	39.7
15					22.4	24.6	26.8	28.8	30.8	32.8	34.7	36.6	38.5	40.3	42.2	44.0	45.8
16					25.5	28.1	30.5	32.9	35.2	37.4	39.6	41.8	43.9	46.0	48.1	50.2	52.2

* includes 0.5-foot stump allowance.

Table 95--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.

D.b.h. class	Tree height to 4-inch d.o.b. top (feet)																
	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
Inches	Cubic feet																
5	1.6	1.9	2.4	2.8	3.2	3.6											
6	2.1	2.7	3.3	3.7	4.3	4.8	5.4	5.9									
7	2.7	3.4	4.1	4.9	5.6	6.3	6.9	7.6	8.2	8.8							
8																	
9	3.5	4.5	4.4	5.5	5.2	6.5	6.3	7.9	8.9	7.1	8.0	9.9	10.8	8.8	11.8	9.5	10.3
10	5.6	6.8	8.0	9.6	10.8	12.0	13.2	14.3	15.4	16.5	17.6	18.7	19.7	20.8	21.9	22.9	
11			9.7	11.5	13.0	14.4	15.7	17.1	18.4	19.7	21.0	22.2	23.5	24.7	26.0	27.2	28.5
12			11.5	13.7	15.4	17.0	18.6	20.1	21.6	23.1	24.6	26.1	27.6	29.1	30.5	32.0	33.4
13			13.4	16.0	17.9	19.8	21.6	23.4	25.2	26.9	28.7	30.4	32.1	33.7	35.4	37.1	38.8
14																	
15					20.7	23.7	22.9	26.2	25.0	28.5	30.9	27.0	33.2	29.0	31.0	35.4	33.0
16					26.9	29.7	32.4	35.0	37.6	40.1	42.7	45.1	47.6	50.1	52.6	55.0	57.4

* Includes 0.5-foot stump allowance.

List of Figures and Tables

	Page
Figure i--Seven geographical areas on which trees were sampled for equation development and verification.	v
Table i--Geographic areas in the Southern Region (USDA Forest Service) with a listing of National Forest System units in each.	v
Table ii--Species and geographic areas for which volume tables are available.	vi
Table iii--Trees measured for development of Upper Coastal Plain volume tables by species and species groups.	vii
Table I--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all pine species combined (species 100) in the Upper Coastal Plain.	4
Table 2--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all pine species combined (species 100) in the Upper Coastal Plain.	5
Table 3--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h. , height to a 7-inch d.o.b. top and height to a saw-log top for all pine species combined (species 100) in the Upper Coastal Plain.	6
Table 4--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all pine species combined (species 100) in the Upper Coastal Plain.	7
Table 5--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all pine species combined (species 100) in the Upper Coastal Plain.	7
Table 6--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for shortleaf pine (species 1 IO) in the Upper Coastal Plain.	8
Table 7--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for shortleaf pine (species 110) in the Upper Coastal Plain.	9
Table 8--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h. , height to a 7-inch d.o.b. top and height to a saw-log top for shortleaf pine (species 1 10) in the Upper Coastal Plain.	10
Table 9--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for shortleaf pine (species 1 10) in the Upper Coastal Plain. . . .	11

Table 10--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for shortleaf pine (species 110) in the Upper Coastal Plain. . . ,	11
Table 11 --Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for loblolly pine (species 131) in the Upper Coastal Plain.	12
Table 12--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for loblolly pine (species 131) in the Upper Coastal Plain.	13
Table 13--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 7-inch d.o.b. top and height to a saw-log top for loblolly pine (species 131) in the Upper Coastal Plain.	14
Table 14--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for loblolly pine (species 131) in the Upper Coastal Plain.	15
Table 15--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for loblolly pine (species 131) in the Upper Coastal Plain.	15
Table 16--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for major southern pines combined (species 11) in the Upper Coastal Plain.	16
Table 17--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for major southern pines combined (species 11) in the Upper Coastal Plain.	17
Table 18--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 7-inch d.o.b. top and height to a saw-log top for major southern pines combined (species 11) in the Upper Coastal Plain. . ,	18
Table 19--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for major southern pines combined (species 11) in the Upper Coastal Plain. , ,	19
Table 20--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for major southern pines combined (species 11) in the Upper Coastal Plain. , , ,	19
Table 21--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for Virginia pine (species 132) in the Upper Coastal Plain. , ,	20

