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Stem Cubic-Foot Volume Tables for Tree Species in the South

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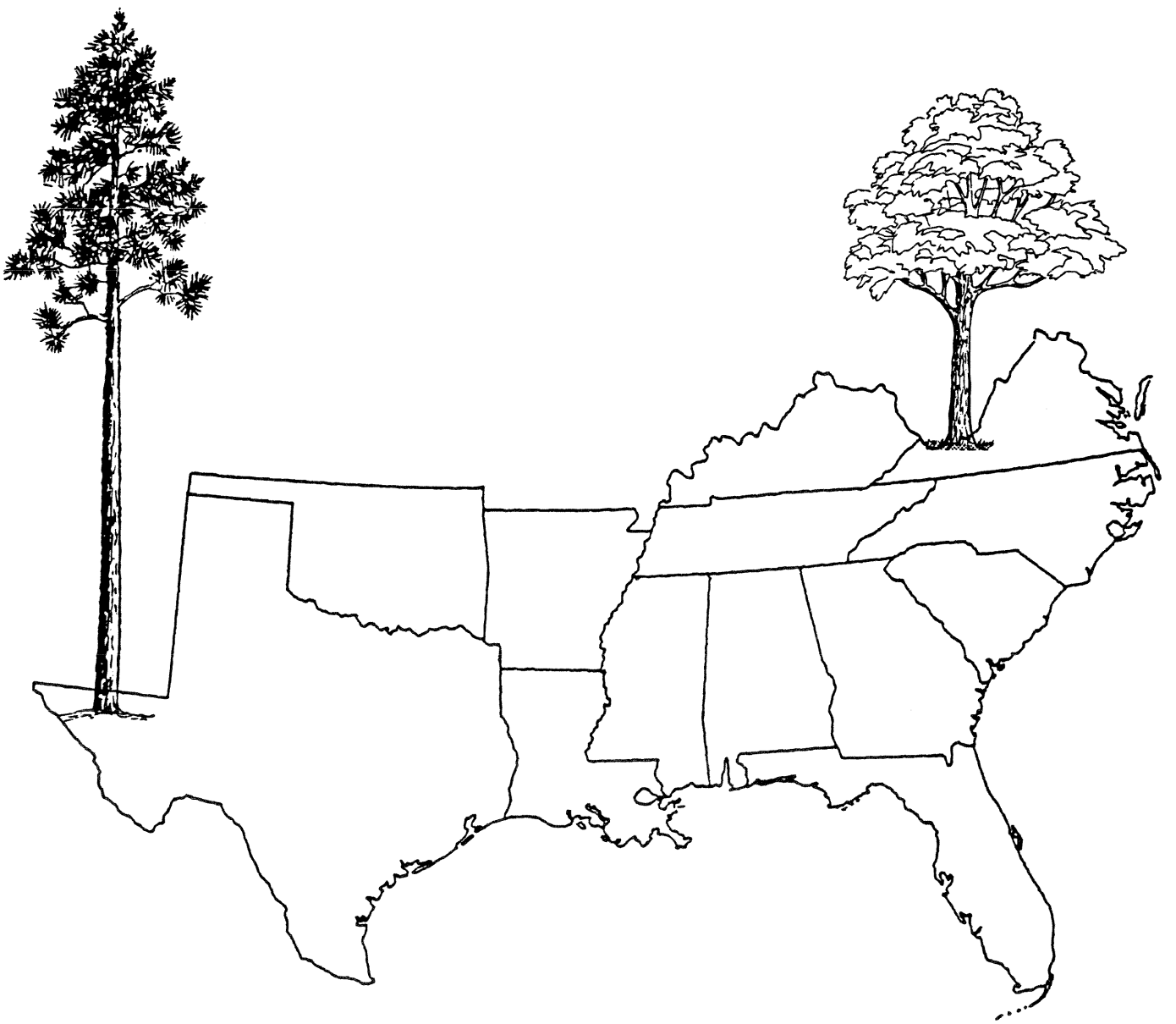

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Abstract

Stemwood cubic-foot volume tables are presented for 44 species and 10 species groups based on equations used to estimate timber sale volumes on national forests in the South. Tables are based on taper data for 13,469 trees sampled from Virginia to Texas. A series of tables are 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 hard- woods 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-feet 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 44 individual species and for 10 species groups that have similar stem form. The tables are based on the new equations developed from taper data collected on trees sampled in the Southern Region, an area that extends from Virginia to Texas.

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).

This book contains volume tables based on all trees sampled in all geographic areas. 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 each geographic area of the Southern Region (Clark and Souter, in press). The South-wide tables in this book are less accurate than the area specific tables and should only be used when a species volume table is not available for a desired geographic area or when preparing general South-wide inventory estimates.

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, SE-4701, Utilization of Southern Timber.

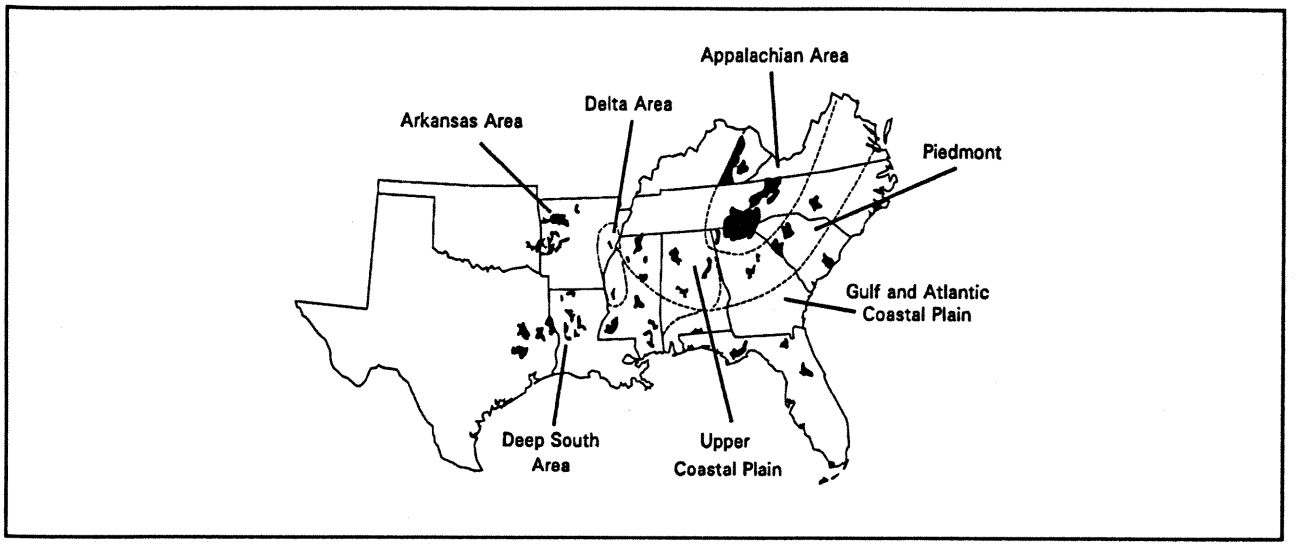

Figure i--Seven geographic areas on which trees were sampled for equation development and verification.

Table i--Geographic areas in the Southern Region with a listing of Nation Forest System units in each[1]

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 Plant		Daniel Boone		Homochitto		
		Pisgah		Sabine		

[1] All units except the Savannah River Forest Station on the Savannah River Plant 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	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	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	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 South-wide volume tables by species and species groups

Species or species group	All trees: Sample trees	All trees: D.b.h. Mean	All trees: D.b.h. Range	All trees: Total height Mean	All trees: Total height Range	All trees: Height to 4-inch d.o.b top Mean	All trees: Height to 4-inch d.o.b top Range	Sawtimber trees: Sample trees	Sawtimber trees: D.b.h. Mean	Sawtimber trees: D.b.h. Range	Sawtimber trees: Height to 7- or 9-inch d.o.b. top Mean	Sawtimber trees: Height to 7- or 9-inch d.o.b. top Range	Sawtimber trees: Girard Form Class Mean
	Number[a]	- - -Inches- - -		- - Feet - -		- - Feet - -		Number[b]	- - -Inches- - -		- - Feet - -		Pct
All pines	6,096	13.1	5.0-30.6	71	32-150	58	11-136	5,061	14.3	9.0-30.6	51	17-125	79
Shortleaf pine	1,575	13.5	5.0-24.2	72	33-111	59	13- 99	1,353	14.6	9.0-24.2	54	21- 93	81
Slash pine	614	12.0	5.0-21.4	71	40-102	57	12- 92	486	13.3	9.0-21.4	50	20- 85	78
Longleaf pine	1,247	12.3	5.0-22.2	67	32- 99	54	11- 90	1,008	13.5	9.0-22.2	46	17- 82	79
Loblolly pine	1,696	14.0	5.0-29.5	75	32-132	61	13-120	1,442	15.2	9.0-29.5	54	17-113	79
All major pine	5,132	13.2	5.0-29.5	72	32-132	58	11-120	4,289	14.4	9.0-29.5	52	17-113	79
Sand pine	90	9.1	5.0-14.5	56	36- 74	41	17- 62	45	11.1	9.0-14.5	35	21- 54	79
Spruce pine	60	13.2	5.1-22.2	78	51- 99	62	21- 83	50	14.4	9.9-22.2	56	31- 78	83
Pitch pine	116	13.3	5.0-22.2	68	33- 91	55	13- 77	96	14.6	9.0-22.2	49	21- 73	77
Pond pine	119	11.6	5.4-21.2	57	36- 81	46	21- 71	95	12.6	9.0-21.2	40	20- 64	75
Eastern white pine	196	15.3	5.1-30.6	83	37-150	67	19-136	196	16.5	9.1-30.6	59	22-125	79
Virginia pine	345	11.5	5.1-21.1	69	35-100	54	17- 82	281	12.5	9.0-21.1	44	18- 72	81
All other pines	964	12.5	5.0-30.6	70	33-150	55	13-136	772	13.8	9.0-30.6	48	18-125	79
All cypress	113	13.1	7.6-22.9	77	44-106	62	28- 88	97	13.9	9.1-22.9	51	18- 79	74
Baldcypress	46	14.3	7.8-21.5	87	55-106	72	34- 88	43	14.8	9.1-21.5	61	22- 79	79
Pondcypress	67	12.2	7.6-22.9	70	45- 91	55	28- 77	54	13.2	9.1-22.9	43	18- 73	69
Hemlock	161	14.6	5.8-30.4	80	36-135	62	21-118	125	16.7	9.1-30.4	57	19-114	79
All soft hardwoods	2,534	13.7	5.0-32.0	81	34-135	61	10-118	1,744	16.2	11.0-32.0	49	17-101	78
Red maple	190	12.3	5.0-24.4	74	45-103	51	18- 81	100	15.8	11.2-24.4	40	20- 70	80
Buckeye	71	14.0	6.2-23.5	75	39-109	55	19- 89	49	16.1	11.3-23.5	44	22- 71	80
Hackberry	103	16.4	7.1-29.0	77	49-106	57	26- 88	85	18.0	11.1-29.0	42	18- 74	78
Sweetgum	628	13.5	5.0-32.0	84	38-128	63	10-111	407	16.5	11.0-32.0	53	18- 95	78
Yellow-poplar	497	15.0	5.2-31.3	92	42-135	71	17-118	398	16.7	11.0-31.3	55	19-101	80
Magnolia	30	12.2	7.5-16.6	68	39- 80	50	31- 66	22	13.3	11.0-16.6	34	18- 48	80
Sweetbay	93	11.4	5.5-20.3	68	43- 90	49	22- 70	44	14.7	11.1-20.3	37	20- 52	74
Blackgum (upland)	237	14.0	5.8-28.2	73	38-131	56	21-104	178	15.7	11.0-28.2	45	18- 91	75
Blackgum (lowland)	164	12.7	5.0-23.2	71	34-101	54	10- 85	100	15.3	11.0-23.2	44	17- 73	75
Sycamore	126	13.4	5.1-22.8	88	48-124	67	16-104	94	15.0	11.0-22.8	48	18- 86	80
Basswood	120	14.2	5.0-23.8	88	51-116	68	17-101	89	16.5	11.0-23.8	55	26- 85	83
Elm	180	15.5	7.4-28.4	79	46-113	60	29- 94	155	16.5	11.0-28.4	44	17- 76	79
All hard hardwoods	4,565	14.5	5.0-36.0	78	29-120	58	7-104	3,571	16.2	11.0-36.0	45	17- 87	79
Beech	108	13.4	6.4-28.3	73	56-105	49	27- 85	78	15.1	11.0-28.3	38	20- 66	85
Birch	100	11.7	5.5-21.0	79	45-106	54	19- 83	59	14.0	11.0-21.0	38	18- 57	81
Hickory	604	13.9	5.1-27.5	80	45-120	57	15-100	470	15.4	11.0-27.5	45	17- 83	79
Pecan	94	17.4	7.5-28.0	88	54-113	71	36-100	83	18.5	11.0-28.0	56	17- 85	78
White ash	77	11.5	5.0-21.2	76	44-119	55	15-103	37	14.6	11.0-21.2	44	21- 82	78
Green ash	96	18.0	7.3-32.2	86	59-113	66	34- 98	81	19.6	11.1-32.2	49	19- 87	67
White oak	826	14.1	5.1-26-8	78	43-110	58	17- 92	631	15.9	11.0-26.8	45	19- 77	80
Overcup oak	121	18.8	7.4-35.1	83	48-117	66	25-100	105	20.3	11.3-35.1	52	17- 85	77
Chestnut oak	319	15.0	5.1-29.7	78	29-116	59	13- 95	261	16.4	11.2-29.7	45	19- 75	79
Post oak	214	13.3	5.8-21.0	68	40- 90	50	23- 72	173	14.3	11.0-21.0	36	20- 52	78
All white oaks	1,481	14.6	5.1-35.1	77	29-117	57	13-100	1,170	16.2	11.0-35.1	44	17- 85	79
Scarlet oak	292	14.3	5.1-30.9	76	36-110	56	16- 92	237	15.7	11.0-30.9	43	17- 76	81
Southern red oak	338	14.1	5.1-26.0	74	41-102	54	10- 82	278	15.4	11.0-26.0	41	18- 67	76
Cherrybark oak	46	14.6	7.5-21.4	83	57-107	61	27- 83	37	16.0	11.2-21.4	45	29- 67	79
Water oak	231	13.8	5.0-23.6	82	43-106	60	15- 88	184	15.2	11.0-23.6	44	21- 73	80
Nuttall oak	107	20.2	7.7-36.0	95	37-120	76	27-104	96	21.5	11.3-36.0	62	19- 86	81
Willow oak	131	14.1	6.2-23.1	81	52-105	59	27- 81	106	15.3	11.1-23.1	42	21- 65	77
Northern red oak	350	15.3	5.1-28.2	81	41-118	61	12-102	274	17.2	11.3-28.2	49	26- 85	80
Black oak	394	14.9	5.3-28.7	77	40-116	58	16- 95	320	16.4	11.0-28.7	46	19- 81	78
All red oaks	1,921	14.8	5.0-36.0	79	36-120	59	10-104	1,543	16.3	11.0-36.0	45	17- 86	79
All oaks	3,402	14.7	5.0-36.0	78	29-120	58	10-104	2,713	16.2	11.0-36.0	45	17- 86	79
Black locust	75	13.0	6.0-20.5	84	53-110	63	28- 91	50	15.2	11.0-20.5	45	19- 69	76
All hardwoods	7,099	14.2	5.0-36.0	79	29-135	59	7-118	5,315	16.2	11.0-36.0	46	17-101	79

[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.

Sample trees were felled and their diameter at breast height (d.b.h.) and total height recorded. The contractors measured diameter outside the 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 groundline, 1 and 2 feet, breast height, and at intervals of approximately 4 feet above breast height. Bark thickness was deter-mined from cross-sectional disks cut from the boles.

Clark and others (1991) compared available segmented-profile polynomial models (Cao and others 1980; Max and Burkhart 1976; 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 Burkhart'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 a 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. A separate profile equation incorporates height to a 4-inch d.o.b. top and height to a 7-inch d.o.b. top for softwoods and 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). To estimate stemwood volume inside bark, diameters inside bark (d.i.b.) at breast height and at 17.3 feet are required. However, these diameters do not need to be recorded in the field. Linear equations for estimating d.i.b. at 4.5 feet from d.b.h. were developed for each species and species group by geographic area as well as South-wide. Equations are also available for estimating 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.

Although the profile equations based on total height can be applied to any trees having both d.b.h. $\geq$ 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 trees with d.b.h. $\geq$ 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. $\geq$ 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. $\geq$ 11.0 inches, and their height to a 9-inch d.o.b. top must be > 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 ground line 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 South-wide.[1]

The profile equations account for differences in stem taper by including a measure or estimate of the d.i.b. at 17.3 feet in each volume estimate, thus, allowing a single form-class segmented-profile equation to serve for a species across the South. However, an analysis of the form-class data showed geographic differences in the form class of trees with the same d.b.h. and height. For example a 20-inch loblolly pine with a total height of 100 feet in the Deep South Area has an average Girard Form Class[2] of 83 compared to a Girard Form Class of 80 for a loblolly pine of the same d.b.h. and height in the Upper Coastal Plain. Since each unit change in form class is equivalent to a 2 to 3 percent change in volume, a 20-inch, 100-foot, 4-log loblolly pine in the Deep South will on average contain 9 percent more volume than a 20-inch, 100-foot, 4-log loblolly in the Upper Coastal Plain. Using the South-wide equation will average out these differences but will produce estimates that are higher than some geographic area equations and lower than others. For example, using the South-wide equation to estimate the volume of a 20-inch, 100-foot, 4-log loblolly will under estimate the Deep South volume table by 3.5 percent and over estimate the Upper Coastal Plain volume table by 5.3 percent. The taper data also showed geographic differences in the proportion of wood between the 7-inch or 9-inch d.o.b. top and the 4-inch d.o.b. top. For example a 10-inch shortleaf pine in the Deep South with a height to a 7-inch d.o.b. top of 30-feet contained on average 25 percent more volume between the 7-inch and 4-inch d.o.b. top than the same size shortleaf in Arkansas. Because of these regional differences, geographic area species volume tables should be used when available for making estimate of timber sales. When geographic area species tables are not available the South-wide volume tables should be used.

[1] 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, Southeastern Forest Experiment Station, Forestry Science Laboratory, 320 Green Street, Athens, GA 30602-2044.

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

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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 9-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- to 24-inches d.b.h.) and hardwoods (12- 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 9-inch d.o.b. top for hardwoods. The pulpwood tables show volume to a 4-inch d.o.b. top for trees 5- 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 9-inch d.o.b. top for hardwood sawtimber. For sawtimber trees, you must also know the height to the saw-log merchantable[3] top in logs and in half logs. For example, to determine the saw-log and topwood volume for an 18-inch, three-log northern red oak with a height to a 9-inch d.o.b. top of 60 feet, refer to the Index of Volume Tables for the table number of the northern red oak volume table based on d.b.h. and height to a 9-inch d.o.b. top (table 243). In table 243 locate the volume data for an 18-inch d.b.h. tree with a height to 9-inch top of 60 feet. If you look across this row you will find the saw-log volume under a three-log merchantable stem (51.4 cubic feet). This same row also shows stem volume to a 9-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 (51.4 cubic feet) from the volume to a 4-inch d.o.b. top (60.0 cubic feet) for a result of 8.6 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 9-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 or the South-wide average for the species from table iii. For example, to determine the saw-log volume of a 14-inch longleaf pine with a saw log merchantable height of two and a half logs, refer to the Index of Volume Tables to find the table number for longleaf pine based on d.b.h. and total height (table 16).

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[3] Saw-log merchantable height is (1) the height to local minimum d.o.b. top, or (2) the height where a whorl of 3 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.

If you do not know the average form class for longleaf pine in the area, look up the South-wide average in table iii (form class = 79). In table 16, locate the volume data for merchantable stem and find the tree's saw-log merchantable volume for a 14-inch d.b.h. tree with a form class of 79. Look across the row for the saw-log volume under a merchantable two and a half log stem (25.3 cubic feet).

To determine the stem pulpwood volume of an 8-inch d.b.h. yellow-poplar 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 115). In table 115, 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 (8.6 cubic feet).

Index of Volume Tables

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

		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 9-inch d.o.b. top
Species/group	Code	Saw-timber	Pulp-wood	Saw-timber	Pulp-wood	Sawtimber
		Table number				
Ash, green	544	181	184	182	185	183
White	541	176	179	177	180	178
Baldcypress	221	71	74	72	75	73
Basswood	950	141	144	142	145	143
Beech	531	159	157	157	160	158
Birch	370	161	164	162	165	163
Blackgum, lowland	694	126	129	127	130	128
Upland	693	121	124	122	125	123
Buckeye	330	96	99	97	100	98
Cypress, all	12	66	69	67	70	68
Elm	970	146	149	147	150	148
Hackberry	460	101	104	102	105	103
Hardwoods, hard	500	151	154	152	155	153
Soft	300	86	89	87	90	88
All	90	266	266	267	270	268
Hemlock	261	81	84	82	85	83
Hickory	400	166	169	167	170	168
Locust, black	901	261	264	262	265	263
Magnolia	652	136	139	137	140	138
Maple, red	316	91	94	92	95	93
Oak, all	800	256	259	257	260	258
All red	83	251	254	252	255	253
All white	82	206	209	207	210	208
Black	837	246	249	247	250	248
Cherrybark	813	221	224	222	225	223
Chestnut	832	196	199	197	200	198
Northern red	833	241	244	242	245	243
Nuttall	828	231	234	232	235	233
Overcup	822	191	194	192	195	193
Post	835	201	204	202	205	203
Scarlet	806	211	214	212	215	213
Southern red	812	216	219	217	220	218
Water	827	226	229	227	230	228
White	802	186	189	187	190	188
Willow	831	236	239	237	240	238
Pecan	404	171	174	172	175	173
Pine, all	100	1	4	2	5	3
Eastern white	129	51	54	52	55	53
Loblolly	131	21	24	22	25	23
Longleaf	121	16	19	17	20	18
All major	11	26	29	27	30	28
All others	13	61	64	62	65	63
Pitch	126	41	44	42	45	43
Pond	128	46	49	47	50	48
Sand	107	31	34	32	35	33
Shortleaf	110	6	9	7	10	8
Slash	111	11	14	12	15	13
Spruce	115	36	39	37	40	38
Virginia	132	56	59	57	60	58
Pondcypress	222	76	79	77	80	78
Sweetbay	653	116	119	117	120	118
Sweetgum	611	106	109	107	110	108
Sycamore	731	131	134	132	135	133
Yellow-poplar	621	111	114	112	115	113

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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	5.3									6.5	7.8	66
	50	5.9	8.0								8.5	10.3	73
	60	6.2	8.6								10.4	12.5	77
10	70	6.4	9.0	11.2							12.1	14.7	79
	80	6.5	9.2	11.6	13.6						13.7	16.7	81
	90	6.6	9.4	11.9	14.1						15.3	18.7	82
	40	7.7	10.1								10.6	11.4	66
	50	8.5	11.6	13.8							13.9	15.0	73
	60	9.0	12.4	15.2							16.9	18.3	77
12	70	9.2	13.0	16.1	18.7						19.7	21.4	79
	80	9.4	13.3	16.8	19.7	22.0					22.5	24.4	81
	90	9.5	13.6	17.2	20.4	23.0					25.1	27.3	82
	100	9.6	13.7	17.5	20.9	23.8	26.3				27.7	30.2	82
	40	10.6	13.8								15.1	15.7	66
	50	11.7	15.8	18.9							19.8	20.6	73
	60	12.3	17.0	20.8	23.5						24.1	25.1	77
14	70	12.6	17.7	22.0	25.5	27.9					28.1	29.3	79
	80	12.9	18.2	22.9	26.8	30.0					32.0	33.5	81
	90	13.0	18.5	23.5	27.8	31.4	34.3				35.8	37.5	82
	100	13.2	18.8	23.9	28.5	32.5	35.8	38.4			39.6	41.4	82
	50	15.3	20.7	24.7							26.4	27.0	73
	60	16.1	22.3	27.2	30.8						32.1	32.9	77
	70	16.6	23.2	28.9	33.4	36.5					37.5	38.5	79
16	80	16.9	23.8	29.9	35.1	39.2	42.1				42.7	43.9	81
	90	17.1	24.3	30.7	36.4	41.1	44.8	47.4			47.8	49.2	82
	100	17.3	24.6	31.3	37.3	42.5	46.9	50.3	52.7		52.8	54.4	82
	110	17.4	24.8	31.7	38.0	43.6	48.4	52.5	55.6		57.7	59.5	83
	50	19.4	26.3	31.3							33.8	34.3	73
	60	20.4	28.2	34.5	39.0						41.1	41.8	77
	70	21.0	29.4	36.6	42.3	46.3					48.0	48.9	79
18	80	21.4	30.2	38.0	44.5	49.7	53.3				54.7	55.7	81
	90	21.7	30.8	38.9	46.1	52.1	56.8	60.1			61.2	62.4	82
	100	21.9	31.2	39.7	47.3	53.9	59.4	63.7	66.7		67.6	69.0	82
	110	22.1	31.5	40.2	48.2	55.2	61.4	66.5	70.4	73.2	73.9	75.5	83
	60	25.3	34.9	42.7	48.2						51.1	51.7	77
	70	26.0	36.4	45.2	52.3	57.2					59.7	60.5	79
	80	26.5	37.4	46.9	55.0	61.4	65.9				68.0	69.0	81
20	90	26.9	38.1	48.1	57.0	64.4	70.2	74.2			76.1	77.2	82
	100	27.1	38.6	49.0	58.4	66.6	73.4	78.7	82.4		84.1	85.4	82
	110	27.3	38.9	49.7	59.5	68.3	75.8	82.1	87.0	90.5	92.0	93.4	83
	60	30.7	42.3	51.7	58.4	61.9					62.1	62.7	77
	70	31.6	44.1	54.8	63.3	69.3	72.5				72.6	73.3	79
	80	32.2	45.3	56.9	66.6	74.4	79.8	82.7			82.7	83.6	81
22	90	32.6	46.1	58.3	69.0	78.0	85.0	89.9	92.6		92.6	93.6	82
	100	32.9	46.7	59.4	70.8	80.6	88.9	95.3	99.8		102.3	103.5	82
	110	33.1	47.2	60.2	72.1	82.7	91.8	99.4	105.4	109.6	111.9	113.2	83
	60	36.6	50.4	61.6	69.6	73.8					74.2	74.7	77
	70	37.7	52.6	65.3	75.4	82.6	86.3				86.7	87.4	79
	80	38.4	54.0	67.7	79.4	88.6	95.0	98.5			98.8	99.6	81
24	90	38.9	55.0	69.5	82.2	92.8	101.2	107.1	110.3		110.6	111.5	82
	100	39.2	55.7	70.8	84.3	96.0	105.8	113.5	118.8	121.9	122.2	123.3	82
	110	39.5	56.2	71.7	85.9	98.5	109.4	118.4	125.5	130.4	133.7	134.8	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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.5									6.7	7.8	70
	40	6.1	8.3								8.8	10.7	76
	50	6.3	8.8	10.8							10.8	13.3	78
10	60	6.4	9.1	11.3							12.6	15.8	80
	70	6.5	9.2	11.6	13.7						14.4	18.3	81
	80	6.6	9.3	11.8	14.1	16.0					16.2	20.7	81
	90	6.6	9.4	12.0	14.3	16.4					17.9	23.1	82
	30	8.0	10.4								10.4	11.1	70
	40	8.8	11.9								14.0	15.1	76
	50	9.1	12.7	15.5							17.2	18.7	78
12	60	9.3	13.1	16.2	18.8						20.3	22.2	80
	70	9.4	13.3	16.7	19.6	22.0					23.3	25.6	81
	80	9.5	13.5	17.0	20.2	22.9	25.1				26.2	29.0	81
	90	9.6	13.6	17.3	20.6	23.5	26.1	28.2			29.2	32.3	82
	40	12.0	16.3	19.1							19.6	20.3	76
	50	12.5	17.3	21.0	23.6						24.1	25.2	78
	60	12.7	17.8	22.1	25.5	28.0					28.5	29.8	80
14	70	12.9	18.2	22.8	26.6	29.8	32.2				32.8	34.3	81
	80	13.0	18.4	23.2	27.4	31.0	34.0	36.3			36.9	38.8	81
	90	13.1	18.6	23.5	28.0	31.9	35.3	38.1	40.4		41.1	43.2	82
	100	13.2	18.7	23.8	28.4	32.6	36.3	39.5	42.3	44.5	45.2	47.6	82
	40	15.7	21.3	24.9							25.8	26.4	76
	50	16.4	22.6	27.4	30.8						31.9	32.6	78
	60	16.7	23.3	28.8	33.2	36.4					37.7	38.6	80
16	70	16.9	23.8	29.7	34.7	38.8	41.8				43.3	44.4	81
	80	17.1	24.1	30.3	35.8	40.4	44.2	47.2			48.8	50.1	81
	90	17.2	24.3	30.8	36.6	41.6	46.0	49.6	52.5		54.3	55.8	82
	100	17.3	24.5	31.1	37.1	42.5	47.3	51.4	54.9	57.7	59.7	61.4	82
	40	20.0	27.0	31.5							32.9	33.2	76
	50	20.8	28.6	34.7	38.9						40.5	41.0	78
	60	21.2	29.6	36.5	42.0	45.9					47.8	48.5	80
18	70	21.5	30.2	37.7	43.9	49.0	52.7				55.0	55.8	81
	80	21.7	30.6	38.4	45.3	51.1	55.8	59.5	61.9		62.0	63.0	81
	90	21.8	30.8	39.0	46.3	52.6	58.1	62.6	66.1	68.6	68.9	70.1	82
	100	21.9	31.0	39.4	47.0	53.8	59.8	64.9	69.3	72.7	75.8	77.1	82
	50	25.7	35.4	42.9	47.9						50.1	50.5	78
	60	26.3	36.6	45.1	51.8	56.6					59.1	59.6	80
	70	26.6	37.3	46.5	54.3	60.4	65.0	67.8			67.9	68.6	81
20	80	26.8	37.8	47.5	55.9	63.0	68.8	73.2	76.1		76.6	77.3	81
	90	27.0	38.1	48.2	57.1	65.0	71.6	77.1	81.4	84.4	85.1	86.0	82
	100	27.1	38.4	48.7	58.0	66.4	73.7	80.1	85.3	89.5	93.6	94.6	82
	50	31.2	42.9	51.9	57.9						60.6	61.0	78
	60	31.8	44.3	54.6	62.7	68.4	71.5				71.5	72.0	80
	70	32.3	45.2	56.3	65.6	73.0	78.5	81.8			82.2	82.7	81
22	80	32.5	45.8	57.5	67.7	76.3	83.2	88.4	91.9		92.6	93.2	81
	90	32.7	46.2	58.4	69.2	78.6	86.6	93.2	98.3	101.8	103.0	103.7	82
	100	32.9	46.5	59.0	70.3	80.3	89.2	96.8	103.1	108.0	113.2	114.0	82
	50	37.2	51.1	61.8	68.9						72.1	72.4	78
	60	38.0	52.8	65.0	74.6	81.3	85.0				85.1	85.5	80
	70	38.5	53.9	67.1	78.1	86.9	93.3	97.2			97.7	98.2	81
24	80	38.8	54.6	68.5	80.6	90.7	98.9	105.1	109.1		110.2	110.7	81
	90	39.0	55.1	69.5	82.3	93.5	103.0	110.8	116.8	120.9	122.5	123.0	82
	100	39.2	55.4	70.3	83.7	95.6	106.1	115.1	122.5	128.3	134.6	135.3	82

[a] Includes 1.0-foot stump allowance.

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) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	5.2									6.0	8.2	68
	30	6.1	8.4								9.6	11.9	76
	40	6.4	8.9	11.2							12.9	15.6	79
10	50	6.5	9.2	11.7	13.9	15.9					16.1	19.2	80
	60	6.6	9.4	12.0	14.4	16.6	18.6				19.2	22.9	81
	70	6.6	9.5	12.1	14.6	17.0	19.2	21.2			22.3	26.5	81
	20	7.6									8.5	9.9	68
	30	8.7	11.9								13.3	14.8	76
	40	9.2	12.8	15.7							17.7	19.3	79
12	50	9.4	13.2	16.5	19.4	21.6					21.8	23.8	80
	60	9.5	13.4	17.0	20.2	22.9	25.2				25.9	28.2	81
	70	9.6	13.6	17.3	20.7	23.7	26.4	28.7			30.0	32.5	81
	80	9.6	13.7	17.5	21.0	24.3	27.2	29.9	32.2		34.0	36.9	81
	40	12.5	17.4	21.1							23.3	24.5	79
	50	12.8	17.9	22.3	25.8	28.4					28.6	30.0	80
	60	13.0	18.3	23.0	27.0	30.4	33.1				33.8	35.4	81
14	70	13.1	18.5	23.4	27.8	31.7	35.0	37.7			39.0	40.8	81
	80	13.1	18.6	23.7	28.3	32.5	36.3	39.5	42.2		44.1	46.1	81
	90	13.2	18.7	23.9	28.7	33.1	37.2	40.8	44.0	46.7	49.2	51.4	82
	100	13.2	18.8	24.0	29.0	33.6	37.9	41.8	45.3	48.5	54.2	56.7	82
	40	16.4	22.6	27.3							29.8	30.7	79
	50	16.8	23.4	29.0	33.3	36.2					36.4	37.5	80
	60	17.0	23.9	29.9	35.0	39.1	42.2				43.0	44.1	81
16	70	17.1	24.1	30.5	36.1	40.9	44.9	48.0			49.4	50.7	81
	80	17.2	24.3	30.9	36.8	42.1	46.7	50.6	53.8		55.8	57.3	81
	90	17.2	24.5	31.1	37.3	42.9	48.0	52.5	56.3	59.5	62.1	63.8	82
	100	17.3	24.5	31.4	37.7	43.6	49.0	53.8	58.2	62.0	68.4	70.2	82
	40	20.8	28.6	34.3							37.2	37.9	79
	50	21.3	29.6	36.5	41.8	45.1					45.3	46.1	80
	60	21.5	30.2	37.7	44.0	49.0	52.5				53.3	54.2	81
18	70	21.7	30.6	38.5	45.4	51.4	56.2	59.7			61.2	62.2	81
	80	21.8	30.8	39.0	46.4	52.9	58.6	63.2	66.9		69.0	70.2	81
	90	21.9	31.0	39.4	47.1	54.1	60.3	65.7	70.3	73.9	76.8	78.1	82
	100	21.9	31.1	39.7	47.6	54.9	61.6	67.5	72.8	77.3	84.5	85.9	82
	50	26.3	36.6	45.0	51.2	55.0					55.3	55.9	80
	60	26.6	37.3	46.5	54.1	60.0	64.0				64.9	65.6	81
	70	26.8	37.8	47.5	55.9	63.1	68.7	72.8			74.4	75.2	81
20	80	27.0	38.1	48.1	57.2	65.1	71.8	77.3	81.5		83.8	84.8	81
	90	27.1	38.3	48.6	58.0	66.5	74.0	80.5	85.9	90.1	93.2	94.2	82
	100	27.1	38.4	49.0	58.7	67.6	75.7	82.8	89.1	94.4	102.5	103.7	82
	50	31.9	44.3	54.4	61.7	66.0					66.3	66.8	80
	60	32.3	45.2	56.2	65.3	72.3	76.8				77.7	78.3	81
	70	32.5	45.7	57.4	67.5	76.0	82.6	87.3			89.0	89.7	81
22	80	32.7	46.1	58.2	69.1	78.5	86.5	92.9	97.7		100.2	101.0	81
	90	32.8	46.4	58.8	70.1	80.3	89.2	96.8	103.1	108.0	111.4	112.2	82
	100	32.9	46.6	59.3	71.0	81.6	91.2	99.8	107.1	113.3	122.5	123.4	82
	50	38.0	52.8	64.6	73.2	78.1					78.4	78.8	80
	60	38.5	53.8	66.9	77.6	85.6	90.8				91.8	92.3	81
	70	38.7	54.5	68.3	80.3	90.2	97.9	103.2			105.1	105.6	81
24	80	38.9	54.9	69.3	82.1	93.2	102.5	110.0	115.4		118.2	118.8	81
	90	39.1	55.2	70.0	83.4	95.4	105.8	114.8	122.1	127.6	131.3	132.0	82
	100	39.2	55.5	70.5	84.4	97.0	108.3	118.3	126.9	134.1	144.3	145.1	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 100) South-wide[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	1.2	1.5	1.8	2.0											
6	1.8	2.1	2.5	2.9	3.3	3.7	4.0	4.3									
7	2.4	3.1	3.7	4.3	4.9	5.4	5.9	6.4	6.9	7.3							
8	3.3	4.2	5.1	5.8	6.6	7.3	8.0	8.7	9.3	10.0	10.6	11.2					
9	4.3	5.4	6.5	7.5	8.5	9.4	10.3	11.2	12.0	12.8	13.6	14.5	15.3	16.0			
10	5.3	6.8	8.1	9.4	10.6	11.7	12.8	13.9	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	
11	6.5	8.3	9.9	11.4	12.9	14.3	15.6	17.0	18.2	19.5	20.8	22.0	23.2	24.4	25.6	26.8	28.0
12	7.8	9.9	11.8	13.7	15.4	17.1	18.7	20.3	21.8	23.3	24.8	26.3	27.8	29.2	30.7	32.1	33.5
13	9.2	11.7	14.0	16.1	18.2	20.1	22.0	23.9	25.7	27.5	29.3	31.0	32.7	34.4	36.1	37.8	39.5
14	10.7	13.6	16.2	18.8	21.1	23.4	25.7	27.8	29.9	32.0	34.0	36.1	38.1	40.1	42.0	44.0	45.9
15	12.3	15.6	18.7	21.6	24.3	27.0	29.5	32.0	34.4	36.8	39.2	41.5	43.8	46.1	48.4	50.6	52.8
16	14.1	17.8	21.3	24.6	27.7	30.8	33.7	36.5	39.3	42.0	44.7	47.3	49.9	52.5	55.1	57.7	60.2

[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) South-wide[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	1.6	2.0	2.3	2.8	3.3	3.8											
6	1.9	2.5	3.2	3.8	4.4	5.0	5.6	6.1									
7	2.4	3.3	4.2	5.0	5.7	6.4	7.2	7.9	8.6	9.3							
8	3.1	4.2	5.3	6.3	7.2	8.2	9.0	9.9	10.8	11.6	12.5	13.3					
9	3.9	5.3	6.6	7.8	9.0	10.1	11.2	12.2	13.3	14.3	15.3	16.4	17.4	18.4			
10	4.8	6.5	8.1	9.6	10.9	12.3	13.6	14.8	16.1	17.3	18.6	19.8	21.0	22.2	23.4	24.6	
11	5.8	7.9	9.7	11.5	13.1	14.7	16.2	17.7	19.2	20.7	22.1	23.6	25.0	26.4	27.8	29.3	30.7
12	6.9	9.3	11.5	13.6	15.5	17.3	19.1	20.9	22.6	24.3	26.0	27.7	29.4	31.1	32.7	34.4	36.0
13	8.1	10.9	13.5	15.8	18.1	20.2	22.3	24.3	26.3	28.3	30.3	32.2	34.2	36.1	38.0	39.9	41.9
14	9.4	12.7	15.6	18.3	20.9	23.3	25.7	28.1	30.4	32.6	34.9	37.1	39.4	41.6	43.8	46.0	48.2
15	10.8	14.5	17.9	21.0	23.9	26.7	29.4	32.1	34.7	37.3	39.8	42.4	44.9	47.4	49.9	52.4	54.9
16	12.3	16.5	20.3	23.8	27.1	30.3	33.3	36.4	39.3	42.2	45.1	48.0	50.9	53.7	56.5	59.4	62.2

[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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.3									6.8	7.9	66
	50	5.9	8.1								9.2	10.8	74
	60	6.3	8.8	10.9							11.4	13.4	79
	70	6.5	9.3	11.7							13.4	15.8	81
	80	6.7	9.5	12.1	14.4						15.4	18.2	83
	90	6.7	9.7	12.5	14.9	17.0					17.3	20.6	84
12	40	7.7	10.1								10.9	11.6	66
	50	8.6	11.8	14.2							14.7	15.7	74
	60	9.1	12.8	15.8	18.1						18.2	19.5	79
	70	9.5	13.4	16.9	19.7						21.6	23.1	81
	80	9.7	13.8	17.6	20.8	23.4					24.8	26.6	83
	90	9.8	14.1	18.0	21.5	24.6	27.0				27.9	29.9	84
	100	9.9	14.3	18.4	22.1	25.4	28.2	30.5			30.9	33.3	85
14	40	10.5	13.8								15.4	15.9	66
	50	11.8	16.1	19.4							20.8	21.5	74
	60	12.5	17.5	21.6	24.7						25.8	26.7	79
	70	12.9	18.3	23.0	26.9	29.7					30.6	31.6	81
	80	13.2	18.9	24.0	28.4	31.9	34.5				35.1	36.4	83
	90	13.4	19.3	24.6	29.4	33.5	36.8	39.2			39.5	41.0	84
	100	13.6	19.6	25.1	30.2	34.7	38.5	41.6	43.8		43.9	45.6	85
16	50	15.5	21.1	25.4							27.7	28.2	74
	60	16.4	22.9	28.3	32.3						34.3	35.0	79
	70	17.0	24.0	30.2	35.2	38.9					40.6	41.5	81
	80	17.4	24.8	31.4	37.1	41.8	45.2				46.7	47.7	83
	90	17.6	25.3	32.3	38.5	43.8	48.2	51.3			52.6	53.8	84
	100	17.8	25.6	32.9	39.5	45.4	50.3	54.4	57.3		58.4	59.8	85
	110	17.9	25.9	33.4	40.3	46.5	52.0	56.7	60.4	63.2	64.1	65.6	86
18	50	19.7	26.8	32.2	35.3						35.4	35.8	74
	60	20.9	29.1	35.9	41.0	43.9					43.9	44.5	79
	70	21.6	30.5	38.2	44.6	49.3					51.9	52.7	81
	80	22.1	31.4	39.8	47.1	53.0	57.3				59.7	60.6	83
	90	22.4	32.1	40.9	48.8	55.6	61.0	65.0			67.2	68.3	84
	100	22.6	32.5	41.7	50.1	57.5	63.8	68.9	72.6		74.6	75.8	85
	110	22.8	32.9	42.4	51.1	59.0	65.9	71.8	76.6	80.1	81.9	83.3	86
20	60	25.8	36.0	44.4	50.7	54.2					54.5	55.0	79
	70	26.7	37.7	47.3	55.2	60.9	64.2				64.5	65.2	81
	80	27.3	38.9	49.2	58.2	65.5	70.8	73.9			74.1	74.9	83
	90	27.7	39.7	50.6	60.4	68.7	75.4	80.4	83.3		83.5	84.5	84
	100	28.0	40.3	51.6	61.9	71.1	78.9	85.1	89.7	92.5	92.7	93.8	85
	110	28.2	40.7	52.4	63.1	72.9	81.5	88.8	94.6	99.0	101.8	103.0	86
22	60	31.3	43.6	53.8	61.4	65.7					66.2	66.7	79
	70	32.4	45.7	57.3	66.8	73.8	77.8				78.4	79.0	81
	80	33.1	47.1	59.7	70.5	79.3	85.7	89.5			90.1	90.8	83
	90	33.6	48.1	61.3	73.1	83.2	91.4	97.3	100.9		101.5	102.4	84
	100	34.0	48.8	62.5	75.0	86.1	95.5	103.1	108.7	112.1	112.7	113.7	85
	110	34.2	49.3	63.5	76.5	88.3	98.7	107.5	114.6	119.8	123.7	124.8	86
24	60	37.4	52.0	64.1	73.1	78.3					79.1	79.5	79
	70	38.7	54.5	68.3	79.6	87.9	92.7				93.6	94.1	81
	80	39.5	56.1	71.1	84.0	94.5	102.1	106.6			107.5	108.2	83
	90	40.1	57.3	73.1	87.1	99.1	108.8	115.9	120.2		121.2	122.0	84
	100	40.5	58.2	74.5	89.4	102.5	113.8	122.8	129.4	133.5	134.5	135.4	85
	110	40.8	58.8	75.6	91.1	105.2	117.5	128.0	136.5	142.7	147.7	148.7	86

[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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.5									6.9	7.9	71
	40	6.1	8.4								9.4	11.0	77
	50	6.4	9.0	11.1							11.7	13.9	80
10	60	6.6	9.3	11.7	13.7						13.9	16.6	82
	70	6.6	9.5	12.0	14.3						16.0	19.3	83
	80	6.7	9.6	12.3	14.7	16.8					18.0	22.0	83
	90	6.7	9.7	12.4	15.0	17.2	19.2				20.1	24.6	84
	30	8.0	10.5								10.7	11.3	71
	40	8.9	12.2	14.5							14.7	15.6	77
	50	9.3	13.0	16.0	18.2						18.4	19.6	80
12	60	9.5	13.5	16.8	19.6	21.8					21.9	23.5	82
	70	9.7	13.7	17.4	20.5	23.1	25.2				25.3	27.2	83
	80	9.7	13.9	17.7	21.1	24.1	26.6	28.6			28.7	30.9	83
	90	9.8	14.1	18.0	21.5	24.7	27.5	30.0	32.0		32.0	34.6	84
	40	12.2	16.7	19.8							20.5	21.1	77
	50	12.7	17.8	21.8	24.7						25.7	26.5	80
	60	13.0	18.4	23.0	26.7	29.5					30.6	31.6	82
14	70	13.2	18.8	23.7	27.9	31.4	34.1				35.4	36.6	83
	80	13.3	19.0	24.2	28.7	32.7	36.0	38.7			40.1	41.5	83
	90	13.4	19.2	24.5	29.3	33.6	37.4	40.6	43.2		44.7	46.4	84
	100	13.5	19.4	24.8	29.8	34.3	38.4	42.0	45.1	47.6	49.4	51.2	84
	40	16.0	21.8	25.8							27.1	27.5	77
	50	16.7	23.3	28.5	32.2						33.8	34.4	80
	60	17.1	24.1	30.0	34.8	38.4					40.3	41.0	82
16	70	17.4	24.6	31.0	36.4	40.9	44.4				46.6	47.4	83
	80	17.5	24.9	31.6	37.5	42.6	46.9	50.3	52.6		52.8	53.8	83
	90	17.6	25.2	32.1	38.3	43.9	48.7	52.8	56.1	58.5	58.9	60.0	84
	100	17.7	25.4	32.4	38.9	44.8	50.1	54.7	58.6	61.9	65.0	66.2	84
	40	20.3	27.7	32.6							34.4	34.6	77
	50	21.2	29.5	36.1	40.8						42.9	43.3	80
	60	21.7	30.6	38.0	44.1	48.5					51.1	51.6	82
18	70	22.1	31.2	39.3	46.1	51.7	56.0	58.9			59.1	59.7	83
	80	22.3	31.7	40.1	47.5	53.9	59.3	63.4	66.3		66.9	67.6	83
	90	22.4	32.0	40.7	48.5	55.5	61.6	66.7	70.8	73.7	74.7	75.5	84
	100	22.5	32.2	41.1	49.3	56.7	63.3	69.1	74.0	78.0	82.4	83.3	84
	50	26.3	36.5	44.6	50.3						53.1	53.3	80
	60	26.9	37.8	47.0	54.4	59.8	63.0				63.1	63.5	82
	70	27.3	38.6	48.5	57.0	63.8	69.1	72.4			73.0	73.4	83
20	80	27.6	39.2	49.5	58.7	66.6	73.1	78.2	81.7		82.6	83.1	83
	90	27.8	39.5	50.3	60.0	68.5	76.0	82.2	87.2	90.7	92.2	92.8	84
	100	27.9	39.8	50.8	60.9	70.0	78.1	85.2	91.2	96.1	101.6	102.3	84
	50	31.9	44.3	54.0	60.8						64.2	64.4	80
	60	32.7	45.8	56.9	65.8	72.3	76.1				76.4	76.7	82
	70	33.1	46.8	58.8	68.9	77.2	83.5	87.5			88.2	88.6	83
22	80	33.5	47.5	60.0	71.1	80.6	88.4	94.5	98.6		99.9	100.3	83
	90	33.7	47.9	60.9	72.6	82.9	91.9	99.4	105.3	109.5	111.4	111.9	84
	100	33.8	48.3	61.6	73.7	84.7	94.5	103.0	110.2	116.1	122.9	123.4	84
	50	38.0	52.7	64.3	72.4						76.4	76.6	80
	60	39.0	54.6	67.8	78.3	86.0	90.5				90.9	91.1	82
	70	39.5	55.8	70.0	82.1	91.9	99.3	104.0			105.0	105.2	83
24	80	39.9	56.6	71.5	84.6	95.9	105.1	112.3	117.2		118.8	119.1	83
	90	40.2	57.1	72.6	86.4	98.7	109.3	118.2	125.2	130.1	132.5	132.8	84
	100	40.4	57.5	73.3	87.8	100.9	112.5	122.6	131.1	137.9	146.0	146.5	84

[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) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.2									5.9	9.9	69
	30	6.1	8.5								9.8	13.3	77
	40	6.4	9.1	11.5							13.2	17.3	80
	50	6.6	9.4	12.0	14.3	16.4					16.6	21.3	82
	60	6.7	9.6	12.3	14.8	17.1	19.2				19.9	25.4	83
	70	6.7	9.7	12.5	15.1	17.6	19.9	22.0			23.1	29.4	83
12	20	7.5									8.5	10.7	69
	30	8.8	12.1								13.6	15.6	77
	40	9.3	13.1	16.2							18.2	20.6	80
	50	9.5	13.5	17.1	20.1	22.4					22.7	25.4	82
	60	9.7	13.8	17.5	20.9	23.9	26.3				27.0	30.1	83
	70	9.7	13.9	17.8	21.4	24.7	27.6	30.0			31.3	34.9	83
	80	9.8	14.0	18.0	21.8	25.3	28.4	31.3	33.8		35.6	39.6	83
14	40	12.7	17.8	21.8							24.1	25.7	80
	50	13.1	18.5	23.1	26.9	29.6					29.9	31.6	82
	60	13.2	18.8	23.8	28.2	31.8	34.7				35.4	37.5	83
	70	13.3	19.0	24.2	28.9	33.1	36.7	39.6			41.0	43.2	83
	80	13.4	19.2	24.5	29.5	34.0	38.0	41.5	44.5		46.4	49.0	83
	90	13.5	19.3	24.7	29.9	34.6	38.9	42.9	46.3	49.3	51.9	54.7	84
	100	13.5	19.4	24.9	30.1	35.1	39.6	43.8	47.7	51.1	57.3	60.4	84
16	40	16.7	23.3	28.3							31.0	32.0	80
	50	17.1	24.1	30.0	34.7	37.9					38.2	39.4	82
	60	17.4	24.6	31.0	36.5	41.0	44.3				45.2	46.6	83
	70	17.5	24.9	31.6	37.6	42.9	47.2	50.6			52.1	53.7	83
	80	17.6	25.1	32.0	38.4	44.1	49.1	53.4	56.8		59.0	60.8	83
	90	17.7	25.2	32.3	38.9	44.9	50.4	55.3	59.5	63.0	65.8	67.8	84
	100	17.7	25.3	32.5	39.3	45.6	51.4	56.7	61.4	65.6	72.6	74.8	84
18	40	21.2	29.5	35.6							38.7	39.5	80
	50	21.7	30.6	37.9	43.6	47.3					47.6	48.5	82
	60	22.0	31.2	39.2	46.0	51.5	55.3				56.2	57.3	83
	70	22.2	31.6	40.0	47.5	53.9	59.2	63.1			64.8	65.9	83
	80	22.3	31.8	40.5	48.4	55.5	61.7	66.8	70.8		73.2	74.5	83
	90	22.4	32.0	40.9	49.1	56.6	63.4	69.3	74.4	78.5	81.6	83.1	84
	100	22.5	32.1	41.2	49.7	57.5	64.7	71.2	77.0	81.9	90.0	91.6	84
20	50	26.9	37.8	46.8	53.6	57.9					58.1	58.8	82
	60	27.3	38.6	48.4	56.6	63.2	67.6				68.6	69.4	83
	70	27.5	39.0	49.4	58.5	66.2	72.5	77.1			78.9	79.8	83
	80	27.7	39.4	50.1	59.7	68.3	75.7	81.8	86.5		89.1	90.1	83
	90	27.8	39.6	50.5	60.6	69.8	77.9	85.1	91.1	95.8	99.3	100.4	84
	100	27.9	39.8	50.9	61.3	70.9	79.6	87.4	94.3	100.3	109.4	110.6	84
22	50	32.7	45.8	56.5	64.7	69.5					69.8	70.4	82
	60	33.1	46.7	58.5	68.4	76.1	81.2				82.3	82.9	83
	70	33.4	47.3	59.8	70.7	79.9	87.3	92.6			94.6	95.3	83
	80	33.6	47.7	60.6	72.2	82.5	91.2	98.5	103.9		106.8	107.5	83
	90	33.7	48.0	61.2	73.3	84.3	94.0	102.5	109.5	115.0	118.9	119.7	84
	100	33.8	48.2	61.6	74.1	85.6	96.1	105.4	113.6	120.5	130.9	131.9	84
24	50	39.0	54.5	67.3	76.7	82.3					82.6	83.0	82
	60	39.5	55.7	69.6	81.3	90.2	96.1				97.3	97.8	83
	70	39.8	56.4	71.1	84.0	94.9	103.5	109.6			111.7	112.3	83
	80	40.0	56.8	72.1	85.9	98.0	108.3	116.7	122.9		126.1	126.7	83
	90	40.2	57.2	72.9	87.2	100.1	111.6	121.5	129.7	136.0	140.3	141.0	84
	100	40.3	57.4	73.4	88.2	101.8	114.1	125.1	134.7	142.7	154.4	155.2	84

[a] Includes 1.0-foot stump allowance.

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 110) South-wide[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	0.8	1.3	1.6	1.9	2.1											
6	1.8	2.1	2.6	3.0	3.5	3.9	4.3	4.7									
7	2.4	3.1	3.8	4.5	5.1	5.7	6.3	6.9	7.4	8.0							
8	3.1	4.1	5.1	6.0	6.9	7.7	8.5	9.3	10.1	10.8	11.5	12.3					
9	4.1	5.3	6.6	7.7	8.9	9.9	11.0	12.0	12.9	13.9	14.9	15.8	16.7	17.6			
10	5.1	6.7	8.2	9.7	11.0	12.4	13.7	14.9	16.1	17.3	18.5	19.7	20.8	22.0	23.1	24.3	
11	6.2	8.1	10.0	11.8	13.5	15.1	16.6	18.2	19.7	21.1	22.6	24.0	25.4	26.8	28.2	29.5	30.9
12	7.4	9.7	12.0	14.1	16.1	18.0	19.9	21.7	23.5	25.3	27.0	28.7	30.4	32.0	33.7	35.3	37.0
13	8.7	11.5	14.1	16.6	19.0	21.2	23.4	25.6	27.7	29.8	31.8	33.8	35.8	37.7	39.7	41.6	43.5
14	10.2	13.4	16.4	19.3	22.1	24.7	27.3	29.8	32.2	34.6	37.0	39.3	41.6	43.9	46.2	48.4	50.6
15	11.7	15.4	18.9	22.2	25.4	28.4	31.4	34.3	37.1	39.8	42.5	45.2	47.9	50.5	53.1	55.7	58.3
16	13.4	17.6	21.6	25.3	29.0	32.4	35.8	39.1	42.3	45.4	48.5	51.5	54.6	57.6	60.5	63.5	66.4

[a] Includes 0.5-foot stump allowance.