Table 22--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for Virginia pine (species 132) in the Upper Coastal Plain.	21
Table 23--Predicted stemwood volume to a saw-log merchantable top, and to 7-inch and 4-inch d.o.b. tops based on d.b.h., height to a 7-inch d.o.b. top and height to a saw-log top for Virginia pine (species 132) in the Upper Coastal Plain.	22
Table 24--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for Virginia pine (species 132) in the Upper Coastal Plain.	23
Table 25--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for Virginia pine (species 132) in the Upper Coastal Plain.	23
Table 26--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.	24
Table 27--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.	25
Table 28--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.	26
Table 29--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all soft hardwoods combined (species 300) in the Upper Coastal Plain.	27
Table 30--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all soft hardwoods combined (species 300) in the Upper Coastal Plain.	27
Table 3 1 --Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for sweetgum (species 611) in the Upper Coastal Plain.	28
Table 32--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for sweetgum (species 611) in the Upper Coastal Plain.	29
Table 33--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for sweetgum (species 611) in the Upper Coastal Plain.	30

Table 34--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for sweetgum (species 611) in the Upper Coastal Plain.	31
Table 35--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for sweetgum (species 611) in the Upper Coastal Plain.	31
Table 36--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for yellow-poplar (species 621) in the Upper Coastal Plain.	32
Table 37--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for yellow-poplar (species 621) in the Upper Coastal Plain.	33
Table 38--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for yellow-poplar (species 621) in the Upper Coastal Plain.	34
Table 39--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for yellow-poplar (species 621) in the Upper Coastal Plain. . . .	35
Table 40--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for yellow-poplar (species 621) in the Upper Coastal Plain.	35
Table 41--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.	36
Table 42--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.	37
Table 43--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.	38
Table 44--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all hard hardwoods combined (species 500) in the Upper Coastal Plain.	39
Table 45--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all hard hardwoods combined (species 500) in the Upper Coastal Plain.	39

Table 46--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for hickory (species 400) in the Upper Coastal Plain.	40
Table 47--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for hickory (species 400) in the Upper Coastal Plain.	41
Table 48--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for hickory (species 400) in the Upper Coastal Plain.	42
Table 49--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for hickory (species 400) in the Upper Coastal Plain.	43
Table 50--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for hickory (species 400) in the Upper Coastal Plain.	43
Table 51 --Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for white oak (species 802) in the Upper Coastal Plain.	44
Table 52--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for white oak (species 802) in the Upper Coastal Plain.	45
Table 53--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for white oak (species 802) in the Upper Coastal Plain.	46
Table 54--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for white oak (species 802) in the Upper Coastal Plain.	47
Table 55--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for white oak (species 802) in the Upper Coastal Plain.	47
Table 56--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for chestnut oak (species 832) in the Upper Coastal Plain.	48
Table 57--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for chestnut oak (species 832) in the Upper Coastal Plain.	49

Table 58--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for chestnut oak (species 832) in the Upper Coastal Plain.	50
Table 59--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for chestnut oak (species 832) in the Upper Coastal Plain.	51
Table 60--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for chestnut oak (species 832) in the Upper Coastal Plain. . . . , , , ,	51
Table 61--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for post oak (species 835) in the Upper Coastal Plain. , , , ,	52
Table 62--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for post oak (species 835) in the Upper Coastal Plain. . , ,	53
Table 63--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for post oak (species 835) in the Upper Coastal Plain.	54
Table 64--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for post oak (species 835) in the Upper Coastal Plain.	55
Table 65--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for post oak (species 835) in the Upper Coastal Plain. , , , , ,	55
Table 66--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all white oaks combined (species 82) in the Upper Coastal Plain.	56
Table 67--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all white oaks combined (species 82) in the Upper Coastal Plain. ,	57
Table 68--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all white oaks combined (species 82) in the Upper Coastal Plain. ,	58
Table 69--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all white oaks combined (species 82) in the Upper Coastal Plain.	59

Table 70--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all white oaks combined (species 82) in the Upper Coastal Plain.	59
Table 71 --Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for scarlet oak (species 806) in the Upper Coastal Plain.	60
Table 72--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for scarlet oak (species 806) in the Upper Coastal Plain.	61
Table 73--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for scarlet oak (species 806) in the Upper Coastal Plain.	62
Table 74--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for scarlet oak (species 806) in the Upper Coastal Plain.	63
Table 75--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for scarlet oak (species 806) in the Upper Coastal Plain.	63
Table 76--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for southern red oak (species 812) in the Upper Coastal Plain.	64
Table 77--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h. , height to a 4-inch d.o.b. top and height to a saw-log top for southern red oak (species 812) in the Upper Coastal Plain.	65
Table 78--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for southern red oak (species 812) in the Upper Coastal Plain.	66
Table 79--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for southern red oak (species 812) in the Upper Coastal Plain.	67
Table 80--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for southern red oak (species 812) in the Upper Coastal Plain.	67
Table 81--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all red oaks combined (species 83) in the Upper Coastal Plain.	68