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) South-wide[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	2.3	2.8	3.3	3.7											
6	1.8	2.4	3.1	3.8	4.4	5.0	5.6	6.2									
7	2.2	3.2	4.1	5.0	5.8	6.6	7.4	8.1	8.9	9.6							
8	2.9	4.2	5.3	6.4	7.4	8.4	9.4	10.3	11.2	12.1	13.1	14.0					
9	3.7	5.3	6.7	8.0	9.2	10.5	11.6	12.8	13.9	15.0	16.2	17.3	18.4	19.4			
10	4.6	6.5	8.2	9.8	11.3	12.8	14.2	15.6	16.9	18.3	19.6	20.9	22.3	23.6	24.9	26.2	
11	5.6	7.8	9.9	11.8	13.6	15.3	17.0	18.6	20.3	21.9	23.5	25.0	26.6	28.2	29.7	31.3	32.8
12	6.6	9.3	11.7	13.9	16.0	18.1	20.1	22.0	23.9	25.8	27.7	29.5	31.4	33.2	35.0	36.8	38.6
13	7.8	10.9	13.7	16.3	18.8	21.1	23.4	25.7	27.9	30.1	32.2	34.4	36.5	38.6	40.7	42.9	45.0
14	9.1	12.6	15.9	18.8	21.7	24.4	27.0	29.6	32.2	34.7	37.2	39.6	42.1	44.5	47.0	49.4	51.8
15	10.4	14.5	18.2	21.6	24.8	27.9	30.9	33.9	36.8	39.7	42.5	45.3	48.1	50.9	53.6	56.4	59.1
16	11.9	16.5	20.7	24.5	28.2	31.7	35.1	38.5	41.7	45.0	48.2	51.4	54.5	57.7	60.8	63.9	67.0

[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 slash pine (species 111) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.0									5.4	7.0	60
	50	5.6	7.5								7.6	9.5	69
	60	6.0	8.2								9.4	11.8	74
	70	6.2	8.6	10.6							11.2	13.9	77
	80	6.3	8.9	11.1							12.9	16.0	79
	90	6.4	9.1	11.5	13.5						14.5	18.0	80
12	40	7.3	9.2								9.3	10.3	60
	50	8.2	10.9								12.7	13.9	69
	60	8.7	11.9	14.4							15.7	17.2	74
	70	9.0	12.5	15.4	17.7						18.6	20.4	77
	80	9.2	12.9	16.1	18.8	21.0					21.4	23.4	79
	90	9.4	13.2	16.7	19.6	22.1					24.1	26.4	80
	100	9.5	13.5	17.1	20.2	23.0	25.3				26.7	29.3	81
14	40	10.1	12.7								13.5	14.2	60
	50	11.3	14.9	17.5							18.2	19.1	69
	60	12.0	16.3	19.7	22.1						22.6	23.7	74
	70	12.4	17.1	21.1	24.3	26.5					26.7	28.0	77
	80	12.7	17.7	22.1	25.8	28.6					30.7	32.1	79
	90	12.9	18.1	22.8	26.8	30.2	32.9				34.5	36.2	80
	100	13.0	18.4	23.3	27.7	31.4	34.5	37.0			38.3	40.2	81
16	50	14.8	19.6	23.0							24.5	25.1	69
	60	15.7	21.4	25.8	29.0						30.3	31.1	74
	70	16.3	22.5	27.7	31.8	34.7					35.8	36.8	77
	80	16.7	23.3	29.0	33.8	37.5	40.2				41.1	42.2	79
	90	16.9	23.8	29.9	35.2	39.6	43.1	45.6			46.3	47.5	80
	100	17.1	24.2	30.6	36.3	41.1	45.2	48.4	50.8		51.3	52.7	81
	110	17.3	24.5	31.1	37.1	42.3	46.9	50.7	53.7	55.9	56.2	57.8	82
18	50	18.9	24.9	29.2							31.4	31.9	69
	60	20.0	27.2	32.8	36.8						38.9	39.5	74
	70	20.7	28.6	35.2	40.4	44.1					45.9	46.7	77
	80	21.2	29.6	36.8	42.8	47.6	51.0				52.7	53.6	79
	90	21.6	30.3	38.0	44.6	50.2	54.6	57.8			59.3	60.4	80
	100	21.8	30.8	38.9	46.0	52.2	57.3	61.4	64.4		65.8	66.9	81
	110	22.0	31.2	39.5	47.1	53.7	59.5	64.3	68.1	70.9	72.1	73.4	82
20	60	24.8	33.6	40.6	45.6	48.3					48.4	48.9	74
	70	25.7	35.4	43.5	49.9	54.5	57.1				57.2	57.8	77
	80	26.3	36.6	45.5	53.0	58.9	63.1	65.6			65.6	66.4	79
	90	26.7	37.5	47.0	55.2	62.1	67.5	71.5			73.8	74.7	80
	100	27.0	38.1	48.1	56.9	64.5	70.9	76.0	79.6		81.8	82.9	81
	110	27.3	38.6	48.9	58.2	66.4	73.5	79.5	84.2	87.7	89.7	90.9	82
22	60	30.2	40.8	49.3	55.2	58.6					58.9	59.4	74
	70	31.2	43.0	52.8	60.5	66.1	69.2				69.5	70.1	77
	80	31.9	44.4	55.2	64.2	71.4	76.5	79.5			79.8	80.5	79
	90	32.5	45.5	57.0	67.0	75.3	81.8	86.6	89.4		89.7	90.6	80
	100	32.8	46.2	58.3	69.0	78.2	85.9	92.0	96.5	99.2	99.5	100.4	81
	110	33.1	46.8	59.3	70.6	80.5	89.1	96.3	102.0	106.2	109.1	110.2	82
24	60	36.0	48.7	58.7	65.9	69.8					70.3	70.8	74
	70	37.3	51.2	62.9	72.2	78.7	82.5				83.1	83.6	77
	80	38.1	53.0	65.8	76.6	85.1	91.1	94.7			95.3	96.0	79
	90	38.7	54.2	67.9	79.8	89.7	97.5	103.2	106.6		107.2	108.0	80
	100	39.2	55.1	69.5	82.2	93.2	102.4	109.6	114.9	118.2	118.9	119.7	81
	110	39.5	55.8	70.7	84.1	95.9	106.2	114.7	121.5	126.5	130.3	131.3	82

[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 slash pine (species 111) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.2									6.2	7.2	65
	40	5.8	7.8								8.3	10.0	73
	50	6.1	8.4								10.2	12.6	76
10	60	6.2	8.7	10.8							12.1	15.1	78
	70	6.3	8.9	11.2	13.2						13.8	17.5	79
	80	6.4	9.1	11.5	13.6	15.4					15.5	19.8	80
	90	6.4	9.2	11.6	13.9	15.9					17.2	22.2	80
	30	7.6	9.7								9.7	10.4	65
	40	8.5	11.4								13.2	14.2	73
	50	8.9	12.2	14.8							16.4	17.8	76
12	60	9.1	12.7	15.7	18.1						19.5	21.3	78
	70	9.3	13.0	16.2	19.0	21.2					22.4	24.6	79
	80	9.4	13.2	16.6	19.6	22.1	24.3				25.3	27.9	80
	90	9.4	13.3	16.8	20.0	22.8	25.3	27.3			28.1	31.1	80
	40	11.6	15.6	18.2							18.6	19.3	73
	50	12.2	16.7	20.2	22.6						23.1	24.0	76
	60	12.5	17.4	21.4	24.6	26.9					27.4	28.6	78
14	70	12.7	17.8	22.1	25.8	28.8	31.1				31.6	33.1	79
	80	12.9	18.0	22.6	26.7	30.1	32.9	35.1			35.7	37.4	80
	90	13.0	18.2	23.0	27.3	31.1	34.3	37.0	39.1		39.7	41.7	80
	100	13.0	18.4	23.3	27.8	31.8	35.3	38.4	41.0	43.1	43.7	46.0	81
	40	15.3	20.4	23.8							24.6	25.1	73
	50	16.1	21.9	26.4	29.5						30.5	31.2	76
	60	16.5	22.8	28.0	32.1	35.1					36.2	37.1	78
16	70	16.7	23.3	29.0	33.7	37.6	40.4				41.8	42.8	79
	80	16.9	23.7	29.7	34.9	39.3	42.9	45.7			47.2	48.4	80
	90	17.0	23.9	30.2	35.7	40.6	44.7	48.2	50.9		52.5	54.0	80
	100	17.1	24.1	30.5	36.3	41.5	46.1	50.0	53.3	56.0	57.8	59.4	81
	40	19.5	26.0	30.1							31.3	31.6	73
	50	20.4	27.8	33.5	37.4						38.9	39.4	76
	60	21.0	28.9	35.5	40.6	44.3					46.1	46.7	78
18	70	21.3	29.6	36.8	42.8	47.5	51.0				53.1	53.9	79
	80	21.5	30.1	37.6	44.2	49.7	54.2	57.6	59.9		60.0	60.9	80
	90	21.7	30.4	38.3	45.3	51.4	56.6	60.8	64.1	66.5	66.8	67.8	80
	100	21.8	30.7	38.7	46.1	52.6	58.3	63.2	67.3	70.6	73.5	74.7	81
	50	25.3	34.5	41.4	46.1						48.1	48.5	76
	60	26.0	35.8	43.9	50.2	54.7					57.0	57.5	78
	70	26.4	36.7	45.5	52.8	58.7	62.9	65.5			65.7	66.3	79
20	80	26.7	37.3	46.6	54.6	61.4	66.9	71.0	73.8		74.2	74.9	80
	90	26.9	37.7	47.4	55.9	63.4	69.8	75.0	79.0	81.8	82.5	83.4	80
	100	27.1	38.0	47.9	56.9	65.0	72.0	78.0	83.0	86.9	90.8	91.8	81
	50	30.8	41.8	50.2	55.8						58.3	58.6	76
	60	31.6	43.5	53.2	60.8	66.1	69.0				69.0	69.4	78
	70	32.1	44.5	55.1	64.0	71.0	76.1	79.2			79.5	80.0	79
22	80	32.4	45.2	56.5	66.2	74.3	80.9	85.8	89.1		89.8	90.3	80
	90	32.7	45.7	57.4	67.8	76.8	84.4	90.7	95.5	98.8	99.9	100.5	80
	100	32.9	46.1	58.1	69.0	78.6	87.1	94.3	100.3	105.0	109.9	110.6	81
	50	36.7	49.9	59.8	66.5						69.4	69.6	76
	60	37.7	51.8	63.4	72.4	78.7	82.1				82.2	82.5	78
	70	38.3	53.1	65.7	76.2	84.5	90.5	94.1			94.6	95.0	79
24	80	38.7	53.9	67.3	78.8	88.5	96.3	102.1	105.8		106.8	107.3	80
	90	39.0	54.5	68.4	80.7	91.4	100.5	107.9	113.5	117.4	118.8	119.3	80
	100	39.2	54.9	69.3	82.2	93.7	103.7	112.3	119.3	124.8	130.7	131.3	81

[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 slash pine (species 111) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	5.2									5.9	8.2	68
	30	5.9	8.1								9.3	11.5	75
	40	6.1	8.6	10.8							12.4	15.0	77
10	50	6.3	8.9	11.2	13.3	15.2					15.4	18.4	79
	60	6.3	9.0	11.5	13.7	15.8	17.7				18.3	21.8	79
	70	6.4	9.1	11.6	14.0	16.2	18.3	20.2			21.2	25.1	80
	20	7.6									8.5	10.0	68
	30	8.6	11.7								13.0	14.4	75
	40	9.0	12.4	15.2							17.0	18.7	77
12	50	9.2	12.8	16.0	18.6	20.7					20.9	22.8	79
	60	9.3	13.0	16.4	19.4	22.0	24.1				24.8	26.9	79
	70	9.3	13.2	16.7	19.9	22.8	25.3	27.4			28.6	31.0	80
	80	9.4	13.3	16.9	20.2	23.3	26.1	28.6	30.7		32.3	35.1	80
	40	12.4	17.0	20.5							22.5	23.7	77
	50	12.6	17.5	21.7	24.9	27.3					27.5	28.9	79
	60	12.8	17.8	22.3	26.1	29.3	31.7				32.4	33.9	79
14	70	12.9	18.0	22.7	26.9	30.5	33.6	36.1			37.3	39.0	80
	80	12.9	18.2	23.0	27.4	31.4	34.8	37.9	40.4		42.1	44.0	80
	90	13.0	18.3	23.2	27.8	32.0	35.7	39.1	42.1	44.6	46.8	48.9	80
	100	13.0	18.3	23.4	28.0	32.4	36.4	40.1	43.4	46.3	51.6	53.9	80
	40	16.3	22.2	26.6							28.9	29.8	77
	50	16.6	23.0	28.2	32.2	34.9					35.1	36.2	79
	60	16.8	23.4	29.1	33.9	37.8	40.5				41.3	42.4	79
16	70	16.9	23.7	29.7	35.0	39.5	43.2	46.0			47.3	48.6	80
	80	17.0	23.8	30.1	35.7	40.7	45.0	48.6	51.5		53.3	54.7	80
	90	17.1	24.0	30.4	36.2	41.5	46.2	50.4	53.9	56.8	59.2	60.8	80
	100	17.1	24.1	30.6	36.6	42.1	47.2	51.7	55.8	59.3	65.2	66.9	80
	40	20.7	28.2	33.5							36.1	36.8	77
	50	21.1	29.2	35.7	40.5	43.6					43.8	44.6	79
	60	21.4	29.7	36.8	42.7	47.3	50.5				51.3	52.2	79
18	70	21.6	30.1	37.6	44.1	49.6	54.1	57.3			58.7	59.7	80
	80	21.7	30.3	38.1	45.1	51.2	56.4	60.7	64.1		66.0	67.1	80
	90	21.8	30.5	38.5	45.8	52.3	58.1	63.2	67.4	70.7	73.3	74.5	80
	100	21.8	30.6	38.8	46.3	53.2	59.4	65.0	69.8	74.0	80.6	81.9	80
	50	26.2	36.1	44.0	49.8	53.2					53.5	54.1	79
	60	26.5	36.8	45.5	52.6	58.1	61.7				62.5	63.2	79
	70	26.7	37.2	46.4	54.4	61.0	66.3	70.0			71.4	72.2	80
20	80	26.9	37.5	47.1	55.6	63.0	69.3	74.4	78.1		80.3	81.2	80
	90	27.0	37.7	47.6	56.5	64.4	71.4	77.4	82.4	86.2	89.1	90.0	80
	100	27.1	37.9	47.9	57.1	65.5	73.1	79.8	85.6	90.4	97.8	98.9	80
	50	31.8	43.7	53.2	60.0	63.9					64.2	64.7	79
	60	32.2	44.6	55.1	63.6	70.0	74.1				74.9	75.5	79
	70	32.5	45.1	56.2	65.7	73.6	79.7	84.0			85.5	86.2	80
22	80	32.6	45.5	57.0	67.2	76.1	83.5	89.4	93.7		96.0	96.8	80
	90	32.8	45.8	57.6	68.3	77.9	86.2	93.3	99.0	103.4	106.5	107.3	80
	100	32.9	46.0	58.1	69.1	79.2	88.2	96.1	102.9	108.6	116.9	117.7	80
	50	38.0	52.2	63.3	71.3	75.7					75.9	76.4	79
	60	38.5	53.2	65.5	75.5	83.0	87.6				88.5	89.0	79
	70	38.8	53.8	67.0	78.2	87.4	94.5	99.3			101.0	101.5	80
24	80	39.0	54.2	67.9	80.0	90.4	99.1	105.9	110.8		113.3	113.9	80
	90	39.1	54.6	68.6	81.3	92.5	102.3	110.6	117.2	122.2	125.5	126.2	80
	100	39.3	54.8	69.2	82.3	94.2	104.8	114.1	122.0	128.5	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 slash pine (species 111) South-wide[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	0.6	0.8	0.9	1.1	1.4	1.6											
6	1.2	1.7	2.1	2.5	2.9	3.2	3.6	3.9									
7	2.0	2.6	3.2	3.8	4.3	4.9	5.4	5.9	6.4	6.9							
8	2.8	3.6	4.4	5.2	6.0	6.7	7.4	8.1	8.7	9.4	10.0	10.7					
9	3.7	4.7	5.8	6.8	7.8	8.7	9.6	10.5	11.4	12.2	13.0	13.8	14.7	15.5			
10	4.6	6.0	7.3	8.6	9.8	10.9	12.1	13.2	14.2	15.3	16.3	17.3	18.3	19.3	20.3	21.3	
11	5.7	7.3	8.9	10.5	11.9	13.4	14.7	16.1	17.4	18.7	19.9	21.2	22.4	23.6	24.8	26.0	27.2
12	6.8	8.8	10.7	12.6	14.3	16.0	17.7	19.3	20.8	22.4	23.9	25.4	26.8	28.3	29.7	31.2	32.6
13	8.1	10.4	12.7	14.8	16.9	18.9	20.8	22.7	24.6	26.4	28.2	29.9	31.6	33.4	35.1	36.7	38.4
14	9.5	12.2	14.8	17.3	19.7	22.0	24.3	26.5	28.6	30.7	32.8	34.8	36.8	38.8	40.8	42.8	44.7
15	10.9	14.0	17.0	19.9	22.7	25.4	28.0	30.5	32.9	35.4	37.7	40.1	42.4	44.7	47.0	49.2	51.5
16	12.5	16.0	19.5	22.8	25.9	29.0	31.9	34.8	37.6	40.3	43.1	45.7	48.4	51.0	53.6	56.1	58.7

[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 slash pine (species 111) South-wide[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	1.4	1.8	2.1	2.5	2.9	3.4											
6	1.8	2.2	2.8	3.4	4.0	4.6	5.1	5.7									
7	2.2	3.0	3.8	4.5	5.3	6.0	6.7	7.4	8.1	8.7							
8	2.7	3.8	4.9	5.8	6.8	7.6	8.5	9.4	10.2	11.0	11.9	12.7					
9	3.4	4.8	6.1	7.3	8.4	9.5	10.6	11.6	12.6	13.7	14.7	15.6	16.6	17.6			
10	4.3	6.0	7.5	9.0	10.3	11.6	12.9	14.2	15.4	16.6	17.8	19.0	20.2	21.3	22.5	23.7	
11	5.2	7.2	9.1	10.8	12.4	14.0	15.5	17.0	18.4	19.8	21.3	22.7	24.1	25.5	26.8	28.2	29.6
12	6.2	8.6	10.8	12.8	14.7	16.5	18.3	20.0	21.7	23.4	25.1	26.7	28.4	30.0	31.6	33.2	34.8
13	7.3	10.1	12.6	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	8.5	11.7	14.7	17.3	19.9	22.3	24.7	27.0	29.2	31.5	33.7	35.9	38.1	40.2	42.4	44.5	46.6
15	9.8	13.5	16.8	19.9	22.8	25.5	28.2	30.9	33.4	36.0	38.5	41.0	43.5	45.9	48.4	50.8	53.2
16	11.2	15.4	19.1	22.6	25.9	29.0	32.0	35.0	37.9	40.8	43.7	46.5	49.3	52.1	54.8	57.6	60.3

[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 longleaf pine (species 121) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.5									6.1	7.9	66
	50	6.0	8.1								8.1	10.1	73
	60	6.3	8.6								9.9	12.3	77
	70	6.4	9.0	11.1							11.6	14.3	79
	80	6.5	9.2	11.5							13.1	16.3	81
	90	6.6	9.4	11.8	14.0						14.6	18.2	82
12	40	8.1	10.4								10.4	11.5	66
	50	8.7	11.7								13.6	14.9	73
	60	9.1	12.5	15.2							16.4	18.0	77
	70	9.3	13.0	16.1	18.5						19.1	20.9	79
	80	9.5	13.4	16.7	19.5	21.6					21.8	23.8	81
	90	9.6	13.6	17.2	20.2	22.7					24.3	26.6	82
	100	9.7	13.8	17.5	20.7	23.5	25.8				26.8	29.4	83
14	40	11.1	14.2								15.1	15.9	66
	50	12.0	16.1	18.9							19.5	20.4	73
	60	12.5	17.2	20.8	23.3						23.6	24.7	77
	70	12.8	17.8	22.0	25.3						27.4	28.8	79
	80	13.0	18.3	22.9	26.6	29.5					31.2	32.7	81
	90	13.2	18.6	23.5	27.6	31.0	33.7				34.8	36.5	82
	100	13.3	18.9	23.9	28.3	32.1	35.3	37.7			38.4	40.3	83
16	50	15.8	21.1	24.8							26.1	26.9	73
	60	16.4	22.5	27.3	30.6						31.6	32.4	77
	70	16.8	23.4	28.9	33.1	36.0					36.7	37.8	79
	80	17.1	24.0	30.0	34.9	38.7	41.3				41.7	42.9	81
	90	17.3	24.4	30.7	36.2	40.6	44.1	46.4			46.6	48.0	82
	100	17.5	24.8	31.3	37.1	42.1	46.1	49.3			51.4	52.9	83
	110	17.6	25.0	31.8	37.8	43.2	47.8	51.5	54.4		56.1	57.8	83
18	50	20.0	26.8	31.5							33.5	34.1	73
	60	20.9	28.6	34.6	38.8						40.5	41.2	77
	70	21.4	29.7	36.6	42.0	45.7					47.1	48.0	79
	80	21.8	30.5	38.0	44.2	49.1	52.4				53.5	54.5	81
	90	22.0	31.0	39.0	45.9	51.5	55.9	58.9			59.7	61.0	82
	100	22.2	31.4	39.7	47.1	53.3	58.5	62.5	65.2		65.8	67.2	83
	110	22.3	31.7	40.3	48.0	54.8	60.5	65.3	69.0	71.5	71.9	73.5	83
20	60	25.9	35.4	42.8	48.0						50.4	51.1	77
	70	26.5	36.8	45.3	51.9	56.5					58.6	59.4	79
	80	27.0	37.7	47.0	54.7	60.7	64.8				66.6	67.5	81
	90	27.3	38.4	48.2	56.7	63.7	69.1	72.8			74.3	75.4	82
	100	27.5	38.9	49.2	58.2	66.0	72.3	77.2	80.6		82.0	83.2	83
	110	27.7	39.3	49.9	59.4	67.7	74.9	80.7	85.2	88.3	89.5	90.9	83
22	60	31.4	42.9	51.9	58.1	61.3					61.3	61.9	77
	70	32.2	44.6	54.9	63.0	68.5					71.3	72.1	79
	80	32.7	45.8	57.0	66.3	73.5	78.4				81.0	81.9	81
	90	33.1	46.6	58.5	68.7	77.2	83.7	88.1			90.4	91.5	82
	100	33.4	47.2	59.6	70.5	79.9	87.6	93.6	97.6		99.7	100.9	83
	110	33.6	47.6	60.4	71.9	82.0	90.7	97.8	103.2	107.0	108.9	110.2	83
24	60	37.5	51.1	61.9	69.3	73.0					73.2	73.8	77
	70	38.4	53.2	65.5	75.0	81.6	85.0				85.2	85.9	79
	80	39.0	54.5	67.9	79.0	87.6	93.5	96.6			96.8	97.6	81
	90	39.5	55.5	69.7	81.9	91.9	99.7	105.0	107.9		108.1	109.0	82
	100	39.8	56.2	71.0	84.0	95.2	104.4	111.4	116.3	119.0	119.2	120.2	83
	110	40.0	56.8	72.0	85.7	97.7	108.0	116.4	122.9	127.4	130.2	131.3	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 longleaf pine (species 121) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.6									6.7	7.8	69
	40	6.1	8.3								8.8	10.6	75
	50	6.3	8.8								10.7	13.2	78
10	60	6.5	9.1	11.3							12.5	15.7	80
	70	6.5	9.2	11.6	13.7						14.3	18.1	81
	80	6.6	9.4	11.8	14.0	16.0					16.1	20.5	81
	90	6.6	9.4	12.0	14.3	16.4					17.8	22.9	82
	30	8.2									10.5	11.2	69
	40	8.9	12.0								13.9	15.0	75
	50	9.2	12.7	15.5							17.1	18.6	78
12	60	9.4	13.1	16.2	18.7						20.2	22.1	80
	70	9.5	13.4	16.7	19.6	21.9					23.1	25.4	81
	80	9.6	13.6	17.1	20.2	22.9	25.1				26.1	28.8	81
	90	9.6	13.7	17.3	20.6	23.5	26.0	28.2			28.9	32.1	82
	40	12.2	16.4	19.1							19.5	20.3	75
	50	12.6	17.4	21.0	23.6						24.0	25.0	78
	60	12.9	17.9	22.1	25.5	27.9					28.3	29.6	80
14	70	13.0	18.3	22.8	26.7	29.7	32.1				32.6	34.1	81
	80	13.1	18.5	23.3	27.5	31.0	33.9	36.2			36.7	38.6	81
	90	13.2	18.7	23.7	28.1	32.0	35.3	38.1	40.3		40.8	42.9	82
	100	13.3	18.8	23.9	28.5	32.7	36.3	39.5	42.2	44.3	44.9	47.3	82
	40	16.0	21.5	25.0							25.8	26.3	75
	50	16.6	22.8	27.5	30.7						31.7	32.5	78
	60	16.9	23.5	29.0	33.2	36.3					37.4	38.4	80
16	70	17.1	24.0	29.9	34.8	38.8	41.7				43.0	44.2	81
	80	17.3	24.3	30.5	35.9	40.5	44.2	47.0			48.5	49.8	81
	90	17.4	24.5	31.0	36.7	41.7	46.0	49.5	52.3		53.9	55.5	82
	100	17.4	24.7	31.3	37.3	42.7	47.4	51.4	54.8	57.5	59.3	61.0	82
	40	20.4	27.2	31.6							32.8	33.2	75
	50	21.1	28.9	34.8	38.8						40.4	40.9	78
	60	21.5	29.8	36.7	42.0	45.8					47.6	48.3	80
18	70	21.8	30.4	37.9	44.1	49.0	52.6				54.7	55.5	81
	80	21.9	30.8	38.7	45.5	51.2	55.8	59.3	61.6		61.6	62.6	81
	90	22.1	31.1	39.3	46.5	52.8	58.1	62.5	65.9	68.3	68.5	69.7	82
	100	22.2	31.3	39.7	47.3	54.0	59.9	65.0	69.2	72.5	75.3	76.7	82
	50	26.1	35.8	43.0	47.9						49.9	50.4	78
	60	26.7	36.9	45.4	51.9	56.5					58.9	59.4	80
	70	27.0	37.7	46.8	54.4	60.4	64.8	67.5			67.6	68.3	81
20	80	27.2	38.2	47.8	56.2	63.2	68.8	73.0	75.8		76.2	77.0	81
	90	27.3	38.5	48.5	57.4	65.2	71.7	77.0	81.2	84.0	84.7	85.6	82
	100	27.4	38.8	49.1	58.4	66.7	73.9	80.1	85.2	89.2	93.1	94.1	82
	50	31.7	43.3	52.1	58.0						60.5	60.8	78
	60	32.3	44.8	54.9	62.8	68.3					71.3	71.7	80
	70	32.7	45.7	56.7	65.9	73.1	78.3	81.5			81.8	82.3	81
22	80	33.0	46.3	57.9	68.0	76.4	83.2	88.2	91.5		92.2	92.8	81
	90	33.2	46.7	58.8	69.5	78.8	86.7	93.1	98.0	101.4	102.4	103.1	82
	100	33.3	47.0	59.5	70.7	80.7	89.4	96.8	102.9	107.7	112.6	113.4	82
	50	37.8	51.7	62.1	69.0						72.0	72.3	78
	60	38.6	53.4	65.4	74.7	81.2	84.7				84.8	85.2	80
	70	39.1	54.4	67.6	78.4	87.0	93.1	96.8			97.3	97.8	81
24	80	39.4	55.1	69.0	81.0	91.0	98.9	104.9	108.7		109.6	110.2	81
	90	39.6	55.6	70.1	82.8	93.8	103.2	110.7	116.5	120.4	121.8	122.4	82
	100	39.7	56.0	70.8	84.2	96.0	106.4	115.2	122.4	128.0	133.9	134.6	82

[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 longleaf pine (species 121) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	5.5									6.3	8.1	70
	30	6.2	8.5								9.7	11.8	76
	40	6.4	9.0	11.2							12.8	15.5	79
10	50	6.5	9.2	11.6	13.8	15.7					15.9	19.2	80
	60	6.6	9.3	11.9	14.2	16.4	18.3				18.9	22.9	80
	70	6.6	9.4	12.0	14.5	16.8	18.9	20.8			22.0	26.7	81
	20	8.1									9.0	10.2	70
	30	9.0	12.1								13.5	14.8	76
	40	9.3	12.9	15.7							17.6	19.3	79
12	50	9.4	13.2	16.5	19.2	21.4					21.6	23.7	80
	60	9.5	13.4	16.9	20.0	22.7	24.9				25.6	28.0	80
	70	9.6	13.5	17.2	20.5	23.5	26.1	28.3			29.5	32.4	81
	80	9.6	13.6	17.3	20.8	24.0	26.9	29.4	31.7		33.3	36.7	81
	40	12.7	17.5	21.1							23.3	24.4	79
	50	12.9	18.0	22.3	25.7	28.1					28.4	29.8	80
	60	13.0	18.3	22.9	26.9	30.2	32.7				33.4	35.1	80
14	70	13.1	18.5	23.3	27.6	31.4	34.6	37.1			38.3	40.4	81
	80	13.1	18.6	23.6	28.1	32.2	35.8	38.9	41.5		43.3	45.6	81
	90	13.2	18.7	23.8	28.5	32.8	36.7	40.2	43.3	45.9	48.2	50.8	81
	100	13.2	18.7	23.9	28.7	33.2	37.4	41.2	44.6	47.6	53.1	56.1	81
	40	16.7	22.9	27.4							29.8	30.7	79
	50	16.9	23.5	29.0	33.2	35.9					36.2	37.2	80
	60	17.1	23.9	29.8	34.8	38.8	41.7				42.4	43.7	80
16	70	17.2	24.2	30.4	35.8	40.5	44.4	47.3			48.6	50.1	81
	80	17.3	24.3	30.8	36.6	41.7	46.2	49.9	52.9		54.8	56.5	81
	90	17.3	24.4	31.0	37.1	42.5	47.4	51.7	55.4	58.4	60.9	62.9	81
	100	17.3	24.5	31.2	37.4	43.2	48.4	53.1	57.3	60.9	67.0	69.2	81
	40	21.2	29.0	34.5							37.2	37.9	79
	50	21.5	29.8	36.6	41.6	44.8					45.0	45.8	80
	60	21.7	30.3	37.7	43.8	48.6	51.9				52.7	53.7	80
18	70	21.8	30.6	38.4	45.2	50.9	55.5	58.9			60.3	61.4	81
	80	21.9	30.8	38.9	46.1	52.5	57.9	62.4	65.8		67.8	69.1	81
	90	22.0	31.0	39.3	46.8	53.6	59.6	64.8	69.2	72.6	75.3	76.8	81
	100	22.0	31.1	39.5	47.3	54.4	60.9	66.6	71.7	76.0	82.8	84.5	81
	50	26.7	36.9	45.1	51.1	54.7					54.9	55.6	80
	60	26.9	37.5	46.5	53.9	59.6	63.3				64.2	65.0	80
	70	27.1	37.9	47.4	55.7	62.5	68.0	71.8			73.3	74.2	81
20	80	27.2	38.1	48.0	56.9	64.5	71.0	76.3	80.2		82.4	83.5	81
	90	27.2	38.3	48.5	57.7	66.0	73.2	79.4	84.6	88.5	91.5	92.7	81
	100	27.3	38.5	48.8	58.4	67.0	74.8	81.8	87.8	92.8	100.5	101.8	81
	50	32.3	44.7	54.5	61.6	65.7					65.9	66.4	80
	60	32.6	45.4	56.3	65.1	71.7	76.0				76.9	77.5	80
	70	32.8	45.9	57.4	67.2	75.4	81.7	86.1			87.8	88.5	81
22	80	33.0	46.2	58.2	68.7	77.9	85.5	91.7	96.2		98.6	99.4	81
	90	33.0	46.5	58.7	69.8	79.6	88.3	95.6	101.6	106.1	109.3	110.3	81
	100	33.1	46.6	59.1	70.6	81.0	90.3	98.5	105.6	111.4	120.0	121.1	81
	50	38.6	53.2	64.8	73.1	77.7					77.9	78.4	80
	60	38.9	54.1	67.0	77.3	85.0	89.9				90.8	91.4	80
	70	39.2	54.7	68.3	79.9	89.5	96.8	101.8			103.6	104.2	81
24	80	39.3	55.1	69.2	81.7	92.5	101.4	108.6	113.7		116.2	117.0	81
	90	39.4	55.4	69.9	83.0	94.6	104.7	113.3	120.2	125.4	128.8	129.6	81
	100	39.5	55.6	70.4	84.0	96.2	107.2	116.8	125.1	131.8	141.4	142.3	81

[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 longleaf pine (species 121) South-wide[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	1.5	1.7											
6	1.4	1.9	2.3	2.7	3.1	3.4	3.8	4.1									
7	2.4	3.0	3.6	4.2	4.7	5.2	5.7	6.1	6.6	7.0							
8	3.4	4.2	5.0	5.7	6.4	7.1	7.7	8.4	9.0	9.6	10.2	10.8					
9	4.4	5.5	6.5	7.4	8.3	9.2	10.0	10.9	11.7	12.5	13.2	14.0	14.8	15.5			
10	5.6	6.9	8.1	9.3	10.4	11.5	12.6	13.6	14.6	15.6	16.6	17.5	18.5	19.4	20.4	21.3	
11	6.9	8.5	10.0	11.4	12.7	14.1	15.3	16.6	17.8	19.0	20.2	21.4	22.6	23.7	24.9	26.0	27.1
12	8.3	10.2	11.9	13.6	15.3	16.8	18.4	19.9	21.4	22.8	24.2	25.6	27.0	28.4	29.8	31.2	32.5
13	9.8	12.0	14.1	16.1	18.0	19.9	21.7	23.5	25.2	26.9	28.6	30.2	31.9	33.5	35.1	36.7	38.4
14	11.4	14.0	16.4	18.8	21.0	23.2	25.3	27.3	29.3	31.3	33.3	35.2	37.1	39.0	40.9	42.8	44.6
15	13.2	16.1	18.9	21.6	24.2	26.7	29.1	31.5	33.8	36.1	38.3	40.5	42.7	44.9	47.1	49.3	51.4
16	15.0	18.4	21.6	24.7	27.6	30.4	33.2	35.9	38.5	41.1	43.7	46.2	48.7	51.2	53.7	56.2	58.6

[a] Includes 0.5-foot 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 longleaf pine (species 121) South-wide[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	1.6	1.9	2.3	2.7	3.2	3.6											
6	1.9	2.5	3.1	3.7	4.3	4.9	5.4	6.0									
7	2.4	3.3	4.1	4.9	5.6	6.4	7.1	7.8	8.4	9.1							
8	3.1	4.3	5.3	6.2	7.2	8.1	8.9	9.8	10.7	11.5	12.3	13.2					
9	4.0	5.4	6.6	7.8	8.9	10.0	11.1	12.1	13.2	14.2	15.2	16.2	17.2	18.2			
10	4.9	6.6	8.1	9.5	10.9	12.2	13.5	14.7	16.0	17.2	18.4	19.6	20.8	22.0	23.2	24.4	
11	5.9	8.0	9.8	11.4	13.0	14.6	16.1	17.6	19.1	20.5	22.0	23.4	24.8	26.2	27.7	29.1	30.5
12	7.1	9.5	11.6	13.5	15.4	17.2	19.0	20.8	22.5	24.2	25.9	27.5	29.2	30.9	32.5	34.2	35.8
13	8.3	11.1	13.6	15.8	18.0	20.1	22.2	24.2	26.2	28.2	30.1	32.1	34.0	35.9	37.8	39.7	41.6
14	9.7	12.9	15.7	18.3	20.8	23.2	25.6	27.9	30.2	32.5	34.7	36.9	39.1	41.3	43.5	45.7	47.9
15	11.2	14.8	18.0	21.0	23.8	26.6	29.3	31.9	34.5	37.1	39.6	42.2	44.7	47.2	49.7	52.1	54.6
16	12.7	16.8	20.5	23.9	27.1	30.2	33.2	36.2	39.1	42.0	44.9	47.8	50.6	53.4	56.2	59.0	61.8

[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 loblolly pine (species 131) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	4.8									5.2	6.9	61
	50	5.5	7.4								7.5	9.5	70
	60	5.9	8.2								9.5	11.9	75
10	70	6.1	8.6	10.7							11.3	14.1	78
	80	6.3	8.9	11.2							13.0	16.2	79
	90	6.4	9.1	11.6	13.8						14.6	18.3	81
	40	7.0	9.0								9.1	10.1	61
	50	8.0	10.8								12.6	13.9	70
	60	8.6	11.8	14.5							15.8	17.3	75
12	70	8.9	12.5	15.5	18.0						18.8	20.6	78
	80	9.1	12.9	16.3	19.1	21.3					21.6	23.7	79
	90	9.3	13.2	16.8	19.9	22.5					24.4	26.8	81
	100	9.4	13.5	17.2	20.5	23.4	25.8				27.0	29.7	82
	40	9.6	12.3								13.2	13.9	61
	50	10.9	14.7	17.5							18.2	19.1	70
	60	11.7	16.2	19.7	22.3						22.7	23.8	75
14	70	12.2	17.1	21.2	24.5	26.9					27.0	28.3	78
	80	12.5	17.7	22.2	26.0	29.1					31.0	32.6	79
	90	12.7	18.1	22.9	27.1	30.7	33.5				35.0	36.7	81
	100	12.9	18.4	23.4	27.9	31.9	35.1	37.7			38.8	40.8	82
	50	14.4	19.3	22.9							24.4	25.0	70
	60	15.4	21.2	25.9	29.2						30.4	31.3	75
	70	16.0	22.4	27.8	32.1	35.2					36.1	37.1	78
16	80	16.4	23.1	29.1	34.1	38.1	40.9				41.5	42.7	79
	90	16.7	23.7	30.0	35.5	40.1	43.8	46.4			46.8	48.2	81
	100	16.9	24.1	30.7	36.6	41.7	46.0	49.4	51.8		51.9	53.5	82
	110	17.1	24.4	31.2	37.4	42.9	47.7	51.7	54.8		56.9	58.7	82
	50	18.3	24.5	29.1							31.2	31.8	70
	60	19.6	26.9	32.8	37.1						39.0	39.7	75
	70	20.3	28.4	35.2	40.7	44.6					46.2	47.1	78
18	80	20.9	29.4	36.9	43.2	48.2	51.8				53.2	54.3	79
	90	21.2	30.1	38.0	45.0	50.9	55.5	58.8			59.9	61.2	81
	100	21.5	30.6	38.9	46.4	52.8	58.3	62.6	65.6		66.5	67.9	82
	110	21.7	31.0	39.6	47.4	54.4	60.4	65.5	69.4	72.3	73.0	74.6	82
	60	24.2	33.3	40.6	45.8						48.5	49.2	75
	70	25.2	35.1	43.6	50.3	55.1					57.5	58.4	78
	80	25.8	36.3	45.6	53.4	59.6	64.0				66.2	67.2	79
20	90	26.3	37.2	47.0	55.7	62.9	68.6	72.6			74.6	75.7	81
	100	26.6	37.8	48.1	57.3	65.3	72.0	77.3	81.1		82.8	84.1	82
	110	26.9	38.3	48.9	58.6	67.2	74.7	80.9	85.8	89.3	90.9	92.3	82
	60	29.4	40.3	49.2	55.5	58.9					59.0	59.6	75
	70	30.6	42.6	52.8	61.0	66.8	69.9				70.0	70.7	78
	80	31.4	44.1	55.3	64.7	72.3	77.6	80.5			80.5	81.4	79
22	90	31.9	45.1	57.0	67.4	76.2	83.1	88.0	90.7		90.7	91.8	81
	100	32.3	45.9	58.3	69.4	79.1	87.3	93.6	98.2		100.7	101.9	82
	110	32.6	46.5	59.3	71.0	81.4	90.4	98.0	103.9	108.1	110.6	111.8	82
	60	35.0	48.1	58.6	66.2	70.2					70.5	71.1	75
	70	36.5	50.7	62.9	72.7	79.6	83.3				83.6	84.3	78
	80	37.4	52.5	65.9	77.1	86.1	92.4	95.9			96.2	97.0	79
24	90	38.0	53.8	67.9	80.3	90.8	99.0	104.8	108.1		108.4	109.3	81
	100	38.5	54.7	69.5	82.7	94.3	103.9	111.5	116.9	120.0	120.4	121.4	82
	110	38.9	55.4	70.6	84.6	97.0	107.7	116.7	123.8	128.8	132.1	133.3	82

[a] Includes 0.5-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 loblolly pine (species 131) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.2									6.0	7.4	67
	40	5.8	7.9								8.3	10.3	74
	50	6.1	8.5								10.3	13.0	77
10	60	6.3	8.8	11.0							12.2	15.6	79
	70	6.4	9.0	11.4	13.4						14.1	18.1	80
	80	6.4	9.2	11.6	13.8	15.8					15.8	20.6	81
	90	6.5	9.3	11.8	14.1	16.2					17.6	23.0	81
	30	7.5									9.7	10.5	67
	40	8.4	11.5								13.4	14.6	74
	50	8.9	12.3	15.0							16.7	18.3	77
12	60	9.1	12.8	15.9	18.4						19.9	21.9	79
	70	9.2	13.0	16.4	19.3	21.7					22.9	25.4	80
	80	9.3	13.2	16.8	19.9	22.6	24.8				25.9	28.8	81
	90	9.4	13.4	17.0	20.3	23.2	25.8	28.0			28.9	32.2	81
	40	11.5	15.6	18.4							18.8	19.6	74
	50	12.1	16.8	20.4	23.0						23.5	24.6	77
	60	12.5	17.4	21.6	25.0	27.5					28.0	29.4	79
14	70	12.7	17.8	22.3	26.2	29.3	31.8				32.3	34.0	80
	80	12.8	18.1	22.8	27.0	30.6	33.6	36.0			36.6	38.5	81
	90	12.9	18.3	23.2	27.6	31.5	34.9	37.8	40.1		40.8	43.0	81
	100	13.0	18.4	23.5	28.1	32.2	35.9	39.2	41.9	44.2	44.9	47.4	81
	40	15.1	20.5	24.0							24.9	25.5	74
	50	15.9	22.0	26.7	30.0						31.1	31.9	77
	60	16.3	22.8	28.2	32.5	35.7					37.0	38.0	79
16	70	16.6	23.3	29.2	34.2	38.2	41.3				42.8	43.9	80
	80	16.8	23.7	29.9	35.3	39.9	43.7	46.7			48.4	49.7	81
	90	16.9	23.9	30.3	36.1	41.1	45.5	49.1	52.0		53.9	55.5	81
	100	17.0	24.1	30.7	36.7	42.0	46.8	51.0	54.5	57.4	59.4	61.2	81
	40	19.2	25.9	30.4							31.7	32.1	74
	50	20.2	27.9	33.8	37.9						39.6	40.1	77
	60	20.8	28.9	35.8	41.2	45.1					47.1	47.8	79
18	70	21.1	29.6	37.0	43.2	48.3	52.0				54.3	55.2	80
	80	21.3	30.1	37.8	44.6	50.4	55.2	58.9	61.4		61.5	62.5	81
	90	21.5	30.4	38.4	45.7	52.0	57.5	62.0	65.6	68.2	68.5	69.7	81
	100	21.6	30.6	38.9	46.4	53.2	59.2	64.4	68.7	72.3	75.5	76.8	81
	50	25.0	34.5	41.7	46.8						48.9	49.4	77
	60	25.7	35.8	44.2	50.8	55.6					58.2	58.7	79
	70	26.1	36.6	45.7	53.4	59.5	64.1	67.0			67.2	67.8	80
20	80	26.4	37.2	46.8	55.1	62.2	68.0	72.5	75.5		76.0	76.8	81
	90	26.6	37.6	47.5	56.4	64.2	70.9	76.4	80.7	83.8	84.7	85.6	81
	100	26.7	37.9	48.1	57.3	65.7	73.0	79.4	84.7	88.9	93.3	94.3	81
	50	30.4	41.8	50.5	56.5						59.3	59.6	77
	60	31.2	43.4	53.5	61.5	67.2	70.4				70.4	70.9	79
	70	31.7	44.4	55.4	64.6	72.0	77.5	80.9			81.3	81.8	80
22	80	32.0	45.1	56.6	66.7	75.3	82.2	87.6	91.1		91.9	92.5	81
	90	32.3	45.6	57.6	68.3	77.7	85.7	92.3	97.5	101.1	102.4	103.1	81
	100	32.4	45.9	58.2	69.4	79.5	88.3	95.9	102.3	107.4	112.8	113.6	81
	50	36.2	49.8	60.2	67.3						70.5	70.8	77
	60	37.2	51.7	63.7	73.2	79.9	83.6				83.8	84.2	79
	70	37.8	52.9	66.0	76.9	85.6	92.1	96.1			96.7	97.1	80
24	80	38.2	53.7	67.5	79.5	89.6	97.8	104.1	108.2		109.3	109.8	81
	90	38.5	54.3	68.6	81.3	92.4	102.0	109.8	115.9	120.1	121.8	122.4	81
	100	38.7	54.7	69.4	82.7	94.6	105.1	114.1	121.6	127.6	134.1	134.8	81

[a] 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 loblolly pine (species 131) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	5.0									5.7	8.5	66
	30	5.9	8.1								9.4	12.0	75
	40	6.2	8.7	11.0							12.7	15.7	78
10	50	6.4	9.0	11.5	13.7	15.7					15.9	19.5	79
	60	6.4	9.2	11.7	14.1	16.3	18.4				19.1	23.2	80
	70	6.5	9.3	11.9	14.4	16.8	19.0	21.0			22.2	26.9	80
	20	7.2									8.1	9.7	66
	30	8.5	11.5								13.0	14.5	75
	40	8.9	12.5	15.4							17.3	19.1	78
12	50	9.2	12.9	16.2	19.0	21.3					21.5	23.6	79
	60	9.3	13.2	16.7	19.8	22.6	24.9				25.6	28.0	80
	70	9.4	13.3	17.0	20.3	23.4	26.1	28.4			29.7	32.4	80
	80	9.4	13.4	17.2	20.7	23.9	26.9	29.5	31.9		33.7	36.7	81
	40	12.2	16.9	20.6							22.8	24.0	78
	50	12.5	17.6	21.9	25.4	27.9					28.2	29.5	79
	60	12.7	17.9	22.5	26.6	30.0	32.6				33.4	34.9	80
14	70	12.8	18.1	23.0	27.3	31.2	34.5	37.2			38.6	40.3	80
	80	12.9	18.3	23.3	27.9	32.0	35.8	39.0	41.8		43.7	45.6	81
	90	12.9	18.4	23.5	28.2	32.6	36.6	40.3	43.5	46.3	48.7	50.9	81
	100	13.0	18.5	23.6	28.5	33.1	37.3	41.2	44.8	47.9	53.8	56.2	81
	40	16.0	22.1	26.7							29.2	30.0	78
	50	16.4	22.9	28.4	32.7	35.6					35.9	36.8	79
	60	16.6	23.4	29.3	34.4	38.5	41.6				42.4	43.5	80
16	70	16.8	23.7	29.9	35.5	40.3	44.3	47.4			48.8	50.0	80
	80	16.9	23.9	30.3	36.2	41.4	46.0	50.0	53.1		55.2	56.5	81
	90	16.9	24.0	30.6	36.7	42.3	47.3	51.8	55.6	58.8	61.5	63.0	81
	100	17.0	24.1	30.8	37.1	42.9	48.2	53.1	57.4	61.3	67.8	69.5	81
	40	20.3	28.0	33.6							36.4	37.0	78
	50	20.8	29.0	35.8	41.0	44.4					44.6	45.3	79
	60	21.1	29.6	37.1	43.3	48.2	51.8				52.6	53.4	80
18	70	21.3	30.0	37.8	44.7	50.6	55.4	59.0			60.5	61.4	80
	80	21.4	30.3	38.4	45.6	52.1	57.7	62.4	66.1		68.3	69.3	81
	90	21.5	30.5	38.7	46.3	53.2	59.4	64.8	69.4	73.1	76.0	77.1	81
	100	21.6	30.6	39.0	46.9	54.1	60.7	66.6	71.8	76.4	83.7	84.9	81
	50	25.8	35.9	44.1	50.3	54.1					54.4	54.9	79
	60	26.1	36.6	45.7	53.2	59.1	63.1				64.0	64.6	80
	70	26.4	37.1	46.7	55.0	62.1	67.7	71.9			73.5	74.2	80
20	80	26.5	37.4	47.3	56.2	64.1	70.8	76.3	80.5		82.9	83.7	81
	90	26.6	37.7	47.8	57.1	65.5	72.9	79.4	84.8	89.1	92.2	93.1	81
	100	26.7	37.8	48.2	57.8	66.6	74.5	81.7	87.9	93.2	101.5	102.5	81
	50	31.3	43.5	53.3	60.6	65.0					65.2	65.6	79
	60	31.7	44.4	55.2	64.2	71.1	75.7				76.7	77.1	80
	70	32.0	45.0	56.5	66.4	74.8	81.5	86.2			87.9	88.5	80
22	80	32.2	45.3	57.3	68.0	77.3	85.2	91.7	96.5		99.1	99.7	81
	90	32.3	45.6	57.9	69.0	79.1	87.9	95.5	101.8	106.7	110.2	110.8	81
	100	32.4	45.8	58.3	69.9	80.4	89.9	98.4	105.7	111.9	121.2	121.9	81
	50	37.3	51.8	63.4	71.9	76.8					77.1	77.4	79
	60	37.8	52.9	65.7	76.3	84.3	89.5				90.5	90.9	80
	70	38.1	53.6	67.2	79.0	88.8	96.5	101.8			103.8	104.2	80
24	80	38.4	54.0	68.2	80.8	91.8	101.1	108.5	114.0		116.8	117.3	81
	90	38.5	54.4	68.9	82.1	93.9	104.3	113.2	120.5	126.1	129.9	130.4	81
	100	38.6	54.6	69.4	83.1	95.5	106.8	116.7	125.3	132.4	142.8	143.4	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 loblolly pine (species 131) South-wide[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	0.6	0.7	0.9	1.1	1.4	1.7											
6	1.0	1.6	2.1	2.5	3.0	3.3	3.7	4.1									
7	2.1	2.6	3.2	3.9	4.4	5.0	5.5	6.1	6.6	7.1							
8	2.7	3.5	4.4	5.3	6.1	6.8	7.5	8.2	8.9	9.6	10.3	10.9					
9	3.4	4.6	5.7	6.8	7.8	8.8	9.7	10.7	11.5	12.4	13.3	14.1	14.9	15.7			
10	4.3	5.8	7.2	8.5	9.8	11.0	12.2	13.3	14.4	15.5	16.6	17.6	18.6	19.7	20.7	21.7	
11	5.3	7.1	8.8	10.4	11.9	13.4	14.9	16.2	17.6	18.9	20.2	21.5	22.7	24.0	25.2	26.4	27.6
12	6.3	8.5	10.5	12.5	14.3	16.1	17.8	19.4	21.0	22.6	24.2	25.7	27.2	28.7	30.2	31.6	33.1
13	7.5	10.0	12.4	14.7	16.9	18.9	21.0	22.9	24.8	26.7	28.5	30.3	32.1	33.8	35.6	37.3	39.0
14	8.7	11.6	14.4	17.1	19.6	22.1	24.4	26.7	28.9	31.0	33.1	35.2	37.3	39.3	41.4	43.4	45.4
15	10.1	13.4	16.6	19.7	22.6	25.4	28.1	30.7	33.2	35.7	38.2	40.6	42.9	45.3	47.6	49.9	52.2
16	11.5	15.3	19.0	22.5	25.8	29.0	32.0	35.0	37.9	40.7	43.5	46.2	49.0	51.6	54.3	56.9	59.5

[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 loblolly pine (species 131) South-wide[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
	Cubic feet																
5	1.6	2.0	2.4	2.8	3.2	3.7											
6	1.9	2.3	3.0	3.7	4.3	4.9	5.5	6.1									
7	2.2	3.1	3.9	4.8	5.6	6.3	7.1	7.8	8.5	9.2							
8	2.7	3.9	5.0	6.1	7.0	8.0	8.9	9.8	10.7	11.5	12.4	13.2					
9	3.4	4.9	6.3	7.5	8.7	9.9	11.0	12.1	13.1	14.2	15.2	16.3	17.3	18.3			
10	4.2	6.0	7.6	9.2	10.6	12.0	13.3	14.6	15.9	17.2	18.4	19.6	20.9	22.1	23.3	24.5	
11	5.1	7.2	9.2	11.0	12.7	14.3	15.9	17.4	19.0	20.5	21.9	23.4	24.9	26.3	27.7	29.2	30.6
12	6.1	8.6	10.9	13.0	15.0	16.9	18.7	20.5	22.3	24.1	25.8	27.5	29.2	30.9	32.6	34.3	35.9
13	7.1	10.0	12.7	15.2	17.5	19.7	21.8	23.9	26.0	28.0	30.0	32.0	34.0	35.9	37.9	39.8	41.8
14	8.3	11.6	14.7	17.5	20.2	22.7	25.2	27.6	29.9	32.3	34.6	36.8	39.1	41.4	43.6	45.8	48.0
15	9.5	13.4	16.8	20.1	23.1	26.0	28.8	31.5	34.2	36.8	39.5	42.1	44.6	47.2	49.7	52.2	54.8
16	10.8	15.2	19.1	22.8	26.2	29.5	32.6	35.7	38.8	41.7	44.7	47.6	50.5	53.4	56.3	59.1	62.0

[a] Includes 0.5-foot stump allowance.

Table 26--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 four major southern pines combined (species 11) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	5.2									6.1	7.6	65
	50	5.8	7.9								8.3	10.2	72
	60	6.1	8.5								10.3	12.5	77
10	70	6.3	8.9	11.1							12.1	14.8	79
	80	6.4	9.2	11.6	13.6						13.8	16.9	81
	90	6.5	9.3	11.9	14.1						15.5	19.0	82
	40	7.5	9.8								10.2	11.1	65
	50	8.4	11.4	13.6							13.7	14.9	72
	60	8.9	12.3	15.1							16.9	18.3	77
12	70	9.2	12.9	16.1	18.6						19.8	21.5	79
	80	9.4	13.3	16.7	19.7	22.0					22.7	24.7	81
	90	9.5	13.5	17.2	20.4	23.1	25.3				25.5	27.7	82
	100	9.6	13.7	17.5	20.9	23.9	26.4				28.2	30.7	83
	40	10.3	13.4								14.7	15.3	65
	50	11.5	15.6	18.6							19.6	20.4	72
	60	12.2	16.8	20.6	23.4						24.1	25.1	77
14	70	12.6	17.6	22.0	25.4	27.9					28.3	29.5	79
	80	12.8	18.1	22.8	26.8	30.0	32.3				32.4	33.8	81
	90	13.0	18.5	23.5	27.8	31.5	34.5				36.4	38.0	82
	100	13.1	18.8	23.9	28.6	32.6	36.1	38.8			40.3	42.1	83
	50	15.1	20.4	24.3							26.1	26.8	72
	60	16.0	22.1	27.0	30.6						32.1	32.9	77
	70	16.5	23.1	28.8	33.3	36.6					37.8	38.8	79
16	80	16.8	23.8	29.9	35.1	39.3	42.3				43.3	44.4	81
	90	17.1	24.3	30.8	36.5	41.3	45.1	47.9			48.6	49.9	82
	100	17.3	24.6	31.4	37.4	42.7	47.2	50.7	53.3		53.8	55.3	83
	110	17.4	24.9	31.8	38.2	43.8	48.8	52.9	56.2	58.6	58.9	60.6	83
	50	19.2	25.9	30.9							33.5	34.0	72
	60	20.3	28.0	34.3	38.8						41.2	41.8	77
	70	21.0	29.3	36.5	42.2	46.4					48.4	49.2	79
18	80	21.4	30.2	38.0	44.6	49.8	53.6				55.4	56.4	81
	90	21.7	30.8	39.0	46.2	52.3	57.2	60.7			62.2	63.3	82
	100	21.9	31.2	39.8	47.5	54.2	59.8	64.3	67.5		68.9	70.2	83
	110	22.1	31.6	40.4	48.4	55.6	61.8	67.1	71.3	74.3	75.5	76.9	83
	60	25.1	34.7	42.4	48.0	51.1					51.2	51.8	77
	70	26.0	36.3	45.1	52.2	57.3					60.2	60.9	79
	80	26.5	37.4	46.9	55.1	61.6	66.3				68.9	69.8	81
20	90	26.9	38.1	48.2	57.2	64.7	70.7	75.0			77.4	78.4	82
	100	27.2	38.7	49.2	58.7	67.0	73.9	79.5	83.5		85.7	86.8	83
	110	27.4	39.1	49.9	59.8	68.7	76.4	82.9	88.1	91.8	93.8	95.1	83
	60	30.5	42.0	51.4	58.2	61.9					62.2	62.8	77
	70	31.5	44.0	54.7	63.3	69.5	72.9				73.2	73.9	79
	80	32.2	45.3	56.9	66.8	74.6	80.3	83.5			83.8	84.6	81
22	90	32.6	46.2	58.5	69.2	78.3	85.6	90.8	93.8		94.1	95.0	82
	100	33.0	46.9	59.6	71.1	81.1	89.5	96.2	101.1	103.9	104.2	105.2	83
	110	33.2	47.4	60.5	72.5	83.2	92.6	100.4	106.7	111.2	114.1	115.3	83
	60	36.4	50.1	61.3	69.4	73.8					74.3	74.8	77
	70	37.6	52.4	65.2	75.4	82.8	86.9				87.4	88.0	79
	80	38.4	54.0	67.8	79.5	88.9	95.6	99.5			100.1	100.8	81
24	90	38.9	55.1	69.7	82.5	93.3	102.0	108.2	111.7		112.3	113.2	82
	100	39.3	55.9	71.0	84.7	96.6	106.7	114.6	120.4	123.8	124.4	125.4	83
	110	39.6	56.5	72.1	86.4	99.1	110.3	119.6	127.0	132.4	136.3	137.4	83

[a] Includes 1.0-foot stump allowance.

Table 27--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 four major southern pines combined (species 11) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.4									6.4	7.6	69
	40	5.9	8.1								8.7	10.5	75
	50	6.2	8.7	10.7							10.8	13.2	78
10	60	6.4	9.0	11.2							12.7	15.8	80
	70	6.5	9.2	11.6	13.7						14.6	18.3	81
	80	6.5	9.3	11.8	14.1	16.0					16.4	20.8	81
	90	6.6	9.4	12.0	14.3	16.5					18.2	23.3	82
	30	7.8	10.1								10.2	10.8	69
	40	8.6	11.8								13.8	14.9	75
	50	9.0	12.5	15.3							17.2	18.7	78
12	60	9.3	13.0	16.2	18.7						20.4	22.3	80
	70	9.4	13.3	16.7	19.6	22.0					23.6	25.8	81
	80	9.5	13.5	17.0	20.2	23.0	25.3				26.6	29.2	81
	90	9.6	13.6	17.3	20.6	23.6	26.2	28.4			29.6	32.6	82
	40	11.8	16.0	18.9							19.4	20.1	75
	50	12.4	17.1	20.9	23.6						24.2	25.1	78
	60	12.7	17.8	22.0	25.5	28.0					28.7	29.9	80
14	70	12.9	18.1	22.7	26.7	29.9	32.3				33.1	34.6	81
	80	13.0	18.4	23.2	27.5	31.2	34.2	36.6			37.4	39.2	81
	90	13.1	18.6	23.6	28.1	32.1	35.5	38.5	40.8		41.7	43.7	82
	100	13.1	18.7	23.8	28.5	32.8	36.5	39.8	42.7	45.0	45.9	48.2	82
	40	15.5	21.0	24.7							25.6	26.1	75
	50	16.2	22.4	27.3	30.7						31.9	32.6	78
	60	16.6	23.3	28.8	33.2	36.5					37.9	38.7	80
16	70	16.9	23.8	29.7	34.8	38.9	42.1				43.7	44.7	81
	80	17.1	24.1	30.4	35.9	40.6	44.5	47.6			49.4	50.6	81
	90	17.2	24.3	30.9	36.7	41.9	46.3	50.0	53.0		55.1	56.5	82
	100	17.3	24.5	31.2	37.3	42.8	47.6	51.9	55.5	58.4	60.7	62.2	82
	40	19.7	26.6	31.2							32.6	33.0	75
	50	20.6	28.5	34.6	38.8						40.6	41.1	78
	60	21.1	29.5	36.5	42.0	46.0					48.1	48.8	80
18	70	21.5	30.1	37.7	44.1	49.2	53.1				55.5	56.3	81
	80	21.7	30.6	38.5	45.5	51.4	56.2	60.0	62.5		62.8	63.7	81
	90	21.8	30.9	39.1	46.5	52.9	58.5	63.2	66.8	69.4	69.9	71.0	82
	100	21.9	31.1	39.5	47.2	54.1	60.2	65.5	70.0	73.6	77.0	78.2	82
	50	25.6	35.2	42.7	47.9						50.2	50.5	78
	60	26.2	36.5	45.1	51.9	56.8					59.5	60.0	80
	70	26.6	37.3	46.6	54.4	60.7	65.4	68.4			68.6	69.2	81
20	80	26.8	37.8	47.6	56.2	63.4	69.3	73.9	77.0		77.6	78.2	81
	90	27.0	38.2	48.3	57.4	65.4	72.2	77.8	82.3	85.4	86.4	87.2	82
	100	27.2	38.5	48.9	58.3	66.8	74.3	80.8	86.2	90.6	95.1	96.0	82
	50	31.0	42.7	51.7	57.9						60.7	61.0	78
	60	31.8	44.2	54.6	62.8	68.6	71.9				72.0	72.4	80
	70	32.2	45.2	56.4	65.9	73.4	79.0	82.5			83.0	83.5	81
22	80	32.6	45.9	57.7	68.0	76.7	83.8	89.3	92.9		93.8	94.4	81
	90	32.8	46.3	58.6	69.5	79.1	87.3	94.1	99.4	103.1	104.5	105.1	82
	100	32.9	46.7	59.2	70.6	80.9	89.9	97.7	104.2	109.4	115.0	115.8	82
	50	37.0	50.9	61.6	68.9						72.3	72.5	78
	60	37.9	52.7	65.0	74.7	81.6	85.5				85.7	86.0	80
	70	38.5	53.9	67.2	78.4	87.4	94.0	98.1			98.8	99.1	81
24	80	38.8	54.7	68.7	80.9	91.3	99.7	106.1	110.4		111.6	112.0	81
	90	39.1	55.2	69.8	82.8	94.1	103.9	111.9	118.1	122.4	124.2	124.7	82
	100	39.3	55.6	70.6	84.1	96.3	107.0	116.2	123.9	130.0	136.8	137.4	82

[a] Includes 1.0-foot stump allowance.

Table 28--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 four major southern pines combined (species 11) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	5.1									5.9	8.2	68
	30	6.0	8.3								9.5	11.9	76
	40	6.3	8.9	11.1							12.9	15.6	79
10	50	6.4	9.1	11.6	13.9	15.8					16.1	19.3	80
	60	6.5	9.3	11.9	14.3	16.5	18.5				19.2	23.0	81
	70	6.6	9.4	12.1	14.6	17.0	19.2	21.2			22.3	26.6	81
	20	7.5									8.4	9.8	68
	30	8.7	11.8								13.2	14.7	76
	40	9.1	12.7	15.7							17.6	19.3	79
12	50	9.3	13.1	16.5	19.3	21.6					21.8	23.8	80
	60	9.4	13.4	16.9	20.1	22.9	25.2				25.9	28.2	81
	70	9.5	13.5	17.2	20.6	23.7	26.5	28.8			30.0	32.6	81
	80	9.6	13.6	17.4	21.0	24.3	27.3	30.0	32.3		34.1	37.0	81
	40	12.4	17.3	21.0							23.3	24.4	79
	50	12.7	17.9	22.3	25.8	28.4					28.6	30.0	80
	60	12.9	18.2	22.9	27.0	30.5	33.2				33.9	35.5	81
14	70	13.0	18.4	23.4	27.8	31.7	35.1	37.8			39.1	40.9	81
	80	13.1	18.6	23.7	28.3	32.6	36.4	39.7	42.4		44.3	46.3	81
	90	13.1	18.7	23.9	28.7	33.2	37.3	40.9	44.2	47.0	49.4	51.6	82
	100	13.2	18.7	24.0	29.0	33.6	37.9	41.9	45.5	48.7	54.5	57.0	82
	40	16.3	22.6	27.2							29.8	30.6	79
	50	16.7	23.4	28.9	33.3	36.3					36.5	37.5	80
	60	16.9	23.8	29.9	35.0	39.2	42.3				43.1	44.3	81
16	70	17.0	24.1	30.5	36.1	41.0	45.1	48.2			49.6	50.9	81
	80	17.1	24.3	30.9	36.8	42.2	46.9	50.9	54.1		56.1	57.5	81
	90	17.2	24.4	31.1	37.3	43.0	48.1	52.7	56.6	59.8	62.5	64.1	82
	100	17.3	24.5	31.4	37.7	43.7	49.1	54.0	58.5	62.3	68.9	70.7	82
	40	20.7	28.6	34.3							37.2	37.9	79
	50	21.2	29.6	36.5	41.8	45.2					45.5	46.2	80
	60	21.5	30.2	37.8	44.1	49.2	52.7				53.6	54.5	81
18	70	21.7	30.5	38.5	45.5	51.5	56.4	60.1			61.6	62.6	81
	80	21.8	30.8	39.0	46.5	53.1	58.8	63.6	67.3		69.5	70.6	81
	90	21.9	31.0	39.4	47.2	54.2	60.5	66.0	70.7	74.5	77.4	78.6	82
	100	21.9	31.1	39.7	47.7	55.0	61.8	67.8	73.2	77.8	85.2	86.5	82
	50	26.3	36.6	45.0	51.4	55.3					55.5	56.1	80
	60	26.6	37.3	46.6	54.3	60.3	64.4				65.3	66.0	81
	70	26.8	37.8	47.5	56.1	63.3	69.1	73.3			74.9	75.7	81
20	80	27.0	38.1	48.2	57.3	65.3	72.2	77.8	82.1		84.5	85.3	81
	90	27.1	38.3	48.7	58.2	66.7	74.3	80.9	86.4	90.8	94.0	94.9	82
	100	27.1	38.5	49.0	58.8	67.8	75.9	83.2	89.6	95.1	103.4	104.5	82
	50	31.8	44.3	54.4	61.9	66.3					66.6	67.1	80
	60	32.3	45.2	56.3	65.5	72.6	77.3				78.2	78.8	81
	70	32.5	45.8	57.5	67.7	76.3	83.1	87.9			89.7	90.3	81
22	80	32.7	46.1	58.3	69.2	78.8	86.9	93.5	98.4		101.1	101.8	81
	90	32.8	46.4	58.9	70.3	80.6	89.6	97.4	103.9	108.9	112.4	113.1	82
	100	32.9	46.6	59.4	71.1	81.9	91.6	100.3	107.8	114.2	123.6	124.5	82
	50	38.0	52.8	64.7	73.5	78.5					78.8	79.2	80
	60	38.5	53.8	67.0	77.8	86.1	91.4				92.4	92.9	81
	70	38.8	54.5	68.5	80.5	90.6	98.5	104.0			105.9	106.4	81
24	80	39.0	55.0	69.4	82.3	93.6	103.1	110.8	116.4		119.2	119.8	81
	90	39.2	55.3	70.1	83.6	95.7	106.4	115.5	123.0	128.7	132.5	133.1	82
	100	39.3	55.5	70.7	84.6	97.3	108.8	119.0	127.8	135.1	145.7	146.4	82

[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 four major southern pines combined (species 11) South-wide[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	0.6	0.8	1.0	1.4	1.6	1.8											
6	1.2	1.9	2.4	2.8	3.2	3.6	3.9	4.3									
7	2.3	2.9	3.6	4.2	4.8	5.3	5.8	6.4	6.9	7.4							
8	3.1	4.0	4.9	5.7	6.5	7.2	7.9	8.6	9.3	10.0	10.7	11.3					
9	4.0	5.2	6.3	7.4	8.4	9.3	10.3	11.2	12.0	12.9	13.8	14.6	15.5	16.3			
10	5.0	6.5	7.9	9.2	10.5	11.7	12.8	13.9	15.1	16.1	17.2	18.3	19.3	20.3	21.4	22.4	
11	6.1	7.9	9.6	11.2	12.8	14.2	15.6	17.0	18.4	19.7	21.0	22.3	23.5	24.8	26.0	27.3	28.5
12	7.4	9.5	11.5	13.5	15.3	17.0	18.7	20.4	22.0	23.5	25.1	26.6	28.2	29.7	31.2	32.6	34.1
13	8.7	11.2	13.6	15.9	18.0	20.1	22.1	24.0	25.9	27.8	29.6	31.4	33.2	35.0	36.7	38.5	40.2
14	10.1	13.1	15.8	18.5	21.0	23.4	25.7	27.9	30.1	32.3	34.4	36.5	38.6	40.7	42.7	44.8	46.8
15	11.7	15.1	18.2	21.3	24.1	26.9	29.5	32.1	34.7	37.2	39.6	42.1	44.4	46.8	49.2	51.5	53.8
16	13.3	17.2	20.8	24.3	27.5	30.7	33.7	36.7	39.5	42.4	45.2	47.9	50.7	53.4	56.1	58.7	61.4

[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 four major southern pines combined (species 11) South-wide[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	2.3	2.7	3.2	3.7											
6	1.8	2.4	3.0	3.7	4.3	4.9	5.5	6.0									
7	2.2	3.1	4.0	4.8	5.6	6.4	7.1	7.8	8.5	9.2							
8	2.9	4.0	5.1	6.2	7.1	8.1	9.0	9.9	10.7	11.6	12.5	13.3					
9	3.6	5.1	6.4	7.7	8.9	10.0	11.1	12.2	13.3	14.3	15.4	16.4	17.5	18.5			
10	4.5	6.3	7.9	9.4	10.8	12.2	13.5	14.8	16.1	17.4	18.6	19.9	21.1	22.4	23.6	24.8	
11	5.4	7.5	9.5	11.3	13.0	14.6	16.2	17.7	19.3	20.8	22.2	23.7	25.2	26.7	28.1	29.6	31.0
12	6.4	9.0	11.2	13.3	15.3	17.2	19.1	20.9	22.7	24.5	26.2	27.9	29.7	31.4	33.1	34.8	36.5
13	7.6	10.5	13.2	15.6	17.9	20.1	22.3	24.4	26.4	28.5	30.5	32.5	34.5	36.5	38.5	40.4	42.4
14	8.8	12.2	15.2	18.0	20.7	23.2	25.7	28.1	30.5	32.8	35.2	37.5	39.8	42.0	44.3	46.5	48.8
15	10.1	14.0	17.5	20.7	23.7	26.6	29.4	32.2	34.9	37.5	40.2	42.8	45.4	48.0	50.6	53.1	55.7
16	11.5	15.9	19.8	23.5	26.9	30.2	33.3	36.5	39.5	42.5	45.5	48.5	51.4	54.3	57.3	60.1	63.0

[a] Includes 0.5-foot stump allowance.

Table 31--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 sand pine (species 107) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	6.0									7.0	8.7	69
	50	6.5	8.8								9.2	11.2	77
	60	6.7	9.4								11.2	13.6	81
10	70	6.9	9.7	12.1							13.1	15.9	83
	80	7.0	10.0	12.6	14.7						14.9	18.1	85
	90	7.1	10.1	12.9	15.3						16.7	20.3	86
	40	8.8	11.3								11.6	12.7	69
	50	9.4	12.7								15.1	16.3	77
	60	9.8	13.6	16.6							18.3	19.8	81
12	70	10.0	14.1	17.5	20.2						21.4	23.1	83
	80	10.2	14.4	18.2	21.3	23.7					24.3	26.4	85
	90	10.3	14.7	18.6	22.1	24.9	27.2				27.2	29.6	86
	100	10.3	14.9	19.0	22.6	25.8	28.4				30.1	32.7	87
	40	12.0	15.5								16.7	17.4	69
	50	12.9	17.4	20.6							21.5	22.4	77
	60	13.4	18.5	22.6	25.5						26.1	27.2	81
14	70	13.7	19.3	23.9	27.6	30.2					30.5	31.7	83
	80	13.9	19.7	24.8	29.1	32.4					34.7	36.2	85
	90	14.0	20.1	25.5	30.1	34.0	37.0				38.8	40.5	86
	100	14.1	20.3	25.9	30.9	35.2	38.8	41.6			42.9	44.8	87
	50	16.9	22.8	27.0							28.8	29.4	77
	60	17.6	24.3	29.6	33.4						34.8	35.7	81
	70	18.0	25.2	31.3	36.2	39.5					40.6	41.7	83
16	80	18.2	25.9	32.5	38.1	42.4	45.5				46.3	47.5	85
	90	18.4	26.3	33.3	39.4	44.5	48.5	51.2			51.8	53.2	86
	100	18.6	26.6	34.0	40.5	46.1	50.7	54.4	56.9		57.2	58.8	87
	110	18.7	26.9	34.4	41.2	47.3	52.5	56.8	60.1	62.5	62.6	64.3	87
	50	21.5	28.9	34.3							36.8	37.4	77
	60	22.3	30.8	37.6	42.4						44.6	45.3	81
	70	22.8	32.0	39.8	45.9	50.1					52.0	52.9	83
18	80	23.2	32.8	41.2	48.3	53.8	57.6				59.2	60.3	85
	90	23.4	33.4	42.3	50.0	56.4	61.4	64.9			66.3	67.5	86
	100	23.6	33.8	43.1	51.3	58.4	64.3	68.9	72.1		73.2	74.6	87
	110	23.7	34.1	43.7	52.3	59.9	66.5	71.9	76.2	79.2	80.1	81.6	87
	60	27.7	38.1	46.5	52.4						55.4	56.1	81
	70	28.3	39.6	49.2	56.7	62.0					64.7	65.5	83
	80	28.7	40.6	51.0	59.7	66.5	71.2				73.6	74.6	85
20	90	29.0	41.3	52.3	61.8	69.7	75.9	80.2			82.4	83.5	86
	100	29.2	41.8	53.3	63.4	72.2	79.4	85.1	89.1		91.1	92.3	87
	110	29.4	42.2	54.0	64.6	74.1	82.2	88.9	94.1	97.8	99.6	101.0	87
	60	33.5	46.2	56.4	63.5	67.2					67.4	68.0	81
	70	34.3	48.0	59.6	68.7	75.1	78.4				78.6	79.3	83
	80	34.8	49.2	61.8	72.3	80.5	86.3	89.4			89.5	90.4	85
22	90	35.2	50.1	63.4	74.9	84.5	91.9	97.2	100.1		100.2	101.2	86
	100	35.4	50.7	64.5	76.8	87.4	96.2	103.1	107.9	110.6	110.7	111.8	87
	110	35.6	51.2	65.4	78.3	89.7	99.5	107.7	114.0	118.4	121.1	122.4	87
	60	40.0	55.1	67.1	75.6	80.0					80.5	81.0	81
	70	40.9	57.2	71.0	81.8	89.4	93.4				93.9	94.5	83
	80	41.5	58.7	73.6	86.1	95.9	102.7	106.4			106.9	107.7	85
24	90	41.9	59.7	75.5	89.2	100.6	109.5	115.7	119.2		119.7	120.6	86
	100	42.2	60.4	76.9	91.5	104.1	114.6	122.8	128.5	131.7	132.2	133.3	87
	110	42.5	61.0	77.9	93.3	106.8	118.5	128.2	135.7	141.0	144.6	145.8	87

[a] Includes 1.0-foot stump allowance.

Table 32--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 sand pine (species 107) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	6.4									7.9	9.0	75
	40	6.6	9.1								9.9	11.7	79
	50	6.8	9.4	11.6							11.8	14.3	81
10	60	6.8	9.6	12.0							13.7	16.9	82
	70	6.9	9.7	12.2	14.5						15.5	19.4	83
	80	6.9	9.8	12.4	14.8	16.9					17.4	22.0	83
	90	6.9	9.8	12.5	15.0	17.2					19.2	24.5	83
	30	9.3	12.1								12.3	12.9	75
	40	9.6	13.1	15.6							15.6	16.7	79
	50	9.8	13.6	16.7							18.9	20.3	81
12	60	9.9	13.9	17.3	20.1						22.0	23.9	82
	70	10.0	14.1	17.7	20.8	23.4					25.2	27.4	83
	80	10.0	14.2	17.9	21.2	24.2	26.6				28.2	30.9	83
	90	10.0	14.2	18.1	21.6	24.7	27.5	29.9			31.3	34.4	83
	40	13.2	17.9	21.2							21.9	22.5	79
	50	13.4	18.6	22.7	25.6						26.4	27.4	81
	60	13.6	19.0	23.5	27.2	30.0					30.9	32.1	82
14	70	13.7	19.2	24.1	28.2	31.7	34.4				35.4	36.8	83
	80	13.7	19.4	24.4	28.9	32.8	36.1	38.7			39.8	41.5	83
	90	13.8	19.5	24.7	29.4	33.6	37.3	40.4	42.9		44.1	46.1	83
	100	13.8	19.5	24.9	29.8	34.2	38.2	41.7	44.7	47.2	48.4	50.7	83
	40	17.3	23.5	27.6							28.9	29.3	79
	50	17.7	24.4	29.7	33.4						34.9	35.6	81
	60	17.8	24.8	30.8	35.6	39.1					40.8	41.7	82
16	70	17.9	25.2	31.5	36.9	41.3	44.7				46.7	47.7	83
	80	18.0	25.4	32.0	37.8	42.8	47.0	50.3			52.5	53.7	83
	90	18.1	25.5	32.3	38.4	43.9	48.6	52.6	55.8	58.1	58.2	59.6	83
	100	18.1	25.6	32.6	38.9	44.7	49.8	54.3	58.1	61.3	64.0	65.5	83
	40	22.0	29.8	35.0							36.7	37.0	79
	50	22.4	30.9	37.6	42.3						44.4	44.8	81
	60	22.6	31.5	39.0	45.0	49.4					51.9	52.5	82
18	70	22.8	31.9	39.9	46.7	52.2	56.5	59.2			59.3	60.0	83
	80	22.9	32.2	40.5	47.8	54.1	59.4	63.4	66.3		66.6	67.5	83
	90	22.9	32.4	40.9	48.7	55.5	61.4	66.4	70.4	73.2	73.9	74.9	83
	100	23.0	32.5	41.3	49.3	56.5	63.0	68.6	73.4	77.3	81.2	82.3	83
	50	27.8	38.2	46.4	52.2						54.8	55.2	81
	60	28.0	39.0	48.2	55.6	60.9	64.1				64.1	64.6	82
	70	28.2	39.5	49.3	57.7	64.5	69.6	72.9			73.3	73.8	83
20	80	28.3	39.8	50.1	59.1	66.8	73.2	78.2	81.5		82.3	83.0	83
	90	28.4	40.0	50.6	60.1	68.5	75.8	81.9	86.7	90.1	91.3	92.1	83
	100	28.5	40.2	51.0	60.9	69.8	77.7	84.6	90.5	95.2	100.3	101.2	83
	50	33.7	46.3	56.2	63.1						66.4	66.7	81
	60	34.0	47.3	58.4	67.2	73.7	77.4				77.6	77.9	82
	70	34.2	47.8	59.7	69.8	78.0	84.1	88.0			88.6	89.1	83
22	80	34.4	48.2	60.6	71.5	80.8	88.5	94.4	98.5		99.6	100.1	83
	90	34.5	48.5	61.3	72.8	82.9	91.7	99.0	104.7	108.8	110.5	111.1	83
	100	34.5	48.7	61.8	73.7	84.5	94.0	102.3	109.3	114.9	121.3	122.0	83
	50	40.2	55.2	66.9	75.1						79.0	79.2	81
	60	40.6	56.3	69.5	80.0	87.6	92.0				92.3	92.6	82
	70	40.8	57.0	71.1	83.1	92.8	100.0	104.6			105.5	105.8	83
24	80	41.0	57.5	72.2	85.2	96.2	105.3	112.3	117.0		118.5	118.9	83
	90	41.1	57.8	73.0	86.7	98.7	109.1	117.7	124.5	129.3	131.4	131.9	83
	100	41.2	58.1	73.6	87.8	100.5	111.9	121.7	130.0	136.6	144.3	144.8	83

[a] Includes 1.0-foot stump allowance.

Table 33--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 sand pine (species 107) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	6.2									7.0	8.8	73
	30	6.7	9.2								10.5	12.5	79
	40	6.8	9.6	12.0							13.8	16.5	82
10	50	6.9	9.8	12.4	14.8	16.8					17.1	20.6	83
	60	6.9	9.9	12.6	15.2	17.5	19.6				20.3	24.8	83
	70	7.0	10.0	12.8	15.4	17.9	20.2	22.3			23.5	29.1	84
	20	9.0									10.0	10.8	73
	30	9.6	13.1								14.5	15.5	79
	40	9.9	13.7	16.9							18.9	20.1	82
12	50	10.0	14.1	17.6	20.6	22.9					23.1	24.7	83
	60	10.1	14.2	18.0	21.3	24.2	26.6				27.3	29.3	83
	70	10.1	14.3	18.2	21.8	25.0	27.8	30.2			31.5	33.9	84
	80	10.1	14.4	18.4	22.1	25.6	28.7	31.4	33.9		35.7	38.6	84
	40	13.5	18.7	22.6							24.9	25.6	82
	50	13.7	19.1	23.7	27.4	30.0					30.3	31.1	83
	60	13.7	19.4	24.3	28.6	32.1	34.8				35.6	36.7	83
14	70	13.8	19.5	24.7	29.4	33.4	36.8	39.6			40.9	42.2	84
	80	13.8	19.6	25.0	29.9	34.3	38.1	41.5	44.3		46.2	47.7	84
	90	13.9	19.7	25.2	30.2	34.9	39.1	42.8	46.1	48.9	51.5	53.3	84
	100	13.9	19.8	25.3	30.5	35.3	39.8	43.9	47.5	50.8	56.7	58.8	84
	40	17.7	24.4	29.3							31.8	32.2	82
	50	17.9	25.0	30.8	35.3	38.3					38.6	39.1	83
	60	18.0	25.3	31.7	37.0	41.3	44.4				45.2	45.8	83
16	70	18.1	25.6	32.2	38.1	43.1	47.2	50.4			51.8	52.6	84
	80	18.1	25.7	32.6	38.8	44.3	49.1	53.1	56.3		58.4	59.3	84
	90	18.2	25.8	32.9	39.3	45.2	50.4	55.0	59.0	62.2	64.9	66.0	84
	100	18.2	25.9	33.1	39.7	45.9	51.4	56.5	61.0	64.8	71.4	72.7	84
	40	22.5	30.9	36.8							39.7	40.0	82
	50	22.8	31.7	38.9	44.3	47.7					48.0	48.3	83
	60	22.9	32.1	40.0	46.6	51.7	55.2				56.1	56.5	83
18	70	23.0	32.4	40.7	48.0	54.1	59.0	62.6			64.2	64.6	84
	80	23.0	32.6	41.2	49.0	55.7	61.5	66.3	70.0		72.2	72.8	84
	90	23.1	32.7	41.6	49.6	56.9	63.3	68.9	73.6	77.3	80.2	80.8	84
	100	23.1	32.8	41.8	50.2	57.8	64.7	70.8	76.2	80.8	88.2	88.9	84
	50	28.2	39.1	47.9	54.4	58.2					58.5	58.7	83
	60	28.3	39.7	49.4	57.3	63.3	67.4				68.3	68.5	83
	70	28.4	40.0	50.3	59.1	66.4	72.2	76.4			78.0	78.3	84
20	80	28.5	40.3	50.9	60.3	68.5	75.4	81.1	85.3		87.6	88.0	84
	90	28.6	40.4	51.3	61.2	70.0	77.7	84.4	89.9	94.1	97.3	97.7	84
	100	28.6	40.6	51.7	61.8	71.1	79.5	86.9	93.3	98.6	106.9	107.4	84
	50	34.2	47.4	57.9	65.5	69.8					70.1	70.3	83
	60	34.4	48.1	59.7	69.1	76.2	80.8				81.7	81.9	83
	70	34.5	48.5	60.8	71.3	80.0	86.8	91.5			93.3	93.5	84
22	80	34.6	48.8	61.6	72.9	82.6	90.8	97.4	102.2		104.7	105.0	84
	90	34.6	49.0	62.1	74.0	84.5	93.7	101.5	107.9	112.7	116.1	116.5	84
	100	34.7	49.2	62.5	74.8	85.9	95.8	104.6	112.1	118.4	127.5	127.9	84
	50	40.7	56.5	68.8	77.7	82.6					82.9	83.0	83
	60	41.0	57.3	71.0	82.1	90.3	95.5				96.5	96.6	83
	70	41.1	57.8	72.4	84.8	95.0	102.8	108.1			110.0	110.2	84
24	80	41.2	58.1	73.3	86.6	98.1	107.7	115.2	120.7		123.4	123.6	84
	90	41.3	58.4	73.9	87.9	100.4	111.2	120.3	127.6	133.1	136.8	137.1	84
	100	41.4	58.6	74.4	88.9	102.1	113.8	124.0	132.8	140.0	150.2	150.5	84

[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 sand pine (species 107) South-wide[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	1.0	1.3	1.6	1.8	2.0											
6	1.6	2.2	2.7	3.1	3.5	3.9	4.3	4.6									
7	2.7	3.4	4.0	4.6	5.2	5.8	6.3	6.9	7.4	7.9							
8	3.8	4.7	5.5	6.3	7.1	7.8	8.6	9.3	10.0	10.7	11.4	12.1					
9	5.0	6.1	7.1	8.2	9.2	10.1	11.1	12.0	12.9	13.8	14.7	15.6	16.4	17.3			
10	6.2	7.6	8.9	10.2	11.5	12.7	13.8	15.0	16.1	17.3	18.4	19.4	20.5	21.6	22.7	23.7	
11	7.6	9.3	10.9	12.5	14.0	15.4	16.9	18.3	19.7	21.0	22.4	23.7	25.0	26.3	27.6	28.9	30.2
12	9.2	11.1	13.1	14.9	16.7	18.5	20.2	21.9	23.5	25.2	26.8	28.4	30.0	31.5	33.1	34.6	36.2
13	10.8	13.2	15.4	17.6	19.7	21.8	23.8	25.8	27.7	29.7	31.6	33.4	35.3	37.1	39.0	40.8	42.6
14	12.6	15.3	17.9	20.5	23.0	25.4	27.7	30.0	32.3	34.5	36.7	38.9	41.1	43.2	45.3	47.5	49.6
15	14.5	17.6	20.7	23.6	26.4	29.2	31.9	34.5	37.2	39.7	42.3	44.8	47.3	49.7	52.2	54.6	57.0
16	16.6	20.1	23.6	26.9	30.1	33.3	36.4	39.4	42.4	45.3	48.2	51.0	53.9	56.7	59.5	62.3	65.0

[a] 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 sand pine (species 107) South-wide[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	2.1	2.5	3.0	3.4	3.9											
6	2.3	2.9	3.5	4.1	4.7	5.3	5.8	6.4									
7	3.1	3.9	4.7	5.4	6.2	6.9	7.6	8.3	9.0	9.7							
8	4.0	5.1	6.0	7.0	7.9	8.8	9.7	10.5	11.4	12.3	13.1	14.0					
9	5.1	6.4	7.6	8.7	9.8	10.9	12.0	13.1	14.1	15.2	16.2	17.3	18.3	19.4			
10	6.4	7.9	9.3	10.7	12.0	13.3	14.6	15.9	17.2	18.5	19.7	21.0	22.2	23.5	24.7	26.0	
11	7.7	9.5	11.2	12.8	14.4	16.0	17.5	19.0	20.6	22.1	23.6	25.1	26.5	28.0	29.5	31.0	32.5
12	9.2	11.3	13.3	15.2	17.1	18.9	20.7	22.5	24.3	26.0	27.8	29.5	31.3	33.0	34.8	36.5	38.2
13	10.8	13.3	15.6	17.8	20.0	22.1	24.2	26.2	28.3	30.3	32.4	34.4	36.4	38.4	40.5	42.5	44.5
14	12.6	15.4	18.1	20.6	23.1	25.5	27.9	30.3	32.7	35.0	37.3	39.7	42.0	44.3	46.6	48.9	51.2
15	14.4	17.7	20.7	23.6	26.4	29.2	31.9	34.7	37.4	40.0	42.7	45.3	48.0	50.6	53.2	55.8	58.5
16	16.5	20.1	23.5	26.8	30.0	33.2	36.3	39.3	42.4	45.4	48.4	51.4	54.4	57.3	60.3	63.3	66.2

[a] Includes 0.5-foot stump allowance.

Table 36--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 spruce pine (species 115) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.8									6.8	8.2	67
	50	6.4	8.6								8.9	10.7	75
	60	6.7	9.2								10.7	12.9	79
	70	6.9	9.6	11.9							12.5	15.1	82
	80	7.0	9.9	12.3							14.1	17.2	83
	90	7.1	10.1	12.7	14.9						15.7	19.2	84
12	40	8.5	10.8								11.1	12.0	67
	50	9.3	12.4								14.4	15.6	75
	60	9.7	13.3	16.1							17.4	18.9	79
	70	10.0	13.9	17.1	19.6						20.3	22.0	82
	80	10.2	14.3	17.8	20.7	22.9					23.0	25.1	83
	90	10.3	14.6	18.3	21.5	24.1					25.7	28.1	84
	100	10.4	14.8	18.7	22.1	25.1	27.4				28.3	31.0	85
14	40	11.5	14.7								15.7	16.4	67
	50	12.6	16.9	19.8							20.4	21.3	75
	60	13.3	18.1	21.9	24.5						24.8	25.9	79
	70	13.6	18.9	23.3	26.7						28.9	30.2	82
	80	13.9	19.5	24.3	28.2	31.3					32.8	34.4	83
	90	14.1	19.9	25.0	29.3	32.9	35.6				36.7	38.5	84
	100	14.2	20.1	25.5	30.2	34.1	37.4	39.9			40.4	42.5	85
16	50	16.5	22.1	25.9							27.2	27.9	75
	60	17.3	23.7	28.7	32.1						33.0	33.9	79
	70	17.9	24.8	30.5	34.9	37.9					38.5	39.6	82
	80	18.2	25.5	31.8	36.9	40.9	43.5				43.8	45.1	83
	90	18.4	26.0	32.6	38.3	43.0	46.6				48.9	50.5	84
	100	18.6	26.3	33.3	39.4	44.6	48.9	52.1			54.0	55.7	85
	110	18.7	26.6	33.8	40.2	45.9	50.7	54.6	57.5		59.0	60.9	86
18	50	21.0	28.0	32.8							34.8	35.5	75
	60	22.0	30.1	36.4	40.6						42.3	43.1	79
	70	22.6	31.4	38.6	44.3	48.0					49.3	50.3	82
	80	23.1	32.3	40.2	46.8	51.8	55.1				56.1	57.3	83
	90	23.3	32.9	41.3	48.6	54.5	59.0	62.0			62.7	64.0	84
	100	23.6	33.4	42.2	49.9	56.5	61.9	66.0	68.7		69.2	70.7	85
	110	23.7	33.7	42.8	51.0	58.1	64.2	69.1	72.8	75.4	75.6	77.3	86
20	60	27.2	37.1	44.9	50.2						52.5	53.3	79
	70	28.0	38.8	47.7	54.7	59.3					61.3	62.2	82
	80	28.5	39.9	49.7	57.8	63.9	68.1				69.7	70.8	83
	90	28.9	40.7	51.1	60.0	67.3	72.9	76.6			78.0	79.2	84
	100	29.1	41.2	52.1	61.7	69.8	76.5	81.5	84.9		86.1	87.5	85
	110	29.3	41.7	52.9	63.0	71.8	79.3	85.3	90.0	93.1	94.0	95.6	86
22	60	32.9	45.0	54.4	60.8						63.9	64.5	79
	70	33.9	47.0	57.8	66.2	71.8					74.5	75.3	82
	80	34.5	48.3	60.2	69.9	77.4	82.4				84.8	85.8	83
	90	35.0	49.2	61.8	72.6	81.5	88.2	92.7			94.8	96.0	84
	100	35.3	49.9	63.1	74.7	84.5	92.6	98.7	102.8		104.7	106.0	85
	110	35.5	50.5	64.1	76.2	86.9	95.9	103.3	108.9	112.6	114.4	115.8	86
24	60	39.2	53.5	64.7	72.4	76.1					76.3	76.9	79
	70	40.3	55.9	68.8	78.8	85.5	88.9				89.0	89.7	82
	80	41.1	57.5	71.6	83.2	92.1	98.1	101.2			101.3	102.2	83
	90	41.6	58.6	73.6	86.5	97.0	105.0	110.4	113.2		113.3	114.3	84
	100	42.0	59.5	75.1	88.9	100.6	110.2	117.5	122.3	125.0	125.0	126.2	85
	110	42.3	60.1	76.3	90.7	103.4	114.2	123.0	129.6	134.1	136.6	137.9	86

[a] Includes 1.0-foot stump allowance.

Table 37--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 spruce pine (species 115) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30	6.3									7.6	8.8	75
	40	6.7	9.1								9.7	11.6	79
	50	6.9	9.6	11.7							11.7	14.2	82
	60	7.0	9.8	12.2							13.5	16.8	83
	70	7.1	10.0	12.5	14.6						15.3	19.3	84
	80	7.1	10.1	12.7	15.0	17.0					17.1	21.8	84
	90	7.2	10.2	12.9	15.3	17.5					18.9	24.2	84
12	30	9.1	11.7								11.8	12.5	75
	40	9.7	13.1								15.2	16.4	79
	50	10.0	13.8	16.7							18.4	20.0	82
	60	10.1	14.1	17.5	20.1						21.5	23.5	83
	70	10.2	14.4	18.0	21.0	23.4					24.5	27.0	84
	80	10.3	14.5	18.3	21.6	24.3	26.6				27.5	30.4	84
	90	10.4	14.7	18.5	22.0	25.0	27.6	29.8			30.4	33.8	84
14	40	13.2	17.9	20.8							21.2	22.0	79
	50	13.6	18.8	22.7	25.4						25.8	26.9	82
	60	13.8	19.3	23.7	27.2	29.8					30.1	31.6	83
	70	14.0	19.6	24.4	28.4	31.7	34.1				34.4	36.1	84
	80	14.1	19.8	24.9	29.3	33.0	36.0	38.3			38.6	40.7	84
	90	14.2	20.0	25.2	29.9	33.9	37.4	40.2	42.5		42.8	45.2	84
	100	14.2	20.1	25.5	30.3	34.6	38.4	41.7	44.5	46.7	47.0	49.6	85
16	40	17.3	23.3	27.1							28.0	28.6	79
	50	17.8	24.5	29.6	33.0						34.0	34.8	82
	60	18.1	25.2	31.0	35.5	38.7					39.8	40.8	83
	70	18.3	25.6	31.9	37.1	41.2	44.2				45.4	46.7	84
	80	18.4	25.9	32.5	38.2	42.9	46.8	49.7			51.0	52.5	84
	90	18.5	26.1	32.9	39.0	44.2	48.6	52.3	55.1		56.5	58.3	84
	100	18.6	26.3	33.3	39.6	45.2	50.1	54.2	57.7	60.5	62.0	64.0	85
18	40	21.9	29.5	34.3							35.5	36.0	79
	50	22.6	31.1	37.4	41.6						43.1	43.8	82
	60	23.0	31.9	39.2	44.8	48.7					50.5	51.3	83
	70	23.2	32.5	40.3	46.9	52.0	55.7				57.7	58.6	84
	80	23.4	32.8	41.1	48.3	54.2	59.0	62.6			64.8	65.9	84
	90	23.5	33.1	41.7	49.3	55.8	61.4	65.9	69.4	71.7	71.8	73.1	84
	100	23.6	33.3	42.1	50.0	57.1	63.2	68.4	72.7	76.1	78.8	80.3	85
20	50	27.9	38.4	46.2	51.3						53.3	53.8	82
	60	28.4	39.4	48.4	55.3	60.0					62.4	63.0	83
	70	28.7	40.1	49.8	57.8	64.1	68.6				71.2	72.0	84
	80	28.9	40.5	50.8	59.5	66.8	72.7	77.0	79.8		80.0	80.9	84
	90	29.0	40.9	51.5	60.8	68.9	75.7	81.1	85.3	88.2	88.7	89.7	84
	100	29.1	41.1	52.0	61.8	70.4	77.9	84.3	89.5	93.6	97.3	98.5	85
22	50	33.8	46.4	55.8	62.0						64.5	64.9	82
	60	34.4	47.7	58.5	66.8	72.5					75.4	75.9	83
	70	34.7	48.5	60.3	69.9	77.4	82.8	85.9			86.1	86.8	84
	80	35.0	49.1	61.4	72.0	80.8	87.8	92.9	96.2		96.7	97.5	84
	90	35.1	49.5	62.3	73.6	83.3	91.4	98.0	103.0	106.3	107.2	108.1	84
	100	35.3	49.8	62.9	74.7	85.1	94.2	101.8	108.1	112.9	117.6	118.6	85
24	50	40.3	55.3	66.4	73.7						76.7	77.0	82
	60	40.9	56.8	69.7	79.5	86.1	89.7				89.7	90.1	83
	70	41.4	57.8	71.7	83.1	92.0	98.3	102.0			102.4	102.9	84
	80	41.7	58.4	73.1	85.7	96.1	104.3	110.4	114.2		115.0	115.6	84
	90	41.9	58.9	74.1	87.5	99.0	108.7	116.4	122.3	126.2	127.4	128.1	84
	100	42.0	59.3	74.9	88.9	101.3	112.0	121.0	128.4	134.1	139.8	140.6	85

[a] Includes 1.0-foot stump allowance.

Table 38--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 spruce pine (species 115) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	6.0									6.8	9.0	73
	30	6.7	9.2								10.5	12.6	80
	40	6.9	9.7	12.1							13.9	16.1	82
	50	7.0	9.9	12.6	14.9	16.9					17.2	19.6	83
	60	7.1	10.1	12.8	15.3	17.6	19.7				20.4	23.0	84
	70	7.1	10.1	13.0	15.6	18.1	20.4	22.4			23.6	26.4	84
12	20	8.7									9.8	11.5	73
	30	9.7	13.1								14.6	16.2	80
	40	10.0	13.9	17.0							19.0	20.8	82
	50	10.2	14.3	17.8	20.7	23.0					23.3	25.2	83
	60	10.3	14.5	18.2	21.6	24.4	26.8				27.5	29.5	84
	70	10.3	14.6	18.5	22.1	25.3	28.1	30.4			31.7	33.9	84
	80	10.4	14.7	18.7	22.4	25.8	28.9	31.7	34.1		35.8	38.1	84
14	40	13.7	18.9	22.8							25.0	26.5	82
	50	13.9	19.4	24.0	27.6	30.3					30.5	32.1	83
	60	14.0	19.7	24.7	28.9	32.4	35.1				35.9	37.6	84
	70	14.1	19.9	25.1	29.7	33.8	37.2	39.9			41.2	43.0	84
	80	14.1	20.0	25.4	30.3	34.6	38.5	41.8	44.6		46.5	48.4	84
	90	14.2	20.1	25.6	30.6	35.3	39.5	43.2	46.5	49.3	51.7	53.8	84
	100	14.2	20.2	25.7	30.9	35.8	40.2	44.3	47.9	51.2	57.0	59.1	84
16	40	17.9	24.6	29.5							32.0	33.3	82
	50	18.2	25.3	31.1	35.6	38.6					38.8	40.2	83
	60	18.3	25.7	32.1	37.4	41.7	44.7				45.5	47.0	84
	70	18.4	26.0	32.7	38.5	43.5	47.6	50.8			52.2	53.7	84
	80	18.5	26.1	33.1	39.3	44.8	49.6	53.6	56.8		58.8	60.4	84
	90	18.6	26.3	33.3	39.8	45.7	51.0	55.6	59.5	62.7	65.3	67.1	84
	100	18.6	26.3	33.6	40.3	46.4	52.0	57.1	61.5	65.4	71.9	73.7	84
18	40	22.7	31.1	37.0							39.9	41.1	82
	50	23.0	32.0	39.3	44.7	48.0					48.3	49.5	83
	60	23.2	32.5	40.5	47.0	52.1	55.7				56.5	57.8	84
	70	23.4	32.9	41.2	48.5	54.6	59.5	63.1			64.6	66.0	84
	80	23.5	33.1	41.8	49.5	56.3	62.1	66.9	70.5		72.7	74.2	84
	90	23.5	33.2	42.2	50.3	57.5	64.0	69.5	74.2	77.9	80.7	82.3	84
	100	23.6	33.4	42.4	50.8	58.5	65.4	71.5	76.9	81.5	88.8	90.4	84
20	50	28.5	39.5	48.3	54.8	58.6					58.9	60.0	83
	60	28.7	40.2	49.9	57.8	63.9	67.9				68.8	69.9	84
	70	28.9	40.6	50.9	59.7	67.1	72.8	77.0			78.5	79.8	84
	80	29.0	40.9	51.5	61.0	69.2	76.2	81.8	85.9		88.3	89.6	84
	90	29.1	41.1	52.0	61.9	70.8	78.5	85.2	90.6	94.9	98.0	99.3	84
	100	29.2	41.2	52.4	62.6	71.9	80.3	87.7	94.1	99.5	107.6	109.1	84
22	50	34.5	47.8	58.3	65.9	70.3					70.5	71.5	83
	60	34.8	48.6	60.3	69.7	76.8	81.4				82.3	83.4	84
	70	35.0	49.1	61.5	72.1	80.8	87.6	92.2			93.9	95.1	84
	80	35.1	49.4	62.3	73.6	83.4	91.7	98.2	103.0		105.5	106.7	84
	90	35.2	49.7	62.9	74.8	85.4	94.6	102.4	108.8	113.6	117.0	118.3	84
	100	35.3	49.9	63.3	75.7	86.8	96.8	105.6	113.1	119.4	128.5	129.8	84
24	50	41.0	56.9	69.3	78.2	83.1					83.3	84.3	83
	60	41.4	57.8	71.6	82.8	91.0	96.1				97.1	98.1	84
	70	41.7	58.4	73.1	85.6	95.8	103.7	109.0			110.8	111.8	84
	80	41.8	58.9	74.1	87.5	99.0	108.6	116.2	121.6		124.4	125.5	84
	90	42.0	59.2	74.8	88.9	101.4	112.2	121.3	128.7	134.2	137.9	139.0	84
	100	42.1	59.4	75.3	89.9	103.1	114.9	125.2	134.0	141.2	151.3	152.5	84

[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 spruce pine (species 115) South-wide[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	1.3	1.6	1.8	2.0											
6	1.7	2.2	2.6	3.0	3.4	3.7	4.1	4.4									
7	2.6	3.3	3.9	4.5	5.0	5.5	6.1	6.6	7.0	7.5							
8	3.6	4.4	5.3	6.1	6.8	7.5	8.2	8.9	9.6	10.2	10.8	11.5					
9	4.6	5.7	6.8	7.8	8.8	9.7	10.6	11.5	12.3	13.2	14.0	14.8	15.6	16.4			
10	5.7	7.2	8.5	9.8	11.0	12.1	13.3	14.3	15.4	16.5	17.5	18.5	19.5	20.5	21.5	22.5	
11	7.0	8.7	10.4	11.9	13.4	14.8	16.2	17.5	18.8	20.1	21.4	22.6	23.8	25.1	26.3	27.5	28.7
12	8.4	10.4	12.4	14.2	16.0	17.7	19.3	20.9	22.5	24.0	25.6	27.0	28.5	30.0	31.4	32.9	34.3
13	9.9	12.3	14.6	16.8	18.8	20.8	22.8	24.7	26.5	28.3	30.1	31.9	33.6	35.3	37.1	38.8	40.5
14	11.5	14.3	17.0	19.5	21.9	24.2	26.5	28.7	30.8	32.9	35.0	37.1	39.1	41.1	43.1	45.1	47.1
15	13.2	16.5	19.5	22.4	25.2	27.9	30.5	33.0	35.5	37.9	40.3	42.7	45.0	47.3	49.6	51.9	54.2
16	15.0	18.8	22.3	25.6	28.7	31.8	34.7	37.6	40.4	43.2	45.9	48.6	51.3	53.9	56.6	59.2	61.7

[a] Includes 0.5-foot 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 spruce pine (species 115) South-wide[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	2.1	2.5	3.0	3.5	4.0											
6	2.1	2.8	3.5	4.1	4.7	5.3	5.9	6.5									
7	2.9	3.8	4.6	5.4	6.2	6.9	7.6	8.4	9.1	9.8							
8	3.7	4.9	5.9	6.9	7.9	8.8	9.7	10.6	11.4	12.3	13.2	14.0					
9	4.7	6.1	7.4	8.6	9.8	10.9	12.0	13.0	14.1	15.2	16.2	17.2	18.3	19.3			
10	5.8	7.5	9.1	10.5	11.9	13.2	14.5	15.8	17.1	18.3	19.6	20.8	22.1	23.3	24.5	25.8	
11	7.0	9.1	10.9	12.6	14.2	15.8	17.4	18.9	20.4	21.9	23.4	24.8	26.3	27.7	29.2	30.6	32.1
12	8.3	10.8	12.9	14.9	16.8	18.7	20.5	22.2	24.0	25.7	27.5	29.2	30.9	32.6	34.3	36.0	37.7
13	9.8	12.6	15.1	17.4	19.6	21.7	23.8	25.9	27.9	29.9	31.9	33.9	35.9	37.9	39.8	41.8	43.7
14	11.4	14.6	17.4	20.1	22.6	25.1	27.5	29.8	32.2	34.5	36.8	39.0	41.3	43.6	45.8	48.0	50.3
15	13.0	16.7	20.0	23.0	25.9	28.7	31.4	34.1	36.7	39.4	42.0	44.5	47.1	49.7	52.2	54.8	57.3
16	14.8	19.0	22.7	26.1	29.4	32.5	35.6	38.6	41.6	44.6	47.5	50.4	53.3	56.2	59.1	62.0	64.8

[a] Includes 0.5-foot stump allowance.

Table 41--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 pitch pine (species 126) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.2									6.4	7.6	64
	50	5.7	7.7								8.4	10.0	71
	60	6.0	8.3	10.2							10.2	12.2	75
	70	6.1	8.6	10.8							11.9	14.3	78
	80	6.2	8.8	11.2	13.2						13.6	16.4	79
	90	6.3	9.0	11.5	13.7						15.2	18.4	80
12	40	7.6	9.8								10.4	11.1	64
	50	8.3	11.2	13.4							13.6	14.6	71
	60	8.7	12.0	14.7							16.6	17.8	75
	70	8.9	12.5	15.6	18.1						19.4	20.9	78
	80	9.0	12.8	16.2	19.1	21.4					22.1	23.9	79
	90	9.1	13.1	16.6	19.8	22.4	24.5				24.8	26.8	80
	100	9.2	13.2	16.9	20.3	23.2	25.6				27.4	29.7	81
14	40	10.4	13.5								14.8	15.3	64
	50	11.4	15.3	18.3							19.3	20.0	71
	60	11.9	16.4	20.2	22.9						23.6	24.5	75
	70	12.2	17.1	21.4	24.8	27.2					27.6	28.7	78
	80	12.4	17.6	22.2	26.1	29.2	31.4				31.5	32.8	79
	90	12.6	17.9	22.7	27.0	30.6	33.5				35.3	36.8	80
	100	12.7	18.1	23.1	27.7	31.7	35.0	37.6			39.0	40.7	81
16	50	14.9	20.1	24.0							25.8	26.3	71
	60	15.6	21.6	26.4	30.0						31.4	32.1	75
	70	16.1	22.5	28.0	32.5	35.6					36.8	37.7	78
	80	16.3	23.1	29.1	34.2	38.2	41.1				42.0	43.1	79
	90	16.5	23.5	29.8	35.4	40.1	43.8	46.5			47.1	48.3	80
	100	16.6	23.8	30.3	36.3	41.5	45.8	49.3	51.7		52.1	53.5	81
	110	16.7	24.0	30.7	36.9	42.5	47.3	51.4	54.6	56.8	57.0	58.6	82
18	50	19.0	25.6	30.5							33.0	33.5	71
	60	19.9	27.4	33.6	38.0						40.2	40.8	75
	70	20.4	28.5	35.6	41.2	45.2					47.1	47.9	78
	80	20.8	29.3	36.9	43.3	48.5	52.2				53.7	54.7	79
	90	21.0	29.8	37.8	44.9	50.8	55.6	58.9			60.3	61.4	80
	100	21.2	30.2	38.5	46.0	52.6	58.1	62.4	65.5		66.7	67.9	81
	110	21.3	30.5	39.0	46.9	53.9	60.0	65.1	69.2	72.0	73.0	74.4	82
20	60	24.7	33.9	41.6	47.1	50.0					50.0	50.6	75
	70	25.3	35.3	44.0	51.0	55.9					58.6	59.3	78
	80	25.8	36.3	45.6	53.6	60.0	64.5				66.9	67.7	79
	90	26.0	36.9	46.8	55.5	62.9	68.7	72.8			75.0	76.0	80
	100	26.2	37.4	47.7	56.9	65.0	71.8	77.2	81.0		82.9	84.1	81
	110	26.4	37.7	48.3	58.0	66.6	74.2	80.5	85.5	89.0	90.8	92.1	82
22	60	30.0	41.2	50.4	57.0	60.6					60.8	61.3	75
	70	30.8	42.9	53.4	61.8	67.8	71.0				71.2	71.9	78
	80	31.3	44.0	55.3	65.0	72.7	78.2	81.1			81.3	82.1	79
	90	31.6	44.8	56.7	67.3	76.2	83.3	88.3	91.0		91.2	92.1	80
	100	31.9	45.3	57.8	69.0	78.8	87.0	93.5	98.1	100.8	100.9	101.9	81
	110	32.1	45.8	58.6	70.3	80.8	89.9	97.6	103.6	107.9	110.5	111.6	82
24	60	35.8	49.1	60.1	68.0	72.2					72.7	73.1	75
	70	36.7	51.1	63.6	73.6	80.8	84.6				85.1	85.7	78
	80	37.3	52.5	66.0	77.5	86.6	93.1	96.7			97.2	97.9	79
	90	37.7	53.4	67.6	80.2	90.8	99.2	105.1	108.5		108.9	109.8	80
	100	38.0	54.1	68.9	82.2	93.9	103.7	111.4	116.9	120.0	120.5	121.5	81
	110	38.3	54.6	69.8	83.7	96.2	107.1	116.2	123.4	128.5	132.0	133.0	82

[a] Includes 1.0-foot stump allowance.

Table 42--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 pitch pine (species 126) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30	5.4									6.6	7.6	68
	40	5.8	7.9								8.7	10.3	74
	50	6.0	8.4	10.3							10.6	12.9	77
	60	6.1	8.7	10.8							12.4	15.3	78
	70	6.2	8.8	11.1	13.1						14.2	17.8	79
	80	6.2	8.9	11.3	13.5	15.4					16.0	20.2	80
	90	6.3	9.0	11.5	13.8	15.8	17.6				17.7	22.5	80
12	30	7.8	10.1								10.2	10.8	68
	40	8.5	11.5	13.6							13.7	14.6	74
	50	8.8	12.2	14.9							16.9	18.2	77
	60	8.9	12.5	15.6	18.1						19.9	21.6	78
	70	9.0	12.8	16.1	18.9	21.3					22.9	25.0	79
	80	9.1	12.9	16.4	19.4	22.1	24.4				25.9	28.3	80
	90	9.1	13.0	16.6	19.8	22.7	25.2	27.4			28.8	31.6	80
14	40	11.6	15.7	18.5							19.1	19.7	74
	50	12.0	16.6	20.3	22.9						23.6	24.5	77
	60	12.3	17.1	21.3	24.6	27.1					28.0	29.0	78
	70	12.4	17.5	21.9	25.7	28.9	31.3				32.2	33.5	79
	80	12.5	17.7	22.3	26.5	30.0	33.0	35.4			36.4	37.9	80
	90	12.5	17.8	22.6	27.0	30.9	34.2	37.1	39.4		40.5	42.3	80
	100	12.6	17.9	22.9	27.4	31.5	35.2	38.4	41.1	43.4	44.6	46.6	80
16	40	15.3	20.6	24.2							25.2	25.7	74
	50	15.8	21.8	26.5	29.9						31.2	31.8	77
	60	16.1	22.5	27.8	32.2	35.4					36.9	37.6	78
	70	16.3	22.9	28.7	33.6	37.6	40.7				42.5	43.4	79
	80	16.4	23.2	29.2	34.6	39.2	43.0	46.0			48.0	49.1	80
	90	16.5	23.4	29.6	35.3	40.3	44.6	48.3	51.2	53.3	53.4	54.7	80
	100	16.5	23.5	29.9	35.8	41.1	45.9	50.0	53.5	56.4	58.8	60.3	80
18	40	19.5	26.2	30.6							32.1	32.4	74
	50	20.1	27.7	33.6	37.8						39.6	40.0	77
	60	20.5	28.6	35.3	40.7	44.7					46.9	47.4	78
	70	20.7	29.1	36.4	42.6	47.6	51.4	53.9			53.9	54.6	79
	80	20.9	29.4	37.1	43.8	49.6	54.3	58.0	60.6		60.9	61.7	80
	90	21.0	29.7	37.6	44.7	51.0	56.4	61.0	64.6	67.2	67.8	68.7	80
	100	21.0	29.9	38.0	45.4	52.1	58.0	63.2	67.6	71.1	74.7	75.7	80
20	50	25.0	34.3	41.6	46.6						49.0	49.3	77
	60	25.4	35.4	43.7	50.3	55.1	57.9				57.9	58.3	78
	70	25.7	36.0	45.0	52.6	58.7	63.4	66.3			66.6	67.2	79
	80	25.9	36.4	45.9	54.1	61.2	67.0	71.5	74.5		75.2	75.9	80
	90	26.0	36.7	46.5	55.3	63.0	69.6	75.2	79.5	82.7	83.8	84.5	80
	100	26.1	37.0	47.0	56.1	64.3	71.6	77.9	83.3	87.5	92.2	93.0	80
22	50	30.3	41.6	50.4	56.4						59.3	59.6	77
	60	30.9	42.9	52.9	60.9	66.6	69.9				70.1	70.4	78
	70	31.2	43.7	54.5	63.7	71.1	76.6	80.1			80.6	81.0	79
	80	31.4	44.2	55.6	65.6	74.1	81.0	86.4	90.0		91.0	91.5	80
	90	31.6	44.6	56.4	66.9	76.2	84.2	90.9	96.1	99.8	101.3	101.9	80
	100	31.7	44.8	56.9	67.9	77.9	86.6	94.2	100.6	105.7	111.5	112.1	80
24	50	36.2	49.6	60.0	67.2						70.6	70.8	77
	60	36.9	51.1	63.0	72.5	79.3	83.1				83.4	83.7	78
	70	37.3	52.1	65.0	75.8	84.6	91.1	95.2			95.9	96.3	79
	80	37.5	52.7	66.3	78.1	88.2	96.4	102.7	107.0		108.3	108.7	80
	90	37.7	53.2	67.2	79.7	90.8	100.2	108.1	114.3	118.6	120.5	120.9	80
	100	37.8	53.5	67.9	80.9	92.7	103.1	112.1	119.7	125.7	132.6	133.1	80

[a] Includes 1.0-foot stump allowance.

Table 43--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 pitch pine (species 126) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.3									5.9	8.3	67
	30	5.9	8.1								9.3	11.4	74
	40	6.1	8.6	10.8							12.4	14.7	77
	50	6.2	8.8	11.2	13.3	15.2					15.4	18.0	78
	60	6.3	8.9	11.4	13.7	15.8	17.7				18.4	21.3	79
	70	6.3	9.0	11.5	13.9	16.2	18.3	20.3			21.3	24.6	79
12	20	7.6									8.5	9.8	67
	30	8.5	11.6								13.0	14.1	74
	40	8.9	12.3	15.2							17.1	18.3	77
	50	9.0	12.7	15.9	18.6	20.8					21.0	22.5	78
	60	9.1	12.8	16.3	19.3	22.0	24.2				24.9	26.5	79
	70	9.1	12.9	16.5	19.8	22.8	25.4	27.6			28.8	30.6	79
	80	9.1	13.0	16.7	20.1	23.2	26.1	28.7	31.0		32.7	34.6	80
14	40	12.1	16.8	20.4							22.6	23.4	77
	50	12.3	17.3	21.5	24.9	27.4					27.7	28.6	78
	60	12.4	17.5	22.1	26.0	29.4	32.0				32.7	33.7	79
	70	12.5	17.7	22.4	26.7	30.5	33.8	36.4			37.6	38.8	79
	80	12.5	17.8	22.7	27.2	31.3	34.9	38.1	40.8		42.6	43.8	80
	90	12.5	17.9	22.8	27.5	31.8	35.7	39.3	42.4	45.1	47.5	48.9	80
	100	12.6	17.9	23.0	27.7	32.2	36.3	40.2	43.7	46.8	52.4	53.9	80
16	40	15.9	21.9	26.5							29.0	29.5	77
	50	16.2	22.6	28.0	32.2	35.1					35.4	36.0	78
	60	16.3	22.9	28.8	33.8	37.9	40.9				41.6	42.3	79
	70	16.4	23.1	29.3	34.7	39.5	43.4	46.5			47.9	48.6	79
	80	16.4	23.3	29.6	35.4	40.5	45.1	49.0	52.1		54.1	54.9	80
	90	16.5	23.4	29.8	35.8	41.3	46.2	50.6	54.5	57.6	60.2	61.1	80
	100	16.5	23.5	30.0	36.1	41.8	47.1	51.9	56.2	60.0	66.4	67.4	80
18	40	20.2	27.8	33.4							36.2	36.7	77
	50	20.6	28.6	35.3	40.5	43.9					44.1	44.6	78
	60	20.7	29.1	36.4	42.6	47.5	51.0				51.8	52.3	79
	70	20.8	29.4	37.0	43.8	49.6	54.4	58.0			59.5	60.0	79
	80	20.9	29.6	37.5	44.7	51.1	56.6	61.3	64.9		67.1	67.7	80
	90	21.0	29.7	37.8	45.3	52.1	58.2	63.5	68.1	71.8	74.6	75.3	80
	100	21.0	29.8	38.0	45.7	52.8	59.3	65.2	70.4	74.9	82.2	82.9	80
20	50	25.5	35.4	43.6	49.8	53.6					53.9	54.2	78
	60	25.7	36.0	44.9	52.4	58.3	62.3				63.2	63.6	79
	70	25.8	36.3	45.7	54.0	61.0	66.7	70.9			72.5	72.9	79
	80	25.9	36.6	46.3	55.1	62.8	69.5	75.1	79.3		81.7	82.1	80
	90	26.0	36.7	46.7	55.8	64.1	71.5	78.0	83.4	87.6	90.8	91.3	80
	100	26.0	36.9	47.0	56.4	65.1	73.0	80.1	86.3	91.6	99.9	100.4	80
22	50	30.9	42.9	52.7	60.1	64.5					64.7	65.0	78
	60	31.2	43.6	54.4	63.3	70.2	74.9				75.8	76.1	79
	70	31.4	44.1	55.4	65.3	73.6	80.3	85.1			86.8	87.2	79
	80	31.5	44.3	56.1	66.6	75.9	83.8	90.3	95.2		97.8	98.1	80
	90	31.6	44.6	56.6	67.5	77.5	86.3	93.9	100.2	105.2	108.6	109.0	80
	100	31.6	44.7	56.9	68.3	78.7	88.1	96.5	103.9	110.2	119.5	119.9	80
24	50	36.9	51.2	62.7	71.3	76.3					76.6	76.8	78
	60	37.3	52.0	64.7	75.2	83.3	88.6				89.7	89.9	79
	70	37.4	52.5	66.0	77.6	87.4	95.2	100.7			102.6	102.8	79
	80	37.6	52.9	66.8	79.2	90.2	99.5	107.0	112.6		115.4	115.7	80
	90	37.7	53.1	67.4	80.4	92.1	102.5	111.4	118.7	124.4	128.2	128.5	80
	100	37.7	53.3	67.8	81.2	93.5	104.7	114.6	123.2	130.4	141.0	141.3	80

[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 pitch pine (species 126) South-wide[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	1.0	1.3	1.6	1.7	1.9											
6	1.9	2.1	2.5	2.9	3.2	3.6	3.9	4.2									
7	2.5	3.0	3.6	4.2	4.7	5.2	5.7	6.2	6.7	7.2							
8	3.3	4.1	4.9	5.6	6.4	7.1	7.7	8.4	9.1	9.7	10.3	10.9					
9	4.2	5.3	6.3	7.3	8.2	9.1	10.0	10.8	11.7	12.5	13.3	14.1	14.9	15.7			
10	5.2	6.6	7.9	9.1	10.2	11.4	12.5	13.5	14.6	15.6	16.6	17.6	18.6	19.6	20.6	21.6	
11	6.4	8.0	9.6	11.1	12.5	13.9	15.2	16.5	17.8	19.0	20.3	21.5	22.7	23.9	25.1	26.3	27.5
12	7.7	9.6	11.5	13.3	14.9	16.6	18.2	19.7	21.3	22.8	24.3	25.7	27.2	28.6	30.1	31.5	32.9
13	9.0	11.4	13.5	15.6	17.6	19.6	21.4	23.3	25.1	26.9	28.6	30.3	32.1	33.8	35.4	37.1	38.8
14	10.5	13.2	15.8	18.2	20.5	22.8	25.0	27.1	29.2	31.3	33.3	35.3	37.3	39.3	41.2	43.2	45.1
15	12.2	15.2	18.2	21.0	23.6	26.2	28.8	31.2	33.6	36.0	38.3	40.7	43.0	45.2	47.5	49.7	52.0
16	13.9	17.4	20.7	23.9	27.0	29.9	32.8	35.6	38.4	41.1	43.7	46.4	49.0	51.6	54.2	56.7	59.3

[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 pitch pine (species 126) South-wide[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	1.6	2.0	2.3	2.7	3.2	3.6											
6	1.9	2.4	3.0	3.6	4.2	4.8	5.3	5.9									
7	2.3	3.2	4.0	4.8	5.5	6.2	6.9	7.6	8.3	8.9							
8	3.0	4.1	5.1	6.1	7.0	7.8	8.7	9.6	10.4	11.2	12.1	12.9					
9	3.8	5.2	6.4	7.5	8.7	9.7	10.8	11.8	12.8	13.9	14.9	15.9	16.9	17.9			
10	4.7	6.3	7.8	9.2	10.6	11.9	13.1	14.4	15.6	16.8	18.0	19.2	20.4	21.6	22.8	24.0	
11	5.7	7.6	9.4	11.1	12.7	14.2	15.7	17.2	18.6	20.1	21.5	22.9	24.3	25.8	27.2	28.6	30.0
12	6.8	9.1	11.2	13.1	15.0	16.8	18.5	20.3	22.0	23.7	25.3	27.0	28.7	30.3	31.9	33.6	35.2
13	7.9	10.7	13.1	15.4	17.5	19.6	21.6	23.6	25.6	27.6	29.5	31.4	33.4	35.3	37.2	39.1	40.9
14	9.2	12.4	15.2	17.8	20.2	22.6	25.0	27.3	29.5	31.8	34.0	36.2	38.4	40.6	42.8	45.0	47.1
15	10.6	14.2	17.4	20.4	23.2	25.9	28.6	31.2	33.8	36.3	38.9	41.4	43.9	46.4	48.9	51.3	53.8
16	12.1	16.2	19.8	23.1	26.3	29.4	32.4	35.4	38.3	41.2	44.1	46.9	49.7	52.5	55.3	58.1	60.9

[a] Includes 0.5-foot stump allowance.

Table 46--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 pond pine (species 128) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.5									7.0	8.0	68
	50	5.8	7.9								8.6	10.1	73
	60	6.0	8.3								10.0	12.0	76
	70	6.1	8.6	10.6							11.4	13.8	78
	80	6.2	8.8	11.0							12.8	15.6	79
	90	6.3	8.9	11.2	13.2						14.1	17.3	79
12	40	8.0	10.4								11.1	11.7	68
	50	8.5	11.5	13.6							13.7	14.7	73
	60	8.7	12.1	14.7							16.2	17.5	76
	70	8.9	12.4	15.4	17.7						18.6	20.1	78
	80	9.0	12.7	15.9	18.5	20.6					20.9	22.7	79
	90	9.1	12.9	16.2	19.1	21.5					23.2	25.3	79
	100	9.1	13.0	16.5	19.6	22.2	24.4				25.4	27.8	80
14	40	11.0	14.3								15.6	16.1	68
	50	11.6	15.7	18.6							19.5	20.2	73
	60	12.0	16.5	20.1	22.6						23.0	24.0	76
	70	12.2	17.0	21.0	24.2	26.4					26.5	27.6	78
	80	12.3	17.3	21.7	25.3	28.1					29.8	31.2	79
	90	12.4	17.6	22.2	26.1	29.4	31.9				33.1	34.7	79
	100	12.5	17.8	22.5	26.7	30.3	33.3	35.6			36.4	38.1	80
16	50	15.3	20.6	24.4							25.9	26.5	73
	60	15.7	21.6	26.3	29.6						30.7	31.5	76
	70	16.0	22.3	27.6	31.7	34.6					35.3	36.3	78
	80	16.2	22.7	28.4	33.2	36.8	39.4				39.8	40.9	79
	90	16.3	23.1	29.0	34.2	38.5	41.8	44.0			44.2	45.5	79
	100	16.4	23.3	29.5	35.0	39.7	43.6	46.6			48.6	50.1	80
	110	16.5	23.5	29.8	35.6	40.6	45.0	48.5	51.3		52.9	54.6	80
18	50	19.4	26.1	30.9							33.2	33.7	73
	60	20.0	27.5	33.4	37.5						39.3	40.0	76
	70	20.4	28.3	35.0	40.2	43.8					45.2	46.1	78
	80	20.6	28.9	36.1	42.1	46.7	49.9				51.0	52.0	79
	90	20.8	29.3	36.8	43.4	48.8	53.0	55.8			56.7	57.8	79
	100	20.9	29.6	37.4	44.4	50.3	55.3	59.1	61.7		62.3	63.6	80
	110	21.0	29.8	37.8	45.1	51.5	57.0	61.5	65.0	67.4	67.8	69.3	80
20	60	24.8	34.0	41.3	46.4						48.9	49.5	76
	70	25.2	35.1	43.3	49.8	54.2					56.3	57.0	78
	80	25.5	35.7	44.6	52.0	57.8	61.7				63.5	64.4	79
	90	25.7	36.2	45.6	53.6	60.3	65.5	69.0			70.6	71.6	79
	100	25.9	36.6	46.3	54.9	62.2	68.3	73.0	76.2		77.5	78.7	80
	110	26.0	36.9	46.8	55.8	63.7	70.5	76.1	80.4	83.3	84.4	85.7	80
22	60	30.1	41.3	50.1	56.3	59.4					59.5	60.0	76
	70	30.6	42.5	52.5	60.3	65.7	68.5				68.5	69.2	78
	80	31.0	43.4	54.1	63.0	70.0	74.8				77.2	78.1	79
	90	31.2	43.9	55.2	65.0	73.1	79.3	83.6			85.8	86.8	79
	100	31.4	44.4	56.1	66.5	75.4	82.8	88.4	92.3		94.3	95.4	80
	110	31.6	44.7	56.7	67.6	77.2	85.4	92.1	97.3	100.9	102.7	103.9	80
24	60	35.9	49.2	59.7	67.1	70.8					71.1	71.6	76
	70	36.5	50.7	62.6	71.9	78.3	81.6				81.8	82.5	78
	80	37.0	51.7	64.5	75.1	83.4	89.1	92.1			92.3	93.0	79
	90	37.3	52.4	65.8	77.5	87.1	94.5	99.6	102.4		102.6	103.4	79
	100	37.5	52.9	66.9	79.2	89.8	98.6	105.3	110.0	112.6	112.7	113.7	80
	110	37.7	53.3	67.6	80.5	91.9	101.7	109.7	115.9	120.2	122.8	123.9	80

[a] Includes 1.0-foot stump allowance.

Table 47--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 pond pine (species 128) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30	5.5									6.8	7.7	69
	40	5.9	8.0								8.6	10.2	74
	50	6.0	8.4	10.2							10.3	12.5	76
	60	6.1	8.6	10.6							12.0	14.8	77
	70	6.2	8.7	10.9	12.8						13.6	17.1	78
	80	6.2	8.8	11.1	13.2	15.0					15.2	19.3	79
	90	6.2	8.9	11.2	13.4	15.3					16.7	21.5	79
12	30	8.0	10.4								10.4	11.0	69
	40	8.5	11.5								13.5	14.4	74
	50	8.8	12.1	14.7							16.3	17.7	76
	60	8.9	12.4	15.3	17.7						19.1	20.8	77
	70	9.0	12.6	15.7	18.4	20.6					21.8	23.9	78
	80	9.0	12.7	16.0	18.9	21.4	23.5				24.5	27.0	79
	90	9.1	12.8	16.2	19.3	22.0	24.3	26.3			27.2	30.1	79
14	40	11.7	15.7	18.4							18.8	19.5	74
	50	12.0	16.5	20.0	22.4						22.9	23.8	76
	60	12.2	16.9	20.9	24.0	26.3					26.8	28.0	77
	70	12.3	17.2	21.5	25.0	27.9	30.1				30.7	32.1	78
	80	12.4	17.4	21.8	25.7	29.1	31.8	33.9			34.5	36.2	79
	90	12.4	17.5	22.1	26.2	29.9	33.0	35.6	37.7		38.3	40.2	79
	100	12.4	17.6	22.3	26.6	30.5	33.9	36.9	39.4	41.4	42.0	44.2	79
16	40	15.4	20.6	24.0							24.9	25.3	74
	50	15.8	21.6	26.1	29.2						30.2	30.9	76
	60	16.0	22.2	27.3	31.3	34.2					35.4	36.3	77
	70	16.1	22.5	28.1	32.7	36.4	39.2				40.5	41.5	78
	80	16.2	22.8	28.6	33.6	37.9	41.4	44.1			45.6	46.8	79
	90	16.3	22.9	28.9	34.3	39.0	43.0	46.3	48.9		50.5	51.9	79
	100	16.3	23.1	29.2	34.8	39.8	44.2	48.0	51.2	53.7	55.5	57.1	79
18	40	19.5	26.2	30.4							31.6	32.0	74
	50	20.1	27.4	33.1	36.9						38.4	38.9	76
	60	20.3	28.2	34.6	39.7	43.3					45.0	45.6	77
	70	20.5	28.6	35.6	41.4	46.0	49.5				51.5	52.2	78
	80	20.6	28.9	36.2	42.6	47.9	52.3	55.6	57.8		57.9	58.8	79
	90	20.7	29.1	36.7	43.4	49.3	54.3	58.5	61.7	63.9	64.2	65.2	79
	100	20.8	29.3	37.1	44.1	50.4	55.9	60.6	64.6	67.7	70.5	71.7	79
20	50	24.8	34.0	40.9	45.6						47.5	47.9	76
	60	25.2	34.8	42.8	49.0	53.3					55.7	56.1	77
	70	25.4	35.4	44.0	51.1	56.8	61.0	63.5			63.6	64.2	78
	80	25.6	35.8	44.8	52.6	59.2	64.5	68.5	71.1		71.5	72.2	79
	90	25.7	36.0	45.4	53.7	60.9	67.0	72.0	75.9	78.6	79.3	80.1	79
	100	25.8	36.2	45.8	54.5	62.2	68.9	74.7	79.5	83.3	87.1	88.0	79
22	50	30.2	41.2	49.5	55.1						57.6	57.9	76
	60	30.6	42.3	51.8	59.3	64.5	67.3				67.4	67.8	77
	70	30.9	42.9	53.3	61.9	68.7	73.7	76.7			77.0	77.5	78
	80	31.0	43.4	54.3	63.7	71.6	78.0	82.7	85.8		86.5	87.1	79
	90	31.2	43.7	55.0	65.0	73.7	81.1	87.1	91.7	94.9	95.9	96.6	79
	100	31.3	44.0	55.5	66.0	75.3	83.4	90.4	96.1	100.6	105.3	106.0	79
24	50	36.0	49.1	59.0	65.6						68.5	68.8	76
	60	36.5	50.4	61.7	70.6	76.7	80.0				80.2	80.5	77
	70	36.8	51.2	63.5	73.7	81.8	87.6	91.1			91.6	92.0	78
	80	37.0	51.7	64.7	75.8	85.2	92.7	98.3	102.0		102.9	103.4	79
	90	37.2	52.1	65.5	77.4	87.7	96.5	103.6	109.0	112.7	114.1	114.6	79
	100	37.3	52.4	66.2	78.6	89.6	99.3	107.5	114.3	119.6	125.2	125.8	79

[a] Includes 1.0-foot stump allowance.