Table 82--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all red oaks combined (species 83) in the Upper Coastal Plain.	69
Table 83 --Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h. , height to a 9-inch d.o.b. top and height to a saw-log top for all red oaks combined (species 83) in the Upper Coastal Plain.	70
Table 84--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all red oaks combined (species 83) in the Upper Coastal Plain.	71
Table 85 --Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all red oaks combined (species 83) in the Upper Coastal Plain.	71
Table 86--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for all oaks combined (species 800) in the Upper Coastal Plain.	72
Table 87--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for all oaks combined (species 800) in the Upper Coastal Plain.	73
Table 88--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for all oaks combined (species 800) in the Upper Coastal Plain.	74
Table 89--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for all oaks combined (species 800) in the Upper Coastal Plain.	75
Table 90 --Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for all oaks combined (species 800) in the Upper Coastal Plain.	75
Table 91 --Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., total-tree height and height to a saw-log top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.	76
Table 92 --Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 4-inch d.o.b. top and height to a saw-log top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.	77
Table 93--Predicted stemwood volume to a saw-log merchantable top, and to 9-inch and 4-inch d.o.b. tops based on d.b.h., height to a 9-inch d.o.b. top and height to a saw-log top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain.	78

Table 94--Predicted **stemwood** volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain. 79

Table **95--Predicted stemwood** volume to a **4-inch d.o.b.** top in pulpwood trees based on d.b.h. and height to a 4-inch d.o.b. top for soft and hard hardwoods combined (species 90) in the Upper Coastal Plain. 79

Clark, Alexander III; Souter, Ray A. 1996. Stem cubic-foot volume tables for tree species in the Upper Coastal Plain. Res. Pap. SE-296. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 88 p.

Stemwood cubic-foot volume inside bark tables are presented for 11 species and 8 species groups based on equations used to estimate timber sale volumes on national forests in the Upper Coastal Plain. Tables are based on form class measurement data for 521 trees sampled in the Upper Coastal Plain and taper data collected across the South. A series of tables is presented for each species based on diameter at breast height (d.b.h.) in combination with total height and height to a 4-inch diameter outside bark (d.o.b.) top. Volume tables are also presented based on d.b.h. in combination with height to a 7-inch d.o.b. top for softwoods and height to a 0-inch d.o.b. top for hardwoods. Sawtimber tables display saw-log stem volume by log (16-foot) and half-log (8-foot) intervals and also show **stemwood** volume to a 7-inch d.o.b. top for softwoods, to a 9-inch d.o.b. top for hardwoods, and to a 4-inch d.o.b. top for all species. Pulpwood tables show **stemwood** volume to a 4-inch d.o.b. top in 5-foot height intervals.

Keywords: Saw-log volume, pulpwood volume, form class.

Clark, Alexander III; Souter, Ray A. 1996. Stem cubic-foot volume tables for tree species in the Upper Coastal Plain. Res. Pap. SE-298. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 88 p.

Stemwood cubic-foot volume inside bark tables are presented for 11 species and 8 species groups based on equations used to estimate timber sale volumes on national forests in the Upper Coastal Plain. Tables are based on form class measurement data for 521 trees sampled in the Upper Coastal Plain and taper data collected across the South. A series of tables is presented for each species based on diameter at breast height (d.b.h.) in combination with total height and height to a 4-inch diameter outside bark (d.o.b.) top. Volume tables are also presented based on d.b.h. in combination with height to a 7-inch d.o.b. top for softwoods and height to a 9-inch d.o.b. top for hardwoods. Sawtimber tables display saw-log stem volume by log (16-foot) and half-log (8-foot) intervals and also show **stemwood** volume to a 7-inch d.o.b. top for softwoods, to a 9-inch d.o.b. top for hardwoods, and to a 4-inch d.o.b. top for all species. Pulpwood tables show **stemwood** volume to a 4-inch d.o.b. top in 5-foot height intervals.

Keywords: Saw-log volume, pulpwood volume, form class.



The Forest Service, U.S. Department of Agriculture, is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives-as directed by Congress-to provide increasingly greater service to a growing Nation.

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means of communication of program information (braille, large print, audiotape, etc.) should contact the USDA office of Communications at **(202) 720-2791**. To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, DC 20250, or call **(202) 720-7327** (voice) or **(202) 720-1127** (TDD). USDA is an equal employment opportunity employer.