Table 48--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 pond pine (species 128) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.6									6.3	7.8	70
	30	6.0	8.2								9.3	11.0	75
	40	6.1	8.5	10.6							12.2	14.2	76
	50	6.2	8.7	11.0	13.0	14.8					15.0	17.3	77
	60	6.2	8.8	11.2	13.4	15.4	17.2				17.8	20.5	78
	70	6.3	8.8	11.3	13.6	15.7	17.7	19.6			20.6	23.6	78
12	20	8.0									9.0	10.1	70
	30	8.6	11.6								12.9	14.1	75
	40	8.8	12.2	14.9							16.7	18.1	76
	50	8.9	12.5	15.5	18.1	20.2					20.4	22.0	77
	60	9.0	12.6	15.9	18.8	21.3	23.4				24.0	25.9	78
	70	9.0	12.7	16.1	19.2	22.0	24.4	26.5			27.6	29.7	78
	80	9.0	12.7	16.2	19.5	22.4	25.1	27.6	29.7		31.2	33.5	78
14	40	12.1	16.6	20.0							22.1	23.1	76
	50	12.2	17.0	21.0	24.2	26.5					26.7	28.0	77
	60	12.3	17.2	21.5	25.2	28.3	30.7				31.4	32.8	78
	70	12.3	17.3	21.8	25.8	29.4	32.4	34.8			36.0	37.5	78
	80	12.3	17.4	22.0	26.3	30.1	33.5	36.4	38.9		40.6	42.3	78
	90	12.4	17.4	22.2	26.6	30.6	34.3	37.6	40.5	42.9	45.1	47.0	78
	100	12.4	17.5	22.3	26.8	31.0	34.9	38.4	41.6	44.5	49.7	51.8	78
16	40	15.8	21.7	26.0							28.3	29.1	76
	50	16.0	22.2	27.3	31.2	33.9					34.1	35.1	77
	60	16.1	22.4	28.0	32.7	36.4	39.2				39.9	41.0	78
	70	16.1	22.6	28.4	33.5	37.9	41.6	44.4			45.6	46.9	78
	80	16.2	22.7	28.7	34.1	39.0	43.2	46.7	49.5		51.3	52.7	78
	90	16.2	22.8	28.9	34.6	39.7	44.3	48.3	51.8	54.7	57.0	58.5	78
	100	16.2	22.9	29.1	34.9	40.2	45.1	49.5	53.5	56.9	62.7	64.4	78
18	40	20.1	27.4	32.7							35.3	36.0	76
	50	20.3	28.1	34.4	39.2	42.2					42.5	43.3	77
	60	20.4	28.4	35.3	41.1	45.6	48.8				49.6	50.5	78
	70	20.5	28.7	35.9	42.3	47.7	52.0	55.2			56.6	57.6	78
	80	20.5	28.8	36.3	43.1	49.0	54.1	58.4	61.6		63.6	64.7	78
	90	20.6	28.9	36.6	43.6	50.0	55.6	60.5	64.7	68.0	70.6	71.8	78
	100	20.6	29.0	36.8	44.1	50.7	56.7	62.2	66.9	71.0	77.5	78.9	78
20	50	25.1	34.7	42.4	48.2	51.6					51.8	52.5	77
	60	25.3	35.2	43.6	50.6	56.0	59.6				60.4	61.1	78
	70	25.4	35.4	44.3	52.1	58.5	63.7	67.4			68.8	69.7	78
	80	25.4	35.6	44.8	53.1	60.3	66.4	71.4	75.2		77.3	78.2	78
	90	25.5	35.8	45.2	53.8	61.5	68.3	74.2	79.1	82.9	85.7	86.7	78
	100	25.5	35.9	45.5	54.3	62.4	69.8	76.3	82.0	86.7	94.1	95.2	78
22	50	30.5	42.0	51.3	58.0	62.0					62.2	62.8	77
	60	30.7	42.6	52.8	61.1	67.4	71.5				72.3	73.0	78
	70	30.8	42.9	53.7	62.9	70.6	76.6	80.9			82.4	83.2	78
	80	30.9	43.2	54.3	64.2	72.7	80.0	85.8	90.1		92.4	93.3	78
	90	30.9	43.3	54.7	65.0	74.3	82.4	89.3	95.0	99.4	102.4	103.3	78
	100	31.0	43.5	55.1	65.7	75.4	84.2	91.9	98.6	104.2	112.4	113.4	78
24	50	36.4	50.1	61.0	68.9	73.3					73.6	74.1	77
	60	36.6	50.8	62.8	72.5	79.9	84.6				85.5	86.1	78
	70	36.7	51.2	63.9	74.8	83.8	90.8	95.6			97.3	97.9	78
	80	36.8	51.5	64.6	76.3	86.4	94.9	101.7	106.6		109.0	109.8	78
	90	36.9	51.7	65.2	77.4	88.3	97.8	105.9	112.5	117.4	120.8	121.6	78
	100	36.9	51.8	65.6	78.2	89.7	100.0	109.0	116.8	123.3	132.5	133.3	78

[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 pond pine (species 128) South-wide[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	1.1	1.5	1.6	1.7	1.9	2.0											
6	2.0	2.4	2.7	3.0	3.3	3.6	3.9	4.1									
7	2.9	3.4	3.9	4.3	4.8	5.2	5.6	6.1	6.5	6.9							
8	3.8	4.5	5.2	5.8	6.4	7.0	7.6	8.2	8.7	9.3	9.8	10.4					
9	4.9	5.8	6.7	7.5	8.3	9.1	9.8	10.5	11.3	12.0	12.7	13.4	14.1	14.8			
10	6.1	7.2	8.3	9.3	10.3	11.3	12.2	13.2	14.1	15.0	15.8	16.7	17.6	18.4	19.3	20.2	
11	7.4	8.8	10.1	11.4	12.6	13.8	14.9	16.0	17.1	18.2	19.3	20.4	21.4	22.5	23.6	24.6	25.6
12	8.9	10.6	12.1	13.6	15.1	16.5	17.9	19.2	20.5	21.8	23.1	24.4	25.7	26.9	28.2	29.4	30.7
13	10.5	12.4	14.3	16.1	17.8	19.4	21.1	22.6	24.2	25.7	27.3	28.8	30.3	31.8	33.2	34.7	36.2
14	12.2	14.5	16.7	18.7	20.7	22.6	24.5	26.4	28.2	30.0	31.7	33.5	35.2	37.0	38.7	40.4	42.1
15	14.0	16.7	19.2	21.6	23.8	26.1	28.2	30.3	32.4	34.5	36.5	38.6	40.6	42.6	44.5	46.5	48.5
16	16.0	19.1	21.9	24.6	27.2	29.7	32.2	34.6	37.0	39.3	41.7	44.0	46.3	48.5	50.8	53.0	55.3

[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 pond pine (species 128) South-wide[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	1.6	2.0	2.3	2.8	3.2	3.6											
6	1.9	2.5	3.1	3.7	4.2	4.7	5.3	5.8									
7	2.6	3.4	4.1	4.8	5.5	6.1	6.8	7.4	8.0	8.7							
8	3.3	4.3	5.2	6.1	6.9	7.7	8.5	9.3	10.1	10.9	11.7	12.4					
9	4.2	5.4	6.5	7.6	8.6	9.6	10.6	11.5	12.5	13.4	14.3	15.3	16.2	17.1			
10	5.2	6.7	8.0	9.3	10.5	11.7	12.8	14.0	15.1	16.2	17.4	18.5	19.6	20.7	21.8	22.9	
11	6.3	8.0	9.6	11.1	12.6	14.0	15.3	16.7	18.0	19.4	20.7	22.0	23.3	24.6	25.9	27.2	28.5
12	7.5	9.6	11.4	13.2	14.8	16.5	18.1	19.7	21.3	22.8	24.4	25.9	27.4	28.9	30.5	32.0	33.5
13	8.8	11.2	13.4	15.4	17.3	19.2	21.1	22.9	24.8	26.6	28.3	30.1	31.9	33.7	35.4	37.2	38.9
14	10.3	13.0	15.5	17.8	20.0	22.2	24.4	26.5	28.5	30.6	32.7	34.7	36.7	38.7	40.8	42.8	44.8
15	11.8	14.9	17.7	20.4	22.9	25.4	27.8	30.2	32.6	35.0	37.3	39.6	41.9	44.2	46.5	48.8	51.1
16	13.4	17.0	20.2	23.2	26.0	28.8	31.6	34.3	37.0	39.6	42.3	44.9	47.5	50.1	52.7	55.2	57.8

[a] Includes 0.5-foot stump allowance.

Table 51--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 eastern white pine (species 129) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.5									6.6	8.0	70
	50	5.9									8.0	9.9	74
	60	6.1	8.4								9.3	11.7	76
	70	6.2	8.7								10.4	13.4	78
	80	6.3	8.8	11.0							11.5	15.0	78
	90	6.4	9.0	11.2							12.6	16.5	79
12	40	8.0	10.5								10.8	11.8	70
	50	8.5	11.6								13.2	14.5	74
	60	8.9	12.2	14.7							15.5	17.1	76
	70	9.0	12.5	15.4							17.6	19.6	78
	80	9.2	12.8	15.9	18.4						19.6	21.9	78
	90	9.3	13.0	16.2	18.9	21.2					21.6	24.3	79
	100	9.3	13.1	16.4	19.4	21.8					23.5	26.5	79
14	40	10.9	14.4								15.4	16.1	70
	50	11.7	15.8	18.6							19.0	20.0	74
	60	12.1	16.6	20.1							22.3	23.5	76
	70	12.4	17.1	21.0	24.0						25.4	26.9	78
	80	12.5	17.5	21.7	25.1	27.6					28.4	30.1	78
	90	12.7	17.7	22.1	25.8	28.9	31.1				31.3	33.3	79
	100	12.8	17.9	22.4	26.4	29.8	32.5				34.2	36.5	79
16	50	15.3	20.7	24.4							25.4	26.2	74
	60	15.9	21.8	26.3	29.3						29.9	30.9	76
	70	16.2	22.4	27.5	31.4	33.9					34.1	35.3	78
	80	16.4	22.9	28.3	32.8	36.2					38.1	39.6	78
	90	16.6	23.2	28.9	33.8	37.8	40.7				42.1	43.8	79
	100	16.7	23.4	29.4	34.6	39.0	42.5	45.1			46.0	47.9	79
	110	16.8	23.6	29.7	35.2	39.9	43.9	47.1	49.5		49.9	52.0	80
18	50	19.4	26.3	30.9							32.6	33.3	74
	60	20.1	27.6	33.3	37.2						38.3	39.2	76
	70	20.6	28.4	34.9	39.8	43.0					43.7	44.8	78
	80	20.9	29.0	35.9	41.6	45.8	48.6				49.0	50.3	78
	90	21.1	29.4	36.7	42.9	47.8	51.6	54.1			54.1	55.6	79
	100	21.2	29.7	37.2	43.8	49.4	53.8	57.2			59.2	60.9	79
	110	21.3	29.9	37.7	44.6	50.6	55.6	59.6	62.7		64.2	66.1	80
20	60	24.9	34.1	41.2	45.9						47.7	48.5	76
	70	25.5	35.2	43.1	49.2	53.1					54.5	55.5	78
	80	25.8	35.9	44.4	51.4	56.6	60.1				61.1	62.2	78
	90	26.1	36.4	45.3	53.0	59.1	63.8	66.8			67.5	68.8	79
	100	26.2	36.7	46.0	54.2	61.0	66.5	70.7	73.4		73.8	75.3	79
	110	26.4	37.0	46.6	55.1	62.5	68.7	73.7	77.4	79.9	80.1	81.8	80
22	60	30.2	41.3	49.9	55.6						58.1	58.8	76
	70	30.9	42.6	52.2	59.5	64.4					66.4	67.2	78
	80	31.3	43.4	53.8	62.2	68.6	72.7				74.4	75.4	78
	90	31.6	44.0	54.9	64.1	71.6	77.2	80.9			82.2	83.4	79
	100	31.8	44.5	55.8	65.6	73.9	80.6	85.6	88.9		90.0	91.3	79
	110	32.0	44.8	56.4	66.7	75.6	83.2	89.2	93.7	96.7	97.6	99.1	80
24	60	36.0	49.3	59.4	66.2						69.4	70.1	76
	70	36.8	50.8	62.2	70.9	76.7					79.3	80.1	78
	80	37.3	51.8	64.1	74.1	81.7	86.6				88.9	89.9	78
	90	37.7	52.5	65.4	76.4	85.3	91.9	96.3			98.3	99.4	79
	100	37.9	53.0	66.4	78.1	88.0	95.9	101.9	105.8		107.6	108.8	79
	110	38.1	53.4	67.2	79.4	90.1	99.0	106.2	111.6	115.2	116.7	118.1	80

[a] Includes 1.0-foot stump allowance.

Table 52--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 eastern white pine (species 129) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.7									6.9	8.1	74
	40	6.1	8.3								8.4	10.5	76
	50	6.2	8.6								9.8	12.7	78
10	60	6.3	8.8	10.9							11.2	14.9	78
	70	6.4	8.9	11.1							12.5	17.1	79
	80	6.4	9.0	11.3	13.3						13.7	19.2	79
	90	6.4	9.1	11.4	13.6						15.0	21.3	79
	30	8.3									10.7	11.5	74
	40	8.8	11.9								13.4	14.8	76
	50	9.0	12.4	15.0							16.0	17.9	78
12	60	9.1	12.7	15.6	17.9						18.4	20.9	78
	70	9.2	12.9	16.0	18.6	20.7					20.8	23.8	79
	80	9.3	13.0	16.3	19.1	21.5					23.1	26.7	79
	90	9.3	13.1	16.5	19.5	22.1	24.3				25.4	29.6	79
	40	12.0	16.2	18.8							18.9	19.9	76
	50	12.3	16.9	20.4							22.6	24.0	78
	60	12.5	17.3	21.2	24.2						26.1	27.9	78
14	70	12.6	17.6	21.8	25.2	28.0					29.6	31.7	79
	80	12.7	17.7	22.2	25.9	29.1	31.6				33.0	35.6	79
	90	12.8	17.9	22.4	26.4	29.9	32.8	35.2			36.4	39.3	79
	100	12.8	18.0	22.6	26.8	30.5	33.7	36.5	38.8		39.7	43.1	79
	40	15.7	21.2	24.5							25.0	25.8	76
	50	16.1	22.1	26.6	29.5						29.9	31.0	78
	60	16.4	22.7	27.7	31.6	34.2					34.7	36.0	78
16	70	16.5	23.0	28.4	32.9	36.4	38.9				39.3	40.9	79
	80	16.7	23.2	29.0	33.8	37.9	41.1	43.4			43.8	45.8	79
	90	16.7	23.4	29.3	34.5	38.9	42.7	45.7	48.0		48.4	50.6	79
	100	16.8	23.5	29.6	35.0	39.8	43.9	47.4	50.3	52.5	52.9	55.4	79
	40	19.9	26.8	31.0							31.9	32.4	76
	50	20.5	28.0	33.6	37.2						38.1	38.9	78
	60	20.8	28.7	35.1	39.9	43.1					44.1	45.2	78
18	70	21.0	29.2	36.0	41.6	45.9	48.9				50.0	51.3	79
	80	21.1	29.4	36.7	42.8	47.8	51.8	54.7			55.9	57.4	79
	90	21.2	29.7	37.1	43.6	49.2	53.9	57.6	60.4		61.7	63.4	79
	100	21.3	29.8	37.5	44.3	50.3	55.4	59.8	63.3	66.0	67.4	69.4	79
	50	25.3	34.7	41.5	45.8						47.2	47.8	78
	60	25.7	35.5	43.3	49.2	53.1					54.6	55.5	78
	70	26.0	36.0	44.5	51.3	56.5	60.2				61.9	63.0	79
20	80	26.2	36.4	45.3	52.8	58.9	63.8	67.3			69.2	70.4	79
	90	26.3	36.7	45.9	53.9	60.7	66.4	70.9	74.2		76.3	77.7	79
	100	26.4	36.9	46.3	54.7	62.0	68.3	73.6	77.9	81.2	83.4	85.1	79
	50	30.7	42.0	50.2	55.3						57.1	57.7	78
	60	31.2	43.0	52.4	59.4	64.1					66.2	66.9	78
	70	31.5	43.7	53.8	62.1	68.3	72.7				75.0	75.9	79
22	80	31.7	44.1	54.8	63.9	71.3	77.0	81.2			83.7	84.8	79
	90	31.9	44.4	55.5	65.2	73.4	80.2	85.6	89.5	92.2	92.4	93.6	79
	100	32.0	44.7	56.1	66.2	75.0	82.6	88.9	94.0	97.9	101.0	102.3	79
	50	36.6	50.0	59.7	65.8						68.0	68.5	78
	60	37.1	51.2	62.4	70.7	76.2					78.8	79.4	78
	70	37.5	52.0	64.1	73.8	81.2	86.4				89.3	90.0	79
24	80	37.8	52.5	65.3	76.0	84.7	91.5	96.4	99.4		99.6	100.5	79
	90	38.0	52.9	66.1	77.6	87.3	95.3	101.7	106.3	109.4	109.9	110.9	79
	100	38.1	53.2	66.8	78.8	89.3	98.2	105.7	111.7	116.2	120.1	121.3	79

[a] Includes 1.0-foot stump allowance.

Table 53--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 eastern white pine (species 129) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.4									6.1	8.2	71
	30	6.0	8.3								9.5	12.2	76
	40	6.2	8.7	10.9							12.6	16.2	78
	50	6.3	8.9	11.3	13.4	15.4					15.6	20.3	78
	60	6.4	9.0	11.5	13.8	15.9	17.9				18.6	24.4	79
	70	6.4	9.1	11.6	14.0	16.3	18.4	20.3			21.5	28.6	79
12	20	7.7									8.7	10.0	71
	30	8.6	11.7								13.1	14.7	76
	40	9.0	12.4	15.2							17.1	19.2	78
	50	9.2	12.8	15.9	18.6	20.7					20.9	23.7	78
	60	9.3	13.0	16.3	19.3	21.8	24.0				24.7	28.1	79
	70	9.3	13.1	16.6	19.7	22.6	25.1	27.3			28.4	32.5	79
	80	9.4	13.2	16.8	20.0	23.1	25.8	28.3	30.5		32.2	37.0	79
14	40	12.3	16.9	20.3							22.4	23.8	78
	50	12.5	17.4	21.4	24.6	27.0					27.2	29.1	78
	60	12.6	17.7	22.0	25.8	28.8	31.2				32.0	34.2	79
	70	12.7	17.9	22.4	26.5	30.0	33.0	35.4			36.7	39.4	79
	80	12.8	18.0	22.7	27.0	30.8	34.2	37.1	39.6		41.3	44.5	79
	90	12.9	18.1	22.9	27.3	31.4	35.1	38.3	41.2	43.7	46.0	49.6	79
	100	12.9	18.1	23.0	27.6	31.8	35.7	39.3	42.5	45.3	50.6	54.8	80
16	40	16.1	22.0	26.2							28.5	29.6	78
	50	16.4	22.7	27.8	31.7	34.3					34.5	35.8	78
	60	16.6	23.1	28.7	33.3	36.9	39.6				40.4	42.0	79
	70	16.7	23.3	29.2	34.3	38.6	42.2	44.9			46.2	48.1	79
	80	16.8	23.5	29.6	35.0	39.8	43.9	47.3	50.1		51.9	54.2	79
	90	16.8	23.6	29.9	35.5	40.6	45.1	49.1	52.5	55.2	57.7	60.3	79
	100	16.9	23.7	30.1	35.9	41.2	46.1	50.4	54.3	57.6	63.4	66.3	80
18	40	20.4	27.8	32.9							35.4	36.3	78
	50	20.8	28.7	35.0	39.6	42.5					42.8	43.8	78
	60	21.0	29.2	36.1	41.8	46.1	49.1				49.9	51.1	79
	70	21.2	29.5	36.9	43.2	48.4	52.5	55.6			57.0	58.4	79
	80	21.3	29.8	37.4	44.1	49.9	54.9	58.9	62.0		63.9	65.6	79
	90	21.4	29.9	37.7	44.8	51.1	56.6	61.3	65.2	68.4	70.9	72.9	79
	100	21.4	30.1	38.0	45.3	51.9	57.8	63.1	67.6	71.5	77.8	80.1	80
20	50	25.7	35.4	43.1	48.5	51.8					52.0	52.8	78
	60	26.0	36.1	44.5	51.3	56.4	59.8				60.6	61.5	79
	70	26.2	36.5	45.5	53.1	59.3	64.2	67.6			69.0	70.2	79
	80	26.3	36.8	46.1	54.3	61.3	67.1	71.8	75.3		77.4	78.7	79
	90	26.4	37.0	46.6	55.1	62.7	69.3	74.9	79.5	83.0	85.7	87.2	79
	100	26.5	37.1	46.9	55.8	63.8	71.0	77.2	82.6	87.1	94.0	95.8	80
22	50	31.1	42.9	52.0	58.4	62.0					62.2	62.9	78
	60	31.5	43.7	53.8	61.8	67.8	71.5				72.4	73.1	79
	70	31.8	44.2	55.0	64.0	71.4	77.0	80.9			82.3	83.3	79
	80	31.9	44.5	55.7	65.5	73.9	80.7	86.1	90.1		92.3	93.3	79
	90	32.0	44.8	56.3	66.6	75.7	83.4	90.0	95.2	99.2	102.1	103.3	79
	100	32.1	45.0	56.8	67.4	77.0	85.5	92.9	99.2	104.3	111.9	113.3	80
24	50	37.1	51.1	61.8	69.2	73.2					73.4	73.9	78
	60	37.6	52.0	64.0	73.4	80.2	84.4				85.3	85.9	79
	70	37.9	52.6	65.4	76.0	84.6	91.1	95.4			97.0	97.7	79
	80	38.0	53.1	66.3	77.8	87.6	95.6	101.8	106.2		108.5	109.4	79
	90	38.2	53.4	67.0	79.2	89.8	98.9	106.5	112.5	117.0	120.1	121.1	79
	100	38.3	53.6	67.5	80.2	91.5	101.4	110.0	117.3	123.2	131.5	132.7	80

[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 eastern white pine (species 129) South-wide[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	0.8	1.1	1.5	1.6	1.7											
6	1.9	2.2	2.5	2.8	3.1	3.3	3.6	3.8									
7	2.8	3.3	3.8	4.2	4.6	5.0	5.4	5.8	6.1	6.5							
8	3.8	4.5	5.2	5.8	6.3	6.9	7.4	7.9	8.4	8.9	9.4	9.9					
9	4.9	5.8	6.7	7.4	8.2	8.9	9.6	10.2	10.9	11.5	12.2	12.8	13.4	14.0			
10	6.1	7.3	8.3	9.3	10.2	11.1	12.0	12.8	13.6	14.5	15.3	16.0	16.8	17.6	18.4	19.2	
11	7.5	8.9	10.2	11.3	12.5	13.6	14.6	15.7	16.7	17.7	18.6	19.6	20.6	21.5	22.5	23.4	24.4
12	8.9	10.6	12.2	13.6	14.9	16.3	17.5	18.8	20.0	21.2	22.3	23.5	24.7	25.8	27.0	28.1	29.2
13	10.5	12.5	14.3	16.0	17.6	19.2	20.7	22.1	23.6	25.0	26.4	27.7	29.1	30.5	31.8	33.1	34.5
14	12.3	14.6	16.7	18.6	20.5	22.3	24.1	25.8	27.4	29.1	30.7	32.3	33.9	35.5	37.0	38.6	40.2
15	14.1	16.8	19.2	21.5	23.6	25.7	27.7	29.7	31.6	33.5	35.3	37.2	39.0	40.8	42.7	44.5	46.2
16	16.1	19.1	21.9	24.5	26.9	29.3	31.6	33.8	36.0	38.2	40.3	42.4	44.5	46.6	48.7	50.7	52.8

[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 eastern white pine (species 129) South-wide[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	1.6	2.0	2.4	2.9	3.3	3.7											
6	2.1	2.7	3.3	3.8	4.4	4.9	5.4	5.9									
7	2.8	3.6	4.3	5.0	5.7	6.3	7.0	7.6	8.2	8.8							
8	3.7	4.6	5.5	6.4	7.2	8.0	8.7	9.5	10.3	11.0	11.8	12.5					
9	4.6	5.8	6.9	7.9	8.9	9.8	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1			
10	5.7	7.1	8.4	9.6	10.8	11.9	13.0	14.1	15.2	16.3	17.3	18.4	19.5	20.5	21.6	22.6	
11	6.9	8.5	10.1	11.5	12.9	14.2	15.5	16.8	18.1	19.4	20.6	21.9	23.1	24.3	25.6	26.8	28.0
12	8.2	10.1	11.9	13.6	15.2	16.8	18.3	19.8	21.3	22.7	24.2	25.6	27.1	28.5	30.0	31.4	32.8
13	9.6	11.9	13.9	15.9	17.7	19.5	21.3	23.0	24.7	26.4	28.1	29.8	31.4	33.1	34.7	36.4	38.0
14	11.1	13.7	16.1	18.3	20.4	22.5	24.5	26.5	28.4	30.4	32.3	34.2	36.1	38.0	39.9	41.8	43.7
15	12.8	15.7	18.4	21.0	23.4	25.7	28.0	30.2	32.4	34.6	36.8	39.0	41.1	43.3	45.4	47.6	49.7
16	14.5	17.9	20.9	23.8	26.5	29.1	31.7	34.2	36.7	39.2	41.7	44.1	46.5	48.9	51.4	53.8	56.2

[a] Includes 0.5-foot stump allowance.

Table 56--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	6.1									7.7	9.2	74
	50	6.5	8.9								9.5	11.4	78
	60	6.7	9.3								11.1	13.5	80
	70	6.8	9.5	11.9							12.6	15.4	81
	80	6.9	9.7	12.2							14.1	17.4	82
	90	6.9	9.8	12.4	14.7						15.5	19.2	83
12	40	8.9	11.9								12.5	13.5	74
	50	9.4	12.9	15.4							15.4	16.7	78
	60	9.7	13.4	16.5							18.1	19.7	80
	70	9.9	13.8	17.2	19.9						20.7	22.6	81
	80	10.0	14.0	17.6	20.7	23.1					23.2	25.4	82
	90	10.0	14.2	17.9	21.2	24.0					25.7	28.1	83
	100	10.1	14.3	18.2	21.7	24.7	27.2				28.1	30.9	83
14	40	12.1	16.2								17.8	18.4	74
	50	12.8	17.6	21.0							21.9	22.9	78
	60	13.2	18.4	22.5	25.5						25.8	27.0	80
	70	13.5	18.8	23.5	27.1						29.6	31.0	81
	80	13.6	19.1	24.1	28.2	31.5					33.2	34.8	82
	90	13.7	19.4	24.5	29.0	32.7	35.6				36.7	38.6	83
	100	13.8	19.5	24.8	29.5	33.7	37.1	39.7			40.2	42.4	83
16	50	16.8	23.0	27.5							29.2	30.0	78
	60	17.3	24.0	29.5	33.3						34.4	35.4	80
	70	17.6	24.7	30.7	35.5	38.8					39.4	40.6	81
	80	17.8	25.1	31.5	36.9	41.2	44.0				44.3	45.7	82
	90	18.0	25.3	32.0	37.9	42.8	46.6				49.0	50.7	83
	100	18.1	25.6	32.4	38.6	44.0	48.5	51.9			53.8	55.6	83
	110	18.2	25.7	32.8	39.2	44.9	49.9	53.9	57.0		58.4	60.5	83
18	50	21.4	29.2	34.9							37.4	38.1	78
	60	22.0	30.5	37.4	42.2						44.1	45.0	80
	70	22.4	31.3	38.9	45.0	49.1					50.5	51.6	81
	80	22.6	31.8	39.9	46.8	52.2	55.8				56.8	58.0	82
	90	22.8	32.1	40.6	48.0	54.2	59.0	62.2			62.9	64.4	83
	100	22.9	32.4	41.1	49.0	55.8	61.4	65.7	68.6		69.0	70.6	83
	110	23.0	32.6	41.5	49.7	56.9	63.2	68.3	72.2	74.8	75.0	76.8	83
20	60	27.2	37.7	46.2	52.2						54.8	55.6	80
	70	27.7	38.7	48.1	55.6	60.7					62.8	63.8	81
	80	28.0	39.3	49.3	57.8	64.4	68.9				70.6	71.8	82
	90	28.2	39.7	50.2	59.4	67.0	72.9	76.9			78.3	79.6	83
	100	28.4	40.1	50.8	60.5	68.9	75.9	81.2	84.7		85.9	87.4	83
	110	28.5	40.3	51.3	61.4	70.3	78.1	84.4	89.2	92.5	93.4	95.0	83
22	60	33.0	45.7	56.0	63.2						66.7	67.4	80
	70	33.6	46.8	58.3	67.3	73.5					76.5	77.3	81
	80	34.0	47.6	59.8	70.0	78.0	83.4				86.0	87.0	82
	90	34.2	48.1	60.8	71.9	81.2	88.3	93.1			95.3	96.5	83
	100	34.4	48.5	61.6	73.3	83.5	91.9	98.3	102.6		104.5	105.9	83
	110	34.6	48.8	62.2	74.3	85.2	94.5	102.2	108.0	111.9	113.7	115.2	83
24	60	39.3	54.4	66.7	75.3	79.5					79.7	80.4	80
	70	40.0	55.8	69.4	80.2	87.6	91.2				91.4	92.2	81
	80	40.5	56.7	71.2	83.4	92.9	99.3	102.6			102.7	103.7	82
	90	40.8	57.4	72.4	85.6	96.7	105.2	110.8	113.8		113.9	115.0	83
	100	41.0	57.8	73.3	87.3	99.4	109.4	117.0	122.1		124.9	126.2	83
	110	41.2	58.2	74.0	88.5	101.4	112.6	121.7	128.7	133.3	135.8	137.2	83

[a] Includes 1.0-foot stump allowance.

Table 57--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30	6.3									7.9	9.1	77
	40	6.6	9.1								9.8	11.9	80
	50	6.8	9.4								11.6	14.5	81
	60	6.8	9.6	12.0							13.3	17.0	82
	70	6.9	9.7	12.2	14.4						15.0	19.6	82
	80	6.9	9.8	12.4	14.7						16.7	22.1	82
	90	7.0	9.8	12.5	14.9	17.1					18.4	24.6	82
12	30	9.1	12.1								12.3	13.0	77
	40	9.6	13.1								15.6	16.8	80
	50	9.8	13.6	16.6							18.7	20.4	81
	60	9.9	13.8	17.2	20.0						21.8	23.9	82
	70	10.0	14.0	17.6	20.7	23.3					24.8	27.4	82
	80	10.0	14.1	17.8	21.1	24.0	26.5				27.8	30.9	82
	90	10.1	14.2	18.0	21.4	24.5	27.3	29.7			30.7	34.3	82
14	40	13.1	17.9	21.2							21.9	22.6	80
	50	13.4	18.5	22.6	25.6						26.4	27.4	81
	60	13.6	18.9	23.4	27.1	29.9					30.7	32.1	82
	70	13.7	19.1	23.9	28.1	31.5	34.2				35.0	36.7	82
	80	13.7	19.3	24.3	28.7	32.6	35.8	38.4			39.3	41.3	82
	90	13.8	19.4	24.5	29.2	33.3	37.0	40.1	42.6		43.5	45.8	82
	100	13.8	19.5	24.7	29.5	33.9	37.8	41.3	44.3	46.8	47.7	50.4	83
16	40	17.2	23.4	27.6							28.8	29.4	80
	50	17.6	24.2	29.5	33.4						34.8	35.5	81
	60	17.8	24.7	30.6	35.4	38.9					40.6	41.6	82
	70	17.9	25.0	31.3	36.6	41.0	44.4				46.3	47.5	82
	80	18.0	25.2	31.7	37.5	42.4	46.6	49.9			51.9	53.3	82
	90	18.1	25.4	32.0	38.1	43.4	48.1	52.1	55.3		57.6	59.2	82
	100	18.1	25.5	32.3	38.5	44.2	49.3	53.7	57.5	60.7	63.2	65.0	83
18	40	21.8	29.6	34.9							36.6	37.0	80
	50	22.3	30.7	37.4	42.1						44.2	44.7	81
	60	22.6	31.4	38.8	44.7	49.1					51.6	52.3	82
	70	22.7	31.7	39.6	46.3	51.8	56.0				58.8	59.7	82
	80	22.9	32.0	40.2	47.4	53.6	58.8	62.9	65.7		66.0	67.0	82
	90	22.9	32.2	40.6	48.2	54.9	60.8	65.7	69.6	72.5	73.1	74.3	82
	100	23.0	32.3	40.9	48.8	55.9	62.2	67.8	72.5	76.4	80.2	81.5	83
20	50	27.6	38.0	46.2	51.9						54.6	55.0	81
	60	27.9	38.8	47.9	55.2	60.5					63.7	64.2	82
	70	28.1	39.2	48.9	57.2	63.9	69.0	72.3			72.6	73.3	82
	80	28.3	39.6	49.6	58.5	66.2	72.5	77.4	80.8		81.5	82.3	82
	90	28.4	39.8	50.2	59.5	67.8	74.9	80.9	85.7	89.2	90.3	91.2	82
	100	28.5	40.0	50.5	60.2	69.0	76.8	83.6	89.3	94.0	99.0	100.0	83
22	50	33.4	46.0	55.9	62.8						66.1	66.4	81
	60	33.9	46.9	57.9	66.7	73.1	76.9				77.0	77.5	82
	70	34.1	47.5	59.2	69.2	77.3	83.3	87.2			87.8	88.4	82
	80	34.3	47.9	60.1	70.8	80.0	87.6	93.4	97.4		98.5	99.1	82
	90	34.4	48.2	60.7	72.0	82.0	90.6	97.8	103.5	107.5	109.2	109.8	82
	100	34.5	48.4	61.2	72.9	83.5	92.8	101.0	107.9	113.4	119.7	120.5	83
24	50	39.9	54.8	66.5	74.7						78.6	78.9	81
	60	40.4	55.9	69.0	79.4	87.0	91.3				91.6	92.0	82
	70	40.7	56.6	70.5	82.3	91.9	99.1	103.6			104.5	104.9	82
	80	40.9	57.1	71.6	84.3	95.2	104.1	111.0	115.7		117.1	117.6	82
	90	41.0	57.4	72.3	85.7	97.5	107.7	116.2	122.9	127.7	129.8	130.3	82
	100	41.1	57.7	72.9	86.8	99.3	110.4	120.1	128.2	134.8	142.3	142.9	83

[a] Includes 1.0-foot stump allowance.

Table 58--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) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	6.1									7.0	9.0	76
	30	6.6	9.2								10.6	13.2	80
	40	6.8	9.5	12.0							13.9	17.4	81
	50	6.9	9.7	12.3	14.8	17.0					17.2	21.6	82
	60	6.9	9.8	12.5	15.1	17.5	19.7				20.4	25.9	82
	70	6.9	9.8	12.6	15.3	17.8	20.2	22.4			23.7	30.3	82
12	20	8.9									10.0	10.9	76
	30	9.6	13.1								14.7	15.9	80
	40	9.8	13.7	16.9							19.1	20.6	81
	50	9.9	13.9	17.5	20.6	23.1					23.3	25.2	82
	60	10.0	14.1	17.8	21.2	24.2	26.7				27.5	29.9	82
	70	10.1	14.2	18.0	21.6	24.9	27.8	30.4			31.7	34.5	82
	80	10.1	14.2	18.2	21.8	25.3	28.5	31.4	34.0		35.9	39.2	82
14	40	13.4	18.6	22.7							25.1	25.9	81
	50	13.6	19.0	23.6	27.4	30.3					30.6	31.6	82
	60	13.7	19.2	24.1	28.5	32.2	35.1				35.9	37.1	82
	70	13.7	19.3	24.4	29.1	33.2	36.8	39.8			41.2	42.7	82
	80	13.8	19.4	24.6	29.5	33.9	37.9	41.5	44.5		46.5	48.2	82
	90	13.8	19.5	24.8	29.8	34.4	38.7	42.6	46.1	49.1	51.8	53.8	82
	100	13.8	19.5	24.9	30.0	34.8	39.3	43.5	47.3	50.7	57.1	59.3	82
16	40	17.6	24.3	29.3							32.2	32.6	81
	50	17.8	24.8	30.7	35.4	38.7					38.9	39.5	82
	60	17.9	25.1	31.4	36.8	41.3	44.7				45.6	46.3	82
	70	18.0	25.3	31.8	37.7	42.9	47.2	50.7			52.3	53.1	82
	80	18.1	25.4	32.1	38.3	43.9	48.9	53.1	56.6		58.8	59.8	82
	90	18.1	25.5	32.4	38.8	44.6	50.0	54.8	59.0	62.5	65.4	66.5	82
	100	18.1	25.5	32.5	39.1	45.2	50.8	56.0	60.7	64.8	72.0	73.3	82
18	40	22.3	30.7	36.9							40.1	40.4	81
	50	22.6	31.4	38.7	44.4	48.2					48.4	48.8	82
	60	22.8	31.8	39.7	46.4	51.8	55.7				56.6	57.0	82
	70	22.9	32.0	40.3	47.6	53.9	59.1	63.0			64.7	65.2	82
	80	22.9	32.2	40.6	48.3	55.2	61.2	66.3	70.3		72.8	73.4	82
	90	23.0	32.3	40.9	48.9	56.2	62.8	68.6	73.6	77.6	80.9	81.5	82
	100	23.0	32.4	41.2	49.3	56.9	63.9	70.2	75.9	80.8	88.9	89.7	82
20	50	28.0	38.8	47.7	54.5	58.8					59.1	59.3	82
	60	28.2	39.3	48.9	57.0	63.4	67.9				68.9	69.2	82
	70	28.3	39.6	49.7	58.5	66.1	72.3	76.9			78.7	79.0	82
	80	28.4	39.8	50.2	59.6	67.9	75.1	81.1	85.7		88.4	88.8	82
	90	28.5	39.9	50.5	60.3	69.2	77.1	84.0	89.9	94.6	98.1	98.5	82
	100	28.5	40.0	50.8	60.8	70.1	78.5	86.1	92.9	98.6	107.8	108.3	82
22	50	33.9	46.9	57.6	65.6	70.5					70.8	71.0	82
	60	34.2	47.5	59.1	68.8	76.3	81.4				82.5	82.7	82
	70	34.3	47.9	60.1	70.7	79.7	86.9	92.1			94.1	94.3	82
	80	34.4	48.2	60.7	71.9	81.9	90.4	97.4	102.7		105.7	105.9	82
	90	34.5	48.3	61.1	72.9	83.5	92.9	101.1	107.9	113.3	117.2	117.5	82
	100	34.5	48.5	61.5	73.6	84.6	94.7	103.7	111.7	118.4	128.6	129.0	82
24	50	40.4	55.9	68.5	77.8	83.4					83.7	83.8	82
	60	40.7	56.6	70.3	81.7	90.4	96.2				97.4	97.5	82
	70	40.9	57.1	71.4	84.0	94.5	102.9	108.9			111.0	111.2	82
	80	41.0	57.4	72.2	85.5	97.2	107.2	115.3	121.4		124.6	124.7	82
	90	41.1	57.6	72.8	86.6	99.1	110.2	119.8	127.7	133.8	138.1	138.3	82
	100	41.2	57.7	73.2	87.5	100.6	112.4	123.0	132.2	140.0	151.5	151.8	82

[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 Virginia pine (species 132) South-wide[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	1.0	1.3	1.7	1.9	2.0											
6	2.2	2.6	3.0	3.3	3.6	4.0	4.3	4.5									
7	3.2	3.8	4.4	4.9	5.4	5.9	6.3	6.8	7.2	7.6							
8	4.4	5.2	5.9	6.6	7.3	7.9	8.5	9.2	9.8	10.4	10.9	11.5					
9	5.6	6.7	7.6	8.5	9.4	10.2	11.0	11.8	12.6	13.4	14.1	14.9	15.6	16.4			
10	7.0	8.3	9.5	10.6	11.7	12.8	13.8	14.8	15.7	16.7	17.7	18.6	19.5	20.5	21.4	22.3	
11	8.6	10.1	11.6	13.0	14.3	15.6	16.8	18.0	19.2	20.4	21.5	22.7	23.9	25.0	26.1	27.3	28.4
12	10.2	12.1	13.9	15.5	17.1	18.6	20.1	21.6	23.0	24.4	25.8	27.2	28.6	29.9	31.3	32.7	34.0
13	12.1	14.3	16.3	18.3	20.1	21.9	23.7	25.4	27.1	28.8	30.4	32.1	33.7	35.3	36.9	38.5	40.1
14	14.0	16.6	19.0	21.3	23.4	25.5	27.6	29.6	31.5	33.5	35.4	37.3	39.2	41.1	43.0	44.8	46.7
15	16.1	19.1	21.9	24.5	27.0	29.4	31.7	34.0	36.3	38.5	40.7	42.9	45.1	47.3	49.4	51.6	53.7
16	18.4	21.8	25.0	27.9	30.8	33.5	36.2	38.8	41.4	43.9	46.5	49.0	51.4	53.9	56.4	58.8	61.3

[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 Virginia pine (species 132) South-wide[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	1.8	2.2	2.6	3.1	3.6	4.0											
6	2.3	3.0	3.6	4.2	4.8	5.4	6.0	6.6									
7	3.1	4.0	4.8	5.6	6.3	7.0	7.8	8.5	9.2	9.9							
8	4.0	5.1	6.1	7.1	8.0	8.9	9.8	10.7	11.6	12.5	13.3	14.2					
9	5.1	6.4	7.7	8.8	10.0	11.1	12.2	13.2	14.3	15.4	16.4	17.5	18.5	19.6			
10	6.3	7.9	9.4	10.8	12.2	13.5	14.8	16.1	17.3	18.6	19.9	21.1	22.4	23.6	24.9	26.1	
11	7.6	9.5	11.3	13.0	14.6	16.1	17.7	19.2	20.7	22.2	23.7	25.2	26.6	28.1	29.6	31.0	32.5
12	9.1	11.3	13.4	15.3	17.2	19.0	20.8	22.6	24.4	26.1	27.9	29.6	31.3	33.0	34.7	36.5	38.2
13	10.7	13.3	15.7	17.9	20.1	22.2	24.3	26.3	28.4	30.4	32.4	34.4	36.4	38.4	40.4	42.3	44.3
14	12.4	15.4	18.1	20.7	23.2	25.6	28.0	30.4	32.7	35.0	37.3	39.6	41.9	44.2	46.4	48.7	51.0
15	14.2	17.6	20.8	23.7	26.6	29.3	32.0	34.7	37.4	40.0	42.6	45.2	47.8	50.4	53.0	55.5	58.1
16	16.2	20.1	23.6	26.9	30.1	33.3	36.3	39.3	42.3	45.3	48.2	51.2	54.1	57.0	59.9	62.9	65.8

[a] Includes 0.5-foot stump allowance.

Table 61--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 pines except major pines (species 13) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	5.7									7.0	8.2	69
	50	6.1	8.3								8.6	10.4	74
	60	6.4	8.8								10.1	12.3	77
10	70	6.5	9.0	11.2							11.5	14.2	79
	80	6.6	9.2	11.5							12.8	16.0	80
	90	6.6	9.4	11.8	13.9						14.1	17.7	81
	40	8.2	10.7								11.2	12.0	69
	50	8.8	11.9								14.0	15.1	74
	60	9.2	12.6	15.3							16.5	18.0	77
12	70	9.4	13.0	16.1	18.5						18.9	20.7	79
	80	9.5	13.3	16.6	19.4						21.2	23.3	80
	90	9.6	13.5	17.0	20.0	22.4					23.5	25.9	81
	100	9.7	13.7	17.3	20.5	23.2	25.4				25.7	28.4	81
	40	11.2	14.6								15.8	16.4	69
	50	12.0	16.3	19.2							19.8	20.7	74
	60	12.5	17.2	20.9	23.4						23.5	24.6	77
14	70	12.8	17.8	22.0	25.2						27.0	28.4	79
	80	13.0	18.2	22.7	26.4	29.2					30.4	32.0	80
	90	13.1	18.4	23.2	27.2	30.6	33.1				33.7	35.5	81
	100	13.2	18.6	23.5	27.9	31.6	34.6	36.8			36.9	39.0	81
	50	15.7	21.3	25.1							26.4	27.1	74
	60	16.3	22.5	27.3	30.6						31.3	32.3	77
	70	16.7	23.2	28.7	32.9	35.7					36.0	37.2	79
16	80	16.9	23.7	29.6	34.5	38.2					40.6	42.0	80
	90	17.1	24.1	30.3	35.6	40.0	43.2				45.0	46.6	81
	100	17.2	24.3	30.8	36.4	41.3	45.2	48.1			49.4	51.2	81
	110	17.3	24.5	31.1	37.1	42.3	46.7	50.3	52.9		53.7	55.8	82
	50	19.9	27.0	31.8							33.7	34.4	74
	60	20.7	28.5	34.6	38.7						40.1	40.9	77
	70	21.2	29.4	36.4	41.7	45.2					46.2	47.2	79
18	80	21.5	30.1	37.5	43.7	48.4	51.4				52.0	53.3	80
	90	21.7	30.5	38.4	45.1	50.6	54.8	57.4			57.7	59.2	81
	100	21.8	30.8	39.0	46.1	52.3	57.2	60.9	63.4		63.4	65.0	81
	110	21.9	31.1	39.4	47.0	53.5	59.1	63.6	67.0		68.9	70.8	82
	60	25.6	35.2	42.8	47.9						49.9	50.6	77
	70	26.2	36.4	44.9	51.5	55.8					57.4	58.4	79
	80	26.5	37.1	46.4	54.0	59.7	63.5				64.7	65.9	80
20	90	26.8	37.7	47.4	55.7	62.5	67.6	70.9			71.9	73.2	81
	100	27.0	38.1	48.1	57.0	64.6	70.7	75.3	78.2		78.9	80.4	81
	110	27.1	38.4	48.7	58.0	66.1	73.0	78.6	82.7	85.4	85.9	87.6	82
	60	31.0	42.6	51.8	57.9						60.7	61.4	77
	70	31.7	44.0	54.4	62.3	67.6					69.9	70.7	79
	80	32.1	45.0	56.1	65.3	72.3	76.9				78.8	79.8	80
22	90	32.5	45.6	57.4	67.4	75.7	81.9	85.9			87.5	88.7	81
	100	32.7	46.1	58.3	69.0	78.2	85.6	91.1	94.7		96.1	97.4	81
	110	32.8	46.5	59.0	70.2	80.1	88.4	95.2	100.1	103.4	104.6	106.1	82
	60	36.9	50.8	61.6	69.0	72.4					72.5	73.1	77
	70	37.8	52.4	64.7	74.2	80.5					83.5	84.3	79
	80	38.3	53.6	66.8	77.8	86.1	91.5				94.1	95.1	80
24	90	38.6	54.3	68.3	80.3	90.1	97.5	102.2			104.6	105.7	81
	100	38.9	54.9	69.4	82.2	93.0	101.9	108.5	112.7		114.8	116.1	81
	110	39.1	55.3	70.2	83.6	95.3	105.3	113.3	119.2	123.1	125.0	126.4	82

[a] Includes 1.0-foot stump allowance.

Table 62--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 pines except major pines (species 13) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	5.8									7.0	8.2	72
	40	6.3	8.5								8.8	10.8	77
	50	6.4	8.9								10.5	13.2	78
10	60	6.5	9.1	11.3							12.0	15.6	80
	70	6.6	9.3	11.6	13.6						13.6	17.9	80
	80	6.6	9.3	11.8	13.9						15.1	20.2	81
	90	6.7	9.4	11.9	14.1	16.1					16.5	22.4	81
	30	8.4									10.9	11.6	72
	40	9.0	12.2								14.0	15.2	77
	50	9.3	12.8	15.5							16.8	18.6	78
12	60	9.4	13.1	16.2	18.6						19.6	21.8	80
	70	9.5	13.3	16.6	19.4	21.6					22.2	25.0	80
	80	9.6	13.5	16.9	19.9	22.5	24.6				24.9	28.1	81
	90	9.6	13.6	17.1	20.3	23.1	25.5				27.5	31.2	81
	40	12.3	16.6	19.3							19.6	20.5	77
	50	12.7	17.4	21.0	23.5						23.7	24.9	78
	60	12.9	17.9	22.0	25.2	27.5					27.6	29.2	80
14	70	13.0	18.1	22.6	26.3	29.2	31.4				31.4	33.4	80
	80	13.1	18.3	23.0	27.0	30.4	33.1				35.2	37.5	81
	90	13.1	18.5	23.3	27.5	31.2	34.4	37.0			39.0	41.6	81
	100	13.2	18.6	23.5	27.9	31.9	35.4	38.4	40.9		42.7	45.7	81
	40	16.1	21.7	25.2							25.9	26.5	77
	50	16.6	22.7	27.4	30.5						31.3	32.2	78
	60	16.8	23.3	28.7	32.8	35.7					36.5	37.7	80
16	70	17.0	23.7	29.5	34.2	38.0	40.7				41.6	43.0	80
	80	17.1	24.0	30.0	35.2	39.5	43.0	45.7			46.6	48.3	81
	90	17.2	24.1	30.4	35.9	40.7	44.7	48.0	50.6		51.6	53.6	81
	100	17.2	24.3	30.7	36.4	41.5	46.0	49.8	53.0	55.5	56.6	58.8	81
	40	20.4	27.4	31.8							32.9	33.4	77
	50	21.0	28.8	34.6	38.5						39.8	40.5	78
	60	21.3	29.6	36.2	41.4	45.0					46.4	47.3	80
18	70	21.5	30.0	37.3	43.2	47.9	51.3				52.9	54.0	80
	80	21.7	30.3	38.0	44.5	49.9	54.3	57.5			59.3	60.6	81
	90	21.8	30.6	38.5	45.4	51.4	56.4	60.5	63.7		65.7	67.2	81
	100	21.8	30.7	38.8	46.1	52.5	58.1	62.9	66.8	69.8	72.0	73.7	81
	50	25.9	35.6	42.7	47.4						49.2	49.7	78
	60	26.4	36.5	44.7	51.0	55.4					57.4	58.1	80
	70	26.6	37.1	46.0	53.3	59.0	63.1				65.4	66.3	80
20	80	26.8	37.5	46.9	54.9	61.5	66.8	70.8	73.3		73.3	74.3	81
	90	26.9	37.8	47.5	56.0	63.4	69.5	74.5	78.3	80.9	81.2	82.3	81
	100	27.0	38.0	47.9	56.9	64.8	71.6	77.4	82.2	85.8	88.9	90.3	81
	50	31.4	43.0	51.7	57.3						59.5	59.9	78
	60	31.9	44.2	54.1	61.7	66.8					69.4	70.0	80
	70	32.2	44.9	55.7	64.5	71.3	76.2	79.1			79.1	79.8	80
22	80	32.4	45.4	56.7	66.4	74.4	80.7	85.4	88.3		88.7	89.5	81
	90	32.6	45.7	57.4	67.7	76.6	84.0	90.0	94.5	97.5	98.2	99.1	81
	100	32.7	46.0	58.0	68.8	78.3	86.5	93.5	99.2	103.5	107.6	108.7	81
	50	37.4	51.2	61.5	68.1						70.8	71.1	78
	60	38.0	52.6	64.4	73.3	79.4					82.6	83.0	80
	70	38.4	53.5	66.2	76.7	84.8	90.5	93.8			94.1	94.7	80
24	80	38.6	54.0	67.5	78.9	88.4	95.9	101.4	104.8		105.5	106.2	81
	90	38.8	54.4	68.4	80.6	91.1	99.9	106.9	112.2	115.7	116.7	117.5	81
	100	38.9	54.7	69.1	81.8	93.1	102.9	111.1	117.8	122.9	127.9	128.8	81

[a] Includes 1.0-foot stump allowance.

Table 63--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 pines except major pines (species 13) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	5.7									6.4	8.3	72
	30	6.3	8.6								9.9	12.0	77
	40	6.5	9.0	11.3							13.0	15.5	79
10	50	6.6	9.2	11.7	13.9	15.9					16.1	19.0	80
	60	6.6	9.4	11.9	14.3	16.5	18.4				19.1	22.5	80
	70	6.7	9.4	12.0	14.5	16.8	19.0	21.0			22.1	26.0	80
	20	8.1									9.1	10.4	72
	30	9.0	12.2								13.6	15.1	77
	40	9.3	12.9	15.8							17.7	19.4	79
12	50	9.5	13.2	16.5	19.2	21.4					21.7	23.7	80
	60	9.5	13.4	16.9	20.0	22.6	24.9				25.6	27.8	80
	70	9.6	13.5	17.1	20.4	23.4	26.0	28.2			29.4	32.0	80
	80	9.6	13.6	17.3	20.7	23.9	26.7	29.3	31.6		33.3	36.1	81
	40	12.7	17.5	21.1							23.2	24.5	79
	50	12.9	17.9	22.2	25.6	28.0					28.3	29.7	80
	60	13.0	18.2	22.8	26.7	29.9	32.4				33.2	34.9	80
14	70	13.1	18.4	23.1	27.4	31.1	34.2	36.8			38.1	40.0	80
	80	13.1	18.5	23.4	27.9	31.9	35.5	38.5	41.1		42.9	45.0	81
	90	13.2	18.6	23.6	28.2	32.5	36.3	39.8	42.8	45.4	47.8	50.1	81
	100	13.2	18.6	23.7	28.5	32.9	37.0	40.7	44.1	47.1	52.6	55.1	81
	40	16.6	22.8	27.2							29.6	30.7	79
	50	16.8	23.4	28.8	32.9	35.6					35.9	37.0	80
	60	17.0	23.8	29.6	34.5	38.4	41.2				42.0	43.3	80
16	70	17.1	24.0	30.1	35.5	40.0	43.8	46.7			48.0	49.5	80
	80	17.2	24.1	30.5	36.1	41.2	45.5	49.2	52.1		54.1	55.7	81
	90	17.2	24.2	30.7	36.6	42.0	46.8	51.0	54.6	57.5	60.0	61.8	81
	100	17.2	24.3	30.9	37.0	42.6	47.7	52.3	56.4	59.9	66.0	68.0	81
	40	21.0	28.8	34.2							36.9	37.7	79
	50	21.3	29.6	36.2	41.1	44.3					44.5	45.4	80
	60	21.5	30.0	37.3	43.3	47.9	51.2				52.0	53.0	80
18	70	21.7	30.3	38.0	44.6	50.2	54.6	57.9			59.3	60.5	80
	80	21.7	30.5	38.5	45.5	51.7	57.0	61.3	64.6		66.7	68.0	81
	90	21.8	30.7	38.8	46.2	52.8	58.6	63.7	67.9	71.3	74.0	75.4	81
	100	21.8	30.8	39.0	46.7	53.6	59.9	65.5	70.4	74.5	81.3	82.8	81
	50	26.4	36.5	44.5	50.4	53.9					54.1	54.9	80
	60	26.6	37.1	45.9	53.1	58.6	62.3				63.1	64.0	80
	70	26.8	37.4	46.8	54.9	61.5	66.7	70.5			72.0	73.0	80
20	80	26.9	37.7	47.4	56.0	63.5	69.7	74.8	78.6		80.8	81.9	81
	90	26.9	37.9	47.8	56.8	64.9	71.9	77.9	82.8	86.7	89.5	90.8	81
	100	27.0	38.0	48.2	57.5	65.9	73.5	80.2	86.0	90.8	98.3	99.6	81
	50	31.9	44.2	53.8	60.6	64.6					64.8	65.5	80
	60	32.2	44.9	55.5	64.0	70.4	74.6				75.4	76.2	80
	70	32.4	45.3	56.6	66.2	74.0	80.1	84.4			85.9	86.8	80
22	80	32.5	45.6	57.3	67.6	76.5	83.9	89.8	94.0		96.4	97.3	81
	90	32.6	45.8	57.8	68.7	78.2	86.6	93.6	99.3	103.7	106.8	107.8	81
	100	32.7	46.0	58.2	69.4	79.6	88.6	96.5	103.3	108.9	117.1	118.3	81
	50	38.0	52.5	63.9	71.8	76.2					76.5	77.1	80
	60	38.4	53.4	66.0	76.0	83.4	88.0				89.0	89.6	80
	70	38.6	53.9	67.3	78.6	87.8	94.8	99.6			101.3	102.0	80
24	80	38.7	54.3	68.2	80.3	90.7	99.3	106.1	111.0		113.5	114.3	81
	90	38.8	54.5	68.8	81.6	92.9	102.6	110.8	117.4	122.3	125.6	126.5	81
	100	38.9	54.7	69.3	82.5	94.5	105.1	114.3	122.2	128.6	137.8	138.7	81

[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 all pines except major pines (species 13) South-wide[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	1.4	1.7	1.8	2.0											
6	2.0	2.4	2.7	3.1	3.4	3.6	3.9	4.2									
7	2.9	3.4	4.0	4.5	4.9	5.4	5.8	6.2	6.6	7.0							
8	3.8	4.6	5.3	6.0	6.6	7.2	7.8	8.4	9.0	9.5	10.1	10.6					
9	4.9	5.9	6.8	7.7	8.5	9.3	10.1	10.8	11.6	12.3	13.0	13.7	14.4	15.1			
10	6.1	7.3	8.5	9.6	10.6	11.6	12.6	13.5	14.4	15.4	16.2	17.1	18.0	18.9	19.7	20.6	
11	7.4	8.9	10.4	11.7	13.0	14.2	15.3	16.5	17.6	18.7	19.8	20.9	22.0	23.0	24.1	25.1	26.2
12	8.8	10.7	12.4	14.0	15.5	16.9	18.4	19.7	21.1	22.4	23.7	25.0	26.3	27.6	28.9	30.1	31.4
13	10.4	12.6	14.6	16.5	18.2	20.0	21.6	23.3	24.8	26.4	28.0	29.5	31.0	32.5	34.0	35.5	37.0
14	12.0	14.6	16.9	19.1	21.2	23.2	25.2	27.0	28.9	30.7	32.5	34.3	36.1	37.8	39.6	41.3	43.0
15	13.8	16.8	19.5	22.0	24.4	26.7	28.9	31.1	33.3	35.4	37.4	39.5	41.5	43.5	45.6	47.6	49.5
16	15.8	19.1	22.2	25.1	27.8	30.4	33.0	35.5	37.9	40.3	42.7	45.0	47.3	49.6	51.9	54.2	56.5

[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 all pines except major pines (species 13) South-wide[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	2.1	2.5	3.0	3.4	3.8											
6	2.0	2.7	3.4	3.9	4.5	5.1	5.6	6.1									
7	2.7	3.6	4.4	5.1	5.8	6.5	7.2	7.9	8.5	9.2							
8	3.5	4.6	5.6	6.5	7.4	8.2	9.1	9.9	10.7	11.5	12.3	13.1					
9	4.4	5.8	7.0	8.1	9.1	10.2	11.2	12.2	13.1	14.1	15.1	16.0	17.0	17.9			
10	5.4	7.0	8.5	9.8	11.1	12.3	13.5	14.7	15.9	17.0	18.2	19.3	20.5	21.6	22.7	23.8	
11	6.6	8.5	10.2	11.8	13.3	14.7	16.1	17.5	18.9	20.3	21.6	23.0	24.3	25.6	27.0	28.3	29.6
12	7.8	10.0	12.0	13.9	15.6	17.3	19.0	20.6	22.2	23.8	25.4	27.0	28.5	30.1	31.6	33.2	34.7
13	9.1	11.7	14.1	16.2	18.2	20.2	22.1	24.0	25.8	27.7	29.5	31.3	33.1	34.9	36.7	38.5	40.2
14	10.6	13.6	16.2	18.7	21.0	23.3	25.4	27.6	29.7	31.8	33.9	36.0	38.0	40.1	42.1	44.2	46.2
15	12.2	15.6	18.6	21.4	24.0	26.6	29.0	31.5	33.9	36.3	38.7	41.0	43.4	45.7	48.0	50.3	52.6
16	13.8	17.7	21.1	24.2	27.2	30.1	32.9	35.7	38.4	41.1	43.7	46.4	49.0	51.7	54.3	56.9	59.5

[a] Includes 0.5-foot stump allowance.

Table 66--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 cypress combined (species 12) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										3.8	5.7	43
	50										5.8	8.8	58
	60	7.0									8.5	11.7	67
10	70	7.6	9.7								10.6	14.3	72
	80	8.0	10.3	12.4							12.6	16.8	75
	90	8.3	10.8	13.0							14.4	19.2	78
	40	6.6									6.7	8.1	43
	50	8.4	10.3								10.8	12.5	58
	60	9.6	12.2	14.2							14.6	16.6	67
12	70	10.4	13.4	16.0	18.0						18.1	20.4	72
	80	10.9	14.3	17.3	19.7						21.3	24.0	75
	90	11.3	15.0	18.2	21.0	23.3					24.4	27.4	78
	100	11.6	15.4	18.9	21.9	24.5	26.8				27.3	30.7	79
	40	8.9									10.0	10.9	43
	50	11.3	13.9								15.7	16.9	58
	60	12.9	16.4	19.2							21.1	22.5	67
14	70	13.9	18.0	21.5	24.3						26.0	27.7	72
	80	14.6	19.2	23.2	26.6	29.2					30.7	32.5	75
	90	15.1	20.1	24.4	28.2	31.4	33.9				35.1	37.2	78
	100	15.5	20.7	25.3	29.5	33.1	36.1	38.5			39.3	41.7	79
	50	14.7	18.1	20.5							21.2	22.0	58
	60	16.7	21.3	24.9	27.6						28.3	29.3	67
	70	18.0	23.4	28.0	31.6	34.2					34.9	36.1	72
16	80	18.9	25.0	30.2	34.5	38.0	40.6				41.1	42.5	75
	90	19.6	26.0	31.8	36.7	40.9	44.2	46.6			47.0	48.6	78
	100	20.1	26.8	32.9	38.3	43.0	47.0	50.1	52.5		52.6	54.4	79
	110	20.5	27.5	33.9	39.6	44.7	49.2	52.9	55.9	58.1	58.1	60.1	81
	50	18.6	22.9	26.0							27.3	28.0	58
	60	21.1	26.9	31.5	34.9						36.4	37.2	67
	70	22.8	29.6	35.4	40.0	43.3					44.8	45.8	72
18	80	23.9	31.5	38.1	43.7	48.1	51.3				52.7	53.8	75
	90	24.8	32.9	40.1	46.4	51.7	55.9	58.9			60.3	61.5	78
	100	25.4	33.9	41.6	48.5	54.4	59.4	63.4	66.3		67.5	69.0	79
	110	25.9	34.7	42.8	50.1	56.6	62.2	66.9	70.7	73.5	74.6	76.2	81
	60	26.1	33.3	39.0	43.1						45.3	46.0	67
	70	28.2	36.6	43.7	49.4	53.5					55.8	56.6	72
	80	29.6	39.0	47.1	53.9	59.4	63.3				65.6	66.5	75
20	90	30.6	40.6	49.6	57.3	63.8	69.0	72.8			75.0	76.1	78
	100	31.3	41.9	51.4	59.9	67.2	73.3	78.3	81.9		84.0	85.2	79
	110	31.9	42.8	52.8	61.8	69.8	76.8	82.6	87.3	90.8	92.8	94.2	81
	60	31.7	40.3	47.2	52.2	55.1					55.2	55.7	67
	70	34.1	44.4	53.0	59.8	64.8	67.7				67.9	68.6	72
	80	35.9	47.2	57.1	65.3	71.9	76.7	79.6			79.9	80.6	75
22	90	37.1	49.2	60.0	69.4	77.3	83.5	88.1	91.0		91.2	92.2	78
	100	38.0	50.7	62.3	72.5	81.4	88.8	94.8	99.2	102.0	102.2	103.3	79
	110	38.7	51.9	64.0	74.9	84.5	92.9	100.0	105.7	109.9	112.9	114.1	81
	60	37.8	48.1	56.3	62.2	65.6					66.0	66.5	67
	70	40.7	52.9	63.2	71.3	77.2	80.7				81.1	81.7	72
	80	42.8	56.3	68.0	77.9	85.7	91.4	94.9			95.4	96.1	75
24	90	44.2	58.7	71.5	82.7	92.0	99.5	105.0	108.4		109.0	109.8	78
	100	45.3	60.5	74.2	86.4	96.9	105.8	112.9	118.1	121.4	122.1	123.1	79
	110	46.1	61.9	76.2	89.2	100.7	110.7	119.1	125.8	130.9	134.9	135.9	81

[a] Includes 1.0-foot stump allowance.

Table 67--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 cypress combined (species 12) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30										3.9	7.0	56
	40	6.7									7.5	10.5	67
	50	7.5	9.6								10.1	13.7	73
	60	8.0	10.3								12.4	16.6	76
	70	8.3	10.8	13.0							14.4	19.3	77
	80	8.5	11.1	13.5	15.6						16.3	22.0	79
	90	8.7	11.4	13.8	16.0	18.1					18.1	24.6	79
12	30	7.4									8.2	9.6	56
	40	9.3	11.8								12.8	14.4	67
	50	10.3	13.3	15.8							16.7	18.7	73
	60	10.9	14.3	17.1	19.5						20.3	22.7	76
	70	11.3	14.9	18.0	20.7	23.0					23.7	26.5	77
	80	11.6	15.3	18.7	21.6	24.2	26.4				26.8	30.1	79
	90	11.8	15.6	19.1	22.3	25.1	27.5	29.6			29.9	33.6	79
14	40	12.4	15.8	18.1							18.1	19.2	67
	50	13.7	17.8	21.1	23.5						23.6	24.9	73
	60	14.5	19.1	22.9	26.0	28.4					28.6	30.1	76
	70	15.0	19.9	24.1	27.8	30.7	33.0				33.3	35.1	77
	80	15.4	20.5	25.0	28.9	32.4	35.2	37.5			37.8	39.9	79
	90	15.7	20.9	25.6	29.8	33.6	36.8	39.6	41.8		42.2	44.6	79
	100	15.9	21.2	26.0	30.5	34.5	38.1	41.2	43.9	46.1	46.5	49.1	80
16	40	16.1	20.5	23.5							24.0	24.7	67
	50	17.8	23.2	27.4	30.3						31.1	32.0	73
	60	18.8	24.8	29.7	33.7	36.7					37.7	38.8	76
	70	19.5	25.8	31.3	36.0	39.8	42.6				43.9	45.1	77
	80	19.9	26.5	32.4	37.5	41.9	45.6	48.4			49.8	51.3	79
	90	20.3	27.0	33.2	38.7	43.5	47.7	51.2	54.0		55.6	57.3	79
	100	20.5	27.4	33.7	39.5	44.7	49.3	53.3	56.7	59.5	61.3	63.2	80
18	40	20.3	25.9	29.6							30.6	31.1	67
	50	22.4	29.2	34.5	38.2						39.6	40.2	73
	60	23.7	31.2	37.5	42.5	46.1					47.9	48.6	76
	70	24.5	32.5	39.5	45.4	50.1	53.6				55.7	56.6	77
	80	25.1	33.4	40.9	47.3	52.8	57.4	60.9			63.2	64.3	79
	90	25.5	34.1	41.8	48.8	54.9	60.1	64.5	67.9	70.4	70.6	71.8	79
	100	25.9	34.6	42.6	49.9	56.4	62.2	67.2	71.4	74.8	77.8	79.2	80
20	50	27.7	36.1	42.6	47.1						48.9	49.4	73
	60	29.3	38.6	46.3	52.4	56.8					59.2	59.7	76
	70	30.3	40.2	48.7	55.9	61.7	66.0	68.7			68.8	69.5	77
	80	31.0	41.3	50.4	58.4	65.1	70.6	74.9	77.7		78.1	78.9	79
	90	31.5	42.1	51.6	60.1	67.6	74.0	79.3	83.5	86.4	87.2	88.1	79
	100	31.9	42.7	52.5	61.5	69.5	76.6	82.7	87.9	92.0	96.1	97.1	80
22	50	33.6	43.7	51.5	56.9						59.3	59.7	73
	60	35.5	46.7	56.0	63.4	68.6					71.6	72.1	76
	70	36.7	48.6	59.0	67.6	74.6	79.7	82.9			83.3	83.8	77
	80	37.5	50.0	61.0	70.6	78.7	85.4	90.4	93.8		94.5	95.1	79
	90	38.2	50.9	62.5	72.8	81.8	89.5	95.8	100.8	104.3	105.4	106.2	79
	100	38.6	51.6	63.6	74.4	84.1	92.6	100.0	106.1	111.0	116.2	117.0	80
24	50	40.1	52.1	61.4	67.7						70.6	70.9	73
	60	42.3	55.7	66.7	75.4	81.6	85.1				85.2	85.6	76
	70	43.7	58.0	70.2	80.5	88.7	94.8	98.5			99.1	99.5	77
	80	44.8	59.5	72.6	84.0	93.7	101.5	107.5	111.4		112.4	112.9	79
	90	45.5	60.7	74.4	86.6	97.3	106.4	114.0	119.8	123.8	125.4	126.0	79
	100	46.0	61.5	75.7	88.6	100.1	110.2	118.9	126.2	131.9	138.2	138.8	80

[a] Includes 1.0-foot stump allowance.

Table 68--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 cypress combined (species 12) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.8									6.4	10.1	63
	30	7.2	9.1								10.2	13.5	68
	40	8.2	10.4	12.5							14.1	17.1	73
	50	8.7	11.1	13.4	15.5	17.3					17.6	20.5	75
	60	9.1	11.6	14.0	16.2	18.3	20.2				20.8	23.7	77
	70	9.4	11.9	14.4	16.7	18.9	21.0	22.9			24.0	26.9	77
12	20	7.0									7.7	11.7	54
	30	9.5	12.1								13.4	16.0	68
	40	10.7	13.9	16.5							18.3	20.7	73
	50	11.4	14.8	17.8	20.4	22.4					22.7	25.0	75
	60	11.8	15.4	18.6	21.5	24.0	26.2				26.8	29.2	77
	70	12.1	15.7	19.1	22.2	25.0	27.5	29.7			30.9	33.2	77
	80	12.3	16.0	19.5	22.7	25.7	28.5	31.0	33.2		34.8	37.2	78
14	40	14.0	18.1	21.4							23.4	25.5	73
	50	14.8	19.3	23.2	26.4	28.7					29.0	31.0	75
	60	15.3	20.1	24.3	28.0	31.1	33.5				34.2	36.2	77
	70	15.6	20.5	25.0	29.0	32.6	35.6	38.0			39.3	41.3	77
	80	15.9	20.9	25.5	29.8	33.6	37.0	40.0	42.5		44.3	46.3	78
	90	16.1	21.1	25.9	30.3	34.3	38.0	41.4	44.3	46.8	49.1	51.2	78
	100	16.2	21.3	26.2	30.7	34.9	38.8	42.4	45.7	48.6	54.0	56.1	78
16	40	17.9	23.2	27.3							29.5	31.4	73
	50	18.9	24.8	29.7	33.5	36.1					36.4	38.2	75
	60	19.5	25.7	31.1	35.7	39.4	42.1				42.9	44.7	77
	70	19.9	26.3	32.0	37.1	41.4	45.0	47.9			49.2	51.0	77
	80	20.2	26.7	32.6	38.0	42.8	47.0	50.6	53.4		55.3	57.1	78
	90	20.4	27.0	33.1	38.7	43.9	48.5	52.5	56.0	58.9	61.4	63.2	78
	100	20.5	27.2	33.5	39.3	44.6	49.6	54.0	57.9	61.4	67.4	69.3	78
18	40	22.4	29.1	34.0							36.5	38.2	73
	50	23.6	31.0	37.1	41.7	44.6					44.9	46.6	75
	60	24.3	32.1	38.9	44.5	48.9	52.0				52.8	54.5	77
	70	24.8	32.9	40.0	46.3	51.6	55.9	59.1			60.5	62.1	77
	80	25.2	33.4	40.9	47.6	53.4	58.5	62.7	66.0		68.0	69.7	78
	90	25.4	33.8	41.5	48.5	54.8	60.4	65.3	69.4	72.7	75.4	77.1	78
	100	25.6	34.1	41.9	49.2	55.8	61.8	67.2	72.0	76.1	82.7	84.4	78
20	50	28.9	38.1	45.4	50.9	54.2					54.5	56.0	75
	60	29.8	39.5	47.7	54.4	59.6	63.2				64.0	65.6	77
	70	30.4	40.3	49.1	56.7	63.0	68.1	71.7			73.2	74.8	77
	80	30.8	41.0	50.1	58.3	65.4	71.4	76.4	80.1		82.2	83.8	78
	90	31.1	41.4	50.9	59.4	67.1	73.9	79.7	84.5	88.3	91.1	92.7	78
	100	31.4	41.8	51.4	60.3	68.4	75.7	82.2	87.8	92.5	99.9	101.5	78
22	50	34.9	45.9	54.7	61.1	64.9					65.1	66.6	75
	60	36.0	47.6	57.5	65.5	71.6	75.6				76.4	77.9	77
	70	36.7	48.7	59.2	68.3	75.8	81.7	85.8			87.4	88.8	77
	80	37.2	49.4	60.5	70.2	78.7	85.8	91.5	95.7		98.1	99.5	78
	90	37.5	50.0	61.3	71.6	80.8	88.8	95.6	101.2	105.5	108.6	110.1	78
	100	37.8	50.4	62.0	72.7	82.4	91.1	98.7	105.3	110.8	119.0	120.5	78
24	50	41.5	54.6	64.9	72.4	76.6					76.9	78.3	75
	60	42.8	56.6	68.2	77.6	84.7	89.2				90.1	91.5	77
	70	43.6	57.9	70.3	81.0	89.8	96.6	101.2			102.9	104.3	77
	80	44.2	58.7	71.8	83.3	93.3	101.6	108.2	113.0		115.5	116.9	78
	90	44.6	59.4	72.9	85.0	95.8	105.2	113.2	119.6	124.5	127.8	129.2	78
	100	44.9	59.9	73.7	86.3	97.7	107.9	116.9	124.6	130.9	140.0	141.4	78

[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 cypress combined (species 12) South-wide[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	2.4	2.8	3.2	3.6	3.9	4.2											
6	2.3	2.7	3.2	3.7	4.5	5.1	5.7	6.2									
7	2.5	3.0	4.0	4.7	5.5	6.3	7.0	7.7	8.4	9.0							
8	2.8	3.5	4.6	5.7	6.7	7.7	8.6	9.5	10.4	11.2	12.0	12.8					
9	3.3	4.6	5.5	6.8	8.1	9.3	10.5	11.6	12.7	13.8	14.8	15.7	16.7	17.6			
10	3.9	5.4	6.6	8.2	9.7	11.2	12.6	14.0	15.4	16.6	17.9	19.1	20.3	21.4	22.6	23.7	
11	4.5	6.1	7.8	9.7	11.5	13.3	15.1	16.7	18.3	19.9	21.4	22.8	24.2	25.6	27.0	28.4	29.7
12	6.1	6.9	9.1	11.4	13.6	15.7	17.7	19.7	21.6	23.4	25.2	26.9	28.6	30.3	31.9	33.6	35.2
13	7.0	8.1	10.6	13.2	15.8	18.3	20.7	23.0	25.2	27.3	29.4	31.5	33.5	35.4	37.3	39.2	41.1
14	8.0	9.3	12.2	15.2	18.2	21.1	23.9	26.5	29.1	31.6	34.0	36.4	38.7	41.0	43.2	45.4	47.6
15	9.0	10.6	14.0	17.4	20.9	24.2	27.3	30.4	33.3	36.2	39.0	41.7	44.3	46.9	49.5	52.0	54.5
16	10.1	12.1	15.9	19.8	23.7	27.4	31.0	34.5	37.9	41.1	44.3	47.4	50.4	53.4	56.3	59.1	62.0

[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 cypress combined (species 12) South-wide[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	3.1	4.0	4.9	5.7	6.4	7.1											
6	3.1	3.9	4.7	5.6	6.6	7.5	8.3	9.0									
7	3.2	4.0	5.1	6.3	7.3	8.4	9.3	10.2	11.1	11.9							
8	3.5	4.3	5.8	7.2	8.4	9.6	10.8	11.8	12.9	13.9	14.8	15.8					
9	3.9	5.0	6.7	8.3	9.8	11.2	12.6	13.8	15.1	16.3	17.4	18.5	19.6	20.7			
10	4.4	5.8	7.8	9.7	11.5	13.2	14.7	16.2	17.7	19.1	20.4	21.8	23.1	24.4	25.7	27.0	
11	5.0	6.8	9.1	11.3	13.4	15.3	17.2	18.9	20.6	22.3	23.9	25.5	27.0	28.5	30.0	31.5	33.0
12	5.6	7.9	10.6	13.2	15.5	17.8	19.9	22.0	23.9	25.8	27.7	29.6	31.4	33.1	34.9	36.7	38.4
13	6.4	9.1	12.2	15.2	17.9	20.5	23.0	25.3	27.6	29.8	32.0	34.1	36.2	38.2	40.3	42.3	44.3
14	7.2	10.4	14.0	17.4	20.5	23.5	26.3	29.0	31.6	34.1	36.6	39.0	41.4	43.7	46.1	48.4	50.7
15	8.1	11.9	15.9	19.7	23.3	26.7	29.9	32.9	35.9	38.8	41.6	44.3	47.0	49.7	52.4	55.0	57.6
16	9.0	13.4	18.0	22.3	26.3	30.1	33.7	37.2	40.5	43.8	46.9	50.0	53.1	56.1	59.1	62.1	65.0

[a] Includes 0.5-foot stump allowance.

Table 71--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 baldcypress (species 221) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										3.5	6.8	57
	50	6.1									7.0	9.8	68
	60	6.8	8.9								9.3	12.5	73
10	70	7.3	9.7								11.4	15.0	76
	80	7.7	10.2	12.5							13.3	17.4	79
	90	8.0	10.6	13.0	15.1						15.1	19.7	80
	40	7.2									8.4	9.9	57
	50	8.7	11.3								12.5	14.2	68
	60	9.7	12.8	15.3							16.2	18.1	73
12	70	10.4	13.8	16.7	19.0						19.5	21.8	76
	80	10.9	14.6	17.8	20.5	22.6					22.6	25.2	79
	90	11.3	15.1	18.6	21.5	24.1					25.6	28.5	80
	100	11.6	15.6	19.2	22.4	25.2	27.5				28.5	31.7	81
	40	9.8	12.2								12.6	13.6	57
	50	11.8	15.3	17.8							18.2	19.4	68
	60	13.1	17.3	20.7	23.1						23.4	24.7	73
14	70	14.1	18.7	22.7	25.8	28.1					28.1	29.7	76
	80	14.7	19.7	24.1	27.8	30.7					32.6	34.4	79
	90	15.2	20.5	25.2	29.2	32.6	35.4				36.9	38.9	80
	100	15.7	21.1	26.0	30.3	34.1	37.3	39.9			41.0	43.3	81
	50	15.4	20.0	23.3							24.6	25.4	68
	60	17.1	22.6	27.0	30.2						31.4	32.4	73
	70	18.3	24.4	29.6	33.7	36.7					37.7	38.9	76
16	80	19.2	25.7	31.4	36.2	40.1	42.9				43.7	45.0	79
	90	19.8	26.7	32.8	38.1	42.6	46.1	48.8			49.4	50.9	80
	100	20.4	27.4	33.8	39.5	44.5	48.7	52.0	54.5		54.9	56.7	81
	110	20.8	28.0	34.7	40.7	46.0	50.7	54.6	57.7	60.1	60.3	62.2	82
	50	19.5	25.3	29.5							31.6	32.2	68
	60	21.7	28.6	34.2	38.2						40.3	41.0	73
	70	23.2	30.9	37.4	42.6	46.4					48.3	49.3	76
18	80	24.3	32.5	39.7	45.8	50.7	54.2				56.0	57.1	79
	90	25.1	33.7	41.5	48.2	53.8	58.4	61.7			63.3	64.5	80
	100	25.7	34.7	42.8	50.0	56.3	61.6	65.8	68.9		70.4	71.8	81
	110	26.3	35.4	43.8	51.4	58.2	64.1	69.0	73.0	76.0	77.3	78.8	82
	60	26.7	35.3	42.2	47.2	50.0					50.1	50.7	73
	70	28.6	38.1	46.2	52.6	57.3	60.1				60.1	60.9	76
	80	29.9	40.1	49.1	56.6	62.6	66.9	69.6			69.6	70.5	79
20	90	31.0	41.6	51.2	59.5	66.5	72.0	76.2			78.7	79.7	80
	100	31.8	42.8	52.8	61.7	69.5	76.0	81.2	85.1		87.5	88.7	81
	110	32.4	43.7	54.1	63.5	71.8	79.1	85.2	90.1	93.8	96.1	97.4	82
	60	32.4	42.8	51.1	57.1	60.6					60.9	61.4	73
	70	34.6	46.2	55.9	63.7	69.4	72.7				73.1	73.7	76
	80	36.2	48.6	59.4	68.4	75.7	81.0	84.2			84.6	85.4	79
22	90	37.5	50.4	61.9	72.0	80.4	87.2	92.2	95.3		95.6	96.6	80
	100	38.4	51.8	63.9	74.7	84.0	91.9	98.3	103.0	106.0	106.4	107.4	81
	110	39.2	52.9	65.4	76.8	86.9	95.7	103.1	109.0	113.5	116.8	118.0	82
	60	38.5	50.9	60.8	68.0	72.1					72.7	73.2	73
	70	41.2	54.9	66.6	75.8	82.6	86.5				87.2	87.8	76
	80	43.1	57.8	70.7	81.5	90.1	96.4	100.2			100.9	101.7	79
24	90	44.6	60.0	73.7	85.6	95.7	103.7	109.7	113.4		114.1	115.0	80
	100	45.7	61.6	76.0	88.9	100.0	109.4	116.9	122.5	126.1	126.9	127.9	81
	110	46.7	62.9	77.9	91.4	103.4	113.9	122.7	129.8	135.1	139.4	140.5	82

[a] Includes 1.0-foot stump allowance.

Table 72--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 baldcypress (species 221) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30										4.3	7.1	62
	40	6.3									8.0	10.5	71
	50	7.0	9.3								10.5	13.7	76
	60	7.5	10.0	12.1							12.7	16.6	78
	70	7.8	10.5	12.8							14.8	19.5	79
	80	8.1	10.8	13.3	15.5						16.8	22.2	80
	90	8.3	11.1	13.6	16.0	18.1					18.7	24.9	81
12	30	7.4									9.0	10.0	62
	40	9.0	11.8								13.3	14.7	71
	50	9.9	13.3	15.9							17.3	19.1	76
	60	10.6	14.2	17.2	19.7						20.9	23.2	78
	70	11.1	14.8	18.2	21.0	23.4					24.4	27.1	79
	80	11.4	15.3	18.8	21.9	24.6	26.9				27.7	30.8	80
	90	11.7	15.7	19.3	22.6	25.5	28.1	30.3			30.9	34.5	81
14	40	12.2	16.0	18.6							18.9	19.8	71
	50	13.5	17.9	21.5	24.0						24.4	25.5	76
	60	14.3	19.2	23.3	26.6	29.1					29.5	30.9	78
	70	14.9	20.1	24.5	28.3	31.5	33.9				34.4	36.1	79
	80	15.4	20.7	25.4	29.6	33.2	36.1	38.5			39.0	41.0	80
	90	15.8	21.2	26.1	30.5	34.4	37.8	40.7	43.0		43.6	45.9	81
	100	16.1	21.6	26.6	31.2	35.4	39.1	42.4	45.2	47.4	48.1	50.7	81
16	40	15.9	20.9	24.2							25.0	25.6	71
	50	17.5	23.4	27.9	31.2						32.2	33.0	76
	60	18.7	25.0	30.3	34.5	37.7					38.9	39.9	78
	70	19.4	26.1	31.9	36.8	40.8	43.9				45.3	46.5	79
	80	20.0	26.9	33.1	38.4	43.1	46.9	49.8			51.5	52.9	80
	90	20.5	27.5	33.9	39.7	44.7	49.1	52.7	55.7		57.5	59.1	81
	100	20.9	28.0	34.6	40.6	46.0	50.8	55.0	58.5	61.4	63.4	65.2	81
18	40	20.1	26.4	30.5							31.7	32.2	71
	50	22.2	29.5	35.3	39.3						40.8	41.4	76
	60	23.6	31.6	38.3	43.6	47.4					49.4	50.1	78
	70	24.6	33.0	40.3	46.5	51.5	55.2				57.5	58.4	79
	80	25.3	34.0	41.7	48.5	54.3	59.0	62.7	65.2		65.3	66.3	80
	90	25.9	34.8	42.8	50.1	56.4	61.9	66.4	70.0	72.6	73.0	74.1	81
	100	26.4	35.4	43.7	51.2	58.0	64.0	69.3	73.6	77.2	80.4	81.7	81
20	50	27.4	36.5	43.5	48.3						50.4	50.9	76
	60	29.1	39.0	47.2	53.7	58.4					61.0	61.5	78
	70	30.3	40.7	49.7	57.3	63.4	67.9	70.8			71.0	71.6	79
	80	31.2	41.9	51.5	59.8	66.9	72.7	77.1	80.1		80.6	81.4	80
	90	31.9	42.9	52.8	61.7	69.5	76.2	81.7	86.1	89.1	90.0	90.9	81
	100	32.5	43.6	53.9	63.2	71.5	78.9	85.3	90.6	94.9	99.3	100.2	81
22	50	33.1	44.1	52.6	58.4						61.0	61.4	76
	60	35.2	47.1	57.0	64.9	70.5	73.6				73.7	74.1	78
	70	36.6	49.2	60.1	69.2	76.5	82.0	85.3			85.8	86.3	79
	80	37.7	50.7	62.2	72.3	80.8	87.8	93.0	96.6		97.4	98.0	80
	90	38.6	51.9	63.9	74.6	84.0	92.0	98.7	103.8	107.5	108.8	109.5	81
	100	39.3	52.8	65.1	76.4	86.4	95.3	103.0	109.3	114.4	119.9	120.7	81
24	50	39.5	52.5	62.5	69.4						72.6	72.8	76
	60	41.9	56.1	67.9	77.1	83.7	87.4				87.6	87.9	78
	70	43.6	58.5	71.5	82.3	91.0	97.4	101.3			101.9	102.4	79
	80	44.9	60.3	74.1	86.0	96.1	104.3	110.5	114.6		115.8	116.3	80
	90	45.9	61.7	76.0	88.7	99.9	109.4	117.2	123.3	127.6	129.3	129.8	81
	100	46.7	62.8	77.5	90.8	102.8	113.3	122.4	129.9	135.9	142.5	143.1	81

[a] Includes 1.0-foot stump allowance.

Table 73--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 baldcypress (species 221) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.1									5.8	12.6	65
	30	6.4	8.6								9.8	14.5	74
	40	7.2	9.7	11.9							13.7	18.3	77
	50	7.8	10.4	12.9	15.1	17.1					17.4	22.2	79
	60	8.2	10.9	13.5	15.9	18.1	20.2				20.9	26.0	80
	70	8.6	11.3	14.0	16.5	18.8	21.1	23.1			24.3	29.8	80
12	20	7.1									8.0	11.8	63
	30	9.0	12.0								13.4	15.9	74
	40	10.1	13.6	16.4							18.4	20.8	77
	50	10.8	14.5	17.8	20.6	22.8					23.1	25.7	79
	60	11.3	15.2	18.7	21.8	24.5	26.8				27.6	30.4	80
	70	11.8	15.7	19.3	22.7	25.7	28.4	30.7			31.9	34.9	80
	80	12.1	16.1	19.8	23.3	26.5	29.4	32.1	34.4		36.2	39.4	81
14	40	13.6	18.2	21.8							24.0	25.5	77
	50	14.5	19.4	23.7	27.1	29.6					29.9	31.5	79
	60	15.1	20.3	24.9	28.9	32.2	34.8				35.6	37.3	80
	70	15.6	20.9	25.7	30.1	33.9	37.1	39.8			41.1	42.9	80
	80	16.0	21.4	26.4	30.9	35.0	38.7	41.9	44.6		46.5	48.4	81
	90	16.3	21.7	26.8	31.6	35.9	39.9	43.4	46.6	49.3	51.8	53.9	81
	100	16.5	22.0	27.2	32.1	36.6	40.8	44.6	48.1	51.2	57.0	59.2	81
16	40	17.6	23.6	28.0							30.4	31.5	77
	50	18.7	25.2	30.5	34.7	37.5					37.8	38.9	79
	60	19.5	26.2	32.1	37.1	41.1	44.0				44.8	46.0	80
	70	20.1	27.0	33.2	38.7	43.3	47.2	50.3			51.7	52.9	80
	80	20.6	27.6	34.0	39.8	45.0	49.5	53.3	56.3		58.3	59.7	81
	90	21.0	28.0	34.6	40.7	46.2	51.1	55.4	59.2	62.3	64.9	66.4	81
	100	21.3	28.4	35.1	41.3	47.1	52.3	57.1	61.3	65.0	71.4	72.9	81
18	40	22.2	29.7	35.1							37.8	38.6	77
	50	23.6	31.7	38.3	43.3	46.5					46.8	47.6	79
	60	24.5	33.0	40.3	46.4	51.2	54.5				55.4	56.2	80
	70	25.3	34.0	41.7	48.5	54.2	58.8	62.2			63.7	64.6	80
	80	25.8	34.7	42.7	49.9	56.3	61.7	66.2	69.7		71.9	72.8	81
	90	26.3	35.2	43.5	51.0	57.8	63.8	69.1	73.5	77.0	79.9	80.9	81
	100	26.6	35.7	44.1	51.9	59.0	65.5	71.3	76.3	80.7	87.8	88.9	81
20	50	29.0	39.0	47.0	53.0	56.6					56.9	57.5	79
	60	30.2	40.6	49.5	56.8	62.5	66.3				67.2	67.8	80
	70	31.1	41.8	51.2	59.4	66.3	71.7	75.6			77.2	77.9	80
	80	31.7	42.6	52.5	61.3	68.9	75.4	80.7	84.7		87.0	87.7	81
	90	32.3	43.3	53.4	62.6	70.9	78.1	84.3	89.5	93.6	96.6	97.4	81
	100	32.7	43.8	54.2	63.7	72.4	80.2	87.1	93.1	98.2	106.1	107.0	81
22	50	35.0	47.1	56.7	63.7	67.7					68.0	68.5	79
	60	36.4	49.0	59.7	68.4	75.0	79.3				80.3	80.8	80
	70	37.5	50.4	61.8	71.6	79.7	86.0	90.5			92.1	92.7	80
	80	38.3	51.5	63.3	73.8	82.9	90.6	96.7	101.3		103.8	104.3	81
	90	38.9	52.3	64.5	75.5	85.3	93.9	101.3	107.3	111.9	115.2	115.8	81
	100	39.4	52.9	65.4	76.8	87.2	96.5	104.7	111.8	117.7	126.4	127.1	81
24	50	41.6	55.9	67.3	75.4	80.0					80.2	80.6	79
	60	43.3	58.3	70.9	81.1	88.8	93.6				94.6	95.0	80
	70	44.5	59.9	73.4	84.9	94.4	101.7	106.7			108.5	108.9	80
	80	45.5	61.1	75.2	87.6	98.3	107.2	114.3	119.5		122.1	122.6	81
	90	46.2	62.1	76.6	89.6	101.2	111.3	119.8	126.7	131.9	135.5	136.0	81
	100	46.8	62.8	77.6	91.1	103.4	114.3	123.9	132.2	139.0	148.7	149.2	81

[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 baldcypress (species 221) South-wide[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	1.3	1.5	1.7	2.0											
6	1.3	1.5	1.9	2.8	3.4	3.9	4.4	4.9									
7	1.7	2.7	3.4	4.2	5.0	5.7	6.3	7.0	7.6	8.2							
8	2.2	3.6	4.6	5.7	6.6	7.5	8.4	9.3	10.1	10.8	11.6	12.3					
9	3.5	4.6	6.0	7.2	8.5	9.6	10.7	11.8	12.8	13.8	14.8	15.7	16.7	17.6			
10	4.2	5.8	7.4	9.0	10.5	11.9	13.3	14.6	15.9	17.1	18.3	19.5	20.6	21.7	22.8	23.9	
11	5.1	7.1	9.0	10.9	12.7	14.4	16.1	17.7	19.2	20.7	22.1	23.6	25.0	26.3	27.7	29.0	30.3
12	6.1	8.4	10.8	13.0	15.1	17.2	19.2	21.0	22.9	24.6	26.4	28.1	29.7	31.3	32.9	34.5	36.1
13	7.2	9.9	12.7	15.3	17.8	20.2	22.5	24.7	26.8	28.9	30.9	32.9	34.9	36.8	38.7	40.5	42.4
14	8.4	11.5	14.7	17.7	20.6	23.4	26.1	28.6	31.1	33.5	35.9	38.2	40.5	42.7	44.9	47.0	49.2
15	9.7	13.3	16.9	20.4	23.7	26.9	29.9	32.9	35.7	38.5	41.2	43.9	46.4	49.0	51.5	54.0	56.4
16	11.0	15.1	19.2	23.2	27.0	30.6	34.1	37.4	40.7	43.8	46.9	49.9	52.9	55.8	58.6	61.4	64.2

[a] 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 baldcypress (species 221) South-wide[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	1.9	2.4	2.9	3.5	4.0	4.6											
6	2.1	2.7	3.3	4.2	5.0	5.7	6.5	7.2									
7	2.5	3.1	4.2	5.2	6.2	7.1	8.1	8.9	9.8	10.6							
8	2.9	3.9	5.2	6.4	7.7	8.8	9.9	11.0	12.0	13.0	14.0	15.0					
9	3.3	4.8	6.4	7.9	9.3	10.7	12.1	13.3	14.6	15.8	17.0	18.2	19.3	20.5			
10	3.8	5.8	7.7	9.5	11.2	12.9	14.5	16.0	17.5	18.9	20.4	21.8	23.1	24.5	25.8	27.1	
11	4.6	6.9	9.2	11.3	13.3	15.3	17.2	19.0	20.7	22.4	24.1	25.7	27.4	28.9	30.5	32.1	33.6
12	5.4	8.1	10.8	13.3	15.7	17.9	20.1	22.2	24.3	26.3	28.2	30.1	32.0	33.9	35.7	37.5	39.3
13	6.3	9.5	12.6	15.5	18.2	20.8	23.3	25.8	28.1	30.4	32.7	34.9	37.1	39.2	41.3	43.5	45.5
14	7.3	10.9	14.5	17.8	21.0	24.0	26.8	29.6	32.3	35.0	37.5	40.1	42.6	45.0	47.5	49.9	52.3
15	8.4	12.5	16.5	20.3	23.9	27.3	30.6	33.8	36.8	39.8	42.8	45.7	48.5	51.3	54.0	56.8	59.5
16	9.5	14.2	18.7	23.0	27.1	30.9	34.6	38.2	41.7	45.1	48.4	51.6	54.8	58.0	61.1	64.2	67.2

[a] Includes 0.5-foot stump allowance.

Table 76--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 pondcypress (species 222) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40										4.1	6.4	49
	50	6.3									6.4	9.0	60
	60	7.0									8.2	11.4	66
	70	7.5	9.4								9.8	13.5	69
	80	7.8	9.9								11.2	15.5	72
	90	8.0	10.3	12.2							12.5	17.4	73
12	40	7.2									7.8	9.1	49
	50	8.7	10.7								11.2	12.9	60
	60	9.6	12.1	14.1							14.2	16.2	66
	70	10.3	13.1	15.4							16.8	19.3	69
	80	10.7	13.7	16.4	18.5						19.3	22.2	72
	90	11.0	14.2	17.1	19.5	21.5					21.7	24.9	73
	100	11.3	14.6	17.6	20.2	22.5					24.0	27.6	75
14	40	9.7	11.4								11.5	12.4	49
	50	11.7	14.4								16.2	17.4	60
	60	12.9	16.3	18.9							20.5	22.0	66
	70	13.7	17.5	20.7	23.2						24.4	26.2	69
	80	14.3	18.4	22.0	24.9	27.3					28.1	30.1	72
	90	14.7	19.0	22.9	26.2	29.0	31.2				31.6	33.8	73
	100	15.0	19.5	23.6	27.2	30.3	32.8	34.9			34.9	37.5	75
16	50	15.1	18.7	21.2							21.9	22.7	60
	60	16.7	21.1	24.6	27.1						27.6	28.7	66
	70	17.8	22.8	26.9	30.2	32.5					32.9	34.1	69
	80	18.5	23.9	28.6	32.4	35.5	37.7				37.8	39.3	72
	90	19.0	24.7	29.7	34.1	37.7	40.5				42.5	44.2	73
	100	19.4	25.3	30.6	35.3	39.4	42.7	45.4			47.0	48.9	75
	110	19.7	25.8	31.3	36.3	40.7	44.5	47.6	50.1		51.4	53.5	75
18	50	19.1	23.6	26.8							28.1	28.8	60
	60	21.1	26.7	31.1	34.2						35.5	36.3	66
	70	22.4	28.8	34.0	38.2	41.1					42.2	43.2	69
	80	23.3	30.2	36.1	41.0	44.8	47.6				48.6	49.8	72
	90	24.0	31.2	37.6	43.1	47.6	51.2	53.8			54.6	56.0	73
	100	24.5	32.0	38.7	44.6	49.7	54.0	57.4	59.9		60.5	62.0	75
	110	24.9	32.6	39.6	45.9	51.4	56.2	60.2	63.3	65.7	66.1	67.8	75
20	60	26.1	33.0	38.4	42.3						44.2	44.9	66
	70	27.7	35.5	42.0	47.1	50.8					52.6	53.5	69
	80	28.8	37.3	44.5	50.6	55.4	58.8				60.5	61.5	72
	90	29.6	38.5	46.4	53.1	58.8	63.2	66.5			68.1	69.2	73
	100	30.2	39.5	47.8	55.1	61.4	66.6	70.8	73.9		75.4	76.6	75
	110	30.7	40.2	48.9	56.6	63.4	69.3	74.3	78.2	81.1	82.4	83.8	75
22	60	31.6	40.0	46.5	51.2	53.8					53.9	54.4	66
	70	33.5	43.0	50.9	57.1	61.5	64.1				64.1	64.8	69
	80	34.9	45.1	53.9	61.3	67.0	71.2	73.7			73.7	74.5	72
	90	35.9	46.7	56.2	64.3	71.2	76.5	80.5			82.9	83.8	73
	100	36.6	47.8	57.8	66.7	74.3	80.7	85.7	89.4		91.7	92.8	75
	110	37.2	48.7	59.2	68.5	76.8	83.9	89.9	94.6	98.2	100.4	101.6	75
24	60	37.7	47.6	55.5	61.0	64.1					64.4	64.9	66
	70	40.0	51.3	60.6	68.0	73.2	76.3				76.6	77.2	69
	80	41.6	53.8	64.3	73.0	79.8	84.8	87.8			88.1	88.8	72
	90	42.7	55.6	66.9	76.7	84.8	91.2	95.8	98.7		99.0	99.9	73
	100	43.6	57.0	68.9	79.5	88.5	96.1	102.1	106.5	109.3	109.6	110.6	75
	110	44.3	58.0	70.5	81.6	91.5	100.0	107.0	112.7	116.9	119.9	121.0	75

[a] Includes 1.0-foot stump allowance.

Table 77--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 pondcypress (species 222) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30										4.2	6.8	53
	40	6.6									7.2	10.0	63
	50	7.3	9.2								9.3	12.8	68
	60	7.7	9.8								11.0	15.3	71
	70	8.1	10.2	12.2							12.6	17.7	72
	80	8.3	10.5	12.6							14.1	20.0	73
	90	8.5	10.8	12.9	14.8						15.5	22.3	74
12	30	7.4									8.2	9.3	53
	40	9.0	11.3								12.1	13.6	63
	50	10.0	12.6	14.8							15.4	17.4	68
	60	10.5	13.5	16.0	18.0						18.4	20.9	71
	70	10.9	14.0	16.8	19.1	21.1					21.2	24.2	72
	80	11.2	14.4	17.3	19.9	22.1					23.9	27.3	73
	90	11.4	14.7	17.7	20.5	22.9	25.1				26.5	30.4	74
14	40	12.0	15.1								17.1	18.1	63
	50	13.3	16.9	19.7							21.8	23.1	68
	60	14.0	18.0	21.3	24.1						26.0	27.6	71
	70	14.5	18.7	22.4	25.5	28.1					30.1	32.0	72
	80	14.8	19.2	23.1	26.6	29.6	32.0				33.9	36.1	73
	90	15.1	19.6	23.7	27.4	30.6	33.5	35.8			37.6	40.2	74
	100	15.3	19.9	24.1	27.9	31.4	34.5	37.2	39.6		41.3	44.2	74
16	40	15.6	19.5	22.1							22.6	23.3	63
	50	17.1	21.9	25.6	28.2						28.8	29.7	68
	60	18.1	23.3	27.6	31.1	33.7					34.4	35.5	71
	70	18.7	24.2	29.0	33.1	36.4	38.9				39.7	41.1	72
	80	19.2	24.9	30.0	34.4	38.2	41.4	43.9			44.8	46.4	73
	90	19.5	25.3	30.7	35.4	39.6	43.3	46.3	48.7		49.8	51.6	74
	100	19.7	25.7	31.2	36.2	40.7	44.7	48.2	51.1	53.5	54.7	56.7	74
18	40	19.7	24.6	27.9							28.7	29.2	63
	50	21.6	27.6	32.2	35.4						36.5	37.2	68
	60	22.8	29.4	34.8	39.2	42.3					43.7	44.5	71
	70	23.6	30.5	36.6	41.6	45.8	48.9				50.5	51.5	72
	80	24.1	31.3	37.8	43.4	48.2	52.1	55.1			57.0	58.1	73
	90	24.5	31.9	38.6	44.6	49.9	54.5	58.2	61.2		63.3	64.6	74
	100	24.8	32.4	39.3	45.6	51.3	56.3	60.6	64.2	67.2	69.5	71.0	74
20	50	26.7	34.0	39.7	43.6						45.2	45.7	68
	60	28.1	36.2	42.9	48.3	52.1					54.0	54.7	71
	70	29.1	37.6	45.1	51.3	56.3	60.1				62.4	63.1	72
	80	29.7	38.6	46.5	53.4	59.3	64.1	67.8	70.2		70.4	71.3	73
	90	30.2	39.4	47.6	55.0	61.5	67.0	71.6	75.2	77.8	78.2	79.2	74
	100	30.6	39.9	48.4	56.2	63.1	69.3	74.6	79.0	82.5	85.9	87.0	74
22	50	32.3	41.2	48.0	52.7						54.7	55.1	68
	60	34.0	43.8	51.9	58.3	62.9					65.4	65.9	71
	70	35.2	45.5	54.5	62.0	68.1	72.5	75.3			75.5	76.1	72
	80	36.0	46.7	56.3	64.6	71.7	77.4	81.8	84.7		85.2	85.9	73
	90	36.6	47.6	57.6	66.5	74.3	81.0	86.5	90.8	93.8	94.6	95.4	74
	100	37.0	48.3	58.6	68.0	76.3	83.7	90.1	95.4	99.6	103.9	104.8	74
24	50	38.5	49.0	57.2	62.7						65.1	65.5	68
	60	40.5	52.2	61.8	69.4	74.8	77.8				77.8	78.2	71
	70	41.9	54.2	64.9	73.8	80.9	86.2	89.4			89.8	90.3	72
	80	42.9	55.7	67.0	76.9	85.3	92.0	97.2	100.6		101.3	101.9	73
	90	43.6	56.7	68.6	79.2	88.4	96.3	102.8	107.8	111.3	112.6	113.2	74
	100	44.1	57.5	69.8	80.9	90.8	99.6	107.1	113.3	118.3	123.6	124.3	74

[a] Includes 1.0-foot stump allowance.

Table 78--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 pondcypress (species 222) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.7									6.4	9.9	62
	30	7.3	9.2								10.3	13.2	67
	40	8.4	10.5	12.4							13.9	16.5	70
	50	9.1	11.2	13.3	15.2	17.0					17.2	19.6	71
	60	9.5	11.8	13.9	15.9	17.8	19.6				20.3	22.6	72
	70	9.9	12.1	14.3	16.4	18.4	20.3	22.1			23.2	25.4	72
12	20	7.4									8.1	11.4	59
	30	9.5	12.0								13.2	15.7	67
	40	10.6	13.5	15.9							17.6	19.8	70
	50	11.3	14.4	17.1	19.5	21.4					21.6	23.6	71
	60	11.8	15.0	17.8	20.4	22.8	24.8				25.4	27.3	72
	70	12.1	15.3	18.3	21.1	23.6	25.9	27.9			29.1	30.9	72
	80	12.4	15.6	18.7	21.6	24.2	26.7	29.0	31.0		32.6	34.4	73
14	40	13.6	17.4	20.4							22.3	24.2	70
	50	14.3	18.4	21.9	24.8	27.0					27.2	29.0	71
	60	14.8	19.1	22.8	26.1	28.9	31.2				31.9	33.5	72
	70	15.2	19.5	23.5	27.0	30.2	32.9	35.2			36.4	38.0	72
	80	15.5	19.8	23.9	27.6	31.0	34.1	36.8	39.1		40.8	42.3	73
	90	15.7	20.1	24.2	28.1	31.7	35.0	37.9	40.6	42.9	45.1	46.6	73
	100	15.8	20.3	24.5	28.5	32.2	35.6	38.8	41.7	44.4	49.4	50.9	73
16	40	17.1	22.0	25.7							27.8	29.6	70
	50	18.0	23.2	27.7	31.1	33.6					33.8	35.4	71
	60	18.5	24.0	28.8	32.9	36.3	38.8				39.5	41.1	72
	70	18.9	24.5	29.6	34.1	37.9	41.2	43.8			45.0	46.5	72
	80	19.2	24.9	30.1	34.9	39.1	42.8	46.0	48.7		50.4	51.9	73
	90	19.4	25.2	30.6	35.5	40.0	44.0	47.7	50.8	53.4	55.8	57.2	73
	100	19.6	25.4	30.9	35.9	40.6	44.9	48.9	52.4	55.5	61.0	62.4	73
18	40	21.2	27.4	31.8							34.2	35.9	70
	50	22.2	28.9	34.3	38.5	41.2					41.4	43.0	71
	60	22.9	29.8	35.7	40.7	44.7	47.6				48.3	49.8	72
	70	23.3	30.4	36.7	42.2	46.9	50.8	53.7			55.0	56.4	72
	80	23.7	30.8	37.4	43.2	48.4	52.9	56.7	59.6		61.5	62.9	73
	90	23.9	31.2	37.9	44.0	49.5	54.5	58.8	62.5	65.5	68.0	69.3	73
	100	24.1	31.4	38.3	44.6	50.4	55.7	60.4	64.6	68.3	74.4	75.7	73
20	50	27.1	35.2	41.8	46.7	49.8					50.1	51.5	71
	60	27.8	36.3	43.6	49.6	54.3	57.5				58.3	59.6	72
	70	28.3	37.0	44.8	51.4	57.1	61.6	64.9			66.2	67.6	72
	80	28.7	37.6	45.6	52.7	59.0	64.3	68.7	72.0		74.0	75.3	73
	90	29.0	38.0	46.2	53.6	60.4	66.3	71.4	75.7	79.1	81.8	83.0	73
	100	29.2	38.3	46.6	54.4	61.4	67.8	73.5	78.4	82.7	89.4	90.6	73
22	50	32.5	42.3	50.2	56.0	59.4					59.6	61.0	71
	60	33.4	43.6	52.3	59.5	64.9	68.5				69.3	70.7	72
	70	34.0	44.5	53.7	61.7	68.3	73.6	77.3			78.7	80.0	72
	80	34.4	45.1	54.7	63.3	70.7	77.0	82.0	85.8		88.0	89.2	73
	90	34.7	45.5	55.4	64.4	72.4	79.4	85.4	90.4	94.2	97.1	98.3	73
	100	35.0	45.9	56.0	65.3	73.7	81.3	88.0	93.8	98.7	106.1	107.3	73
24	50	38.5	50.2	59.4	66.1	70.0					70.2	71.6	71
	60	39.5	51.7	62.0	70.3	76.6	80.7				81.5	82.8	72
	70	40.2	52.7	63.6	73.0	80.7	86.8	91.0			92.5	93.7	72
	80	40.7	53.4	64.8	74.9	83.6	90.9	96.7	101.0		103.3	104.5	73
	90	41.1	53.9	65.7	76.2	85.7	93.9	100.8	106.5	110.9	113.9	115.1	73
	100	41.3	54.3	66.3	77.3	87.2	96.1	103.9	110.7	116.3	124.5	125.6	73

[a] 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 pondcypress (species 222) South-wide[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	2.4	2.8	3.2	3.5	3.8	4.1											
6	2.4	2.8	3.3	4.1	4.6	5.0	5.5	5.9									
7	2.6	3.3	4.2	4.9	5.6	6.2	6.8	7.4	7.9	8.4							
8	3.1	4.2	5.1	6.0	6.9	7.7	8.4	9.2	9.8	10.5	11.1	11.8					
9	4.2	5.0	6.1	7.3	8.3	9.4	10.3	11.2	12.1	12.9	13.7	14.5	15.3	16.0			
10	4.9	5.9	7.4	8.7	10.0	11.3	12.4	13.5	14.6	15.6	16.6	17.6	18.6	19.5	20.4	21.3	
11	5.6	7.0	8.7	10.4	11.9	13.4	14.8	16.2	17.4	18.7	19.9	21.1	22.2	23.3	24.5	25.5	26.6
12	6.4	8.2	10.2	12.2	14.0	15.8	17.5	19.0	20.6	22.0	23.5	24.9	26.3	27.6	28.9	30.2	31.5
13	7.3	9.6	11.9	14.2	16.4	18.4	20.3	22.2	24.0	25.7	27.4	29.1	30.7	32.3	33.8	35.3	36.9
14	8.4	11.0	13.8	16.4	18.9	21.2	23.5	25.7	27.7	29.7	31.7	33.6	35.5	37.3	39.1	40.9	42.6
15	9.6	12.6	15.7	18.8	21.6	24.3	26.9	29.4	31.8	34.1	36.3	38.5	40.6	42.7	44.8	46.9	48.9
16	10.9	14.3	17.9	21.3	24.5	27.6	30.6	33.4	36.1	38.7	41.2	43.7	46.2	48.6	50.9	53.3	55.6

[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 pondcypress (species 222) South-wide[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	3.0	4.0	4.8	5.5	6.2	6.8											
6	3.0	3.9	4.7	5.5	6.3	7.1	7.9	8.6									
7	3.2	4.0	5.0	6.1	7.1	8.0	8.8	9.6	10.4	11.1							
8	3.5	4.4	5.7	7.0	8.1	9.2	10.2	11.1	12.0	12.9	13.8	14.6					
9	3.9	5.1	6.6	8.1	9.4	10.7	11.9	13.0	14.1	15.1	16.1	17.1	18.1	19.1			
10	4.4	5.9	7.7	9.4	11.0	12.5	13.9	15.2	16.5	17.7	18.9	20.1	21.2	22.4	23.5	24.6	
11	5.0	6.9	9.0	11.0	12.8	14.5	16.1	17.7	19.2	20.6	22.0	23.4	24.8	26.1	27.4	28.7	30.0
12	5.7	7.9	10.4	12.7	14.8	16.8	18.7	20.5	22.2	23.9	25.5	27.1	28.7	30.3	31.8	33.3	34.8
13	6.5	9.2	12.0	14.6	17.1	19.3	21.5	23.6	25.6	27.5	29.4	31.2	33.1	34.8	36.6	38.4	40.1
14	7.3	10.5	13.7	16.7	19.5	22.1	24.6	26.9	29.2	31.4	33.6	35.7	37.8	39.8	41.9	43.9	45.9
15	8.3	11.9	15.6	19.0	22.2	25.1	27.9	30.6	33.2	35.7	38.1	40.5	42.9	45.2	47.5	49.8	52.1
16	9.4	13.5	17.6	21.5	25.0	28.4	31.5	34.5	37.4	40.3	43.0	45.7	48.4	51.0	53.6	56.2	58.7

[a] Includes 0.5-foot stump allowance.

Table 81--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 hemlock (species 261) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	40	5.9									7.0	8.3	71
	50	6.3	8.3								8.4	10.1	75
	60	6.5	8.8								9.6	11.8	77
	70	6.6	9.0								10.7	13.4	78
	80	6.7	9.2	11.3							11.7	14.9	79
	90	6.8	9.3	11.5							12.8	16.4	79
12	40	8.5	11.0								11.2	12.1	71
	50	9.0	12.0								13.6	14.8	75
	60	9.3	12.6	15.1							15.7	17.2	77
	70	9.5	13.0	15.8							17.7	19.6	78
	80	9.7	13.3	16.2	18.6						19.6	21.8	79
	90	9.7	13.4	16.6	19.2	21.3					21.5	24.0	79
	100	9.8	13.6	16.9	19.6	22.0					23.3	26.2	80
14	40	11.5	15.0								15.9	16.6	71
	50	12.3	16.4	19.0							19.3	20.2	75
	60	12.7	17.2	20.5							22.4	23.6	77
	70	13.0	17.7	21.5	24.2						25.4	26.8	78
	80	13.2	18.1	22.1	25.3	27.7					28.2	29.9	79
	90	13.3	18.3	22.6	26.1	28.9					31.0	32.9	79
	100	13.4	18.5	22.9	26.8	29.9	32.4				33.7	35.9	80
16	50	16.0	21.4	24.9							25.8	26.5	75
	60	16.6	22.5	26.8	29.6						30.0	30.9	77
	70	16.9	23.1	28.0	31.6						34.0	35.2	78
	80	17.2	23.6	28.9	33.1	36.2					37.8	39.2	79
	90	17.4	23.9	29.5	34.1	37.8	40.5				41.6	43.2	79
	100	17.5	24.2	30.0	34.9	39.1	42.3	44.7			45.3	47.2	80
	110	17.6	24.3	30.3	35.6	40.0	43.7	46.7	48.8		49.0	51.0	80
18	50	20.3	27.1	31.5							33.0	33.6	75
	60	21.0	28.4	33.9	37.4						38.4	39.3	77
	70	21.5	29.3	35.5	40.1	43.0					43.5	44.6	78
	80	21.8	29.9	36.6	41.9	45.8	48.3				48.5	49.8	79
	90	22.0	30.3	37.4	43.2	47.9	51.3				53.4	54.9	79
	100	22.1	30.6	37.9	44.2	49.4	53.6	56.6			58.2	59.9	80
	110	22.3	30.8	38.4	45.0	50.7	55.4	59.1	61.8		62.9	64.8	80
20	60	26.0	35.1	41.9	46.2						47.8	48.5	77
	70	26.5	36.2	43.8	49.5	53.1					54.2	55.2	78
	80	26.9	36.9	45.2	51.7	56.6	59.7				60.4	61.6	79
	90	27.1	37.4	46.1	53.4	59.1	63.3	66.0			66.5	67.8	79
	100	27.3	37.8	46.9	54.6	61.1	66.1	69.9	72.3		72.5	74.0	80
	110	27.5	38.0	47.4	55.6	62.6	68.4	72.9	76.3	78.5	78.5	80.1	80
22	60	31.4	42.5	50.7	55.9						58.1	58.8	77
	70	32.1	43.8	53.0	59.9	64.3					65.9	66.8	78
	80	32.5	44.6	54.7	62.6	68.4	72.2				73.6	74.6	79
	90	32.8	45.2	55.8	64.6	71.5	76.6	79.9			81.0	82.2	79
	100	33.1	45.7	56.7	66.1	73.9	80.0	84.6	87.5		88.3	89.7	80
	110	33.3	46.0	57.4	67.3	75.7	82.7	88.2	92.3	95.0	95.6	97.1	80
24	60	37.4	50.6	60.3	66.6						69.4	70.0	77
	70	38.2	52.1	63.1	71.3	76.5					78.8	79.6	78
	80	38.7	53.1	65.1	74.5	81.5	85.9				87.9	88.8	79
	90	39.1	53.9	66.4	76.9	85.1	91.2	95.1			96.8	97.9	79
	100	39.4	54.4	67.5	78.7	87.9	95.3	100.7	104.1		105.6	106.8	80
	110	39.6	54.8	68.3	80.1	90.1	98.5	105.0	109.9	113.0	114.3	115.7	80

[a] Includes 1.0-foot stump allowance.

Table 82--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 hemlock (species 261) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	30	6.0									7.2	8.3	74
	40	6.4	8.6								8.8	10.8	77
	50	6.6	9.0								10.3	13.0	78
	60	6.7	9.2	11.3							11.7	15.2	79
	70	6.8	9.3	11.5							13.0	17.3	79
	80	6.8	9.4	11.7	13.7						14.3	19.5	79
	90	6.9	9.5	11.9	14.0						15.7	21.6	80
12	30	8.6									11.0	11.8	74
	40	9.2	12.3								13.8	15.1	77
	50	9.5	12.9	15.4							16.4	18.2	78
	60	9.6	13.2	16.1	18.3						18.9	21.2	79
	70	9.7	13.4	16.5	19.1	21.1					21.3	24.1	79
	80	9.8	13.6	16.8	19.6	22.0					23.7	27.0	79
	90	9.9	13.7	17.0	20.0	22.6	24.8				26.0	29.9	80
14	40	12.5	16.7	19.3							19.4	20.3	77
	50	12.9	17.5	20.9							23.1	24.3	78
	60	13.1	18.0	21.8	24.8						26.6	28.3	79
	70	13.3	18.2	22.4	25.8	28.5					30.1	32.1	79
	80	13.4	18.4	22.8	26.6	29.7	32.1				33.5	35.9	79
	90	13.4	18.6	23.1	27.1	30.5	33.4	35.7			36.9	39.7	80
	100	13.5	18.7	23.4	27.5	31.2	34.4	37.0	39.2		40.3	43.4	80
16	40	16.3	21.8	25.1							25.5	26.2	77
	50	16.8	22.9	27.2	30.0						30.5	31.4	78
	60	17.1	23.4	28.5	32.2	34.8					35.2	36.4	79
	70	17.3	23.8	29.3	33.6	37.0	39.4				39.8	41.4	79
	80	17.5	24.1	29.8	34.6	38.6	41.7	44.0			44.4	46.2	79
	90	17.6	24.3	30.2	35.3	39.7	43.4	46.3	48.5		48.9	51.0	80
	100	17.6	24.4	30.5	35.9	40.6	44.7	48.1	50.8	53.0	53.4	55.7	80
18	40	20.7	27.6	31.6							32.4	33.0	77
	50	21.3	28.9	34.4	37.8						38.7	39.5	78
	60	21.7	29.7	36.0	40.6	43.8					44.7	45.7	79
	70	21.9	30.1	37.0	42.5	46.6	49.6				50.6	51.8	79
	80	22.1	30.5	37.7	43.7	48.7	52.5	55.3			56.4	57.8	79
	90	22.2	30.7	38.2	44.7	50.2	54.7	58.3	60.9		62.2	63.8	80
	100	22.3	30.9	38.6	45.4	51.3	56.3	60.6	64.0	66.5	67.9	69.7	80
20	50	26.3	35.7	42.4	46.5						47.8	48.4	78
	60	26.8	36.6	44.4	50.1	53.8					55.3	56.1	79
	70	27.1	37.2	45.6	52.3	57.4	60.9				62.6	63.5	79
	80	27.3	37.6	46.5	53.9	59.9	64.6	67.9			69.7	70.9	79
	90	27.4	37.9	47.1	55.1	61.8	67.3	71.7	74.9		76.8	78.1	80
	100	27.6	38.1	47.6	56.0	63.2	69.4	74.5	78.6	81.7	83.9	85.4	80
22	50	31.9	43.2	51.2	56.2						57.9	58.4	78
	60	32.4	44.3	53.6	60.5	64.9					66.9	67.5	79
	70	32.8	45.0	55.2	63.2	69.3	73.5				75.7	76.5	79
	80	33.0	45.5	56.2	65.2	72.4	78.0	81.9	84.3		84.3	85.3	79
	90	33.2	45.9	57.0	66.6	74.7	81.3	86.5	90.2	92.7	92.9	94.0	80
	100	33.4	46.2	57.6	67.7	76.4	83.8	90.0	94.8	98.5	101.4	102.7	80
24	50	37.9	51.4	60.9	66.7						68.8	69.2	78
	60	38.6	52.7	63.8	71.9	77.1					79.5	80.1	79
	70	39.0	53.6	65.6	75.2	82.4	87.3	89.9			90.0	90.6	79
	80	39.3	54.2	66.9	77.5	86.1	92.6	97.2	100.0		100.3	101.0	79
	90	39.5	54.6	67.8	79.2	88.8	96.6	102.7	107.1	109.9	110.4	111.4	80
	100	39.7	54.9	68.5	80.5	90.8	99.6	106.9	112.6	116.9	120.6	121.6	80

[a] Includes 1.0-foot stump allowance.

Table 83--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 hemlock (species 261) South-wide[a]

D.b.h. class	Height to 7-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
10	20	5.9									6.7	8.2	75
	30	6.4	8.8								10.0	12.2	78
	40	6.6	9.2	11.4							13.0	16.0	79
	50	6.7	9.4	11.7	13.8	15.7					15.9	19.8	79
	60	6.8	9.5	11.9	14.2	16.3	18.2				18.8	23.6	79
	70	6.9	9.5	12.1	14.4	16.6	18.7	20.6			21.7	27.4	79
12	20	8.5									9.5	10.7	75
	30	9.2	12.4								13.7	15.3	78
	40	9.5	13.0	15.8							17.6	19.7	79
	50	9.7	13.3	16.5	19.1	21.1					21.3	24.0	79
	60	9.8	13.5	16.9	19.8	22.3	24.4				25.0	28.3	79
	70	9.9	13.7	17.1	20.2	23.0	25.4	27.5			28.7	32.6	79
	80	9.9	13.7	17.3	20.5	23.5	26.2	28.6	30.7		32.3	36.8	79
14	40	12.9	17.6	21.1							23.0	24.6	79
	50	13.2	18.1	22.1	25.3	27.5					27.8	29.8	79
	60	13.3	18.3	22.7	26.4	29.4	31.7				32.4	34.8	79
	70	13.4	18.5	23.1	27.1	30.5	33.4	35.8			37.0	39.8	79
	80	13.5	18.6	23.3	27.6	31.3	34.6	37.5	39.8		41.5	44.9	79
	90	13.5	18.7	23.5	27.9	31.9	35.5	38.7	41.5	43.8	46.0	49.9	79
	100	13.6	18.8	23.7	28.2	32.4	36.2	39.6	42.7	45.5	50.6	54.9	80
16	40	16.9	22.9	27.1							29.3	30.6	79
	50	17.2	23.5	28.6	32.4	34.9					35.2	36.8	79
	60	17.4	23.9	29.4	34.0	37.6	40.1				40.9	42.8	79
	70	17.5	24.1	30.0	35.0	39.2	42.7	45.3			46.5	48.8	79
	80	17.6	24.3	30.3	35.7	40.4	44.4	47.7	50.4		52.1	54.8	79
	90	17.6	24.4	30.6	36.2	41.2	45.6	49.5	52.7	55.4	57.7	60.7	79
	100	17.7	24.5	30.8	36.6	41.9	46.6	50.8	54.5	57.7	63.3	66.7	80
18	40	21.4	28.9	34.0							36.5	37.5	79
	50	21.7	29.7	36.0	40.5	43.3					43.5	44.9	79
	60	22.0	30.2	37.1	42.6	46.9	49.7				50.5	52.1	79
	70	22.1	30.5	37.8	44.0	49.1	53.1	56.0			57.3	59.2	79
	80	22.2	30.7	38.3	44.9	50.6	55.4	59.3	62.3		64.1	66.3	79
	90	22.3	30.9	38.6	45.6	51.8	57.1	61.7	65.5	68.5	70.9	73.4	79
	100	22.4	31.0	38.9	46.1	52.6	58.4	63.5	67.9	71.6	77.7	80.4	80
20	50	26.8	36.7	44.2	49.6	52.7					52.9	54.0	79
	60	27.1	37.2	45.6	52.3	57.2	60.5				61.2	62.6	79
	70	27.3	37.6	46.5	54.0	60.1	64.8	68.1			69.4	71.0	79
	80	27.4	37.9	47.2	55.2	62.1	67.8	72.3	75.6		77.6	79.4	79
	90	27.5	38.1	47.6	56.1	63.5	70.0	75.4	79.8	83.1	85.7	87.8	79
	100	27.6	38.2	48.0	56.8	64.6	71.6	77.7	82.9	87.2	93.8	96.1	80
22	50	32.5	44.3	53.4	59.6	63.0					63.3	64.2	79
	60	32.8	45.0	55.1	63.0	68.7	72.3				73.1	74.3	79
	70	33.0	45.5	56.2	65.1	72.3	77.7	81.4			82.8	84.2	79
	80	33.2	45.8	57.0	66.6	74.8	81.5	86.6	90.4		92.4	94.0	79
	90	33.3	46.1	57.5	67.7	76.6	84.2	90.5	95.5	99.3	102.0	103.8	79
	100	33.4	46.3	57.9	68.5	77.9	86.2	93.4	99.4	104.4	111.6	113.6	80
24	50	38.6	52.7	63.3	70.6	74.4					74.6	75.5	79
	60	39.0	53.6	65.5	74.7	81.3	85.3				86.1	87.1	79
	70	39.3	54.1	66.8	77.3	85.7	91.9	96.0			97.5	98.6	79
	80	39.5	54.5	67.7	79.1	88.7	96.4	102.4	106.5		108.7	110.1	79
	90	39.7	54.8	68.4	80.4	90.8	99.7	107.0	112.8	117.0	119.9	121.5	79
	100	39.8	55.0	68.9	81.4	92.5	102.2	110.6	117.6	123.2	131.1	132.8	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 hemlock (species 261) South-wide[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	1.0	1.4	1.7	1.8	1.9											
6	2.1	2.4	2.7	3.0	3.3	3.5	3.7	3.9									
7	3.0	3.5	4.0	4.4	4.8	5.2	5.5	5.9	6.2	6.6							
8	4.1	4.8	5.4	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.4	9.9					
9	5.2	6.1	6.9	7.7	8.4	9.1	9.7	10.4	11.0	11.6	12.2	12.8	13.4	14.0			
10	6.5	7.6	8.6	9.6	10.5	11.3	12.1	12.9	13.7	14.5	15.3	16.0	16.8	17.5	18.2	19.0	
11	7.9	9.3	10.5	11.7	12.7	13.8	14.8	15.8	16.7	17.7	18.6	19.5	20.5	21.4	22.3	23.2	24.1
12	9.4	11.1	12.6	13.9	15.2	16.5	17.7	18.9	20.0	21.2	22.3	23.4	24.5	25.6	26.7	27.7	28.8
13	11.1	13.0	14.8	16.4	17.9	19.4	20.8	22.2	23.6	24.9	26.3	27.6	28.9	30.2	31.4	32.7	34.0
14	12.9	15.1	17.2	19.1	20.9	22.6	24.2	25.9	27.5	29.0	30.6	32.1	33.6	35.1	36.6	38.1	39.6
15	14.8	17.4	19.8	21.9	24.0	26.0	27.9	29.8	31.6	33.4	35.2	36.9	38.7	40.4	42.1	43.8	45.5
16	16.9	19.8	22.5	25.0	27.3	29.6	31.8	33.9	36.0	38.1	40.1	42.1	44.1	46.0	48.0	50.0	51.9

[a] Includes 0.5-foot stump allowance.

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 hemlock (species 261) South-wide[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	2.1	2.5	3.0	3.4	3.9											
6	2.2	2.8	3.4	4.0	4.5	5.1	5.6	6.1									
7	2.9	3.7	4.5	5.2	5.9	6.5	7.2	7.8	8.4	9.1							
8	3.8	4.8	5.7	6.6	7.4	8.2	9.0	9.8	10.5	11.3	12.0	12.8					
9	4.7	6.0	7.1	8.1	9.1	10.1	11.0	12.0	12.9	13.8	14.7	15.6	16.5	17.4			
10	5.8	7.3	8.6	9.9	11.1	12.2	13.3	14.5	15.5	16.6	17.7	18.7	19.8	20.9	21.9	22.9	
11	7.0	8.8	10.4	11.8	13.2	14.6	15.9	17.2	18.5	19.7	21.0	22.2	23.5	24.7	25.9	27.2	28.4
12	8.3	10.4	12.2	13.9	15.6	17.1	18.7	20.2	21.7	23.1	24.6	26.0	27.5	28.9	30.3	31.8	33.2
13	9.7	12.1	14.3	16.3	18.1	19.9	21.7	23.4	25.2	26.8	28.5	30.2	31.8	33.5	35.1	36.8	38.4
14	11.3	14.0	16.5	18.7	20.9	23.0	25.0	27.0	28.9	30.9	32.8	34.7	36.6	38.4	40.3	42.2	44.1
15	12.9	16.1	18.9	21.4	23.9	26.2	28.5	30.8	33.0	35.2	37.3	39.5	41.6	43.8	45.9	48.0	50.1
16	14.7	18.2	21.4	24.3	27.0	29.7	32.3	34.8	37.3	39.8	42.2	44.6	47.0	49.4	51.8	54.2	56.6

[a] Includes 0.5-foot stump allowance.

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 soft hardwoods combined (species 300) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40												
	50	8.3									4.9	9.6	58
	60	9.0									8.7	12.9	67
12	70	9.4	12.7								11.2	15.9	72
	80	9.7	13.2								13.3	18.7	75
	90	9.9	13.5	16.7							15.1	21.3	77
	100	10.0	13.8	17.1							16.9	23.8	79
											18.5	26.2	80
	40	9.9											
	50	11.4	14.8								10.8	13.1	58
	60	12.3	16.3								15.0	17.7	67
14	70	12.8	17.3	20.9							18.6	21.8	72
	80	13.2	18.0	22.0							21.8	25.6	75
	90	13.4	18.4	22.8	26.4						24.8	29.2	77
	100	13.6	18.8	23.4	27.3						27.7	32.7	79
											30.4	36.0	80
	50	14.9	19.3										
	60	16.1	21.4	25.3							21.2	23.3	67
	70	16.8	22.6	27.4							26.1	28.7	72
16	80	17.3	23.5	28.8	32.9						30.6	33.7	75
	90	17.6	24.1	29.8	34.5	38.1					34.8	38.4	77
	100	17.8	24.6	30.6	35.7	39.9					38.7	42.9	79
	110	18.0	24.9	31.1	36.6	41.2	45.0				42.6	47.3	80
											46.4	51.6	80
	50	18.9	24.5										
	60	20.4	27.1	32.0							27.8	29.6	67
	70	21.3	28.7	34.7	39.0						34.2	36.4	72
18	80	21.9	29.8	36.5	41.7	45.4					40.0	42.8	75
	90	22.3	30.6	37.8	43.7	48.3					45.5	48.7	77
	100	22.6	31.1	38.7	45.2	50.5	54.5				50.8	54.5	79
	110	22.8	31.6	39.4	46.4	52.2	56.9	60.5			55.9	60.1	80
											60.9	65.6	80
	50	23.3	30.3	34.7									
	60	25.2	33.4	39.6							35.0	36.6	67
	70	26.3	35.5	42.8	48.1						43.0	45.1	72
20	80	27.1	36.8	45.1	51.5	56.0					50.4	52.9	75
	90	27.6	37.8	46.7	54.0	59.7	63.5				57.4	60.3	77
	100	27.9	38.5	47.8	55.9	62.4	67.3				64.1	67.5	79
	110	28.2	39.0	48.7	57.3	64.5	70.3	74.7			70.6	74.4	80
											77.0	81.2	80
	60	30.5	40.5	48.0	52.4								
	70	31.9	43.0	51.9	58.3						52.8	54.6	72
	80	32.8	44.6	54.6	62.4	67.9					61.9	64.1	75
22	90	33.4	45.8	56.5	65.4	72.2	76.9				70.5	73.1	77
	100	33.9	46.6	57.9	67.6	75.5	81.5	85.7			78.7	81.8	79
	110	34.2	47.3	59.0	69.4	78.1	85.2	90.4	94.1		86.7	90.2	80
											94.5	98.4	80
	60	36.3	48.2	57.1	62.4								
	70	38.0	51.2	61.8	69.4	73.9					63.4	65.1	72
	80	39.0	53.1	65.0	74.3	80.8	84.7				74.4	76.4	75
24	90	39.8	54.5	67.3	77.9	86.0	91.6				84.7	87.1	77
	100	40.3	55.5	69.0	80.5	90.0	97.1	102.0			94.6	97.4	79
	110	40.7	56.3	70.3	82.6	93.0	101.4	107.7	112.1		104.3	107.4	80
											113.7	117.2	80
	60	42.7	56.6	67.1	73.3								
	70	44.6	60.1	72.5	81.5	86.7					74.9	76.5	72
	80	45.9	62.4	76.3	87.3	94.9	99.4				87.9	89.8	75
26	90	46.7	64.0	79.0	91.4	101.0	107.5	111.6			100.1	102.3	77
	100	47.4	65.2	81.0	94.6	105.6	114.0	119.7			111.9	114.4	79
	110	47.9	66.1	82.5	97.0	109.2	119.0	126.4	131.6		123.3	126.2	80
											134.5	137.7	80

[a] Includes 1.0-foot stump allowance.

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 soft hardwoods combined (species 300) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.3									8.7	11.1	69
	40	9.0									10.8	14.7	74
	50	9.4									12.7	18.0	76
	60	9.7	13.2								14.4	21.1	78
	70	9.8	13.4								16.0	24.1	78
	80	9.9	13.6	16.9							17.6	27.1	79
	90	10.0	13.8	17.1							19.1	30.0	79
14	40	12.3	16.3								17.1	19.7	74
	50	12.9	17.3								20.4	24.1	76
	60	13.2	17.9	21.8							23.6	28.2	78
	70	13.4	18.3	22.5	25.9						26.6	32.2	78
	80	13.5	18.6	23.0	26.7						29.5	36.1	79
	90	13.6	18.8	23.3	27.3	30.7					32.4	40.0	79
	100	13.7	18.9	23.6	27.8	31.5	34.7				35.2	43.8	80
16	40	16.1	21.3								23.6	25.5	74
	50	16.9	22.7	26.9							28.4	31.1	76
	60	17.3	23.4	28.4	32.1						33.0	36.4	78
	70	17.5	23.9	29.3	33.7	37.1					37.4	41.5	78
	80	17.7	24.3	30.0	34.8	38.8					41.7	46.5	79
	90	17.9	24.5	30.5	35.6	40.0	43.7				45.9	51.5	79
	100	18.0	24.7	30.8	36.2	41.0	45.1	48.6			50.1	56.4	80
18	40	20.5	26.9								30.6	32.1	74
	50	21.4	28.7	34.0							37.0	39.1	76
	60	21.9	29.7	35.9	40.6						43.1	45.7	78
	70	22.2	30.3	37.1	42.6	46.8					48.9	52.1	78
	80	22.5	30.8	37.9	44.0	49.0	52.9				54.6	58.4	79
	90	22.6	31.1	38.6	45.0	50.6	55.2	58.9			60.2	64.6	79
	100	22.8	31.3	39.0	45.8	51.8	56.9	61.2	64.7		65.8	70.7	80
20	40	25.3	33.3	38.0							38.3	39.5	74
	50	26.4	35.4	42.0	46.1						46.4	48.0	76
	60	27.1	36.7	44.3	50.0	53.8					54.0	56.1	78
	70	27.5	37.5	45.8	52.6	57.7	61.3				61.4	63.9	78
	80	27.8	38.0	46.9	54.3	60.4	65.1	68.6			68.6	71.6	79
	90	28.0	38.4	47.6	55.6	62.4	68.0	72.4			75.7	79.2	79
	100	28.2	38.7	48.2	56.6	63.9	70.2	75.4	79.6		82.7	86.6	80
22	50	32.0	42.9	50.8	55.7						56.6	57.9	76
	60	32.8	44.4	53.6	60.5	65.0					65.9	67.6	78
	70	33.3	45.4	55.5	63.5	69.7	74.0				75.0	77.0	78
	80	33.7	46.0	56.7	65.7	73.0	78.7	82.7			83.8	86.2	79
	90	33.9	46.5	57.6	67.3	75.4	82.2	87.5	91.4		92.5	95.3	79
	100	34.1	46.9	58.3	68.4	77.3	84.8	91.1	96.1	99.9	101.1	104.3	80
24	50	38.1	51.1	60.4	66.2						67.7	68.8	76
	60	39.1	52.9	63.8	71.9	77.2					78.8	80.2	78
	70	39.7	54.0	66.0	75.6	82.9	87.9				89.6	91.4	78
	80	40.1	54.8	67.5	78.2	86.8	93.5	98.3			100.2	102.2	79
	90	40.4	55.4	68.6	80.0	89.7	97.7	103.9	108.5		110.6	113.0	79
	100	40.6	55.8	69.4	81.5	91.9	100.9	108.3	114.2	118.7	121.0	123.6	80
26	50	44.8	60.0	70.9	77.7						79.6	80.5	76
	60	45.9	62.1	74.9	84.4	90.5					92.8	94.0	78
	70	46.6	63.5	77.5	88.7	97.2	103.0				105.5	106.9	78
	80	47.1	64.4	79.3	91.7	101.8	109.6	115.1			117.9	119.7	79
	90	47.5	65.1	80.5	93.9	105.3	114.5	121.8	127.1		130.2	132.2	79
	100	47.7	65.6	81.5	95.6	107.9	118.3	127.0	133.9	139.0	142.4	144.6	80

[a] 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 soft hardwoods combined (species 300) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.7									9.9	16.5	73
	30	9.4	12.9								14.7	20.1	77
	40	9.7	13.4	16.7							19.4	24.3	78
	50	9.8	13.6	17.2	20.5	23.5					23.9	28.6	79
	60	9.9	13.8	17.5	20.9	24.2	27.2				28.3	32.9	79
	70	10.0	13.9	17.6	21.2	24.6	27.9	30.9			32.7	37.2	79
	80	10.0	14.0	17.8	21.4	24.9	28.3	31.5	34.6		37.1	41.5	80
14	40	13.2	18.1	22.2							25.1	29.6	78
	50	13.4	18.5	23.0	27.0	30.3					30.6	34.9	79
	60	13.6	18.7	23.5	27.8	31.7	35.0				36.1	40.2	79
	70	13.7	18.9	23.8	28.3	32.5	36.3	39.7			41.5	45.6	79
	80	13.7	19.0	24.0	28.7	33.1	37.2	40.9	44.3		46.9	50.9	80
	90	13.8	19.1	24.1	29.0	33.5	37.8	41.8	45.5	48.9	52.3	56.3	80
	100	13.8	19.1	24.3	29.2	33.8	38.3	42.4	46.4	50.1	57.7	61.6	80
16	40	17.3	23.5	28.5							31.7	35.9	78
	50	17.6	24.1	29.8	34.5	38.1					38.5	42.4	79
	60	17.8	24.5	30.5	35.8	40.3	44.0				45.1	49.0	79
	70	17.9	24.7	30.9	36.6	41.6	46.0	49.8			51.7	55.5	79
	80	18.0	24.8	31.2	37.1	42.5	47.4	51.8	55.5		58.3	62.0	80
	90	18.0	24.9	31.4	37.5	43.2	48.4	53.2	57.4	61.2	64.8	68.5	80
	100	18.1	25.0	31.6	37.8	43.7	49.1	54.2	58.9	63.1	71.3	75.0	80
18	40	21.9	29.7	35.7							39.2	43.2	78
	50	22.3	30.5	37.4	42.9	46.9					47.3	51.1	79
	60	22.5	30.9	38.4	44.8	50.1	54.2				55.3	59.0	79
	70	22.7	31.2	39.0	45.9	51.9	57.1	61.2			63.3	66.9	79
	80	22.8	31.4	39.4	46.7	53.2	59.0	64.1	68.3		71.2	74.7	80
	90	22.9	31.6	39.7	47.2	54.1	60.4	66.0	71.0	75.2	79.0	82.5	80
	100	22.9	31.7	39.9	47.6	54.8	61.5	67.5	73.0	77.9	86.8	90.3	80
20	40	27.1	36.7	43.7							47.5	51.4	78
	50	27.5	37.6	46.0	52.4	56.8					57.2	60.9	79
	60	27.8	38.2	47.2	54.8	61.0	65.5				66.8	70.3	79
	70	28.0	38.6	48.0	56.3	63.5	69.4	74.1			76.2	79.6	79
	80	28.2	38.8	48.5	57.3	65.2	72.0	77.8	82.5		85.5	88.9	80
	90	28.3	39.0	48.9	58.1	66.4	73.9	80.4	86.1	90.8	94.8	98.2	80
	100	28.3	39.1	49.2	58.6	67.3	75.2	82.4	88.8	94.4	104.1	107.4	80
22	50	33.4	45.5	55.4	62.9	67.8					68.2	71.8	79
	60	33.7	46.2	57.0	66.0	73.1	78.1				79.4	82.8	79
	70	34.0	46.7	58.0	67.9	76.3	83.1	88.2			90.4	93.8	79
	80	34.1	47.0	58.7	69.1	78.4	86.4	93.0	98.2		101.4	104.7	80
	90	34.2	47.2	59.2	70.1	79.9	88.7	96.4	102.9	108.1	112.4	115.6	80
	100	34.3	47.4	59.5	70.8	81.1	90.5	98.9	106.3	112.7	123.3	126.5	80
24	50	39.8	54.2	65.8	74.4	79.8					80.2	83.7	79
	60	40.2	55.0	67.7	78.2	86.3	91.9				93.2	96.6	79
	70	40.5	55.6	68.9	80.5	90.2	98.0	103.7			106.1	109.4	79
	80	40.7	55.9	69.7	82.1	92.9	102.1	109.7	115.4		118.9	122.1	80
	90	40.8	56.2	70.3	83.2	94.8	105.0	113.8	121.2	127.1	131.6	134.7	80
	100	40.9	56.4	70.8	84.1	96.2	107.2	116.9	125.5	132.7	144.2	147.4	80
26	50	46.7	63.6	77.0	86.9	92.8					93.3	96.7	79
	60	47.2	64.6	79.3	91.4	100.7	106.9				108.3	111.6	79
	70	47.5	65.2	80.8	94.2	105.4	114.3	120.6			123.1	126.3	79
	80	47.8	65.7	81.8	96.1	108.6	119.2	127.8	134.2		137.8	140.9	80
	90	47.9	66.0	82.5	97.5	110.9	122.7	132.8	141.2	147.6	152.4	155.5	80
	100	48.1	66.2	83.1	98.5	112.6	125.3	136.6	146.3	154.5	167.0	170.1	80

[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 soft hardwoods combined (species 300) South-wide[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	0.9	0.9	1.0	1.2	1.4											
6	1.2	1.4	2.1	2.5	2.8	3.2	3.5	3.8									
7	1.7	2.5	3.2	3.7	4.2	4.7	5.2	5.6	6.0	6.4							
8	2.8	3.5	4.3	5.0	5.7	6.4	7.0	7.6	8.1	8.7	9.2	9.7					
9	3.5	4.5	5.5	6.5	7.4	8.2	9.0	9.8	10.5	11.2	11.9	12.6	13.3	13.9			
10	4.4	5.7	6.9	8.1	9.2	10.2	11.2	12.2	13.1	14.0	14.9	15.8	16.6	17.4	18.3	19.1	
11	5.3	6.9	8.4	9.9	11.2	12.5	13.7	14.9	16.0	17.1	18.2	19.3	20.3	21.3	22.3	23.3	24.3
12	6.4	8.3	10.1	11.8	13.4	15.0	16.4	17.8	19.2	20.5	21.8	23.1	24.3	25.5	26.8	28.0	29.1
13	7.5	9.8	11.9	13.9	15.9	17.7	19.4	21.0	22.6	24.2	25.7	27.2	28.7	30.1	31.6	33.0	34.4
14	8.8	11.4	13.9	16.2	18.5	20.6	22.6	24.5	26.4	28.2	30.0	31.7	33.4	35.1	36.8	38.4	40.0
15	10.1	13.1	16.0	18.7	21.2	23.7	26.0	28.2	30.3	32.4	34.5	36.5	38.5	40.4	42.3	44.2	46.1
16	11.5	14.9	18.2	21.3	24.2	27.0	29.6	32.2	34.6	37.0	39.3	41.6	43.9	46.1	48.3	50.4	52.6

[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 soft hardwoods combined (species 300) South-wide[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	1.8	2.1	2.5	2.9	3.4	3.8											
6	2.1	2.6	3.3	3.9	4.4	5.0	5.5	6.0									
7	2.6	3.5	4.3	5.0	5.7	6.4	7.0	7.7	8.3	9.0							
8	3.3	4.4	5.4	6.3	7.2	8.0	8.8	9.6	10.4	11.2	12.0	12.7					
9	4.2	5.5	6.7	7.8	8.9	9.9	10.9	11.8	12.8	13.7	14.6	15.6	16.5	17.4			
10	5.2	6.8	8.2	9.5	10.8	12.0	13.2	14.3	15.4	16.6	17.7	18.7	19.8	20.9	22.0	23.0	
11	6.2	8.1	9.8	11.4	12.9	14.3	15.7	17.1	18.4	19.7	21.0	22.3	23.5	24.8	26.1	27.3	28.6
12	7.4	9.6	11.6	13.5	15.2	16.9	18.5	20.1	21.6	23.1	24.6	26.1	27.6	29.1	30.6	32.0	33.5
13	8.7	11.2	13.6	15.7	17.7	19.6	21.5	23.3	25.1	26.9	28.6	30.3	32.0	33.7	35.4	37.1	38.8
14	10.0	13.0	15.7	18.1	20.4	22.6	24.8	26.9	28.9	30.9	32.9	34.9	36.8	38.8	40.7	42.6	44.6
15	11.5	14.9	17.9	20.7	23.4	25.9	28.3	30.7	33.0	35.3	37.5	39.8	42.0	44.2	46.4	48.6	50.7
16	13.1	16.9	20.4	23.5	26.5	29.3	32.0	34.7	37.3	39.9	42.5	45.0	47.5	50.0	52.4	54.9	57.4

[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 red maple (species 316) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										5.4	9.6	58
	50										8.6	13.0	69
	60	9.4									11.4	16.0	75
12	70	9.8	13.3								13.6	18.8	78
	80	10.1	13.9								15.6	21.4	80
	90	10.3	14.3								17.3	23.9	82
	100	10.4	14.5	18.1							19.0	26.4	83
	40										10.1	13.1	58
	50	11.9									14.9	17.8	69
	60	12.8	17.0								18.5	22.0	75
14	70	13.4	18.1								21.6	25.8	78
	80	13.7	18.9	23.0							24.6	29.4	80
	90	14.0	19.4	23.9							27.3	32.9	82
	100	14.2	19.8	24.6	28.5						30.0	36.2	83
	50	15.5	20.0								20.9	23.4	69
	60	16.7	22.3								25.8	28.8	75
	70	17.5	23.7	28.4							30.2	33.8	78
16	80	18.0	24.7	30.0	33.9						34.4	38.6	80
	90	18.3	25.4	31.2	35.8						38.3	43.1	82
	100	18.5	25.9	32.2	37.2	41.1					42.1	47.6	83
	110	18.7	26.2	32.8	38.3	42.7					45.9	51.9	84
	50	19.7	25.3								27.5	29.7	69
	60	21.2	28.2	32.9							33.9	36.6	75
	70	22.1	30.0	35.9	39.7						39.7	43.0	78
18	80	22.7	31.2	38.0	42.9						45.2	49.0	80
	90	23.2	32.1	39.6	45.3	49.4					50.5	54.8	82
	100	23.5	32.7	40.7	47.1	52.0	55.5				55.6	60.4	83
	110	23.7	33.2	41.6	48.5	54.1	58.3				60.6	65.9	84
	50	24.3	31.3								34.7	36.7	69
	60	26.2	34.8	40.6							42.8	45.3	75
	70	27.3	37.0	44.3	49.0						50.2	53.2	78
20	80	28.1	38.6	46.9	52.9	56.9					57.2	60.6	80
	90	28.6	39.6	48.8	55.9	61.0					63.9	67.8	82
	100	29.0	40.4	50.2	58.2	64.2	68.6				70.4	74.8	83
	110	29.2	41.0	51.3	59.9	66.8	72.0	75.9			76.7	81.6	84
	60	31.7	42.1	49.1							52.6	54.8	75
	70	33.1	44.8	53.6	59.4						61.8	64.4	78
	80	34.0	46.7	56.8	64.1	68.9					70.4	73.5	80
22	90	34.6	48.0	59.1	67.6	73.8	77.9				78.6	82.1	82
	100	35.1	48.9	60.8	70.4	77.7	83.0				86.6	90.6	83
	110	35.4	49.6	62.1	72.5	80.8	87.1	91.9			94.5	98.8	84
	60	37.7	50.1	58.5	63.1						63.3	65.3	75
	70	39.3	53.4	63.8	70.6						74.3	76.7	78
	80	40.4	55.6	67.6	76.3	82.0					84.7	87.5	80
24	90	41.2	57.1	70.4	80.5	87.8	92.8				94.6	97.9	82
	100	41.7	58.2	72.4	83.8	92.4	98.8	103.2			104.3	107.9	83
	110	42.1	59.1	73.9	86.3	96.2	103.7	109.3	113.2		113.7	117.8	84
	60	44.2	58.8	68.6	74.0						74.9	76.8	75
	70	46.2	62.6	74.9	82.9	87.5					87.9	90.1	78
	80	47.5	65.2	79.4	89.5	96.2					100.2	102.8	80
26	90	48.4	67.0	82.6	94.5	103.1	108.9				112.0	114.9	82
	100	49.0	68.3	85.0	98.3	108.5	115.9	121.1			123.4	126.8	83
	110	49.5	69.3	86.8	101.3	112.9	121.7	128.3	132.9		134.6	138.3	84

[a] 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 red maple (species 316) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.7									9.5	11.8	74
	40	9.4									11.5	15.2	78
	50	9.8									13.3	18.4	80
	60	10.0	13.7								14.9	21.5	81
	70	10.1	13.9								16.4	24.5	81
	80	10.2	14.1	17.5							17.8	27.4	82
	90	10.3	14.2	17.7							19.3	30.3	82
14	40	12.8	17.1								17.7	20.4	78
	50	13.3	18.0								20.8	24.6	80
	60	13.6	18.6	22.5							23.7	28.6	81
	70	13.7	18.9	23.2							26.6	32.5	81
	80	13.9	19.2	23.7	27.5						29.3	36.3	82
	90	13.9	19.3	24.1	28.1	31.5					32.0	40.1	82
	100	14.0	19.5	24.3	28.6	32.3					34.7	43.9	82
16	40	16.7	22.2								24.3	26.4	78
	50	17.3	23.5	27.8							28.8	31.7	80
	60	17.7	24.2	29.3	32.9						33.1	36.8	81
	70	17.9	24.7	30.2	34.6						37.2	41.8	81
	80	18.1	25.0	30.9	35.7	39.6					41.3	46.7	82
	90	18.2	25.2	31.4	36.6	40.9	44.5				45.2	51.5	82
	100	18.3	25.4	31.7	37.2	42.0	46.0				49.2	56.3	82
18	40	21.1	28.1								31.4	33.1	78
	50	21.9	29.7	35.1							37.4	39.8	80
	60	22.4	30.6	37.0	41.5						43.1	46.2	81
	70	22.7	31.2	38.2	43.6	47.6					48.7	52.4	81
	80	22.9	31.6	39.0	45.1	49.9	53.6				54.1	58.4	82
	90	23.0	31.9	39.6	46.2	51.7	56.0				59.4	64.4	82
	100	23.1	32.1	40.1	47.0	53.0	57.9	62.0			64.7	70.4	82
20	40	26.1	34.7								39.3	40.7	78
	50	27.1	36.7	43.3							46.9	48.8	80
	60	27.6	37.8	45.6	51.1						54.1	56.6	81
	70	28.0	38.5	47.1	53.8	58.6					61.1	64.2	81
	80	28.2	39.0	48.1	55.6	61.5	65.9				68.0	71.6	82
	90	28.4	39.4	48.9	57.0	63.6	69.0	73.1			74.7	78.9	82
	100	28.6	39.7	49.5	58.0	65.3	71.3	76.3	80.1		81.4	86.2	82
22	50	32.7	44.3	52.3	56.9						57.2	58.8	80
	60	33.4	45.7	55.1	61.8	65.9					66.0	68.1	81
	70	33.9	46.6	57.0	65.0	70.8	74.6				74.6	77.2	81
	80	34.2	47.2	58.2	67.2	74.3	79.5				83.0	86.1	82
	90	34.4	47.7	59.1	68.9	76.9	83.3	88.1			91.4	94.9	82
	100	34.6	48.0	59.8	70.1	78.9	86.2	92.1	96.6		99.6	103.6	82
24	50	39.0	52.8	62.2	67.6						68.4	69.8	80
	60	39.8	54.4	65.6	73.4	78.2					79.0	80.8	81
	70	40.3	55.5	67.7	77.2	84.1	88.6				89.3	91.5	81
	80	40.7	56.2	69.3	79.9	88.3	94.5	98.7			99.4	102.0	82
	90	40.9	56.7	70.4	81.9	91.4	98.9	104.6	108.7		109.4	112.3	82
	100	41.1	57.1	71.2	83.4	93.8	102.4	109.3	114.7	118.6	119.2	122.6	82
26	50	45.7	61.9	72.9	79.2						80.5	81.7	80
	60	46.7	63.9	76.9	86.1	91.7					93.0	94.5	81
	70	47.3	65.1	79.5	90.6	98.6	103.7				105.1	107.0	81
	80	47.7	66.0	81.3	93.7	103.5	110.7	115.5			117.0	119.3	82
	90	48.1	66.6	82.6	96.0	107.1	116.0	122.6	127.2		128.8	131.4	82
	100	48.3	67.1	83.5	97.8	110.0	120.0	128.1	134.3	138.8	140.4	143.4	82

[a] 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 9-inch d.o.b. top and height to a saw-log top for red maple (species 316) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	9.4									10.7	17.1	76
	30	10.1	13.8								15.8	21.0	80
	40	10.3	14.2	17.8							20.6	25.4	81
12	50	10.4	14.4	18.2	21.7	24.9					25.3	29.9	81
	60	10.5	14.6	18.4	22.1	25.6	28.8				29.9	34.4	81
	70	10.5	14.6	18.6	22.4	26.0	29.4	32.6			34.5	38.9	82
	80	10.5	14.7	18.7	22.5	26.3	29.8	33.2	36.5		39.2	43.5	82
	40	13.9	19.1	23.5							26.6	30.6	81
	50	14.1	19.5	24.3	28.5	32.0					32.4	36.2	81
	60	14.2	19.6	24.7	29.3	33.4	36.9				38.1	41.8	81
14	70	14.2	19.7	24.9	29.8	34.2	38.2	41.8			43.8	47.5	82
	80	14.2	19.8	25.1	30.1	34.8	39.1	43.1	46.7		49.5	53.1	82
	90	14.3	19.9	25.2	30.3	35.1	39.7	43.9	47.9	51.5	55.1	58.7	82
	100	14.3	19.9	25.3	30.5	35.4	40.1	44.6	48.8	52.7	60.8	64.4	82
	40	18.1	24.8	30.1							33.5	37.0	81
	50	18.3	25.3	31.3	36.3	40.2					40.5	43.9	81
	60	18.4	25.5	31.9	37.5	42.4	46.3				47.5	50.8	81
16	70	18.5	25.7	32.3	38.3	43.7	48.4	52.4			54.5	57.7	82
	80	18.5	25.8	32.5	38.8	44.6	49.8	54.4	58.4		61.4	64.5	82
	90	18.6	25.9	32.7	39.2	45.2	50.7	55.8	60.4	64.4	68.3	71.4	82
	100	18.6	25.9	32.9	39.5	45.7	51.5	56.9	61.8	66.4	75.1	78.3	82
	40	22.9	31.2	37.6							41.3	44.5	81
	50	23.1	31.8	39.2	45.2	49.4					49.8	52.9	81
	60	23.3	32.2	40.1	46.9	52.6	57.0				58.2	61.2	81
18	70	23.3	32.4	40.6	48.0	54.4	60.0	64.4			66.6	69.5	82
	80	23.4	32.5	41.0	48.7	55.7	61.9	67.3	71.8		74.9	77.7	82
	90	23.4	32.6	41.2	49.2	56.6	63.3	69.3	74.6	79.1	83.2	86.0	82
	100	23.5	32.7	41.4	49.6	57.2	64.3	70.8	76.7	81.9	91.4	94.2	82
	40	28.2	38.4	46.0							50.1	53.1	81
	50	28.5	39.2	48.1	55.1	59.8					60.2	63.0	81
	60	28.7	39.7	49.2	57.4	64.0	68.9				70.2	72.9	81
20	70	28.8	39.9	49.9	58.8	66.5	72.9	77.8			80.1	82.8	82
	80	28.9	40.1	50.4	59.8	68.1	75.5	81.7	86.7		90.0	92.6	82
	90	28.9	40.2	50.8	60.5	69.3	77.3	84.4	90.5	95.5	99.8	102.4	82
	100	29.0	40.3	51.0	61.0	70.2	78.7	86.3	93.2	99.2	109.6	112.2	82
	50	34.5	47.4	58.0	66.1	71.3					71.7	74.3	81
	60	34.7	47.9	59.4	69.0	76.6	82.1				83.4	86.0	81
	70	34.8	48.2	60.3	70.8	79.8	87.1	92.7			95.1	97.5	82
22	80	34.9	48.5	60.9	72.0	81.9	90.4	97.6	103.2		106.7	109.1	82
	90	35.0	48.6	61.3	72.9	83.4	92.8	101.0	108.0	113.7	118.2	120.6	82
	100	35.0	48.8	61.6	73.5	84.5	94.5	103.5	111.5	118.4	129.8	132.1	82
	50	41.0	56.3	68.7	78.1	83.9					84.3	86.7	81
	60	41.3	57.0	70.5	81.7	90.5	96.5				98.0	100.3	81
	70	41.4	57.4	71.6	83.9	94.4	102.8	109.0			111.5	113.8	82
24	80	41.5	57.7	72.3	85.4	97.0	106.9	115.0	121.3		125.0	127.2	82
	90	41.6	57.8	72.8	86.5	98.8	109.8	119.3	127.2	133.6	138.4	140.7	82
	100	41.7	58.0	73.2	87.3	100.2	111.9	122.4	131.6	139.4	151.9	154.1	82
	50	48.1	66.0	80.5	91.1	97.6					98.0	100.3	81
	60	48.4	66.8	82.6	95.5	105.5	112.2				113.7	115.9	81
	70	48.6	67.3	83.9	98.2	110.2	119.8	126.7			129.3	131.5	82
26	80	48.7	67.6	84.7	100.0	113.4	124.7	134.0	141.0		144.9	147.0	82
	90	48.8	67.9	85.4	101.3	115.6	128.2	139.1	148.1	155.2	160.4	162.5	82
	100	48.9	68.0	85.9	102.3	117.3	130.8	142.9	153.4	162.2	175.8	177.9	82

[a] 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 red maple (species 316) South-wide[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	0.9	1.0	1.2	1.4	1.6											
6	1.2	1.5	1.9	2.5	2.9	3.2	3.5	3.8									
7	1.8	2.3	3.1	3.7	4.2	4.7	5.1	5.6	6.0	6.4							
8	2.4	3.4	4.2	5.0	5.7	6.3	7.0	7.6	8.1	8.7	9.2	9.7					
9	3.2	4.4	5.5	6.4	7.3	8.2	9.0	9.8	10.5	11.2	11.9	12.6	13.3	14.0			
10	4.2	5.6	6.9	8.1	9.2	10.3	11.3	12.2	13.2	14.1	14.9	15.8	16.7	17.5	18.3	19.1	
11	5.2	6.8	8.4	9.9	11.2	12.5	13.8	14.9	16.1	17.2	18.3	19.3	20.4	21.4	22.4	23.4	24.4
12	6.2	8.2	10.0	11.8	13.4	15.0	16.5	17.9	19.3	20.6	21.9	23.2	24.4	25.6	26.9	28.1	29.3
13	7.4	9.6	11.8	13.9	15.9	17.7	19.4	21.1	22.7	24.3	25.8	27.3	28.8	30.3	31.7	33.1	34.5
14	8.6	11.2	13.8	16.2	18.4	20.6	22.6	24.5	26.4	28.3	30.0	31.8	33.5	35.2	36.9	38.6	40.2
15	9.9	12.9	15.9	18.6	21.2	23.7	26.0	28.3	30.4	32.5	34.6	36.6	38.6	40.5	42.5	44.4	46.3
16	11.3	14.7	18.1	21.3	24.2	27.0	29.7	32.2	34.7	37.1	39.4	41.7	44.0	46.2	48.4	50.6	52.8

[a] 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 red maple (species 316) South-wide[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	1.8	2.2	2.7	3.2	3.7	4.1											
6	2.2	2.9	3.6	4.2	4.8	5.3	5.9	6.4									
7	2.9	3.8	4.6	5.3	6.1	6.7	7.4	8.1	8.7	9.4							
8	3.7	4.8	5.8	6.7	7.6	8.4	9.2	10.0	10.8	11.6	12.3	13.1					
9	4.6	6.0	7.1	8.2	9.3	10.3	11.3	12.2	13.2	14.1	15.0	15.9	16.8	17.7			
10	5.7	7.3	8.7	10.0	11.2	12.4	13.6	14.7	15.8	16.9	18.0	19.1	20.2	21.2	22.3	23.3	
11	6.8	8.7	10.4	11.9	13.4	14.8	16.1	17.4	18.8	20.0	21.3	22.6	23.8	25.1	26.3	27.6	28.8
12	8.1	10.3	12.2	14.0	15.7	17.3	18.9	20.5	22.0	23.5	24.9	26.4	27.9	29.3	30.8	32.2	33.6
13	9.4	12.0	14.3	16.3	18.3	20.1	22.0	23.7	25.5	27.2	28.9	30.6	32.3	33.9	35.6	37.2	38.9
14	10.9	13.9	16.4	18.8	21.0	23.2	25.2	27.3	29.3	31.2	33.2	35.1	37.0	38.9	40.8	42.7	44.6
15	12.5	15.9	18.8	21.5	24.0	26.4	28.8	31.1	33.3	35.5	37.7	39.9	42.1	44.2	46.4	48.5	50.7
16	14.2	18.0	21.3	24.3	27.2	29.9	32.6	35.1	37.7	40.2	42.7	45.1	47.5	50.0	52.4	54.8	57.2

[a] Includes 0.5-foot stump allowance.

Table 96--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 buckeye (species 330) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										6.0	9.9	56
	50										8.5	13.4	68
	60	9.5									11.5	16.6	74
12	70	9.9	13.3								14.0	19.6	78
	80	10.1	13.9								16.2	22.4	80
	90	10.3	14.2	17.6							18.3	25.1	82
	100	10.4	14.5	18.1							20.3	27.8	83
	40										10.1	13.7	56
	50	12.2									15.2	18.5	68
	60	13.0	17.2								19.3	22.8	74
14	70	13.5	18.3	22.0							22.9	26.9	78
	80	13.9	19.0	23.2							26.3	30.8	80
	90	14.1	19.5	24.1	27.9						29.6	34.6	82
	100	14.3	19.8	24.7	28.9	32.3					32.7	38.2	83
	50	16.0	20.5								21.9	24.3	68
	60	17.1	22.6	26.6							27.3	30.1	74
	70	17.8	24.0	28.9							32.2	35.4	78
16	80	18.2	24.9	30.4	34.8						36.9	40.5	80
	90	18.5	25.5	31.6	36.5	40.3					41.3	45.5	82
	100	18.7	26.0	32.4	37.8	42.3					45.6	50.3	83
	110	18.9	26.4	33.0	38.9	43.8	47.7				49.8	55.0	84
	50	20.4	26.0								28.9	31.0	68
	60	21.8	28.7	33.8							35.9	38.2	74
	70	22.6	30.4	36.6	41.1						42.2	45.0	78
18	80	23.1	31.6	38.6	44.1	47.9					48.3	51.5	80
	90	23.5	32.4	40.0	46.3	51.1					54.1	57.8	82
	100	23.8	33.0	41.1	48.0	53.6	57.8				59.8	63.9	83
	110	24.0	33.5	41.9	49.3	55.5	60.5	64.3			65.3	69.8	84
	50	25.3	32.2	36.5							36.6	38.4	68
	60	27.0	35.5	41.8							45.2	47.4	74
	70	28.0	37.6	45.3	50.8						53.3	55.8	78
20	80	28.7	39.1	47.7	54.5	59.3					60.9	63.8	80
	90	29.1	40.1	49.5	57.3	63.2	67.4				68.2	71.5	82
	100	29.5	40.8	50.8	59.3	66.2	71.5	75.2			75.4	79.1	83
	110	29.7	41.4	51.8	60.9	68.6	74.8	79.5			82.4	86.5	84
	60	32.7	43.0	50.6	55.2						55.5	57.5	74
	70	34.0	45.6	54.9	61.5						65.4	67.7	78
	80	34.8	47.4	57.9	66.1	71.8					74.7	77.4	80
22	90	35.3	48.6	60.0	69.4	76.6	81.6				83.7	86.7	82
	100	35.7	49.5	61.6	71.9	80.2	86.6	91.0			92.5	95.9	83
	110	36.0	50.2	62.8	73.8	83.1	90.6	96.3	100.2		101.1	104.8	84
	60	39.0	51.3	60.3	65.8						66.8	68.5	74
	70	40.5	54.4	65.4	73.3	78.0					78.6	80.7	78
	80	41.5	56.5	68.9	78.7	85.5	89.6				89.8	92.2	80
24	90	42.1	57.9	71.5	82.6	91.2	97.2				100.6	103.4	82
	100	42.6	59.0	73.4	85.6	95.6	103.2	108.4			111.2	114.3	83
	110	43.0	59.8	74.8	87.9	99.0	107.9	114.7	119.4		121.5	125.0	84
	60	45.8	60.3	70.9	77.3						78.9	80.6	74
	70	47.6	63.9	76.9	86.1	91.6					92.9	94.8	78
	80	48.8	66.4	81.0	92.4	100.5	105.3				106.1	108.4	80
26	90	49.5	68.1	84.0	97.1	107.2	114.1	118.4			119.0	121.5	82
	100	50.1	69.3	86.2	100.6	112.3	121.2	127.3	131.2		131.4	134.3	83
	110	50.5	70.3	87.9	103.3	116.3	126.7	134.6	140.2		143.7	146.8	84

[a] Includes 1.0-foot stump allowance.

Table 97--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 buckeye (species 330) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	8.8									9.1	11.8	70
	40	9.6									11.6	15.5	76
	50	9.9	13.4								13.7	19.0	78
12	60	10.1	13.8								15.7	22.3	80
	70	10.2	14.0	17.3							17.7	25.5	81
	80	10.3	14.2	17.7							19.5	28.7	81
	90	10.3	14.3	17.9	21.1						21.3	31.8	82
	40	13.1	17.3								18.3	21.0	76
	50	13.6	18.3	21.8							22.0	25.5	78
	60	13.8	18.8	22.9							25.4	29.9	80
14	70	14.0	19.2	23.6	27.3						28.8	34.2	81
	80	14.1	19.4	24.1	28.1	31.5					32.1	38.4	81
	90	14.1	19.6	24.5	28.7	32.5					35.4	42.6	82
	100	14.2	19.7	24.7	29.2	33.2	36.7				38.6	46.7	82
	40	17.2	22.6								25.3	27.2	76
	50	17.8	24.0	28.5							30.5	33.1	78
	60	18.2	24.7	30.0	34.0						35.5	38.7	80
16	70	18.4	25.2	30.9	35.6	39.4					40.3	44.2	81
	80	18.5	25.5	31.6	36.8	41.1	44.5				45.0	49.6	81
	90	18.6	25.7	32.0	37.6	42.4	46.4	49.6			49.7	55.0	82
	100	18.6	25.8	32.4	38.2	43.3	47.8	51.6			54.3	60.3	82
	40	21.9	28.7								32.9	34.3	76
	50	22.7	30.4	36.1							39.7	41.7	78
	60	23.1	31.3	38.0	43.1						46.3	48.7	80
18	70	23.3	31.9	39.2	45.1	49.7					52.6	55.6	81
	80	23.5	32.3	40.0	46.5	52.0	56.2				58.8	62.3	81
	90	23.6	32.6	40.6	47.6	53.6	58.6	62.7			65.0	69.0	82
	100	23.7	32.8	41.0	48.4	54.8	60.4	65.1	69.0		71.1	75.6	82
	40	27.1	35.5	40.6							41.1	42.3	76
	50	28.1	37.6	44.6	49.2						49.7	51.3	78
	60	28.6	38.8	47.0	53.1	57.3					58.0	59.9	80
20	70	28.9	39.5	48.4	55.7	61.3	65.3				65.9	68.3	81
	80	29.1	40.0	49.4	57.5	64.1	69.3	73.1			73.8	76.5	81
	90	29.2	40.3	50.2	58.8	66.1	72.3	77.2	80.9		81.6	84.7	82
	100	29.3	40.6	50.7	59.7	67.7	74.5	80.3	85.0	88.6	89.2	92.8	82
	50	34.0	45.6	54.0	59.4						60.7	61.9	78
	60	34.7	47.0	56.9	64.3	69.3					70.7	72.3	80
	70	35.0	47.9	58.7	67.4	74.2	78.9				80.5	82.4	81
22	80	35.3	48.5	59.9	69.6	77.5	83.8	88.3			90.0	92.3	81
	90	35.5	48.9	60.8	71.1	80.0	87.4	93.3	97.7		99.5	102.1	82
	100	35.6	49.2	61.4	72.3	81.9	90.1	97.1	102.6	106.9	108.9	111.8	82
	50	40.6	54.3	64.3	70.7						72.5	73.6	78
	60	41.3	56.0	67.7	76.5	82.4					84.5	85.8	80
	70	41.8	57.0	69.9	80.3	88.2	93.8				96.2	97.8	81
24	80	42.1	57.7	71.3	82.8	92.3	99.7	105.0			107.7	109.5	81
	90	42.3	58.2	72.4	84.7	95.2	104.0	110.9	116.0		119.0	121.1	82
	100	42.5	58.6	73.2	86.1	97.5	107.2	115.4	122.0	127.0	130.2	132.6	82
	50	47.7	63.8	75.5	83.0						85.4	86.2	78
	60	48.6	65.8	79.5	89.8	96.7					99.5	100.6	80
	70	49.1	67.0	82.0	94.2	103.5	110.0				113.2	114.5	81
26	80	49.5	67.9	83.8	97.2	108.3	116.9	123.1			126.7	128.2	81
	90	49.7	68.4	85.0	99.5	111.8	122.0	130.0	136.0	139.9	140.0	141.8	82
	100	49.9	68.9	85.9	101.1	114.4	125.8	135.4	143.0	148.9	153.3	155.2	82

[a] Includes 1.0-foot stump allowance.

Table 98--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 buckeye (species 330) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	9.0									10.2	17.1	73
	30	9.8	13.4								15.3	21.5	78
	40	10.0	13.9	17.4							20.1	26.6	80
12	50	10.2	14.1	17.8	21.3	24.4					24.7	31.8	81
	60	10.2	14.3	18.1	21.7	25.1	28.2				29.3	37.0	81
	70	10.3	14.4	18.3	22.0	25.6	28.9	32.1			33.9	42.2	81
	80	10.3	14.4	18.4	22.2	25.9	29.4	32.7	35.9		38.5	47.3	82
	40	13.8	18.9	23.2							26.1	30.3	80
	50	14.0	19.3	24.0	28.1	31.5					31.9	36.4	81
	60	14.1	19.5	24.5	29.0	33.0	36.4				37.5	42.5	81
14	70	14.1	19.6	24.8	29.5	33.9	37.8	41.3			43.2	48.5	81
	80	14.2	19.7	25.0	29.9	34.5	38.7	42.6	46.1		48.8	54.4	82
	90	14.2	19.8	25.1	30.2	34.9	39.4	43.5	47.4	50.9	54.4	60.4	82
	100	14.2	19.8	25.2	30.4	35.2	39.9	44.2	48.3	52.1	60.0	66.4	82
	40	18.2	24.7	29.8							33.1	36.1	80
	50	18.4	25.2	31.1	36.0	39.7					40.1	43.3	81
	60	18.5	25.5	31.8	37.3	42.0	45.8				47.0	50.4	81
16	70	18.6	25.7	32.3	38.2	43.4	48.0	51.9			53.9	57.6	81
	80	18.6	25.9	32.6	38.7	44.4	49.5	54.0	57.9		60.7	64.7	82
	90	18.7	25.9	32.8	39.1	45.1	50.5	55.4	59.9	63.8	67.5	71.7	82
	100	18.7	26.0	32.9	39.4	45.6	51.3	56.6	61.4	65.8	74.3	78.7	82
	40	23.1	31.2	37.4							41.0	43.2	80
	50	23.4	32.0	39.2	44.9	49.0					49.4	51.8	81
	60	23.5	32.4	40.1	46.8	52.3	56.5				57.7	60.3	81
18	70	23.6	32.6	40.7	48.0	54.3	59.6	63.9			66.0	68.7	81
	80	23.7	32.8	41.2	48.8	55.6	61.6	66.9	71.2		74.2	77.1	82
	90	23.8	32.9	41.4	49.3	56.6	63.1	69.0	74.1	78.5	82.3	85.5	82
	100	23.8	33.0	41.7	49.8	57.3	64.2	70.5	76.3	81.3	90.5	93.8	82
	40	28.6	38.6	45.9							49.8	51.5	80
	50	29.0	39.5	48.2	54.9	59.4					59.8	61.7	81
	60	29.2	40.0	49.4	57.4	63.8	68.4				69.7	71.7	81
20	70	29.3	40.3	50.2	58.9	66.4	72.5	77.3			79.5	81.6	81
	80	29.4	40.6	50.8	60.0	68.2	75.3	81.3	86.1		89.2	91.5	82
	90	29.4	40.7	51.2	60.7	69.4	77.2	84.1	90.0	94.8	99.0	101.4	82
	100	29.5	40.8	51.4	61.3	70.4	78.7	86.2	92.8	98.7	108.6	111.2	82
	50	35.1	47.8	58.1	65.9	71.0					71.3	72.8	81
	60	35.4	48.5	59.7	69.1	76.5	81.7				83.0	84.6	81
	70	35.5	48.9	60.7	71.1	79.8	86.9	92.2			94.5	96.2	81
22	80	35.6	49.2	61.4	72.4	82.0	90.3	97.2	102.6		105.9	107.7	82
	90	35.7	49.3	61.9	73.3	83.7	92.8	100.8	107.5	113.0	117.3	119.3	82
	100	35.8	49.5	62.3	74.1	84.9	94.7	103.5	111.2	117.8	128.7	130.7	82
	50	41.9	57.0	69.1	78.0	83.6					84.0	85.2	81
	60	42.2	57.7	71.0	81.9	90.4	96.1				97.5	98.8	81
	70	42.4	58.2	72.2	84.3	94.5	102.6	108.5			110.9	112.3	81
24	80	42.5	58.6	73.1	86.0	97.3	106.9	114.7	120.7		124.2	125.7	82
	90	42.6	58.8	73.7	87.1	99.2	109.9	119.1	126.8	132.8	137.4	139.0	82
	100	42.7	59.0	74.1	88.0	100.7	112.2	122.4	131.3	138.8	150.7	152.3	82
	50	49.3	66.9	81.0	91.2	97.3					97.7	98.7	81
	60	49.6	67.8	83.3	95.9	105.5	111.9				113.3	114.4	81
	70	49.8	68.4	84.7	98.8	110.5	119.6	126.2			128.7	129.9	81
26	80	50.0	68.8	85.7	100.7	113.8	124.8	133.7	140.3		144.0	145.3	82
	90	50.1	69.1	86.4	102.2	116.2	128.5	139.0	147.7	154.4	159.3	160.6	82
	100	50.2	69.3	87.0	103.2	118.0	131.3	143.0	153.1	161.6	174.5	175.9	82

[a] Includes 1.0-foot stump allowance.

Table 99--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for buckeye (species 330) South-wide[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[b]	0.6	0.7	0.8	1.0	1.1	1.3											
6	1.1	1.3	1.6	2.1	2.5	2.9	3.3	3.6									
7	1.7	2.2	2.8	3.5	4.1	4.6	5.1	5.6	6.0	6.5							
8	2.5	3.2	4.1	4.9	5.7	6.4	7.0	7.7	8.3	8.9	9.5	10.1					
9	3.3	4.4	5.5	6.5	7.4	8.3	9.2	10.0	10.8	11.6	12.4	13.1	13.8	14.6			
10	4.3	5.7	7.0	8.2	9.4	10.5	11.6	12.6	13.6	14.6	15.5	16.5	17.4	18.3	19.2	20.1	
11	5.3	7.0	8.6	10.1	11.5	12.9	14.2	15.5	16.7	17.9	19.0	20.2	21.3	22.4	23.5	24.6	25.7
12	6.5	8.5	10.4	12.2	13.9	15.5	17.1	18.6	20.0	21.5	22.9	24.2	25.6	26.9	28.3	29.6	30.9
13	7.8	10.1	12.3	14.4	16.4	18.3	20.2	21.9	23.7	25.4	27.0	28.6	30.2	31.8	33.4	34.9	36.5
14	9.2	11.8	14.4	16.8	19.2	21.4	23.5	25.6	27.6	29.6	31.5	33.4	35.2	37.1	38.9	40.7	42.5
15	10.7	13.7	16.6	19.4	22.1	24.7	27.1	29.5	31.8	34.1	36.3	38.5	40.6	42.7	44.8	46.9	49.0
16	12.3	15.6	19.0	22.2	25.2	28.2	31.0	33.7	36.3	38.9	41.4	43.9	46.3	48.8	51.1	53.5	55.9

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 100--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 buckeye (species 330) South-wide[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[b]	1.6	2.0	2.3	2.8	3.2	3.7											
6	2.0	2.5	3.2	3.8	4.4	4.9	5.5	6.0									
7	2.6	3.5	4.3	5.0	5.8	6.5	7.2	7.8	8.5	9.2							
8	3.4	4.5	5.5	6.5	7.4	8.2	9.1	9.9	10.7	11.6	12.4	13.2					
9	4.3	5.7	7.0	8.1	9.2	10.3	11.3	12.3	13.3	14.3	15.3	16.2	17.2	18.2			
10	5.3	7.1	8.6	9.9	11.3	12.5	13.8	15.0	16.2	17.3	18.5	19.7	20.8	22.0	23.1	24.2	
11	6.5	8.5	10.3	12.0	13.5	15.0	16.5	17.9	19.3	20.7	22.1	23.4	24.8	26.2	27.5	28.9	30.2
12	7.8	10.2	12.3	14.2	16.0	17.8	19.5	21.1	22.8	24.4	26.0	27.6	29.2	30.8	32.3	33.9	35.5
13	9.1	11.9	14.4	16.6	18.7	20.7	22.7	24.6	26.5	28.4	30.3	32.1	33.9	35.8	37.6	39.4	41.2
14	10.6	13.8	16.7	19.2	21.6	23.9	26.2	28.4	30.6	32.7	34.9	37.0	39.1	41.2	43.3	45.3	47.4
15	12.2	15.9	19.1	22.0	24.8	27.4	30.0	32.5	35.0	37.4	39.8	42.2	44.6	47.0	49.3	51.7	54.1
16	13.9	18.1	21.7	25.0	28.1	31.1	34.0	36.8	39.6	42.4	45.1	47.8	50.5	53.2	55.9	58.5	61.2

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 101--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 hackberry (species 460) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										5.4	10.2	63
	50	8.8									9.5	13.1	70
	60	9.3									11.2	15.7	74
12	70	9.7									12.7	18.0	76
	80	10.0	13.5								14.0	20.3	78
	90	10.1	13.8								15.2	22.4	79
	100	10.3	14.0								16.3	24.4	79
	40	10.6									12.1	14.1	63
	50	12.0									15.3	18.1	70
	60	12.7	16.9								18.0	21.6	74
14	70	13.2	17.8								20.4	24.8	76
	80	13.6	18.4	22.1							22.7	27.9	78
	90	13.8	18.8	22.9							24.8	30.8	79
	100	14.0	19.1	23.4							26.8	33.7	79
	50	15.6	20.3								21.3	23.7	70
	60	16.7	22.1								25.2	28.4	74
	70	17.3	23.2	27.6							28.8	32.6	76
16	80	17.8	24.0	28.9							32.1	36.7	78
	90	18.1	24.6	29.9	34.0						35.3	40.5	79
	100	18.3	25.0	30.7	35.2						38.3	44.3	79
	110	18.5	25.3	31.2	36.1	40.0					41.3	48.0	80
	50	19.8	25.7								28.0	30.1	70
	60	21.1	28.0	32.5							33.2	36.0	74
	70	22.0	29.4	34.9							38.0	41.5	76
18	80	22.5	30.4	36.6	41.1						42.5	46.6	78
	90	22.9	31.1	37.9	43.0	46.7					46.8	51.5	79
	100	23.2	31.6	38.8	44.5	48.9					51.0	56.3	79
	110	23.4	32.0	39.5	45.7	50.6	54.4				55.1	61.0	80
	50	24.5	31.7								35.4	37.3	70
	60	26.1	34.5	40.1							42.1	44.6	74
	70	27.1	36.4	43.1	47.5						48.2	51.3	76
20	80	27.8	37.6	45.3	50.7						54.0	57.7	78
	90	28.3	38.4	46.8	53.2	57.7					59.6	63.8	79
	100	28.7	39.1	48.0	55.0	60.4	64.3				65.0	69.8	79
	110	28.9	39.6	48.9	56.5	62.6	67.2				70.2	75.6	80
	60	31.6	41.8	48.6							51.8	54.1	74
	70	32.9	44.0	52.2	57.5						59.4	62.2	76
	80	33.7	45.5	54.8	61.4	65.8					66.6	69.9	78
22	90	34.3	46.6	56.7	64.3	69.9					73.5	77.4	79
	100	34.7	47.3	58.1	66.6	73.1	77.9				80.2	84.6	79
	110	35.1	47.9	59.1	68.4	75.7	81.4	85.5			86.8	91.6	80
	60	37.7	49.8	57.8	62.3						62.3	64.4	74
	70	39.1	52.4	62.2	68.5						71.6	74.2	76
	80	40.1	54.2	65.2	73.1	78.4					80.3	83.4	78
24	90	40.8	55.4	67.5	76.6	83.2	87.7				88.7	92.2	79
	100	41.4	56.4	69.1	79.3	87.1	92.7	96.6			96.8	100.8	79
	110	41.8	57.1	70.4	81.4	90.2	96.9	101.8			104.8	109.2	80
	60	44.2	58.5	67.9	73.1						73.8	75.7	74
	70	46.0	61.5	73.0	80.4	84.7					84.8	87.1	76
	80	47.1	63.6	76.6	85.9	92.0					95.1	97.9	78
26	90	48.0	65.1	79.2	89.9	97.7	102.9				105.1	108.3	79
	100	48.6	66.2	81.2	93.1	102.2	108.8	113.4			114.7	118.4	79
	110	49.0	67.0	82.7	95.6	105.8	113.7	119.5	123.6		124.2	128.3	80

[a] Includes 1.0-foot stump allowance.

Table 102--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 hackberry (species 460) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	8.3									8.5	11.0	69
	40	9.2									10.4	14.5	74
	50	9.7									12.0	17.6	76
12	60	10.0									13.4	20.6	78
	70	10.2	13.7								14.6	23.4	78
	80	10.3	13.9								15.9	26.2	79
	90	10.4	14.1								17.0	29.0	79
	40	12.5									16.3	19.3	74
	50	13.2	17.5								19.3	23.5	76
	60	13.6	18.2	21.8							22.0	27.4	78
14	70	13.8	18.6	22.6							24.6	31.1	78
	80	14.0	18.9	23.1	26.6						27.0	34.8	79
	90	14.1	19.2	23.6	27.3						29.5	38.4	79
	100	14.2	19.3	23.9	27.8	31.2					31.8	42.0	80
	40	16.4	21.3								22.6	25.0	74
	50	17.2	22.8	26.7							27.0	30.3	76
	60	17.7	23.7	28.4							31.0	35.2	78
16	70	18.0	24.3	29.4	33.4						34.9	40.0	78
	80	18.3	24.7	30.2	34.7	38.2					38.6	44.7	79
	90	18.4	25.0	30.7	35.6	39.6					42.2	49.3	79
	100	18.6	25.3	31.1	36.3	40.6	44.3				45.8	53.8	80
	40	20.7	26.9								29.5	31.4	74
	50	21.8	28.9	33.8							35.3	38.0	76
	60	22.4	30.0	35.8	40.0						40.7	44.1	78
18	70	22.8	30.8	37.2	42.2	45.8					45.9	50.1	78
	80	23.1	31.3	38.2	43.8	48.2					50.9	55.9	79
	90	23.3	31.7	38.9	44.9	49.9	54.0				55.9	61.6	79
	100	23.5	32.0	39.4	45.8	51.3	55.9	59.6			60.8	67.2	80
	40	25.6	33.2								36.9	38.5	74
	50	26.9	35.7	41.6							44.3	46.6	76
	60	27.7	37.1	44.2	49.2						51.2	54.1	78
20	70	28.2	38.0	45.9	52.0	56.4					57.9	61.3	78
	80	28.6	38.6	47.1	53.9	59.3	63.3				64.3	68.4	79
	90	28.8	39.1	48.0	55.4	61.5	66.4	70.1			70.6	75.4	79
	100	29.0	39.5	48.6	56.5	63.2	68.8	73.3	76.8		76.8	82.2	80
	50	32.5	43.1	50.3							54.2	56.1	76
	60	33.5	44.9	53.4	59.4						62.7	65.1	78
	70	34.1	46.0	55.5	62.8	68.1					70.8	73.8	78
22	80	34.6	46.8	57.0	65.2	71.7	76.4				78.8	82.3	79
	90	34.9	47.3	58.0	67.0	74.3	80.2	84.6			86.6	90.6	79
	100	35.2	47.8	58.8	68.3	76.4	83.1	88.5	92.6		94.2	98.8	80
	50	38.8	51.3	59.8	64.6						64.9	66.5	76
	60	39.9	53.4	63.6	70.6	74.9					75.1	77.2	78
	70	40.7	54.8	66.0	74.7	80.9	84.8				84.9	87.5	78
24	80	41.2	55.7	67.8	77.6	85.2	90.8				94.4	97.5	79
	90	41.6	56.4	69.0	79.7	88.4	95.3	100.4			103.8	107.3	79
	100	41.9	56.9	70.0	81.3	90.9	98.8	105.1	109.9		113.1	117.0	80
	50	45.5	60.3	70.2	75.7						76.4	77.9	76
	60	46.8	62.7	74.6	82.8	87.8					88.5	90.3	78
	70	47.7	64.3	77.5	87.6	94.8	99.4				100.1	102.3	78
26	80	48.4	65.4	79.5	91.0	99.9	106.4	110.7			111.3	114.0	79
	90	48.8	66.2	81.0	93.5	103.6	111.6	117.6	121.8		122.4	125.4	79
	100	49.2	66.8	82.1	95.4	106.6	115.8	123.1	128.7	132.7	133.3	136.8	80

[a] Includes 1.0-foot stump allowance.

Table 103--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 hackberry (species 460) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	9.1									10.4	16.8	75
	30	9.7	13.2								15.2	19.4	77
	40	10.0	13.7	17.1							19.8	23.0	78
	50	10.2	13.9	17.5	20.8	23.9					24.3	27.0	78
	60	10.3	14.1	17.7	21.2	24.5	27.6				28.7	31.1	78
	70	10.4	14.2	17.9	21.4	24.8	28.1	31.3			33.1	35.2	78
	80	10.4	14.3	18.0	21.6	25.1	28.5	31.7	34.9		37.5	39.4	78
14	40	13.5	18.4	22.5							25.5	28.7	78
	50	13.8	18.8	23.3	27.2	30.6					31.0	33.7	78
	60	14.0	19.0	23.7	28.0	31.9	35.3				36.4	38.8	78
	70	14.1	19.2	24.0	28.5	32.6	36.4	39.9			41.8	43.9	78
	80	14.2	19.3	24.2	28.8	33.2	37.2	41.0	44.4		47.2	49.0	78
	90	14.2	19.4	24.3	29.1	33.5	37.8	41.8	45.5	48.9	52.5	54.2	79
	100	14.3	19.5	24.5	29.2	33.8	38.2	42.3	46.3	50.0	57.8	59.4	79
16	40	17.7	23.9	28.9							32.1	35.4	78
	50	18.0	24.4	30.0	34.7	38.4					38.8	41.5	78
	60	18.2	24.8	30.7	35.9	40.4	44.2				45.3	47.7	78
	70	18.4	25.0	31.1	36.6	41.6	46.0	49.8			51.8	53.9	78
	80	18.5	25.2	31.4	37.2	42.5	47.3	51.6	55.5		58.3	60.2	78
	90	18.6	25.3	31.6	37.5	43.1	48.2	52.9	57.2	61.0	64.7	66.5	79
	100	18.6	25.4	31.8	37.8	43.5	48.9	53.9	58.5	62.8	71.1	72.7	79
18	40	22.3	30.1	36.0							39.6	42.9	78
	50	22.8	30.8	37.6	43.1	47.2					47.6	50.3	78
	60	23.0	31.3	38.6	44.8	50.1	54.2				55.4	57.8	78
	70	23.2	31.6	39.1	45.9	51.9	57.0	61.1			63.2	65.3	78
	80	23.4	31.8	39.5	46.6	53.1	58.8	63.8	68.0		70.9	72.8	78
	90	23.5	31.9	39.8	47.2	53.9	60.1	65.6	70.5	74.8	78.6	80.4	79
	100	23.6	32.1	40.1	47.6	54.6	61.1	67.0	72.4	77.3	86.3	87.9	79
20	40	27.6	37.1	44.1							47.9	51.4	78
	50	28.1	38.0	46.2	52.6	57.0					57.4	60.2	78
	60	28.4	38.6	47.4	54.9	60.9	65.5				66.7	69.2	78
	70	28.7	38.9	48.1	56.3	63.3	69.1	73.8			75.9	78.1	78
	80	28.9	39.2	48.7	57.2	64.9	71.6	77.3	82.0		85.1	87.0	78
	90	29.0	39.4	49.1	58.0	66.0	73.3	79.8	85.4	90.1	94.2	95.9	79
	100	29.1	39.6	49.4	58.5	66.9	74.7	81.7	88.0	93.5	103.2	104.9	79
22	50	34.0	45.9	55.6	63.0	67.9					68.3	71.2	78
	60	34.4	46.6	57.1	65.9	72.9	77.9				79.2	81.7	78
	70	34.7	47.1	58.1	67.7	75.9	82.6	87.7			90.0	92.2	78
	80	34.9	47.4	58.8	69.0	78.0	85.8	92.3	97.4		100.7	102.7	78
	90	35.1	47.7	59.3	69.9	79.5	88.0	95.5	101.9	107.1	111.3	113.2	79
	100	35.2	47.9	59.6	70.5	80.6	89.7	97.9	105.1	111.4	122.0	123.6	79
24	50	40.5	54.6	66.0	74.5	79.8					80.2	83.2	78
	60	41.0	55.4	67.8	78.1	86.0	91.5				92.9	95.5	78
	70	41.3	56.0	69.0	80.3	89.8	97.4	103.0			105.4	107.7	78
	80	41.6	56.4	69.8	81.8	92.3	101.3	108.7	114.4		117.8	119.9	78
	90	41.8	56.7	70.4	82.9	94.1	104.1	112.7	119.9	125.6	130.2	132.0	79
	100	41.9	57.0	70.9	83.8	95.5	106.2	115.7	124.0	131.0	142.5	144.2	79
26	50	47.5	64.0	77.2	86.9	92.8					93.2	96.3	78
	60	48.1	65.0	79.5	91.3	100.3	106.4				107.8	110.4	78
	70	48.5	65.7	80.9	93.9	104.8	113.5	119.7			122.2	124.5	78
	80	48.8	66.2	81.9	95.8	107.9	118.2	126.5	132.8		136.4	138.5	78
	90	49.1	66.6	82.6	97.1	110.1	121.5	131.3	139.5	145.8	150.6	152.5	79
	100	49.2	66.8	83.1	98.1	111.8	124.1	135.0	144.4	152.4	164.8	166.5	79

[a] Includes 1.0-foot stump allowance.

Table 104--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for hackberry (species 460) South-wide[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	0.8	0.9	1.1	1.2	1.4											
6	1.2	2.0	2.3	2.6	2.9	3.1	3.4	3.6									
7	2.4	2.9	3.4	3.8	4.2	4.6	5.0	5.3	5.7	6.0							
8	3.1	3.9	4.6	5.2	5.8	6.3	6.8	7.3	7.7	8.2	8.6	9.1					
9	4.1	5.0	5.9	6.7	7.5	8.2	8.8	9.5	10.1	10.7	11.3	11.8	12.4	12.9			
10	5.1	6.3	7.4	8.4	9.4	10.2	11.1	11.9	12.7	13.4	14.2	14.9	15.6	16.3	17.0	17.7	
11	6.2	7.7	9.0	10.3	11.4	12.5	13.6	14.6	15.5	16.4	17.4	18.2	19.1	20.0	20.8	21.7	22.5
12	7.4	9.2	10.8	12.3	13.7	15.0	16.3	17.5	18.6	19.7	20.8	21.9	23.0	24.0	25.0	26.1	27.1
13	8.7	10.8	12.8	14.5	16.2	17.7	19.2	20.6	22.0	23.3	24.6	25.9	27.1	28.4	29.6	30.8	32.0
14	10.1	12.6	14.9	16.9	18.8	20.7	22.4	24.0	25.6	27.2	28.7	30.2	31.6	33.1	34.5	35.9	37.3
15	11.7	14.5	17.1	19.5	21.7	23.8	25.8	27.7	29.5	31.3	33.1	34.8	36.4	38.1	39.8	41.4	43.0
16	13.3	16.5	19.5	22.2	24.8	27.1	29.4	31.6	33.7	35.7	37.7	39.7	41.6	43.5	45.4	47.2	49.1

[a] Includes 0.5-foot stump allowance.

Table 105--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 hackberry (species 460) South-wide[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	1.9	2.4	2.8	3.1	3.6	4.1											
6	2.2	2.8	3.4	4.0	4.6	5.2	5.7	6.2									
7	2.7	3.6	4.4	5.1	5.9	6.5	7.2	7.8	8.5	9.1							
8	3.4	4.5	5.5	6.4	7.3	8.1	8.9	9.7	10.5	11.2	12.0	12.7					
9	4.2	5.6	6.8	7.9	8.9	9.9	10.9	11.8	12.7	13.6	14.5	15.4	16.3	17.1			
10	5.1	6.8	8.2	9.5	10.8	12.0	13.1	14.2	15.3	16.3	17.4	18.4	19.5	20.5	21.5	22.5	
11	6.2	8.1	9.8	11.4	12.8	14.2	15.5	16.8	18.1	19.3	20.6	21.8	23.0	24.2	25.4	26.6	27.7
12	7.3	9.6	11.6	13.4	15.1	16.7	18.2	19.7	21.2	22.6	24.1	25.5	26.9	28.2	29.6	31.0	32.3
13	8.6	11.2	13.5	15.6	17.5	19.4	21.1	22.9	24.6	26.2	27.9	29.5	31.1	32.7	34.2	35.8	37.4
14	9.9	12.9	15.5	17.9	20.2	22.3	24.3	26.3	28.2	30.1	32.0	33.8	35.6	37.4	39.2	41.0	42.8
15	11.4	14.8	17.8	20.5	23.0	25.4	27.7	29.9	32.1	34.3	36.4	38.5	40.5	42.6	44.6	46.6	48.6
16	12.9	16.8	20.1	23.2	26.0	28.7	31.3	33.8	36.3	38.7	41.1	43.4	45.8	48.1	50.3	52.6	54.9

[a] Includes 0.5-foot stump allowance.

Table 106--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										4.0	8.6	55
	50	7.7									7.9	12.2	65
	60	8.4									10.6	15.3	71
12	70	9.0	12.2								12.8	18.3	74
	80	9.3	12.7								14.8	21.0	76
	90	9.6	13.2	16.3							16.6	23.7	78
	100	9.8	13.5	16.8							18.3	26.2	79
	40	8.8									9.7	11.9	55
	50	10.5	13.7								14.1	16.7	65
	60	11.6	15.5								17.9	21.1	71
14	70	12.3	16.6	20.2							21.4	25.1	74
	80	12.7	17.4	21.4							24.6	28.9	76
	90	13.1	18.0	22.3	25.9						27.6	32.6	78
	100	13.4	18.4	23.0	26.9	30.2					30.5	36.1	79
	50	13.8	18.0								20.0	22.0	65
	60	15.2	20.3	24.2							25.3	27.7	71
	70	16.1	21.8	26.5	29.9						30.1	33.0	74
16	80	16.7	22.8	28.1	32.2						34.5	38.0	76
	90	17.2	23.6	29.2	33.9	37.7					38.7	42.8	78
	100	17.5	24.1	30.1	35.2	39.5	42.8				42.8	47.4	79
	110	17.8	24.6	30.7	36.2	40.9	44.8				46.8	51.9	79
	50	17.5	22.8								26.3	28.0	65
	60	19.3	25.7	30.7							33.1	35.2	71
	70	20.4	27.6	33.6	37.9						39.4	42.0	74
18	80	21.2	29.0	35.6	40.9	44.7					45.2	48.3	76
	90	21.8	29.9	37.0	43.0	47.7					50.8	54.4	78
	100	22.3	30.6	38.1	44.6	50.0	54.3				56.2	60.2	79
	110	22.6	31.2	39.0	45.9	51.8	56.7	60.5			61.4	66.0	79
	50	21.6	28.2	32.6							33.2	34.6	65
	60	23.8	31.8	37.9							41.7	43.6	71
	70	25.3	34.2	41.5	46.9						49.6	52.0	74
20	80	26.3	35.8	44.0	50.5	55.3					57.0	59.8	76
	90	27.0	37.0	45.8	53.2	59.0	63.1				64.1	67.3	78
	100	27.6	37.9	47.1	55.2	61.9	67.1	70.7			70.9	74.6	79
	110	28.0	38.6	48.2	56.7	64.1	70.1	74.7			77.6	81.7	79
	60	28.9	38.6	46.0	50.6						51.2	52.9	71
	70	30.7	41.4	50.3	56.8	60.8					60.9	63.0	74
	80	31.9	43.4	53.3	61.2	66.9					70.0	72.5	76
22	90	32.8	44.9	55.5	64.4	71.5	76.5				78.7	81.6	78
	100	33.4	45.9	57.1	66.8	74.9	81.2	85.6			87.1	90.4	79
	110	33.9	46.7	58.4	68.7	77.6	84.9	90.5	94.5		95.3	99.0	79
	60	34.5	46.0	54.8	60.3						61.5	63.1	71
	70	36.6	49.4	59.9	67.7	72.4					73.2	75.1	74
	80	38.0	51.8	63.5	72.9	79.7	83.8				84.1	86.4	76
24	90	39.1	53.5	66.1	76.7	85.1	91.1				94.6	97.3	78
	100	39.8	54.7	68.0	79.6	89.2	96.7	101.9			104.7	107.8	79
	110	40.4	55.7	69.5	81.8	92.4	101.1	107.8	112.5		114.6	118.0	79
	60	40.5	54.0	64.3	70.8						72.7	74.1	71
	70	43.0	58.0	70.4	79.5	85.0					86.5	88.3	74
	80	44.7	60.8	74.6	85.7	93.6	98.4				99.4	101.6	76
26	90	45.9	62.8	77.6	90.1	100.0	107.0	111.2			111.8	114.3	78
	100	46.8	64.3	79.9	93.5	104.8	113.6	119.7	123.6		123.8	126.6	79
	110	47.5	65.4	81.7	96.1	108.5	118.8	126.6	132.1		135.5	138.7	79

[a] Includes 1.0-foot stump allowance.

Table 107--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.7									8.2	10.6	69
	40	8.6									10.4	14.3	74
	50	9.1	12.3								12.4	17.7	76
	60	9.4	12.8								14.2	20.9	77
	70	9.6	13.2								15.9	24.0	78
	80	9.7	13.4	16.6							17.5	27.1	78
	90	9.9	13.6	16.9							19.0	30.1	79
14	40	11.7	15.7								16.6	19.2	74
	50	12.4	16.8								20.2	23.7	76
	60	12.8	17.5	21.4							23.5	28.0	77
	70	13.1	18.0	22.1	25.6						26.6	32.2	78
	80	13.3	18.3	22.7	26.5	29.6					29.7	36.2	78
	90	13.5	18.6	23.1	27.1	30.6					32.7	40.2	79
	100	13.6	18.7	23.4	27.6	31.3	34.6				35.6	44.2	79
16	40	15.4	20.5								23.0	24.9	74
	50	16.2	22.0	26.3							28.1	30.7	76
	60	16.8	22.9	27.9	31.7						32.9	36.2	77
	70	17.2	23.5	28.9	33.4	36.9					37.5	41.5	78
	80	17.5	24.0	29.7	34.5	38.6	41.9				42.0	46.7	78
	90	17.7	24.3	30.2	35.4	39.9	43.7				46.4	51.8	79
	100	17.9	24.5	30.6	36.0	40.8	45.0	48.6			50.7	56.9	79
18	40	19.5	26.0	29.9							30.0	31.4	74
	50	20.6	27.9	33.3							36.7	38.6	76
	60	21.3	29.1	35.3	40.1						43.0	45.5	77
	70	21.8	29.9	36.6	42.2	46.6					49.1	52.2	78
	80	22.2	30.4	37.6	43.7	48.8	52.8				55.1	58.7	78
	90	22.5	30.8	38.3	44.8	50.4	55.1	59.0			60.9	65.0	79
	100	22.7	31.1	38.8	45.6	51.7	56.9	61.3	65.0		66.7	71.4	79
20	40	24.1	32.1	36.9							37.5	38.6	74
	50	25.5	34.5	41.1	45.4						46.0	47.5	76
	60	26.4	35.9	43.6	49.5	53.5					54.0	55.9	77
	70	27.0	36.9	45.3	52.1	57.4	61.2				61.7	64.1	78
	80	27.5	37.6	46.4	54.0	60.2	65.1	68.7			69.2	72.0	78
	90	27.8	38.1	47.3	55.3	62.2	68.0	72.6	76.1		76.6	79.8	79
	100	28.1	38.5	47.9	56.4	63.8	70.2	75.6	80.0	83.4	83.9	87.5	79
22	50	30.9	41.8	49.8	54.9						56.1	57.3	76
	60	32.0	43.5	52.8	59.8	64.6					65.9	67.5	77
	70	32.8	44.7	54.8	63.0	69.4	73.9				75.3	77.2	78
	80	33.3	45.6	56.2	65.3	72.8	78.7	83.0			84.5	86.8	78
	90	33.7	46.2	57.3	66.9	75.3	82.2	87.7	91.9		93.6	96.1	79
	100	34.1	46.7	58.1	68.2	77.2	84.9	91.4	96.6	100.7	102.5	105.4	79
24	50	36.9	49.8	59.2	65.3						67.1	68.1	76
	60	38.2	51.9	62.9	71.2	76.8					78.8	80.1	77
	70	39.1	53.3	65.3	75.0	82.5	87.8				90.1	91.6	78
	80	39.7	54.3	67.0	77.7	86.6	93.5	98.6			101.1	102.9	78
	90	40.2	55.0	68.2	79.7	89.5	97.7	104.3	109.1		111.9	114.0	79
	100	40.6	55.6	69.1	81.2	91.8	101.0	108.6	114.8	119.6	122.6	125.0	79
26	50	43.3	58.4	69.5	76.6						78.9	79.8	76
	60	44.9	60.9	73.8	83.5	90.0					92.7	93.8	77
	70	45.9	62.6	76.6	88.1	96.8	103.0				106.0	107.3	78
	80	46.7	63.8	78.6	91.2	101.6	109.7	115.6			119.0	120.5	78
	90	47.3	64.7	80.1	93.6	105.1	114.7	122.3	127.9	131.6	131.7	133.5	79
	100	47.7	65.3	81.2	95.3	107.8	118.4	127.4	134.6	140.1	144.3	146.3	79

[a] Includes 1.0-foot stump allowance.

Table 108--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.0									9.1	17.4	72
	30	8.9	12.4								14.3	20.3	76
	40	9.4	13.1	16.4							19.1	24.3	78
12	50	9.7	13.4	17.0	20.3	23.3					23.7	28.5	78
	60	9.9	13.7	17.3	20.8	24.1	27.2				28.3	32.7	79
	70	10.0	13.9	17.6	21.2	24.6	27.9	30.9			32.8	37.0	79
	80	10.1	14.0	17.8	21.4	24.9	28.3	31.6	34.7		37.2	41.2	79
	40	12.8	17.7	21.8							24.7	29.6	78
	50	13.2	18.2	22.8	26.8	30.1					30.5	34.9	78
	60	13.4	18.6	23.3	27.7	31.6	35.0				36.1	40.3	79
14	70	13.6	18.8	23.7	28.3	32.5	36.4	39.8			41.7	45.6	79
	80	13.8	19.0	24.0	28.7	33.1	37.3	41.1	44.5		47.2	51.0	79
	90	13.9	19.1	24.2	29.0	33.6	37.9	42.0	45.8	49.2	52.7	56.3	79
	100	13.9	19.2	24.3	29.2	33.9	38.4	42.6	46.7	50.4	58.2	61.6	79
	40	16.8	23.0	28.0							31.3	35.9	78
	50	17.3	23.8	29.5	34.2	38.0					38.3	42.6	78
	60	17.6	24.3	30.3	35.6	40.3	44.1				45.2	49.2	79
16	70	17.8	24.6	30.8	36.5	41.7	46.2	50.1			52.1	55.8	79
	80	18.0	24.8	31.2	37.2	42.6	47.6	52.1	56.0		58.8	62.4	79
	90	18.1	25.0	31.5	37.6	43.3	48.6	53.5	57.9	61.8	65.5	68.9	79
	100	18.2	25.1	31.7	37.9	43.8	49.4	54.5	59.3	63.7	72.2	75.5	79
	40	21.3	29.0	35.1							38.7	43.2	78
	50	21.9	30.1	37.0	42.7	46.9					47.2	51.3	78
	60	22.3	30.7	38.2	44.7	50.1	54.4				55.6	59.4	79
18	70	22.6	31.1	38.9	45.9	52.1	57.4	61.7			63.8	67.4	79
	80	22.8	31.4	39.4	46.7	53.4	59.4	64.6	68.9		71.9	75.4	79
	90	23.0	31.7	39.8	47.4	54.4	60.8	66.6	71.7	76.1	80.0	83.3	79
	100	23.1	31.8	40.1	47.8	55.1	61.8	68.0	73.7	78.8	88.0	91.2	79
	40	26.3	35.8	43.0							47.0	51.4	78
	50	27.1	37.1	45.5	52.2	56.8					57.2	61.2	78
	60	27.6	37.9	47.0	54.8	61.1	65.9				67.1	70.9	79
20	70	28.0	38.4	47.9	56.4	63.7	69.9	74.7			76.9	80.4	79
	80	28.2	38.8	48.6	57.5	65.5	72.5	78.5	83.4		86.6	90.0	79
	90	28.5	39.1	49.1	58.3	66.7	74.4	81.2	87.1	92.0	96.2	99.4	79
	100	28.6	39.3	49.4	58.9	67.7	75.8	83.1	89.8	95.6	105.8	108.9	79
	50	32.8	44.9	54.9	62.7	67.8					68.2	72.2	78
	60	33.5	45.9	56.7	65.9	73.3	78.6				79.9	83.6	79
	70	33.9	46.5	57.9	67.9	76.6	83.7	89.1			91.5	94.9	79
22	80	34.2	47.0	58.7	69.3	78.8	87.0	94.0	99.5		102.9	106.2	79
	90	34.5	47.4	59.3	70.3	80.4	89.4	97.3	104.1	109.7	114.2	117.3	79
	100	34.7	47.6	59.8	71.1	81.6	91.2	99.8	107.6	114.3	125.4	128.5	79
	50	39.1	53.4	65.2	74.2	79.9					80.3	84.2	78
	60	39.9	54.6	67.4	78.1	86.6	92.6				94.0	97.6	79
	70	40.4	55.4	68.8	80.6	90.7	98.8	104.9			107.4	110.8	79
24	80	40.8	56.0	69.8	82.3	93.4	102.9	110.9	117.0		120.7	123.9	79
	90	41.1	56.4	70.6	83.6	95.3	105.9	115.0	122.8	129.0	133.8	136.9	79
	100	41.4	56.7	71.1	84.5	96.8	108.0	118.1	127.0	134.7	146.9	149.9	79
	50	46.0	62.7	76.4	86.7	93.0					93.4	97.3	78
	60	46.9	64.1	79.0	91.4	101.1	107.7				109.2	112.8	79
	70	47.5	65.1	80.7	94.4	106.0	115.3	122.1			124.7	128.1	79
26	80	48.0	65.7	81.9	96.5	109.3	120.3	129.3	136.1		140.0	143.2	79
	90	48.3	66.3	82.8	98.0	111.6	123.8	134.3	143.1	150.1	155.2	158.3	79
	100	48.6	66.6	83.5	99.1	113.4	126.4	138.0	148.2	156.9	170.3	173.3	79

[a] Includes 1.0-foot stump allowance.

Table 109--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) South-wide[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	0.5	0.6	0.6	0.7	0.8	1.0											
6	0.9	1.0	1.8	2.1	2.5	2.9	3.2	3.5									
7	1.3	2.2	2.7	3.3	3.9	4.4	4.9	5.3	5.8	6.2							
8	2.5	3.0	3.8	4.6	5.3	6.0	6.6	7.3	7.9	8.5	9.0	9.6					
9	3.1	3.9	4.9	5.9	6.9	7.8	8.6	9.4	10.2	11.0	11.7	12.4	13.1	13.8			
10	3.6	4.9	6.2	7.5	8.6	9.8	10.8	11.8	12.8	13.8	14.7	15.6	16.5	17.4	18.2	19.1	
11	4.4	6.0	7.6	9.1	10.6	11.9	13.2	14.5	15.7	16.9	18.0	19.1	20.2	21.3	22.3	23.4	24.4
12	5.3	7.2	9.1	11.0	12.7	14.3	15.9	17.4	18.8	20.2	21.6	22.9	24.2	25.5	26.8	28.1	29.3
13	6.3	8.5	10.8	12.9	15.0	16.9	18.7	20.5	22.2	23.9	25.5	27.1	28.6	30.1	31.6	33.1	34.6
14	7.3	9.9	12.6	15.1	17.4	19.7	21.8	23.9	25.9	27.8	29.7	31.5	33.3	35.1	36.9	38.6	40.3
15	8.4	11.5	14.5	17.4	20.1	22.7	25.2	27.5	29.8	32.0	34.2	36.3	38.4	40.4	42.5	44.4	46.4
16	9.6	13.1	16.5	19.8	22.9	25.9	28.7	31.4	34.0	36.6	39.0	41.4	43.8	46.1	48.4	50.7	53.0

[a] Includes 0.5-foot stump allowance.

Table 110--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) South-wide[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	2.3	2.7	3.1	3.6											
6	1.8	2.4	3.0	3.6	4.2	4.8	5.3	5.8									
7	2.3	3.2	4.0	4.7	5.5	6.2	6.8	7.5	8.2	8.8							
8	3.0	4.1	5.1	6.0	6.9	7.8	8.6	9.5	10.3	11.1	11.8	12.6					
9	3.8	5.1	6.4	7.5	8.6	9.6	10.7	11.7	12.6	13.6	14.5	15.5	16.4	17.3			
10	4.6	6.3	7.8	9.2	10.5	11.7	12.9	14.1	15.3	16.4	17.6	18.7	19.8	20.9	22.0	23.1	
11	5.6	7.6	9.3	11.0	12.5	14.0	15.5	16.9	18.2	19.6	20.9	22.3	23.6	24.9	26.2	27.4	28.7
12	6.7	9.0	11.1	13.0	14.8	16.5	18.2	19.9	21.5	23.1	24.6	26.2	27.7	29.2	30.7	32.2	33.7
13	7.9	10.5	12.9	15.2	17.3	19.3	21.2	23.1	25.0	26.8	28.6	30.4	32.2	33.9	35.7	37.4	39.1
14	9.1	12.2	14.9	17.5	19.9	22.2	24.5	26.6	28.8	30.9	32.9	35.0	37.0	39.0	41.0	43.0	44.9
15	10.5	14.0	17.1	20.0	22.8	25.4	28.0	30.4	32.9	35.2	37.6	39.9	42.2	44.5	46.7	49.0	51.2
16	11.9	15.9	19.5	22.7	25.8	28.8	31.7	34.5	37.2	39.9	42.6	45.2	47.8	50.3	52.9	55.4	57.9

[a] Includes 0.5-foot stump allowance.

Table 111--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										4.2	8.5	55
	50	7.7									7.9	12.0	66
	60	8.4									10.7	15.2	72
12	70	8.9	12.2								13.0	18.1	75
	80	9.2	12.7								15.1	20.8	77
	90	9.4	13.1	16.3							17.0	23.5	79
	100	9.6	13.4	16.8							18.8	26.0	80
	40	8.8									9.1	11.7	55
	50	10.5	13.7								13.8	16.5	66
	60	11.5	15.5								17.7	20.9	72
14	70	12.1	16.6	20.2							21.2	24.9	75
	80	12.6	17.4	21.4							24.4	28.6	77
	90	12.9	17.9	22.3	25.9						27.4	32.2	79
	100	13.1	18.3	22.9	26.9	30.1					30.4	35.7	80
	50	13.7	18.0								19.7	21.7	66
	60	15.1	20.2	24.1							24.9	27.4	72
	70	15.9	21.7	26.4							29.6	32.6	75
16	80	16.4	22.7	28.0	32.1						34.1	37.6	77
	90	16.8	23.4	29.1	33.8	37.5					38.3	42.3	79
	100	17.1	23.9	30.0	35.1	39.4					42.3	46.9	80
	110	17.3	24.3	30.6	36.1	40.8	44.6				46.3	51.4	81
	50	17.4	22.8								25.8	27.6	66
	60	19.1	25.7	30.5							32.6	34.8	72
	70	20.1	27.5	33.4	37.7						38.8	41.4	75
18	80	20.8	28.8	35.4	40.7	44.3					44.6	47.7	77
	90	21.3	29.7	36.9	42.9	47.5					50.1	53.7	79
	100	21.7	30.3	38.0	44.5	49.8	53.9				55.5	59.5	80
	110	21.9	30.8	38.8	45.8	51.7	56.5	60.0			60.7	65.2	81
	50	21.5	28.1	32.3							32.6	34.1	66
	60	23.6	31.7	37.7							41.1	43.1	72
	70	24.9	34.0	41.3	46.6						48.9	51.3	75
20	80	25.8	35.6	43.8	50.3	54.8					56.2	59.0	77
	90	26.4	36.7	45.6	53.0	58.6	62.5				63.2	66.5	79
	100	26.8	37.5	46.9	55.0	61.6	66.6	70.0			70.0	73.7	80
	110	27.1	38.1	47.9	56.5	63.9	69.8	74.2			76.7	80.7	81
	60	28.6	38.4	45.7	50.0						50.4	52.2	72
	70	30.2	41.2	50.0	56.4						60.0	62.2	75
	80	31.2	43.1	53.0	60.9	66.3					69.0	71.6	77
22	90	31.9	44.4	55.2	64.1	71.0	75.7				77.6	80.6	79
	100	32.4	45.4	56.8	66.6	74.5	80.6	84.7			86.0	89.3	80
	110	32.8	46.1	58.0	68.5	77.3	84.4	89.8	93.5		94.1	97.8	81
	60	34.1	45.7	54.4	59.6						60.5	62.2	72
	70	35.9	49.0	59.6	67.1	71.5					72.1	74.1	75
	80	37.2	51.3	63.1	72.5	78.9	82.8				82.9	85.3	77
24	90	38.0	52.9	65.7	76.3	84.5	90.1				93.3	96.0	79
	100	38.6	54.0	67.6	79.3	88.8	95.9	100.9			103.4	106.4	80
	110	39.1	54.9	69.1	81.5	92.0	100.5	106.9	111.3		113.2	116.6	81
	60	40.0	53.7	63.9	70.0						71.5	73.1	72
	70	42.2	57.6	69.9	78.8	84.0					85.2	87.0	75
	80	43.7	60.2	74.1	85.1	92.7	97.2				98.0	100.1	77
26	90	44.7	62.1	77.2	89.6	99.2	105.8	109.9			110.3	112.8	79
	100	45.4	63.4	79.4	93.1	104.2	112.6	118.4	122.1		122.2	125.0	80
	110	45.9	64.4	81.1	95.7	108.1	118.0	125.5	130.7		133.8	136.9	81

[a] Includes 1.0-foot stump allowance.

Table 112--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	8.0									8.8	11.0	71
	40	8.7									10.8	14.3	75
	50	9.0	12.3								12.6	17.5	77
12	60	9.2	12.7								14.2	20.5	78
	70	9.3	12.9								15.8	23.4	78
	80	9.4	13.1	16.3							17.2	26.2	79
	90	9.5	13.2	16.5							18.7	29.1	79
	40	11.8	15.9								16.8	19.3	75
	50	12.3	16.8								19.9	23.4	77
	60	12.6	17.3	21.1							22.9	27.3	78
14	70	12.8	17.6	21.7	25.0						25.8	31.2	78
	80	12.9	17.9	22.2	25.8						28.6	34.9	79
	90	13.0	18.0	22.5	26.4	29.7					31.3	38.7	79
	100	13.0	18.1	22.7	26.8	30.4	33.5				34.1	42.4	79
	40	15.5	20.7								23.1	25.0	75
	50	16.1	21.9	26.1							27.7	30.2	77
	60	16.5	22.6	27.5	31.1						32.0	35.3	78
16	70	16.7	23.0	28.3	32.6	35.9					36.2	40.2	78
	80	16.9	23.3	28.9	33.7	37.5					40.2	45.0	79
	90	17.0	23.6	29.4	34.4	38.7	42.3				44.3	49.8	79
	100	17.1	23.7	29.7	35.0	39.6	43.6	47.0			48.3	54.5	79
	40	19.6	26.2								30.0	31.4	75
	50	20.4	27.8	33.1							36.0	38.0	77
	60	20.9	28.6	34.8	39.3						41.7	44.3	78
18	70	21.2	29.2	35.9	41.2	45.3					47.3	50.4	78
	80	21.4	29.6	36.6	42.6	47.4	51.2				52.7	56.4	79
	90	21.5	29.9	37.2	43.5	48.9	53.4	56.9			58.1	62.4	79
	100	21.7	30.1	37.6	44.3	50.1	55.1	59.2	62.6		63.4	68.3	79
	40	24.3	32.4	37.1							37.5	38.6	75
	50	25.2	34.3	40.8	44.8						45.1	46.7	77
	60	25.8	35.4	42.9	48.5	52.2					52.3	54.4	78
20	70	26.2	36.1	44.3	50.9	55.9	59.3				59.3	61.8	78
	80	26.4	36.5	45.2	52.5	58.4	63.0				66.2	69.2	79
	90	26.6	36.9	45.9	53.7	60.3	65.8	70.0			73.0	76.4	79
	100	26.8	37.2	46.4	54.7	61.8	67.9	72.9	77.0		79.7	83.6	79
	50	30.6	41.5	49.3	54.1						55.0	56.3	77
	60	31.3	42.8	51.9	58.6	63.0					63.8	65.5	78
	70	31.7	43.7	53.6	61.5	67.5	71.6				72.4	74.5	78
22	80	32.0	44.3	54.7	63.5	70.6	76.1	80.0			80.8	83.3	79
	90	32.3	44.7	55.6	65.0	72.9	79.5	84.6	88.3		89.2	92.0	79
	100	32.4	45.0	56.2	66.1	74.7	82.0	88.1	92.9	96.5	97.4	100.6	79
	50	36.4	49.4	58.7	64.4						65.7	66.8	77
	60	37.3	51.0	61.8	69.7	74.8					76.3	77.7	78
	70	37.8	52.0	63.8	73.2	80.2	85.0				86.6	88.3	78
24	80	38.2	52.7	65.2	75.6	84.0	90.4	95.0			96.7	98.8	79
	90	38.4	53.2	66.2	77.3	86.8	94.5	100.5	104.8		106.7	109.0	79
	100	38.6	53.6	66.9	78.7	88.9	97.5	104.7	110.4	114.6	116.6	119.2	79
	50	42.8	58.0	68.9	75.5						77.3	78.2	77
	60	43.8	59.9	72.5	81.8	87.7					89.8	91.0	78
	70	44.4	61.1	74.9	85.8	94.1	99.6				101.9	103.4	78
26	80	44.8	61.9	76.5	88.7	98.5	106.0	111.3			113.8	115.6	79
	90	45.2	62.5	77.7	90.8	101.8	110.8	117.8	122.8		125.6	127.6	79
	100	45.4	62.9	78.6	92.3	104.3	114.4	122.7	129.3	134.2	137.2	139.5	79

[a] Includes 1.0-foot stump allowance.

Table 113--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.1									9.2	16.6	72
	30	9.0	12.4								14.3	20.8	77
	40	9.3	13.1	16.4							19.0	25.4	79
12	50	9.5	13.4	16.9	20.2	23.2					23.5	30.1	80
	60	9.6	13.5	17.2	20.7	23.9	26.9				28.0	34.8	80
	70	9.7	13.7	17.4	21.0	24.4	27.6	30.6			32.4	39.4	80
	80	9.7	13.7	17.6	21.3	24.8	28.1	31.3	34.3		36.8	44.0	80
	40	12.7	17.6	21.7							24.5	29.4	79
	50	13.0	18.1	22.6	26.5	29.8					30.1	35.1	80
	60	13.1	18.4	23.2	27.5	31.3	34.5				35.6	40.7	80
14	70	13.2	18.5	23.5	28.1	32.2	35.9	39.2			41.1	46.3	80
	80	13.3	18.7	23.7	28.5	32.8	36.9	40.6	43.9		46.5	51.9	80
	90	13.3	18.8	23.9	28.7	33.3	37.6	41.5	45.2	48.5	51.8	57.4	81
	100	13.4	18.8	24.0	29.0	33.7	38.1	42.3	46.2	49.8	57.2	62.9	81
	40	16.6	22.9	27.9							30.9	34.8	79
	50	16.9	23.6	29.2	33.9	37.4					37.7	41.7	80
	60	17.1	24.0	30.0	35.3	39.7	43.3				44.4	48.5	80
16	70	17.3	24.2	30.5	36.2	41.2	45.5	49.2			51.0	55.3	80
	80	17.4	24.4	30.8	36.8	42.2	47.0	51.3	54.9		57.6	62.0	80
	90	17.4	24.5	31.1	37.2	42.9	48.1	52.8	57.0	60.7	64.2	68.6	81
	100	17.5	24.6	31.3	37.5	43.4	48.9	53.9	58.5	62.7	70.7	75.3	81
	40	21.0	28.9	34.8							38.2	41.4	79
	50	21.5	29.8	36.7	42.2	46.0					46.4	49.7	80
	60	21.7	30.3	37.8	44.1	49.3	53.3				54.4	57.9	80
18	70	21.9	30.6	38.4	45.4	51.4	56.4	60.4			62.4	65.9	80
	80	22.0	30.8	38.9	46.2	52.7	58.5	63.4	67.5		70.3	73.9	80
	90	22.1	31.0	39.2	46.8	53.7	60.0	65.5	70.4	74.5	78.1	81.8	81
	100	22.2	31.1	39.5	47.3	54.5	61.1	67.1	72.5	77.3	86.0	89.8	81
	40	26.0	35.7	42.6							46.3	49.1	79
	50	26.5	36.8	45.1	51.5	55.7					56.1	58.9	80
	60	26.9	37.4	46.4	54.0	60.1	64.5				65.6	68.6	80
20	70	27.1	37.8	47.3	55.6	62.7	68.6	73.0			75.1	78.1	80
	80	27.2	38.1	47.9	56.7	64.5	71.3	77.0	81.5		84.4	87.5	80
	90	27.3	38.3	48.3	57.5	65.9	73.3	79.8	85.3	89.9	93.7	96.9	81
	100	27.4	38.4	48.6	58.1	66.8	74.8	81.9	88.2	93.7	103.0	106.3	81
	50	32.2	44.4	54.3	61.7	66.4					66.8	69.3	80
	60	32.5	45.2	56.0	65.0	71.9	76.8				78.0	80.6	80
	70	32.8	45.7	57.1	67.0	75.3	82.0	86.9			89.1	91.7	80
22	80	33.0	46.0	57.9	68.4	77.6	85.5	92.0	97.0		100.1	102.8	80
	90	33.1	46.3	58.4	69.4	79.3	88.0	95.5	101.9	106.9	111.0	113.8	81
	100	33.2	46.5	58.8	70.2	80.5	89.9	98.2	105.5	111.7	121.9	124.7	81
	50	38.3	52.9	64.5	73.0	78.1					78.5	80.7	80
	60	38.8	53.8	66.6	77.0	84.9	90.3				91.6	93.8	80
	70	39.1	54.4	67.9	79.5	89.1	96.7	102.2			104.4	106.8	80
24	80	39.3	54.8	68.8	81.2	91.9	101.0	108.4	114.0		117.2	119.6	80
	90	39.4	55.1	69.4	82.4	94.0	104.1	112.8	120.0	125.6	129.9	132.4	81
	100	39.5	55.3	69.9	83.3	95.5	106.4	116.1	124.5	131.5	142.6	145.1	81
	50	45.0	62.0	75.5	85.2	90.9					91.3	93.3	80
	60	45.5	63.1	78.0	90.0	99.1	105.0				106.3	108.4	80
	70	45.9	63.9	79.6	93.0	104.1	112.7	118.8			121.1	123.2	80
26	80	46.1	64.3	80.7	95.1	107.5	117.9	126.3	132.4		135.9	138.0	80
	90	46.3	64.7	81.4	96.5	109.9	121.6	131.6	139.7	145.9	150.5	152.7	81
	100	46.4	65.0	82.0	97.7	111.8	124.4	135.6	145.1	153.1	165.1	167.3	81

[a] Includes 1.0-foot stump allowance.

Table 114--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) South-wide[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	0.6	0.7	0.8	0.9	1.0	1.3											
6	0.9	1.1	1.5	2.2	2.6	2.9	3.3	3.6									
7	1.4	1.9	2.7	3.3	3.9	4.4	4.9	5.3	5.8	6.2							
8	1.9	2.9	3.8	4.5	5.3	6.0	6.6	7.2	7.8	8.4	9.0	9.5					
9	2.5	3.8	4.9	5.9	6.8	7.7	8.5	9.4	10.1	10.9	11.6	12.3	13.1	13.7			
10	3.6	4.8	6.1	7.4	8.5	9.6	10.7	11.7	12.7	13.6	14.6	15.5	16.3	17.2	18.1	18.9	
11	4.3	5.9	7.5	9.0	10.4	11.8	13.1	14.3	15.5	16.6	17.8	18.9	20.0	21.0	22.1	23.1	24.2
12	5.1	7.0	8.9	10.8	12.5	14.1	15.6	17.1	18.6	19.9	21.3	22.6	23.9	25.2	26.5	27.7	29.0
13	6.1	8.3	10.6	12.7	14.7	16.6	18.4	20.2	21.9	23.5	25.1	26.7	28.2	29.7	31.2	32.7	34.1
14	7.1	9.7	12.3	14.8	17.1	19.4	21.5	23.5	25.5	27.4	29.2	31.1	32.8	34.6	36.3	38.1	39.8
15	8.2	11.2	14.2	17.0	19.7	22.3	24.7	27.1	29.3	31.5	33.7	35.8	37.8	39.8	41.8	43.8	45.8
16	9.3	12.7	16.2	19.4	22.5	25.4	28.2	30.9	33.4	35.9	38.4	40.8	43.1	45.4	47.7	50.0	52.2

[a] Includes 0.5-foot stump allowance.

Table 115--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) South-wide[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	1.6	1.9	2.3	2.8	3.2	3.6											
6	1.9	2.6	3.2	3.7	4.3	4.8	5.3	5.8									
7	2.6	3.4	4.1	4.8	5.5	6.2	6.8	7.4	8.1	8.7							
8	3.3	4.3	5.3	6.2	7.0	7.8	8.6	9.3	10.1	10.8	11.6	12.3					
9	4.2	5.4	6.6	7.6	8.6	9.6	10.5	11.5	12.4	13.3	14.2	15.1	15.9	16.8			
10	5.1	6.7	8.0	9.3	10.5	11.6	12.8	13.9	14.9	16.0	17.1	18.1	19.2	20.2	21.2	22.3	
11	6.2	8.0	9.6	11.1	12.5	13.9	15.2	16.5	17.8	19.0	20.3	21.5	22.8	24.0	25.2	26.4	27.6
12	7.4	9.5	11.4	13.1	14.8	16.4	17.9	19.4	20.9	22.4	23.8	25.3	26.7	28.1	29.5	30.9	32.3
13	8.7	11.1	13.3	15.3	17.2	19.1	20.8	22.6	24.3	26.0	27.6	29.3	31.0	32.6	34.2	35.8	37.5
14	10.0	12.9	15.4	17.7	19.9	22.0	24.0	26.0	27.9	29.9	31.8	33.7	35.6	37.4	39.3	41.2	43.0
15	11.5	14.7	17.6	20.2	22.7	25.1	27.4	29.7	31.9	34.1	36.2	38.4	40.5	42.6	44.8	46.9	49.0
16	13.1	16.7	20.0	22.9	25.7	28.4	31.0	33.6	36.1	38.6	41.0	43.4	45.8	48.2	50.6	53.0	55.3

[a] Includes 0.5-foot stump allowance.

Table 116--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 sweetbay (species 653) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.0									8.8	11.3	67
	50	8.6									10.2	13.8	70
	60	9.0									11.4	16.2	72
	70	9.3	12.4								12.5	18.4	73
	80	9.5	12.7								13.4	20.5	74
	90	9.6	12.9								14.3	22.5	75
	100	9.7	13.1								15.2	24.5	75
14	40	10.9									13.8	15.5	67
	50	11.8	15.5								16.5	19.0	70
	60	12.3	16.3								18.9	22.2	72
	70	12.7	16.9	20.3							21.1	25.2	73
	80	12.9	17.3	21.0							23.3	28.1	74
	90	13.1	17.6	21.5	24.7						25.3	30.9	75
	100	13.3	17.8	21.8	25.3						27.3	33.7	75
16	50	15.4	20.2								23.0	24.9	70
	60	16.1	21.4	25.3							26.6	29.1	72
	70	16.6	22.1	26.6	29.9						30.0	33.1	73
	80	16.9	22.6	27.5	31.3						33.2	36.9	74
	90	17.2	23.0	28.1	32.4	35.7					36.3	40.6	75
	100	17.4	23.3	28.6	33.1	36.9					39.4	44.2	75
	110	17.5	23.5	29.0	33.7	37.8	41.3				42.3	47.8	75
18	50	19.5	25.7	29.7							30.1	31.6	70
	60	20.4	27.1	32.1							34.9	37.0	72
	70	21.0	28.0	33.7	37.9						39.5	42.0	73
	80	21.4	28.7	34.8	39.7	43.3					43.8	46.9	74
	90	21.8	29.2	35.6	41.0	45.3					48.0	51.6	75
	100	22.0	29.5	36.2	42.0	46.8	50.6				52.2	56.2	75
	110	22.2	29.8	36.7	42.7	47.9	52.3	55.7			56.2	60.8	75
20	50	24.2	31.7	36.7							37.8	39.1	70
	60	25.3	33.5	39.7	43.7						44.0	45.7	72
	70	26.0	34.6	41.6	46.9						49.8	52.0	73
	80	26.5	35.5	43.0	49.0	53.5					55.3	58.0	74
	90	26.9	36.1	44.0	50.6	55.9	59.8				60.7	63.8	75
	100	27.2	36.5	44.7	51.9	57.8	62.5	65.9			66.0	69.5	75
	110	27.4	36.9	45.3	52.8	59.2	64.6	68.8			71.2	75.2	75
22	60	30.6	40.5	48.1	52.9						53.8	55.4	72
	70	31.5	42.0	50.4	56.7	60.7					61.0	63.0	73
	80	32.1	42.9	52.1	59.4	64.8					67.8	70.3	74
	90	32.6	43.7	53.3	61.3	67.7	72.4				74.5	77.3	75
	100	33.0	44.2	54.2	62.8	70.0	75.6	79.8			81.1	84.3	75
	110	33.2	44.6	54.9	63.9	71.7	78.2	83.2	86.9		87.5	91.1	75
24	60	36.4	48.3	57.2	63.0						64.6	66.0	72
	70	37.5	50.0	60.0	67.5	72.3					73.2	75.1	73
	80	38.3	51.1	62.0	70.7	77.1	81.2				81.5	83.7	74
	90	38.8	52.0	63.4	73.0	80.6	86.2				89.6	92.2	75
	100	39.3	52.7	64.5	74.8	83.3	90.1	95.0			97.5	100.4	75
	110	39.6	53.2	65.4	76.1	85.4	93.0	99.1	103.4		105.3	108.6	75
26	60	42.8	56.7	67.2	73.9						76.2	77.6	72
	70	44.1	58.7	70.5	79.3	84.9					86.5	88.2	73
	80	44.9	60.1	72.8	83.0	90.6	95.3				96.3	98.3	74
	90	45.6	61.1	74.5	85.7	94.7	101.2	105.3			105.9	108.3	75
	100	46.1	61.8	75.8	87.8	97.8	105.7	111.5	115.1		115.2	118.0	75
	110	46.5	62.4	76.7	89.4	100.2	109.2	116.3	121.4		124.5	127.6	75

[a] Includes 1.0-foot stump allowance.

Table 117--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 sweetbay (species 653) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.3									8.9	11.2	69
	40	8.9									10.5	14.4	72
	50	9.2									11.8	17.3	73
	60	9.5	12.6								13.0	20.1	74
	70	9.6	12.9								14.2	22.9	74
	80	9.7	13.0								15.3	25.6	75
	90	9.8	13.1	16.2							16.3	28.2	75
14	40	12.1	15.9								16.7	19.3	72
	50	12.6	16.7								19.6	23.2	73
	60	12.9	17.2	20.7							22.2	26.9	74
	70	13.1	17.5	21.3	24.5						24.7	30.6	74
	80	13.2	17.7	21.7	25.1						27.2	34.1	75
	90	13.3	17.9	22.0	25.6	28.8					29.7	37.6	75
	100	13.4	18.0	22.2	26.0	29.4					32.1	41.1	75
16	40	15.9	20.8								23.2	25.0	72
	50	16.5	21.9	25.9							27.4	30.0	73
	60	16.9	22.5	27.1	30.6						31.4	34.8	74
	70	17.1	22.9	27.8	31.9	35.1					35.3	39.4	74
	80	17.3	23.2	28.3	32.8	36.5					39.1	44.0	75
	90	17.5	23.4	28.7	33.4	37.5	41.0				42.8	48.5	75
	100	17.6	23.6	29.0	33.9	38.3	42.1	45.3			46.5	52.9	75
18	40	20.1	26.3								30.2	31.5	72
	50	20.9	27.7	32.7							35.8	37.8	73
	60	21.4	28.5	34.2	38.7						41.2	43.7	74
	70	21.7	29.0	35.2	40.3	44.3					46.4	49.5	74
	80	22.0	29.4	35.9	41.5	46.1	49.8				51.5	55.2	75
	90	22.1	29.7	36.4	42.3	47.4	51.7	55.2			56.5	60.8	75
	100	22.3	29.9	36.8	42.9	48.4	53.1	57.2	60.5		61.5	66.4	75
20	40	24.9	32.5	37.2							37.7	38.8	72
	50	25.8	34.2	40.4	44.5						44.9	46.4	73
	60	26.4	35.2	42.3	47.7	51.4					51.7	53.7	74
	70	26.9	35.9	43.5	49.7	54.6	58.1				58.3	60.8	74
	80	27.2	36.3	44.3	51.1	56.8	61.3	64.7			64.8	67.7	75
	90	27.4	36.6	44.9	52.2	58.4	63.7	67.9	71.1		71.2	74.6	75
	100	27.5	36.9	45.4	53.0	59.7	65.5	70.4	74.4	77.6	77.6	81.4	75
22	50	31.3	41.4	48.9	53.7						54.8	56.0	73
	60	32.0	42.6	51.1	57.6	62.1					63.2	64.7	74
	70	32.5	43.4	52.6	60.1	66.0	70.1				71.3	73.2	74
	80	32.9	44.0	53.6	61.9	68.7	74.1	78.0			79.3	81.6	75
	90	33.2	44.4	54.4	63.1	70.7	77.0	82.0	85.8		87.1	89.8	75
	100	33.4	44.7	54.9	64.1	72.2	79.2	85.1	89.9	93.6	94.9	97.9	75
24	50	37.3	49.3	58.2	63.9						65.5	66.5	73
	60	38.2	50.7	60.9	68.5	73.7					75.5	76.8	74
	70	38.8	51.7	62.6	71.5	78.4	83.3				85.3	86.9	74
	80	39.2	52.4	63.8	73.6	81.7	88.0	92.7			94.8	96.7	75
	90	39.5	52.8	64.7	75.1	84.1	91.5	97.5	101.9		104.3	106.5	75
	100	39.7	53.2	65.4	76.3	85.9	94.1	101.1	106.8	111.1	113.6	116.1	75
26	50	43.8	57.9	68.2	74.9						77.1	77.9	73
	60	44.8	59.6	71.4	80.4	86.4					88.9	90.0	74
	70	45.5	60.7	73.5	83.9	92.0	97.6				100.4	101.7	74
	80	46.0	61.5	74.9	86.4	95.8	103.2	108.6			111.6	113.2	75
	90	46.4	62.1	76.0	88.2	98.6	107.3	114.3	119.4		122.8	124.6	75
	100	46.7	62.5	76.8	89.5	100.7	110.4	118.5	125.1	130.2	133.8	135.8	75

[a] Includes 1.0-foot stump allowance.

Table 118--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 sweetbay (species 653) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.7									9.8	15.5	72
	30	9.1	12.3								14.1	19.3	73
	40	9.3	12.6	15.7							18.2	23.1	74
12	50	9.5	12.8	16.0	19.1	21.9					22.3	27.1	74
	60	9.5	12.9	16.2	19.3	22.3	25.2				26.2	31.0	74
	70	9.6	13.0	16.3	19.5	22.6	25.6	28.4			30.2	34.9	74
	80	9.6	13.0	16.4	19.6	22.7	25.8	28.8	31.7		34.1	38.8	74
	40	12.9	17.2	21.0							23.7	27.7	74
	50	13.0	17.5	21.5	25.1	28.2					28.6	32.5	74
	60	13.1	17.7	21.9	25.7	29.2	32.4				33.4	37.3	74
14	70	13.2	17.8	22.1	26.1	29.8	33.3	36.5			38.2	42.0	74
	80	13.3	17.8	22.2	26.3	30.2	33.9	37.3	40.5		43.0	46.8	74
	90	13.3	17.9	22.3	26.5	30.5	34.4	38.0	41.4	44.5	47.8	51.6	74
	100	13.3	17.9	22.4	26.7	30.8	34.7	38.4	42.0	45.4	52.6	56.3	74
	40	16.9	22.5	27.0							29.9	33.3	74
	50	17.1	22.9	27.9	32.1	35.5					35.9	39.2	74
	60	17.3	23.1	28.4	33.1	37.2	40.6				41.7	45.0	74
16	70	17.4	23.3	28.7	33.7	38.2	42.2	45.7			47.5	50.7	74
	80	17.5	23.4	28.9	34.1	38.9	43.3	47.2	50.7		53.3	56.5	74
	90	17.5	23.5	29.1	34.4	39.4	44.0	48.3	52.2	55.7	59.1	62.2	74
	100	17.6	23.5	29.2	34.6	39.7	44.6	49.1	53.3	57.1	64.8	68.0	74
	40	21.5	28.4	33.8							37.0	40.0	74
	50	21.8	29.0	35.1	40.1	43.8					44.1	47.0	74
	60	22.0	29.3	35.8	41.5	46.2	50.0				51.1	54.0	74
18	70	22.1	29.5	36.3	42.3	47.7	52.3	56.1			58.1	60.9	74
	80	22.2	29.7	36.6	42.9	48.7	53.8	58.4	62.2		65.0	67.7	74
	90	22.3	29.8	36.8	43.3	49.4	54.9	59.9	64.4	68.3	71.8	74.6	74
	100	22.3	29.9	37.0	43.7	49.9	55.7	61.1	66.0	70.4	78.7	81.4	74
	40	26.6	35.1	41.4							45.0	47.7	74
	50	27.0	35.8	43.2	49.0	53.0					53.4	56.0	74
	60	27.2	36.2	44.1	50.8	56.3	60.5				61.7	64.2	74
20	70	27.4	36.5	44.7	52.0	58.3	63.6	67.8			69.8	72.3	74
	80	27.5	36.7	45.1	52.8	59.6	65.7	70.8	75.1		78.0	80.5	74
	90	27.6	36.8	45.4	53.3	60.6	67.1	73.0	78.1	82.3	86.1	88.6	74
	100	27.6	36.9	45.6	53.8	61.3	68.2	74.6	80.2	85.2	94.2	96.6	74
	50	32.7	43.3	52.1	58.8	63.2					63.6	65.9	74
	60	33.0	43.9	53.3	61.2	67.5	72.1				73.3	75.6	74
	70	33.2	44.2	54.0	62.6	70.0	76.1	80.8			82.9	85.1	74
22	80	33.3	44.4	54.5	63.6	71.7	78.7	84.6	89.4		92.4	94.6	74
	90	33.4	44.6	54.9	64.4	73.0	80.6	87.4	93.2	97.9	101.9	104.1	74
	100	33.5	44.7	55.2	64.9	73.9	82.0	89.4	96.0	101.6	111.3	113.6	74
	50	39.0	51.6	61.8	69.5	74.4					74.8	76.9	74
	60	39.3	52.2	63.3	72.5	79.7	84.7				86.0	88.1	74
	70	39.6	52.6	64.2	74.3	82.9	89.8	94.9			97.1	99.2	74
24	80	39.7	52.9	64.9	75.6	85.0	93.1	99.8	105.0		108.1	110.2	74
	90	39.9	53.1	65.3	76.5	86.5	95.4	103.2	109.7	115.0	119.1	121.2	74
	100	40.0	53.3	65.7	77.1	87.7	97.2	105.7	113.2	119.6	130.1	132.1	74
	50	45.8	60.6	72.4	81.2	86.5					86.9	88.9	74
	60	46.2	61.3	74.2	84.8	93.0	98.5				99.8	101.8	74
	70	46.5	61.8	75.3	87.0	96.8	104.6	110.3			112.6	114.5	74
26	80	46.7	62.1	76.1	88.5	99.4	108.6	116.2	121.9		125.3	127.2	74
	90	46.9	62.4	76.7	89.6	101.2	111.5	120.3	127.7	133.5	137.9	139.8	74
	100	47.0	62.6	77.1	90.4	102.6	113.6	123.4	131.9	139.1	150.5	152.4	74

[a] Includes 1.0-foot stump allowance.

Table 119--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for sweetbay (species 653) South-wide[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	1.0	1.2	1.4	1.6	1.7											
6	2.0	2.3	2.6	2.8	3.1	3.3	3.5	3.7									
7	2.9	3.3	3.8	4.2	4.5	4.9	5.2	5.5	5.9	6.2							
8	3.8	4.5	5.1	5.6	6.2	6.6	7.1	7.6	8.0	8.4	8.9	9.3					
9	4.9	5.8	6.6	7.3	7.9	8.6	9.2	9.8	10.4	10.9	11.5	12.1	12.6	13.1			
10	6.1	7.2	8.2	9.1	9.9	10.7	11.5	12.3	13.0	13.7	14.4	15.1	15.8	16.5	17.2	17.8	
11	7.5	8.8	10.0	11.1	12.1	13.1	14.0	15.0	15.9	16.7	17.6	18.5	19.3	20.2	21.0	21.8	22.6
12	8.9	10.5	11.9	13.2	14.5	15.7	16.8	17.9	19.0	20.1	21.1	22.1	23.2	24.2	25.2	26.2	27.2
13	10.5	12.3	14.0	15.6	17.1	18.5	19.8	21.1	22.4	23.7	24.9	26.1	27.3	28.5	29.7	30.9	32.0
14	12.2	14.3	16.3	18.1	19.8	21.5	23.1	24.6	26.1	27.6	29.0	30.4	31.8	33.2	34.6	36.0	37.3
15	14.0	16.5	18.8	20.9	22.8	24.7	26.5	28.3	30.0	31.7	33.4	35.0	36.6	38.3	39.8	41.4	43.0
16	16.0	18.8	21.4	23.8	26.0	28.2	30.3	32.3	34.2	36.2	38.1	39.9	41.8	43.6	45.4	47.2	49.0

[a] Includes 0.5-foot stump allowance.

Table 120--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 sweetbay (species 653) South-wide[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	1.6	2.0	2.4	2.8	3.2	3.6											
6	2.1	2.7	3.2	3.8	4.3	4.7	5.2	5.7									
7	2.8	3.5	4.2	4.9	5.5	6.2	6.8	7.3	7.9	8.5							
8	3.6	4.6	5.4	6.2	7.0	7.8	8.5	9.2	9.9	10.6	11.3	12.0					
9	4.5	5.7	6.8	7.8	8.7	9.6	10.5	11.4	12.2	13.1	13.9	14.7	15.6	16.4			
10	5.6	7.0	8.3	9.5	10.6	11.7	12.8	13.8	14.8	15.8	16.8	17.8	18.8	19.8	20.7	21.7	
11	6.8	8.4	10.0	11.4	12.7	14.0	15.2	16.4	17.6	18.8	20.0	21.2	22.3	23.5	24.6	25.8	26.9
12	8.0	10.0	11.8	13.4	15.0	16.5	17.9	19.4	20.8	22.1	23.5	24.9	26.2	27.6	28.9	30.2	31.5
13	9.4	11.7	13.8	15.7	17.5	19.2	20.9	22.5	24.2	25.7	27.3	28.9	30.4	32.0	33.5	35.0	36.6
14	10.9	13.6	15.9	18.1	20.2	22.2	24.1	26.0	27.8	29.6	31.4	33.2	35.0	36.8	38.5	40.3	42.0
15	12.6	15.5	18.2	20.7	23.1	25.3	27.5	29.6	31.7	33.8	35.9	37.9	39.9	41.9	43.9	45.9	47.9
16	14.3	17.7	20.7	23.5	26.2	28.7	31.2	33.6	36.0	38.3	40.6	42.9	45.2	47.4	49.7	51.9	54.1

[a] Includes 0.5-foot stump allowance.

Table 121--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 blackgum (upland) (species 693) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										6.4	10.6	64
	50	8.2									10.0	13.6	70
	60	8.7	11.7								12.1	16.2	73
12	70	8.9	12.2								13.9	18.7	74
	80	9.1	12.5	15.5							15.6	21.1	75
	90	9.3	12.8	15.9							17.1	23.4	76
	100	9.4	12.9	16.2							18.7	25.7	77
	40	10.1									12.7	14.5	64
	50	11.1	14.8								16.2	18.5	70
	60	11.7	15.9	19.2							19.4	22.1	73
14	70	12.1	16.5	20.3							22.3	25.5	74
	80	12.3	17.0	21.0	24.3						25.0	28.8	75
	90	12.5	17.3	21.5	25.2						27.6	32.0	76
	100	12.6	17.5	21.9	25.8	29.1					30.2	35.1	77
	50	14.4	19.3								22.4	24.1	70
	60	15.2	20.6	24.9							26.7	28.9	73
	70	15.7	21.5	26.4	30.0						30.8	33.4	74
16	80	16.0	22.1	27.4	31.7						34.6	37.7	75
	90	16.2	22.5	28.0	32.8	36.6					38.3	41.8	76
	100	16.4	22.8	28.6	33.6	37.9	41.3				41.9	45.9	77
	110	16.5	23.0	28.9	34.3	38.9	42.8				45.5	49.9	77
	50	18.2	24.4	28.6							29.0	30.5	70
	60	19.2	26.1	31.5							34.7	36.6	73
	70	19.8	27.1	33.3	37.9						39.9	42.2	74
18	80	20.2	27.8	34.5	40.0	43.9					45.0	47.7	75
	90	20.5	28.4	35.4	41.4	46.2	49.6				49.9	53.0	76
	100	20.7	28.7	36.1	42.5	47.9	52.1				54.6	58.2	77
	110	20.9	29.0	36.5	43.3	49.2	54.1	57.8			59.3	63.3	77
	50	22.4	30.0	35.2							36.3	37.7	70
	60	23.6	32.1	38.8	43.0						43.4	45.1	73
	70	24.3	33.4	41.1	46.8						50.1	52.2	74
20	80	24.9	34.3	42.6	49.3	54.2					56.5	58.9	75
	90	25.2	34.9	43.7	51.1	57.0	61.2				62.6	65.5	76
	100	25.5	35.4	44.4	52.4	59.1	64.3	67.9			68.7	71.9	77
	110	25.7	35.8	45.0	53.4	60.7	66.7	71.3	74.5		74.6	78.2	77
	60	28.5	38.8	46.9	52.0						53.1	54.6	73
	70	29.4	40.4	49.6	56.6	60.7					61.2	63.1	74
	80	30.0	41.5	51.5	59.6	65.5	69.0				69.1	71.3	75
22	90	30.4	42.2	52.8	61.8	68.9	74.0				76.7	79.2	76
	100	30.8	42.8	53.7	63.4	71.4	77.7	82.1			84.1	87.0	77
	110	31.0	43.2	54.4	64.6	73.4	80.6	86.2	90.1		91.4	94.7	77
	60	33.8	46.1	55.8	61.8						63.6	65.0	73
	70	34.9	48.0	59.0	67.3	72.2					73.4	75.1	74
	80	35.7	49.3	61.2	70.9	77.9	82.1				82.8	84.8	75
24	90	36.2	50.2	62.7	73.5	82.0	88.0	91.7			91.9	94.3	76
	100	36.6	50.8	63.9	75.3	85.0	92.5	97.7			100.9	103.6	77
	110	36.9	51.3	64.7	76.8	87.2	95.9	102.5	107.2		109.7	112.7	77
	60	39.7	54.1	65.4	72.5						74.9	76.3	73
	70	40.9	56.3	69.2	78.9	84.7					86.6	88.1	74
	80	41.8	57.8	71.8	83.1	91.4	96.3				97.7	99.6	75
26	90	42.4	58.8	73.6	86.2	96.2	103.2	107.5			108.5	110.7	76
	100	42.9	59.6	74.9	88.4	99.7	108.5	114.6	118.5		119.1	121.5	77
	110	43.2	60.2	75.9	90.1	102.3	112.5	120.3	125.7	129.2	129.5	132.3	77

[a] Includes 1.0-foot stump allowance.

Table 122--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 blackgum (upland) (species 693) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.9									8.7	10.9	69
	40	8.6									10.8	14.4	73
	50	9.0	12.1								12.7	17.6	74
	60	9.2	12.5								14.5	20.6	75
	70	9.3	12.7	15.7							16.1	23.6	76
	80	9.4	12.9	16.0							17.8	26.5	76
	90	9.5	13.0	16.2	19.1						19.3	29.4	76
14	40	11.6	15.6								17.0	19.3	73
	50	12.1	16.4	19.8							20.4	23.5	74
	60	12.4	16.9	20.6							23.6	27.5	75
	70	12.6	17.2	21.2	24.6						26.7	31.5	76
	80	12.7	17.4	21.6	25.3	28.5					29.8	35.3	76
	90	12.8	17.6	21.9	25.8	29.2	32.2				32.8	39.2	76
	100	12.9	17.7	22.1	26.2	29.8	33.1				35.7	43.0	76
16	40	15.1	20.2								23.4	24.9	73
	50	15.7	21.3	25.7							28.2	30.3	74
	60	16.1	22.0	26.8	30.7						32.9	35.5	75
	70	16.3	22.4	27.6	32.0	35.6					37.3	40.6	76
	80	16.5	22.6	28.1	32.9	37.0	40.3				41.7	45.6	76
	90	16.6	22.8	28.5	33.5	38.0	41.8	45.0			46.1	50.5	76
	100	16.7	23.0	28.8	34.0	38.7	42.9	46.6	49.6		50.4	55.4	76
18	40	19.1	25.5	29.7							30.2	31.3	73
	50	19.9	26.9	32.4	36.1						36.6	38.1	74
	60	20.3	27.7	33.9	38.7	42.2					42.6	44.6	75
	70	20.6	28.2	34.8	40.4	44.8	48.2				48.6	50.9	76
	80	20.8	28.6	35.5	41.5	46.6	50.8	54.0			54.4	57.1	76
	90	20.9	28.8	36.0	42.3	47.9	52.7	56.7	59.8		60.1	63.3	76
	100	21.1	29.0	36.3	42.9	48.9	54.1	58.6	62.4	65.5	65.8	69.4	76
20	40	23.5	31.5	36.6							37.6	38.5	73
	50	24.5	33.2	39.9	44.4						45.6	46.8	74
	60	25.0	34.1	41.7	47.7	51.9					53.2	54.7	75
	70	25.4	34.8	42.9	49.7	55.2	59.2				60.7	62.4	76
	80	25.6	35.2	43.7	51.1	57.4	62.5	66.4			68.0	70.1	76
	90	25.8	35.5	44.3	52.1	59.0	64.9	69.7	73.4		75.2	77.6	76
	100	25.9	35.8	44.7	52.9	60.2	66.6	72.2	76.8	80.5	82.3	85.0	76
22	50	29.5	40.1	48.1	53.6						55.4	56.3	74
	60	30.2	41.3	50.4	57.6	62.6					64.8	65.9	75
	70	30.6	42.0	51.8	60.0	66.6	71.4				73.8	75.2	76
	80	30.9	42.5	52.8	61.7	69.3	75.4	80.0			82.7	84.3	76
	90	31.2	42.9	53.5	63.0	71.2	78.3	84.1	88.6		91.5	93.4	76
	100	31.3	43.2	54.1	63.9	72.7	80.5	87.1	92.6	97.0	100.3	102.4	76
24	50	35.1	47.6	57.2	63.7						66.1	66.8	74
	60	35.9	49.0	59.9	68.4	74.4					77.2	78.1	75
	70	36.4	49.9	61.6	71.3	79.1	84.8				88.1	89.2	76
	80	36.8	50.6	62.8	73.4	82.3	89.6	95.0	98.6		98.7	100.0	76
	90	37.0	51.0	63.6	74.9	84.7	93.0	99.8	105.1	108.8	109.2	110.7	76
	100	37.2	51.3	64.3	76.0	86.4	95.6	103.5	110.0	115.2	119.7	121.3	76
26	50	41.1	55.8	67.0	74.6						77.6	78.2	74
	60	42.1	57.5	70.2	80.1	87.1					90.7	91.4	75
	70	42.7	58.6	72.2	83.6	92.7	99.3	103.3			103.4	104.3	76
	80	43.1	59.3	73.6	86.0	96.5	104.9	111.3	115.4		115.9	117.0	76
	90	43.4	59.8	74.6	87.8	99.2	109.0	117.0	123.1	127.3	128.3	129.5	76
	100	43.6	60.2	75.4	89.1	101.3	112.0	121.3	128.9	134.9	140.6	141.9	76

[a] Includes 1.0-foot stump allowance.

Table 123--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 blackgum (upland) (species 693) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.1									9.2	14.5	71
	30	8.8	12.0								13.8	17.9	74
	40	9.1	12.5	15.7							18.1	21.8	75
	50	9.3	12.8	16.1	19.2	22.0					22.3	25.7	76
	60	9.4	13.0	16.3	19.6	22.6	25.4				26.4	29.6	76
	70	9.5	13.1	16.5	19.8	23.0	26.0	28.8			30.5	33.5	76
	80	9.5	13.1	16.6	20.0	23.2	26.4	29.4	32.2		34.6	37.5	76
14	40	12.3	16.8	20.7							23.4	26.8	75
	50	12.6	17.2	21.4	25.1	28.2					28.6	31.7	76
	60	12.7	17.5	21.9	25.9	29.5	32.7				33.7	36.6	76
	70	12.8	17.6	22.1	26.3	30.2	33.8	37.0			38.7	41.5	76
	80	12.9	17.7	22.3	26.7	30.7	34.6	38.1	41.3		43.8	46.4	76
	90	12.9	17.8	22.4	26.9	31.1	35.1	38.8	42.3	45.5	48.8	51.4	76
	100	12.9	17.8	22.5	27.0	31.4	35.5	39.4	43.1	46.6	53.7	56.3	76
16	40	16.0	21.8	26.5							29.5	32.7	75
	50	16.3	22.3	27.6	32.0	35.5					35.8	38.8	76
	60	16.5	22.6	28.2	33.2	37.5	41.0				42.0	44.9	76
	70	16.6	22.8	28.6	33.9	38.6	42.8	46.4			48.2	50.9	76
	80	16.7	23.0	28.9	34.4	39.4	44.0	48.1	51.7		54.3	56.9	76
	90	16.8	23.1	29.1	34.7	40.0	44.9	49.4	53.4	57.0	60.4	62.9	76
	100	16.8	23.2	29.2	35.0	40.4	45.5	50.3	54.7	58.7	66.5	68.9	76
18	40	20.2	27.4	33.1							36.4	39.5	75
	50	20.5	28.1	34.6	39.8	43.7					44.0	46.9	76
	60	20.8	28.5	35.4	41.4	46.5	50.4				51.5	54.2	76
	70	20.9	28.8	36.0	42.4	48.1	53.0	57.0			58.9	61.5	76
	80	21.0	29.0	36.3	43.1	49.2	54.7	59.5	63.6		66.3	68.8	76
	90	21.1	29.1	36.6	43.6	50.0	55.9	61.3	66.0	70.0	73.7	76.1	76
	100	21.2	29.2	36.8	43.9	50.6	56.8	62.5	67.8	72.4	81.0	83.3	76
20	40	24.8	33.7	40.4							44.1	47.2	75
	50	25.3	34.6	42.4	48.6	52.8					53.2	56.0	76
	60	25.6	35.1	43.5	50.7	56.6	61.0				62.1	64.8	76
	70	25.8	35.4	44.2	52.0	58.7	64.4	68.9			71.0	73.5	76
	80	25.9	35.6	44.6	52.8	60.2	66.7	72.3	76.8		79.7	82.1	76
	90	26.0	35.8	45.0	53.5	61.2	68.3	74.6	80.0	84.6	88.4	90.8	76
	100	26.1	35.9	45.2	53.9	62.0	69.5	76.3	82.4	87.8	97.1	99.4	76
22	50	30.5	41.7	51.0	58.2	63.0					63.3	66.1	76
	60	30.9	42.4	52.4	60.9	67.7	72.6				73.8	76.5	76
	70	31.1	42.8	53.2	62.5	70.5	77.1	82.1			84.2	86.7	76
	80	31.3	43.0	53.8	63.6	72.3	79.9	86.3	91.4		94.5	96.9	76
	90	31.4	43.2	54.3	64.4	73.7	82.0	89.3	95.6	100.7	104.8	107.1	76
	100	31.5	43.4	54.6	65.0	74.6	83.5	91.5	98.6	104.7	115.0	117.2	76
24	50	36.3	49.6	60.5	68.8	74.1					74.4	77.2	76
	60	36.7	50.3	62.1	72.1	79.9	85.4				86.7	89.2	76
	70	36.9	50.8	63.2	74.1	83.3	90.9	96.5			98.8	101.2	76
	80	37.1	51.1	63.9	75.4	85.6	94.4	101.7	107.4		110.8	113.1	76
	90	37.3	51.4	64.4	76.4	87.2	96.9	105.4	112.6	118.3	122.7	125.0	76
	100	37.4	51.6	64.8	77.1	88.5	98.8	108.1	116.3	123.3	134.6	136.8	76
26	50	42.5	58.1	70.7	80.3	86.1					86.5	89.2	76
	60	43.0	59.0	72.7	84.2	93.2	99.2				100.6	103.2	76
	70	43.3	59.5	74.0	86.6	97.3	105.9	112.1			114.5	117.0	76
	80	43.5	59.9	74.9	88.3	100.1	110.2	118.5	124.8		128.4	130.7	76
	90	43.7	60.2	75.5	89.4	102.0	113.2	122.9	131.0	137.4	142.1	144.4	76
	100	43.8	60.4	75.9	90.3	103.5	115.5	126.2	135.5	143.5	155.9	158.1	76

[a] Includes 1.0-foot stump allowance.

Table 124--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for blackgum (upland) (species 693) South-wide[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	1.0	1.1	1.3	1.4	1.8	2.1											
6	1.5	2.3	2.7	3.1	3.4	3.7	4.0	4.2									
7	2.7	3.3	3.8	4.3	4.7	5.2	5.6	6.0	6.4	6.7							
8	3.5	4.3	5.0	5.6	6.2	6.8	7.4	7.9	8.4	8.9	9.4	9.9					
9	4.4	5.4	6.3	7.1	7.9	8.6	9.3	10.0	10.7	11.4	12.0	12.6	13.3	13.9			
10	5.4	6.6	7.7	8.8	9.7	10.7	11.6	12.4	13.3	14.1	14.9	15.7	16.5	17.3	18.0	18.8	
11	6.5	8.0	9.3	10.6	11.8	12.9	14.0	15.1	16.1	17.1	18.1	19.1	20.0	21.0	21.9	22.8	23.8
12	7.7	9.5	11.1	12.6	14.0	15.4	16.7	18.0	19.2	20.4	21.6	22.7	23.9	25.0	26.2	27.3	28.4
13	9.0	11.1	13.0	14.8	16.5	18.1	19.6	21.1	22.5	24.0	25.3	26.7	28.1	29.4	30.8	32.1	33.4
14	10.5	12.9	15.1	17.2	19.1	20.9	22.7	24.5	26.1	27.8	29.4	31.0	32.6	34.2	35.7	37.3	38.8
15	12.0	14.8	17.3	19.7	21.9	24.0	26.1	28.1	30.0	31.9	33.8	35.6	37.5	39.3	41.0	42.8	44.6
16	13.6	16.8	19.7	22.4	24.9	27.4	29.7	32.0	34.2	36.3	38.5	40.6	42.6	44.7	46.7	48.8	50.8

[a] Includes 0.5-foot stump allowance.

Table 125--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 blackgum (upland) (species 693) South-wide[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	2.1	2.5	3.0	3.4	3.8											
6	2.1	2.7	3.3	3.9	4.4	5.0	5.5	6.0									
7	2.7	3.5	4.3	5.0	5.7	6.3	7.0	7.6	8.2	8.8							
8	3.4	4.5	5.4	6.3	7.1	7.9	8.7	9.5	10.2	11.0	11.7	12.5					
9	4.3	5.5	6.7	7.8	8.8	9.7	10.7	11.6	12.5	13.4	14.3	15.2	16.1	17.0			
10	5.2	6.7	8.1	9.4	10.6	11.8	12.9	14.0	15.1	16.2	17.3	18.3	19.4	20.4	21.5	22.5	
11	6.3	8.1	9.7	11.2	12.6	14.0	15.4	16.7	18.0	19.3	20.5	21.8	23.0	24.3	25.5	26.7	28.0
12	7.4	9.5	11.4	13.2	14.9	16.5	18.1	19.6	21.1	22.6	24.1	25.6	27.0	28.5	29.9	31.3	32.8
13	8.7	11.1	13.3	15.4	17.3	19.2	21.0	22.8	24.5	26.2	28.0	29.7	31.3	33.0	34.7	36.3	38.0
14	10.0	12.8	15.3	17.7	19.9	22.1	24.1	26.2	28.2	30.2	32.1	34.1	36.0	37.9	39.9	41.8	43.7
15	11.5	14.6	17.5	20.2	22.7	25.2	27.5	29.9	32.1	34.4	36.6	38.8	41.0	43.2	45.4	47.6	49.7
16	13.0	16.6	19.9	22.9	25.7	28.5	31.2	33.8	36.4	38.9	41.4	43.9	46.4	48.9	51.3	53.8	56.2

[a] Includes 0.5-foot stump allowance.

Table 126--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 blackgum (lowland) (species 694) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										5.4	10.5	58
	50										8.6	13.8	66
	60	9.4									11.2	16.8	70
12	70	9.8	12.9								13.1	19.5	73
	80	10.1	13.4								14.8	22.2	74
	90	10.3	13.7								16.4	24.7	76
	100	10.4	13.9	17.0							18.0	27.2	76
	40	10.6									11.7	14.3	58
	50	12.0	15.3								15.8	18.8	66
	60	12.8	16.7								19.3	22.9	70
14	70	13.3	17.6	21.1							22.5	26.7	73
	80	13.7	18.2	22.0	25.2						25.5	30.3	74
	90	13.9	18.6	22.7	26.2						28.4	33.8	76
	100	14.1	18.9	23.2	27.0	30.2					31.1	37.2	76
	50	15.7	20.0								22.5	24.7	66
	60	16.7	21.8	25.7							27.4	30.0	70
	70	17.4	22.9	27.5	31.0						32.0	35.0	73
16	80	17.9	23.7	28.7	32.9	36.1					36.2	39.8	74
	90	18.2	24.3	29.6	34.2	38.0					40.3	44.3	76
	100	18.4	24.7	30.3	35.2	39.4	42.9				44.3	48.8	76
	110	18.6	25.0	30.8	36.0	40.5	44.4	47.6			48.2	53.2	77
	50	19.8	25.3	29.1							29.6	31.3	66
	60	21.2	27.5	32.5	36.0						36.1	38.1	70
	70	22.0	29.0	34.8	39.3						42.0	44.4	73
18	80	22.6	30.0	36.4	41.6	45.7					47.6	50.4	74
	90	23.0	30.7	37.5	43.3	48.1	51.8				53.1	56.2	76
	100	23.3	31.2	38.3	44.5	49.9	54.3	57.7			58.3	61.9	76
	110	23.6	31.6	39.0	45.5	51.3	56.2	60.3	63.4		63.5	67.4	77
	50	24.5	31.2	35.9							37.3	38.7	66
	60	26.1	34.0	40.2	44.4						45.4	47.1	70
	70	27.2	35.8	43.0	48.5	52.4					52.9	54.9	73
20	80	27.9	37.0	44.9	51.4	56.4	59.9				60.0	62.3	74
	90	28.5	37.9	46.3	53.4	59.4	64.0				66.9	69.5	76
	100	28.8	38.6	47.3	55.0	61.6	67.0	71.2			73.5	76.5	76
	110	29.1	39.1	48.1	56.2	63.3	69.4	74.4	78.3		80.1	83.4	77
	60	31.6	41.2	48.6	53.8						55.6	57.0	70
	70	32.9	43.3	52.0	58.7	63.4					64.8	66.5	73
	80	33.8	44.8	54.3	62.2	68.3	72.5				73.5	75.5	74
22	90	34.4	45.9	56.0	64.7	71.8	77.4	81.3			81.9	84.2	76
	100	34.9	46.7	57.3	66.6	74.5	81.1	86.2	89.8		90.1	92.7	76
	110	35.2	47.3	58.2	68.0	76.6	84.0	90.1	94.8		98.1	101.0	77
	60	37.7	49.0	57.8	64.0						66.6	67.9	70
	70	39.2	51.6	61.9	69.9	75.4					77.6	79.2	73
	80	40.3	53.4	64.7	74.0	81.3	86.3				88.1	89.9	74
24	90	41.0	54.6	66.7	77.0	85.5	92.1	96.7			98.2	100.3	76
	100	41.5	55.6	68.2	79.2	88.7	96.5	102.6	106.9		108.0	110.4	76
	110	42.0	56.3	69.3	81.0	91.2	100.0	107.2	112.8	116.8	117.6	120.3	77
	60	44.2	57.5	67.9	75.1						78.6	79.7	70
	70	46.0	60.6	72.6	82.0	88.6					91.6	93.0	73
	80	47.3	62.7	75.9	86.9	95.4	101.3				103.9	105.6	74
26	90	48.1	64.1	78.3	90.4	100.4	108.1	113.5			115.8	117.8	76
	100	48.8	65.2	80.0	93.0	104.1	113.3	120.5	125.5		127.4	129.6	76
	110	49.3	66.1	81.4	95.1	107.1	117.4	125.9	132.5	137.1	138.8	141.3	77

[a] Includes 1.0-foot stump allowance.

Table 127--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 blackgum (lowland) (species 694) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.7									8.8	11.4	66
	40	9.4									10.7	14.8	71
	50	9.7									12.3	17.9	73
	60	10.0	13.2								13.7	20.9	74
	70	10.1	13.4								15.1	23.8	74
	80	10.2	13.6								16.4	26.6	75
	90	10.3	13.7	16.8							17.7	29.4	75
14	40	12.7	16.4								17.3	19.8	71
	50	13.2	17.3								20.4	24.0	73
	60	13.5	17.9	21.5							23.4	27.9	74
	70	13.8	18.2	22.1	25.3						26.3	31.8	74
	80	13.9	18.5	22.5	26.1						29.1	35.5	75
	90	14.0	18.7	22.8	26.6	29.9					31.8	39.2	75
	100	14.1	18.8	23.1	27.0	30.5	33.6				34.5	42.9	75
16	40	16.6	21.4								23.9	25.7	71
	50	17.3	22.6	26.7							28.6	31.0	73
	60	17.7	23.3	28.0	31.6						33.0	36.1	74
	70	18.0	23.8	28.8	33.0	36.4					37.3	41.0	74
	80	18.2	24.1	29.4	34.0	37.8	41.0				41.4	45.9	75
	90	18.3	24.4	29.8	34.7	38.9	42.5				45.5	50.6	75
	100	18.4	24.5	30.1	35.2	39.7	43.7	47.1			49.6	55.3	75
18	40	21.0	27.0	30.9							31.1	32.4	71
	50	21.8	28.6	33.7	37.2						37.3	39.0	73
	60	22.4	29.5	35.4	39.9						43.1	45.4	74
	70	22.7	30.1	36.4	41.7	45.9					48.8	51.5	74
	80	23.0	30.5	37.2	42.9	47.8	51.7				54.4	57.6	75
	90	23.2	30.8	37.7	43.8	49.1	53.7	57.4			59.8	63.5	75
	100	23.3	31.1	38.1	44.5	50.2	55.2	59.4	63.0		65.2	69.4	75
20	40	25.9	33.4	38.1							38.8	39.8	71
	50	27.0	35.3	41.6	45.8						46.6	48.0	73
	60	27.6	36.4	43.6	49.2	53.2					54.0	55.7	74
	70	28.1	37.1	44.9	51.4	56.6	60.3				61.2	63.3	74
	80	28.4	37.7	45.9	52.9	58.9	63.7	67.3			68.2	70.7	75
	90	28.6	38.0	46.5	54.0	60.6	66.1	70.7	74.2		75.2	78.0	75
	100	28.8	38.3	47.0	54.9	61.9	68.0	73.2	77.5	81.0	82.0	85.2	75
22	50	32.6	42.7	50.3	55.4						56.8	57.8	73
	60	33.4	44.1	52.8	59.5	64.2					65.9	67.2	74
	70	34.0	45.0	54.4	62.2	68.3	72.8				74.7	76.3	74
	80	34.4	45.6	55.5	64.0	71.2	76.9	81.2			83.3	85.1	75
	90	34.6	46.0	56.3	65.4	73.2	79.9	85.3	89.5		91.7	93.9	75
	100	34.9	46.4	56.9	66.4	74.8	82.2	88.4	93.6	97.7	100.1	102.6	75
24	50	38.8	50.8	59.8	65.8						67.9	68.7	73
	60	39.8	52.4	62.8	70.8	76.3					78.7	79.7	74
	70	40.4	53.5	64.7	73.9	81.2	86.5				89.2	90.5	74
	80	40.9	54.3	66.0	76.1	84.6	91.4	96.5			99.5	101.0	75
	90	41.3	54.8	67.0	77.7	87.1	95.0	101.4	106.3	109.6	109.7	111.4	75
	100	41.5	55.2	67.7	79.0	89.0	97.7	105.1	111.2	116.0	119.7	121.6	75
26	50	45.6	59.6	70.2	77.2						79.8	80.4	73
	60	46.7	61.5	73.7	83.0	89.5					92.5	93.4	74
	70	47.5	62.8	75.9	86.7	95.3	101.4				104.9	105.9	74
	80	48.0	63.7	77.5	89.3	99.3	107.2	113.1	116.8		117.0	118.2	75
	90	48.4	64.3	78.6	91.2	102.2	111.4	118.9	124.6	128.4	129.0	130.4	75
	100	48.7	64.8	79.5	92.7	104.4	114.6	123.3	130.4	135.9	140.8	142.4	75

[a] Includes 1.0-foot stump allowance.

Table 128--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 blackgum (lowland) (species 694) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	9.3									10.4	17.1	71
	30	9.8	13.0								14.8	21.2	73
	40	10.1	13.4	16.6							19.1	25.8	74
	50	10.2	13.7	16.9	20.0	22.9					23.3	30.5	75
	60	10.3	13.8	17.2	20.4	23.4	26.3				27.4	35.1	75
	70	10.4	13.9	17.3	20.6	23.8	26.8	29.7			31.5	39.7	75
	80	10.4	14.0	17.4	20.7	24.0	27.1	30.2	33.1		35.5	44.2	75
14	40	13.7	18.2	22.0							24.7	28.9	74
	50	13.9	18.5	22.7	26.3	29.5					29.8	34.3	75
	60	14.0	18.7	23.0	27.0	30.6	33.8				34.9	39.7	75
	70	14.1	18.8	23.3	27.5	31.3	34.9	38.1			39.9	45.0	75
	80	14.2	18.9	23.5	27.8	31.8	35.6	39.1	42.3		44.8	50.2	75
	90	14.2	19.0	23.6	28.0	32.1	36.1	39.8	43.3	46.5	49.8	55.5	76
	100	14.3	19.1	23.7	28.1	32.4	36.5	40.3	44.0	47.5	54.7	60.7	76
16	40	17.9	23.6	28.2							31.2	34.1	74
	50	18.2	24.1	29.3	33.6	37.1					37.4	40.5	75
	60	18.3	24.4	29.9	34.7	38.9	42.4				43.5	46.8	75
	70	18.5	24.6	30.2	35.4	40.0	44.2	47.7			49.6	53.1	75
	80	18.5	24.7	30.5	35.9	40.8	45.3	49.4	52.9		55.6	59.3	75
	90	18.6	24.8	30.7	36.2	41.4	46.2	50.6	54.6	58.1	61.6	65.5	76
	100	18.7	24.9	30.8	36.5	41.8	46.8	51.4	55.8	59.7	67.6	71.6	76
18	40	22.6	29.8	35.3							38.6	40.7	74
	50	23.0	30.4	36.7	41.9	45.6					46.0	48.3	75
	60	23.2	30.8	37.6	43.4	48.3	52.2				53.3	55.7	75
	70	23.4	31.1	38.1	44.4	49.9	54.7	58.6			60.6	63.1	75
	80	23.5	31.3	38.5	45.1	51.0	56.4	61.1	65.0		67.8	70.5	75
	90	23.6	31.4	38.7	45.5	51.8	57.6	62.8	67.4	71.3	75.0	77.8	76
	100	23.6	31.5	38.9	45.9	52.4	58.5	64.0	69.1	73.6	82.1	85.1	76
20	40	28.0	36.7	43.2							46.8	48.4	74
	50	28.4	37.5	45.1	51.1	55.3					55.6	57.3	75
	60	28.7	38.0	46.2	53.2	58.9	63.1				64.3	66.1	75
	70	28.9	38.4	46.9	54.5	61.0	66.5	70.9			72.9	74.8	75
	80	29.0	38.6	47.4	55.3	62.5	68.7	74.1	78.5		81.4	83.5	75
	90	29.1	38.7	47.7	56.0	63.5	70.3	76.4	81.7	86.1	89.9	92.1	76
	100	29.2	38.9	48.0	56.5	64.3	71.5	78.1	84.0	89.2	98.4	100.6	76
22	50	34.4	45.4	54.4	61.3	65.9					66.3	67.6	75
	60	34.7	46.0	55.8	63.9	70.5	75.2				76.4	77.9	75
	70	35.0	46.4	56.6	65.6	73.3	79.6	84.4			86.5	88.0	75
	80	35.1	46.7	57.2	66.7	75.1	82.4	88.5	93.4		96.5	98.1	75
	90	35.2	46.9	57.7	67.5	76.5	84.5	91.5	97.5	102.4	106.4	108.1	76
	100	35.3	47.0	58.0	68.1	77.5	86.0	93.7	100.5	106.4	116.4	118.1	76
24	50	41.0	54.0	64.5	72.5	77.5					77.9	79.0	75
	60	41.4	54.7	66.2	75.8	83.2	88.4				89.7	90.9	75
	70	41.6	55.2	67.3	77.8	86.7	93.8	99.2			101.4	102.6	75
	80	41.8	55.5	68.0	79.2	89.0	97.4	104.4	109.8		113.0	114.3	75
	90	42.0	55.8	68.5	80.2	90.6	99.9	108.0	114.8	120.3	124.6	125.9	76
	100	42.1	56.0	68.9	80.9	91.9	101.8	110.7	118.6	125.2	136.1	137.5	76
26	50	48.1	63.3	75.6	84.6	90.2					90.6	91.5	75
	60	48.6	64.2	77.6	88.6	97.1	102.8				104.2	105.1	75
	70	48.9	64.8	78.9	91.0	101.2	109.4	115.3			117.6	118.6	75
	80	49.1	65.2	79.7	92.7	104.0	113.7	121.6	127.5		131.0	132.0	75
	90	49.3	65.5	80.4	93.9	106.0	116.8	126.0	133.7	139.7	144.2	145.4	76
	100	49.4	65.7	80.9	94.8	107.6	119.1	129.3	138.2	145.7	157.5	158.6	76

[a] Includes 1.0-foot stump allowance.

Table 129--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for blackgum (lowland) (species 694) South-wide[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	1.1	1.2	1.3	1.4	1.5	1.6											
6	1.5	1.7	2.5	2.8	3.2	3.5	3.8	4.1									
7	2.1	3.1	3.7	4.2	4.7	5.2	5.6	6.1	6.5	6.9							
8	3.3	4.1	4.9	5.6	6.3	7.0	7.6	8.2	8.8	9.3	9.9	10.4					
9	4.2	5.3	6.3	7.2	8.1	8.9	9.7	10.5	11.3	12.0	12.7	13.4	14.1	14.8			
10	5.3	6.6	7.8	9.0	10.1	11.1	12.1	13.1	14.0	14.9	15.8	16.7	17.6	18.4	19.2	20.1	
11	6.4	8.0	9.5	10.9	12.2	13.5	14.7	15.9	17.0	18.1	19.2	20.3	21.4	22.4	23.4	24.4	25.4
12	7.6	9.5	11.3	13.0	14.6	16.1	17.6	19.0	20.3	21.7	23.0	24.2	25.5	26.8	28.0	29.2	30.4
13	8.9	11.1	13.3	15.2	17.1	18.9	20.6	22.3	23.9	25.5	27.0	28.5	30.0	31.5	32.9	34.4	35.8
14	10.4	12.9	15.4	17.7	19.9	22.0	24.0	25.9	27.8	29.6	31.4	33.2	34.9	36.6	38.3	40.0	41.6
15	11.9	14.8	17.7	20.3	22.9	25.3	27.6	29.8	31.9	34.0	36.1	38.1	40.1	42.1	44.0	46.0	47.9
16	13.5	16.9	20.1	23.2	26.0	28.8	31.4	33.9	36.4	38.8	41.1	43.4	45.7	47.9	50.2	52.4	54.5

[a] Includes 0.5-foot stump allowance.

Table 130--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 blackgum (lowland) (species 694) South-wide[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	2.1	2.4	2.7	3.1	3.5	3.9											
6	2.4	3.0	3.5	4.1	4.6	5.1	5.6	6.1									
7	3.1	3.8	4.6	5.2	5.9	6.5	7.1	7.7	8.3	8.9							
8	3.9	4.8	5.7	6.6	7.4	8.2	8.9	9.7	10.4	11.1	11.9	12.6					
9	4.8	6.0	7.1	8.1	9.1	10.1	11.0	11.9	12.8	13.7	14.5	15.4	16.3	17.1			
10	5.9	7.3	8.6	9.9	11.0	12.2	13.3	14.4	15.4	16.5	17.5	18.6	19.6	20.6	21.6	22.6	
11	7.0	8.8	10.3	11.8	13.2	14.5	15.9	17.1	18.4	19.6	20.9	22.1	23.3	24.5	25.7	26.9	28.1
12	8.3	10.3	12.2	13.9	15.6	17.1	18.7	20.2	21.6	23.1	24.5	26.0	27.4	28.8	30.2	31.6	33.0
13	9.7	12.1	14.2	16.2	18.1	19.9	21.7	23.5	25.2	26.8	28.5	30.2	31.8	33.4	35.0	36.6	38.3
14	11.2	14.0	16.4	18.7	20.9	23.0	25.0	27.0	29.0	30.9	32.8	34.7	36.6	38.4	40.3	42.1	44.0
15	12.9	16.0	18.8	21.4	23.9	26.3	28.6	30.8	33.1	35.3	37.4	39.6	41.7	43.8	45.9	48.0	50.1
16	14.6	18.1	21.3	24.3	27.1	29.8	32.4	34.9	37.5	39.9	42.4	44.8	47.2	49.6	52.0	54.3	56.7

[a] Includes 0.5-foot stump allowance.

Table 131--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 sycamore (species 731) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40										4.9	10.4	62
	50										8.6	13.8	70
	60	9.3									10.9	16.9	75
	70	9.8									12.7	19.8	77
	80	10.1	13.7								14.3	22.5	79
	90	10.3	14.0								15.8	25.1	80
	100	10.4	14.3								17.2	27.6	81
14	40	10.3									11.3	14.2	62
	50	11.8									15.4	18.9	70
	60	12.7	17.0								18.9	23.2	75
	70	13.3	18.0	21.7							22.0	27.1	77
	80	13.7	18.6	22.8							24.9	30.8	79
	90	14.0	19.1	23.6	27.3						27.7	34.4	80
	100	14.2	19.5	24.1	28.2						30.4	37.9	81
16	50	15.5	20.2								22.1	24.9	70
	60	16.6	22.2	26.4							27.1	30.4	75
	70	17.4	23.5	28.4							31.6	35.6	77
	80	17.9	24.4	29.8	34.1						35.9	40.5	79
	90	18.2	25.0	30.8	35.6	39.5					40.0	45.2	80
	100	18.5	25.4	31.5	36.8	41.2					43.9	49.8	81
	110	18.7	25.8	32.1	37.7	42.5	46.4				47.8	54.3	81
18	50	19.6	25.6								29.4	31.5	70
	60	21.1	28.1	33.4							35.9	38.6	75
	70	22.0	29.7	36.0	40.6						41.9	45.2	77
	80	22.6	30.8	37.7	43.2	47.3					47.6	51.4	79
	90	23.1	31.6	39.0	45.1	50.0					53.1	57.4	80
	100	23.4	32.2	39.9	46.6	52.1	56.5				58.4	63.2	81
	110	23.7	32.6	40.7	47.7	53.8	58.8	62.8			63.5	68.9	81
20	50	24.2	31.7	36.6							37.2	39.0	70
	60	26.0	34.7	41.3							45.5	47.8	75
	70	27.2	36.7	44.4	50.1						53.1	55.9	77
	80	28.0	38.1	46.6	53.4	58.4					60.3	63.5	79
	90	28.5	39.1	48.1	55.7	61.8	66.2				67.2	71.0	80
	100	28.9	39.8	49.3	57.5	64.4	69.8	73.8			74.0	78.2	81
	110	29.3	40.3	50.2	58.9	66.4	72.6	77.5			80.5	85.2	81
22	60	31.5	42.1	50.0	55.1						55.8	57.9	75
	70	32.9	44.5	53.8	60.7	65.1					65.2	67.7	77
	80	33.9	46.1	56.4	64.6	70.7					74.1	77.0	79
	90	34.5	47.3	58.3	67.4	74.8	80.2				82.6	86.0	80
	100	35.0	48.1	59.7	69.6	77.9	84.5	89.3			90.9	94.7	81
	110	35.4	48.8	60.8	71.3	80.3	87.8	93.8	98.2		99.0	103.3	81
24	60	37.5	50.1	59.5	65.6						67.1	68.9	75
	70	39.2	52.9	64.0	72.2	77.5					78.4	80.6	77
	80	40.3	54.9	67.1	76.9	84.1	88.8				89.0	91.7	79
	90	41.1	56.3	69.3	80.3	89.0	95.4				99.3	102.4	80
	100	41.7	57.3	71.0	82.9	92.7	100.5	106.3			109.3	112.8	81
	110	42.2	58.1	72.3	84.8	95.6	104.6	111.6	116.8		119.1	123.0	81
26	60	44.0	58.8	69.8	77.0						79.2	81.0	75
	70	46.0	62.1	75.1	84.8	91.0					92.6	94.7	77
	80	47.3	64.4	78.8	90.2	98.7	104.2				105.3	107.7	79
	90	48.3	66.1	81.4	94.2	104.5	112.0	116.8			117.4	120.3	80
	100	49.0	67.3	83.4	97.2	108.8	118.0	124.8	129.1		129.3	132.5	81
	110	49.5	68.2	84.9	99.6	112.2	122.7	131.0	137.1		140.9	144.5	81

[a] Includes 1.0-foot stump allowance.

Table 132--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 sycamore (species 731) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.4									8.6	11.5	70
	40	9.3									10.8	15.5	76
	50	9.8									12.7	19.1	78
	60	10.1	13.8								14.5	22.5	79
	70	10.3	14.1								16.1	25.8	80
	80	10.4	14.3								17.6	29.1	81
	90	10.5	14.5	18.0							19.1	32.3	81
14	40	12.7	16.9								17.5	20.7	76
	50	13.4	18.1								21.1	25.5	78
	60	13.8	18.7	22.8							24.5	30.0	79
	70	14.0	19.2	23.6	27.3						27.7	34.4	80
	80	14.2	19.5	24.1	28.2						30.8	38.7	81
	90	14.3	19.7	24.5	28.8	32.5					33.8	43.0	81
	100	14.4	19.9	24.8	29.3	33.3	36.7				36.8	47.2	81
16	40	16.6	22.1								24.5	26.8	76
	50	17.5	23.6	28.2							29.7	33.0	78
	60	18.0	24.5	29.8	33.9						34.6	38.8	79
	70	18.3	25.0	30.8	35.5	39.3					39.4	44.4	80
	80	18.5	25.4	31.5	36.7	41.0					44.0	49.9	81
	90	18.7	25.7	32.0	37.5	42.3	46.4				48.5	55.3	81
	100	18.8	25.9	32.4	38.2	43.3	47.8	51.6			53.0	60.6	81
18	40	21.0	27.9								31.9	33.7	76
	50	22.1	29.8	35.6							38.9	41.4	78
	60	22.8	31.0	37.6	42.7						45.5	48.6	79
	70	23.2	31.7	38.9	44.9	49.5					51.8	55.6	80
	80	23.5	32.2	39.8	46.3	51.8	56.1				58.0	62.5	81
	90	23.7	32.5	40.5	47.4	53.4	58.5	62.6			64.1	69.3	81
	100	23.8	32.8	40.9	48.2	54.7	60.3	65.1	69.0		70.1	76.0	81
20	40	26.0	34.4	39.6							40.0	41.4	76
	50	27.3	36.8	43.9	48.6						48.8	50.8	78
	60	28.1	38.2	46.4	52.7	57.0					57.2	59.7	79
	70	28.6	39.1	48.0	55.3	61.0	65.1				65.2	68.2	80
	80	29.0	39.7	49.1	57.1	63.8	69.1	73.0			73.0	76.6	81
	90	29.3	40.2	49.9	58.5	65.9	72.0	77.0			80.7	84.9	81
	100	29.5	40.5	50.5	59.5	67.4	74.3	80.1	84.9		88.4	93.1	81
22	50	33.0	44.5	53.1	58.6						59.6	61.2	78
	60	34.0	46.2	56.1	63.6	68.8					69.8	71.9	79
	70	34.6	47.3	58.1	66.8	73.7	78.5				79.7	82.2	80
	80	35.1	48.1	59.4	69.1	77.1	83.4	88.1			89.3	92.2	81
	90	35.4	48.6	60.4	70.7	79.6	87.0	93.0	97.5		98.8	102.2	81
	100	35.6	49.0	61.1	71.9	81.5	89.8	96.7	102.4	106.8	108.1	112.0	81
24	50	39.3	53.0	63.1	69.7						71.3	72.7	78
	60	40.5	55.0	66.7	75.6	81.7					83.6	85.3	79
	70	41.2	56.3	69.1	79.5	87.6	93.3				95.4	97.4	80
	80	41.8	57.2	70.7	82.2	91.6	99.1	104.6			106.9	109.4	81
	90	42.1	57.9	71.9	84.1	94.6	103.4	110.5	115.7		118.3	121.1	81
	100	42.4	58.4	72.7	85.6	96.9	106.7	114.9	121.6	126.8	129.5	132.7	81
26	50	46.2	62.2	74.0	81.7						84.0	85.1	78
	60	47.5	64.6	78.3	88.7	95.7					98.4	99.8	79
	70	48.4	66.1	81.1	93.2	102.6	109.3				112.3	114.0	80
	80	49.0	67.2	82.9	96.4	107.5	116.2	122.5			125.9	127.9	81
	90	49.5	67.9	84.3	98.7	111.0	121.2	129.4	135.6		139.3	141.6	81
	100	49.8	68.5	85.4	100.4	113.7	125.1	134.7	142.5	148.5	152.5	155.2	81

[a] Includes 1.0-foot stump allowance.

Table 133--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 sycamore (species 731) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	9.2									10.6	21.6	78
	30	9.9	13.6								15.7	24.3	80
	40	10.2	14.1	17.7							20.7	28.1	80
	50	10.4	14.3	18.1	21.7	25.1					25.5	32.3	80
	60	10.5	14.5	18.4	22.1	25.6	29.0				30.2	36.6	81
	70	10.6	14.6	18.5	22.3	26.0	29.5	32.9			34.9	41.0	81
	80	10.6	14.7	18.6	22.5	26.2	29.8	33.3	36.7		39.6	45.5	81
14	40	13.8	19.0	23.3							26.5	32.9	80
	50	14.1	19.4	24.1	28.3	31.9					32.3	38.2	80
	60	14.3	19.6	24.6	29.1	33.2	36.8				38.1	43.6	81
	70	14.4	19.8	24.8	29.6	34.0	38.0	41.7			43.8	49.1	81
	80	14.4	19.9	25.1	29.9	34.5	38.8	42.8	46.5		49.4	54.5	81
	90	14.5	20.0	25.2	30.2	34.9	39.4	43.6	47.5	51.2	55.0	60.0	81
	100	14.6	20.0	25.3	30.4	35.2	39.8	44.2	48.3	52.3	60.7	65.5	81
16	40	18.0	24.6	29.8							33.2	39.0	80
	50	18.4	25.2	31.0	35.9	39.8					40.3	45.6	80
	60	18.6	25.5	31.7	37.2	41.9	45.9				47.1	52.2	81
	70	18.7	25.7	32.2	38.0	43.2	47.8	51.8			54.0	58.7	81
	80	18.9	25.9	32.5	38.5	44.1	49.2	53.7	57.7		60.8	65.3	81
	90	18.9	26.0	32.7	38.9	44.7	50.1	55.1	59.5	63.6	67.5	72.0	81
	100	19.0	26.1	32.9	39.2	45.2	50.8	56.1	60.9	65.4	74.3	78.6	81
18	40	22.8	31.0	37.2							40.9	46.2	80
	50	23.3	31.8	38.9	44.6	48.8					49.2	54.2	80
	60	23.5	32.2	39.8	46.4	51.8	56.1				57.4	62.1	81
	70	23.7	32.5	40.5	47.5	53.7	59.0	63.3			65.6	70.0	81
	80	23.9	32.7	40.9	48.3	55.0	60.9	66.1	70.5		73.6	77.9	81
	90	24.0	32.9	41.2	48.9	55.9	62.3	68.1	73.1	77.5	81.7	85.7	81
	100	24.0	33.0	41.4	49.3	56.6	63.4	69.5	75.2	80.2	89.7	93.6	81
20	40	28.2	38.2	45.4							49.4	54.5	80
	50	28.7	39.1	47.7	54.3	58.9					59.3	63.9	80
	60	29.0	39.7	48.9	56.7	62.9	67.6				69.0	73.3	81
	70	29.3	40.1	49.7	58.2	65.4	71.5	76.2			78.5	82.6	81
	80	29.4	40.4	50.3	59.2	67.2	74.1	79.9	84.7		88.0	92.0	81
	90	29.6	40.6	50.7	60.0	68.4	75.9	82.6	88.3	93.2	97.5	101.3	81
	100	29.7	40.7	51.0	60.6	69.4	77.4	84.6	91.1	96.7	106.9	110.6	81
22	50	34.7	47.3	57.4	65.0	70.0					70.4	74.8	80
	60	35.1	48.0	59.0	68.0	75.2	80.3				81.7	85.8	81
	70	35.4	48.5	60.0	70.0	78.4	85.2	90.5			92.8	96.8	81
	80	35.6	48.8	60.7	71.3	80.6	88.6	95.2	100.5		103.9	107.7	81
	90	35.8	49.1	61.2	72.3	82.2	91.0	98.7	105.2	110.5	114.9	118.6	81
	100	35.9	49.2	61.6	73.0	83.4	92.8	101.3	108.7	115.1	125.9	129.5	81
24	50	41.3	56.2	68.0	76.7	82.1					82.6	86.8	80
	60	41.8	57.1	70.0	80.5	88.6	94.2				95.6	99.6	81
	70	42.2	57.7	71.2	82.9	92.6	100.4	106.1			108.5	112.3	81
	80	42.4	58.1	72.1	84.5	95.4	104.5	112.0	117.8		121.3	124.9	81
	90	42.6	58.4	72.7	85.7	97.3	107.5	116.3	123.6	129.4	134.1	137.6	81
	100	42.7	58.6	73.2	86.7	98.8	109.8	119.5	128.0	135.1	146.8	150.2	81
26	50	48.5	65.9	79.6	89.4	95.3					95.8	99.8	80
	60	49.1	66.9	81.9	94.0	103.2	109.3				110.8	114.6	81
	70	49.5	67.6	83.5	96.9	108.1	116.8	123.0			125.6	129.2	81
	80	49.8	68.1	84.5	98.9	111.4	121.8	130.2	136.6		140.3	143.7	81
	90	50.0	68.5	85.3	100.4	113.8	125.5	135.4	143.6	150.0	154.9	158.2	81
	100	50.2	68.7	85.9	101.5	115.6	128.2	139.3	148.9	156.9	169.5	172.7	81

[a] Includes 1.0-foot stump allowance.

Table 134--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for sycamore (species 731) South-wide[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	0.8	0.9	1.0	1.1	1.3											
6	1.1	1.4	2.1	2.5	2.9	3.2	3.5	3.8									
7	1.7	2.7	3.3	3.9	4.4	4.9	5.3	5.8	6.2	6.6							
8	2.9	3.7	4.6	5.3	6.0	6.7	7.3	8.0	8.5	9.1	9.7	10.2					
9	3.7	4.9	5.9	6.9	7.8	8.7	9.5	10.3	11.1	11.8	12.6	13.3	14.0	14.7			
10	4.7	6.1	7.4	8.7	9.8	10.9	11.9	12.9	13.9	14.8	15.7	16.6	17.5	18.4	19.2	20.1	
11	5.8	7.5	9.1	10.6	12.0	13.3	14.6	15.8	17.0	18.1	19.2	20.3	21.4	22.4	23.5	24.5	25.6
12	6.9	9.0	10.9	12.7	14.3	15.9	17.4	18.9	20.3	21.7	23.0	24.3	25.6	26.9	28.2	29.4	30.6
13	8.2	10.6	12.8	14.9	16.9	18.8	20.6	22.3	23.9	25.6	27.1	28.7	30.2	31.7	33.2	34.7	36.1
14	9.5	12.3	14.9	17.4	19.7	21.8	23.9	25.9	27.9	29.7	31.6	33.4	35.2	36.9	38.7	40.4	42.1
15	10.9	14.1	17.2	20.0	22.6	25.1	27.5	29.8	32.1	34.2	36.4	38.4	40.5	42.5	44.5	46.5	48.5
16	12.5	16.1	19.6	22.8	25.8	28.7	31.4	34.0	36.6	39.0	41.4	43.8	46.2	48.5	50.8	53.0	55.3

[a] Includes 0.5-foot stump allowance.

Table 135--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 sycamore (species 731) South-wide[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	1.8	2.2	2.7	3.1	3.5	4.0											
6	2.1	2.7	3.4	4.1	4.7	5.3	5.9	6.5									
7	2.6	3.5	4.4	5.3	6.0	6.8	7.5	8.2	8.9	9.6							
8	3.3	4.5	5.6	6.6	7.6	8.5	9.4	10.3	11.2	12.0	12.8	13.7					
9	4.2	5.6	7.0	8.2	9.4	10.5	11.6	12.6	13.7	14.7	15.7	16.7	17.7	18.7			
10	5.1	6.9	8.5	10.0	11.4	12.7	14.0	15.3	16.5	17.7	18.9	20.1	21.3	22.5	23.6	24.8	
11	6.2	8.3	10.2	11.9	13.6	15.2	16.7	18.2	19.6	21.1	22.5	23.9	25.3	26.7	28.0	29.4	30.8
12	7.3	9.8	12.0	14.1	16.0	17.8	19.6	21.3	23.0	24.7	26.4	28.0	29.6	31.2	32.8	34.4	36.0
13	8.6	11.5	14.0	16.4	18.6	20.7	22.8	24.8	26.8	28.7	30.6	32.5	34.4	36.2	38.1	39.9	41.7
14	10.0	13.2	16.2	18.9	21.5	23.9	26.2	28.5	30.8	33.0	35.2	37.3	39.5	41.6	43.7	45.8	47.9
15	11.4	15.2	18.5	21.6	24.5	27.3	30.0	32.6	35.1	37.6	40.1	42.5	45.0	47.4	49.8	52.2	54.6
16	13.0	17.2	21.0	24.5	27.8	30.9	33.9	36.9	39.7	42.6	45.4	48.1	50.9	53.6	56.3	59.0	61.6

[a] Includes 0.5-foot stump allowance.

Table 136--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 magnolia (species 652) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	9.2									10.9	13.2	74
	50	9.6									12.8	15.9	77
	60	9.9	13.5								14.5	18.5	79
	70	10.0	13.8								16.1	20.9	80
	80	10.2	14.1	17.5							17.6	23.3	81
	90	10.2	14.2	17.8							19.1	25.7	82
	100	10.3	14.4	18.0							20.5	28.0	82
14	40	12.5	16.4								16.5	18.1	74
	50	13.1	17.7								19.5	21.8	77
	60	13.5	18.5	22.2							22.4	25.4	79
	70	13.7	18.9	23.2							25.1	28.8	80
	80	13.9	19.2	23.8	27.5						27.7	32.1	81
	90	14.0	19.5	24.3	28.3						30.3	35.3	82
	100	14.1	19.6	24.6	28.9	32.5					32.8	38.5	82
16	50	17.2	23.2								26.7	28.7	77
	60	17.7	24.2	29.1							30.7	33.3	79
	70	18.0	24.8	30.3	34.3						34.6	37.8	80
	80	18.2	25.2	31.2	35.9						38.4	42.1	81
	90	18.4	25.5	31.8	37.1	41.1					42.0	46.4	82
	100	18.5	25.7	32.2	37.9	42.5					45.7	50.6	82
	110	18.6	25.9	32.6	38.5	43.6	47.6				49.2	54.8	82
18	50	21.9	29.4	34.3							34.7	36.4	77
	60	22.5	30.6	36.9							40.0	42.3	79
	70	22.9	31.4	38.5	43.5						45.2	48.0	80
	80	23.1	31.9	39.5	45.5	49.7					50.2	53.5	81
	90	23.3	32.3	40.3	47.0	52.1					55.1	59.0	82
	100	23.5	32.6	40.9	48.0	53.8	58.2				59.9	64.3	82
	110	23.6	32.8	41.3	48.8	55.2	60.3	64.1			64.7	69.7	82
20	50	27.0	36.4	42.4							43.5	45.1	77
	60	27.8	37.9	45.6	50.1						50.3	52.4	79
	70	28.3	38.8	47.5	53.8						56.9	59.4	80
	80	28.6	39.5	48.9	56.3	61.4					63.2	66.2	81
	90	28.9	40.0	49.8	58.0	64.3	68.6				69.5	73.0	82
	100	29.0	40.3	50.5	59.3	66.5	71.9				75.6	79.6	82
	110	29.2	40.6	51.0	60.3	68.2	74.5	79.2			81.7	86.2	82
22	60	33.7	45.9	55.2	60.7						61.6	63.5	79
	70	34.3	47.1	57.6	65.1	69.5					69.7	72.0	80
	80	34.7	47.9	59.2	68.2	74.3					77.6	80.3	81
	90	35.0	48.4	60.3	70.3	77.9	83.1				85.3	88.5	82
	100	35.2	48.8	61.2	71.8	80.6	87.1	91.6			92.9	96.5	82
	110	35.4	49.2	61.8	73.0	82.6	90.2	95.9	99.9		100.4	104.5	82
24	60	40.1	54.7	65.7	72.3						73.9	75.6	79
	70	40.8	56.1	68.6	77.6	82.8					83.7	85.8	80
	80	41.3	57.0	70.5	81.2	88.5	92.9				93.2	95.7	81
	90	41.7	57.7	71.8	83.7	92.8	99.0				102.5	105.4	82
	100	41.9	58.2	72.8	85.5	95.9	103.7	109.1			111.7	115.0	82
	110	42.2	58.6	73.6	87.0	98.3	107.4	114.2	119.0		120.8	124.5	82
26	60	47.1	64.2	77.2	84.9						87.3	88.9	79
	70	48.0	65.8	80.5	91.1	97.2					98.8	100.8	80
	80	48.5	66.9	82.8	95.3	103.9	109.1				110.1	112.4	81
	90	49.0	67.7	84.4	98.3	108.9	116.2	120.7			121.1	123.8	82
	100	49.3	68.3	85.5	100.5	112.7	121.8	128.1	132.0		132.1	135.1	82
	110	49.5	68.8	86.4	102.1	115.5	126.2	134.1	139.7		142.9	146.3	82

[a] Includes 1.0-foot stump allowance.

Table 137--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 magnolia (species 652) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	9.1									10.2	12.4	73
	40	9.7									12.6	16.3	78
	50	10.0	13.7								14.8	19.9	80
	60	10.2	14.1								16.9	23.4	81
	70	10.3	14.3	17.8							18.9	26.8	82
	80	10.4	14.4	18.1							20.9	30.2	82
	90	10.4	14.6	18.3	21.7						22.8	33.6	83
14	40	13.3	17.8								19.5	22.0	78
	50	13.7	18.7	22.5							23.4	26.8	80
	60	13.9	19.2	23.5	27.0						27.1	31.4	81
	70	14.1	19.5	24.2	28.2						30.7	36.0	82
	80	14.2	19.7	24.6	28.9	32.6					34.2	40.5	82
	90	14.3	19.9	25.0	29.5	33.5	37.0				37.7	44.9	83
	100	14.3	20.0	25.2	29.9	34.2	38.0				41.2	49.3	83
16	40	17.4	23.2								26.8	28.5	78
	50	17.9	24.4	29.4							32.3	34.7	80
	60	18.3	25.1	30.8	35.2						37.5	40.7	81
	70	18.5	25.5	31.6	36.7	40.8					42.7	46.5	82
	80	18.6	25.8	32.2	37.8	42.5	46.3				47.8	52.3	82
	90	18.7	26.0	32.6	38.5	43.7	48.1	51.8			52.8	58.0	83
	100	18.8	26.2	33.0	39.1	44.6	49.5	53.6	57.1		57.8	63.6	83
18	40	22.1	29.4	34.2							34.6	35.9	78
	50	22.8	31.0	37.2	41.5						41.8	43.7	80
	60	23.2	31.8	38.9	44.5	48.5					48.8	51.1	81
	70	23.4	32.4	40.0	46.5	51.6	55.4				55.6	58.4	82
	80	23.6	32.7	40.8	47.8	53.7	58.5	62.1			62.3	65.6	82
	90	23.7	33.0	41.4	48.8	55.3	60.8	65.3	68.8		68.9	72.8	83
	100	23.8	33.2	41.8	49.5	56.4	62.5	67.7	72.1	75.5	75.5	79.9	83
20	40	27.3	36.4	42.1							43.2	44.2	78
	50	28.2	38.3	45.9	51.1						52.3	53.7	80
	60	28.7	39.3	48.1	54.9	59.7					61.0	62.8	81
	70	29.0	40.0	49.5	57.3	63.6	68.2				69.6	71.8	82
	80	29.2	40.5	50.4	59.0	66.2	72.1	76.5			78.0	80.6	82
	90	29.4	40.8	51.1	60.2	68.2	74.9	80.5	84.7		86.4	89.3	83
	100	29.5	41.1	51.6	61.1	69.6	77.1	83.4	88.7	92.9	94.6	98.0	83
22	50	34.1	46.3	55.6	61.8						63.7	64.8	80
	60	34.7	47.6	58.2	66.4	72.2					74.4	75.8	81
	70	35.1	48.4	59.9	69.4	76.9	82.3				84.8	86.5	82
	80	35.4	49.0	61.0	71.4	80.1	87.1	92.4			95.1	97.2	82
	90	35.6	49.4	61.9	72.9	82.4	90.6	97.2	102.3		105.3	107.7	83
	100	35.7	49.7	62.5	74.0	84.2	93.2	100.8	107.2	112.1	115.4	118.1	83
24	50	40.7	55.2	66.1	73.5						76.0	77.0	80
	60	41.4	56.7	69.3	79.0	85.8					88.8	90.0	81
	70	41.9	57.7	71.3	82.5	91.4	97.9				101.3	102.7	82
	80	42.2	58.4	72.7	85.0	95.3	103.6	109.7			113.6	115.3	82
	90	42.4	58.9	73.6	86.7	98.1	107.7	115.5	121.5	125.6	125.8	127.7	83
	100	42.6	59.2	74.4	88.1	100.2	110.8	119.9	127.3	133.2	137.9	140.1	83
26	50	47.8	64.8	77.6	86.2						89.4	90.2	80
	60	48.6	66.6	81.3	92.7	100.6					104.4	105.4	81
	70	49.2	67.8	83.7	96.9	107.2	114.7				119.1	120.3	82
	80	49.6	68.6	85.3	99.7	111.8	121.5	128.6	133.2		133.6	135.0	82
	90	49.8	69.1	86.5	101.8	115.1	126.3	135.5	142.4	147.1	147.9	149.5	83
	100	50.0	69.6	87.3	103.4	117.6	130.0	140.6	149.3	156.1	162.1	163.9	83

[a] Includes 1.0-foot stump allowance.

Table 138--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 magnolia (species 652) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	9.4									10.7	17.0	76
	30	10.0	13.8								15.9	19.3	80
	40	10.2	14.3	18.0							20.9	23.1	82
12	50	10.4	14.5	18.4	22.1	25.4					25.8	27.4	82
	60	10.4	14.6	18.7	22.5	26.1	29.5				30.6	31.9	83
	70	10.5	14.7	18.8	22.8	26.6	30.1	33.5			35.5	36.5	83
	80	10.5	14.8	18.9	22.9	26.8	30.6	34.2	37.5		40.3	41.1	83
	40	14.0	19.4	24.0							27.3	30.7	82
	50	14.2	19.7	24.8	29.3	33.1					33.5	35.9	82
	60	14.3	19.9	25.2	30.1	34.5	38.3				39.6	41.5	83
14	70	14.3	20.1	25.5	30.6	35.3	39.7	43.5			45.6	47.1	83
	80	14.4	20.2	25.7	30.9	35.9	40.5	44.8	48.7		51.7	52.9	83
	90	14.4	20.2	25.8	31.2	36.3	41.1	45.7	49.9	53.8	57.7	58.8	83
	100	14.4	20.3	25.9	31.3	36.5	41.5	46.3	50.8	55.1	63.7	64.6	83
	40	18.4	25.3	31.0							34.7	39.7	82
	50	18.6	25.8	32.2	37.7	41.9					42.3	45.9	82
	60	18.7	26.1	32.8	38.9	44.2	48.6				49.9	52.6	83
16	70	18.8	26.2	33.2	39.6	45.5	50.7	55.1			57.3	59.5	83
	80	18.9	26.4	33.5	40.1	46.3	52.0	57.1	61.6		64.8	66.6	83
	90	18.9	26.4	33.6	40.5	46.9	52.9	58.5	63.6	68.1	72.2	73.7	83
	100	18.9	26.5	33.8	40.7	47.3	53.6	59.5	65.0	70.0	79.6	80.9	83
	40	23.3	32.0	39.0							43.1	50.1	82
	50	23.6	32.7	40.6	47.1	52.0					52.4	57.3	82
	60	23.8	33.0	41.4	48.8	55.2	60.2				61.5	65.3	83
18	70	23.9	33.2	41.9	49.9	57.0	63.1	68.2			70.6	73.6	83
	80	23.9	33.4	42.3	50.5	58.1	65.0	71.1	76.2		79.6	82.1	83
	90	24.0	33.5	42.5	51.0	59.0	66.3	73.0	79.0	84.2	88.7	90.8	83
	100	24.0	33.6	42.7	51.4	59.6	67.3	74.4	81.0	86.9	97.7	99.5	83
	40	28.9	39.5	47.8							52.5	61.9	82
	50	29.2	40.3	49.9	57.7	63.2					63.6	70.3	82
	60	29.4	40.8	51.0	59.9	67.4	73.1				74.6	79.6	83
20	70	29.5	41.1	51.7	61.3	69.8	77.1	82.9			85.5	89.5	83
	80	29.6	41.3	52.2	62.2	71.4	79.6	86.7	92.5		96.3	99.6	83
	90	29.7	41.4	52.5	62.9	72.5	81.3	89.2	96.2	102.2	107.1	109.9	83
	100	29.7	41.5	52.7	63.3	73.3	82.6	91.1	98.9	105.8	117.8	120.3	83
	50	35.4	48.8	60.2	69.4	75.6					76.1	84.8	82
	60	35.6	49.4	61.6	72.2	81.0	87.4				89.0	95.6	83
	70	35.8	49.7	62.5	74.0	84.0	92.5	99.1			101.9	107.1	83
22	80	35.9	50.0	63.1	75.1	86.0	95.6	103.9	110.6		114.7	119.0	83
	90	36.0	50.2	63.5	75.9	87.4	97.8	107.2	115.3	122.1	127.4	131.1	83
	100	36.0	50.3	63.8	76.5	88.4	99.4	109.5	118.7	126.7	140.1	143.3	83
	50	42.2	58.1	71.6	82.2	89.2					89.7	100.9	82
	60	42.4	58.8	73.3	85.7	95.8	103.1				104.8	113.3	83
	70	42.6	59.2	74.3	87.8	99.6	109.4	116.8			119.8	126.6	83
24	80	42.8	59.5	75.0	89.2	102.0	113.3	122.8	130.4		134.8	140.4	83
	90	42.9	59.7	75.5	90.2	103.7	116.0	126.8	136.2	143.9	149.7	154.4	83
	100	42.9	59.9	75.9	91.0	105.0	117.9	129.8	140.3	149.6	164.6	168.6	83
	50	49.5	68.2	83.9	96.1	104.0					104.5	118.6	82
	60	49.9	69.0	85.9	100.4	112.0	120.2				122.0	132.7	83
	70	50.1	69.5	87.2	102.9	116.5	127.7	136.1			139.4	147.9	83
26	80	50.3	69.9	88.0	104.6	119.4	132.4	143.4	151.9		156.7	163.7	83
	90	50.4	70.2	88.6	105.8	121.5	135.7	148.2	158.9	167.6	173.9	179.8	83
	100	50.5	70.4	89.1	106.7	123.0	138.1	151.7	163.9	174.5	191.1	196.2	83

[a] Includes 1.0-foot stump allowance.

Table 139--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for magnolia (species 652) South-wide[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[b]	1.1	1.5	1.7	1.8	2.0	2.1											
6	2.3	2.7	3.0	3.2	3.5	3.7	4.0	4.2									
7	3.4	3.8	4.3	4.7	5.1	5.5	5.9	6.2	6.6	6.9							
8	4.5	5.2	5.8	6.4	6.9	7.4	8.0	8.5	9.0	9.5	10.0	10.4					
9	5.8	6.7	7.5	8.2	8.9	9.6	10.3	11.0	11.6	12.3	12.9	13.6	14.2	14.8			
10	7.2	8.3	9.3	10.3	11.2	12.1	12.9	13.8	14.6	15.4	16.2	17.0	17.8	18.6	19.4	20.2	
11	8.8	10.2	11.4	12.6	13.7	14.8	15.8	16.9	17.9	18.9	19.9	20.9	21.8	22.8	23.8	24.7	25.7
12	10.5	12.2	13.6	15.0	16.4	17.7	19.0	20.2	21.4	22.7	23.9	25.0	26.2	27.4	28.5	29.7	30.9
13	12.4	14.3	16.1	17.7	19.3	20.9	22.4	23.9	25.3	26.7	28.2	29.6	30.9	32.3	33.7	35.1	36.4
14	14.4	16.7	18.7	20.7	22.5	24.3	26.1	27.8	29.5	31.1	32.8	34.4	36.1	37.7	39.3	40.9	42.5
15	16.6	19.2	21.6	23.8	25.9	28.0	30.0	32.0	33.9	35.9	37.8	39.7	41.5	43.4	45.2	47.1	48.9
16	18.9	21.9	24.6	27.1	29.6	31.9	34.2	36.5	38.7	40.9	43.1	45.2	47.4	49.5	51.6	53.7	55.8

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 140--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 magnolia (species 652) South-wide[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[b]	1.7	2.1	2.5	2.9	3.4	3.9											
6	2.1	2.8	3.4	4.0	4.6	5.2	5.8	6.3									
7	2.9	3.8	4.6	5.4	6.1	6.8	7.5	8.2	8.9	9.6							
8	3.7	4.9	5.9	6.9	7.8	8.7	9.6	10.4	11.3	12.2	13.0	13.9					
9	4.7	6.1	7.4	8.6	9.7	10.8	11.9	12.9	14.0	15.0	16.1	17.1	18.1	19.1			
10	5.8	7.5	9.1	10.5	11.8	13.2	14.5	15.7	17.0	18.2	19.5	20.7	21.9	23.2	24.4	25.6	
11	7.1	9.1	10.9	12.6	14.2	15.8	17.3	18.8	20.3	21.8	23.2	24.7	26.1	27.6	29.0	30.5	31.9
12	8.4	10.8	12.9	14.9	16.8	18.6	20.4	22.2	23.9	25.7	27.4	29.1	30.8	32.4	34.1	35.8	37.5
13	9.9	12.7	15.1	17.4	19.6	21.7	23.8	25.9	27.9	29.9	31.8	33.8	35.8	37.7	39.7	41.6	43.5
14	11.5	14.7	17.5	20.1	22.6	25.1	27.5	29.8	32.1	34.4	36.7	38.9	41.2	43.4	45.6	47.9	50.1
15	13.2	16.8	20.1	23.1	25.9	28.7	31.4	34.1	36.7	39.3	41.9	44.5	47.0	49.5	52.1	54.6	57.1
16	15.0	19.2	22.8	26.2	29.4	32.5	35.6	38.6	41.6	44.5	47.5	50.3	53.2	56.1	58.9	61.8	64.6

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 141--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 basswood (species 950) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.8									11.5	13.0	75
	50	9.3	12.7								13.3	15.9	78
	60	9.6	13.3								14.8	18.5	80
	70	9.8	13.6								16.3	21.1	81
	80	9.9	13.9	17.2							17.7	23.5	82
	90	10.0	14.1	17.6							19.0	26.0	82
	100	10.1	14.2	17.8							20.3	28.4	83
14	40	12.1	16.0								16.8	17.9	75
	50	12.8	17.4								19.9	21.8	78
	60	13.2	18.2	22.0							22.8	25.5	80
	70	13.4	18.7	22.9							25.5	29.0	81
	80	13.6	19.0	23.6	27.3						28.2	32.4	82
	90	13.7	19.2	24.0	28.1						30.7	35.7	82
	100	13.8	19.4	24.4	28.7	32.3					33.3	39.0	83
16	50	16.8	22.8	26.8							27.1	28.7	78
	60	17.3	23.8	28.8							31.3	33.5	80
	70	17.7	24.5	30.0	34.2						35.3	38.0	81
	80	17.9	24.9	30.9	35.7						39.2	42.5	82
	90	18.0	25.2	31.5	36.8	41.0					42.9	46.9	82
	100	18.2	25.5	31.9	37.6	42.3	46.0				46.7	51.2	83
	110	18.3	25.6	32.3	38.2	43.3	47.5				50.4	55.5	83
18	50	21.3	28.9	34.0							35.1	36.4	78
	60	22.0	30.2	36.5	40.5						40.6	42.5	80
	70	22.4	31.1	38.1	43.3						45.9	48.3	81
	80	22.7	31.6	39.2	45.3	49.7					51.1	54.0	82
	90	22.9	32.0	39.9	46.6	51.9	55.7				56.1	59.6	82
	100	23.1	32.3	40.5	47.7	53.6	58.3				61.1	65.1	83
	110	23.2	32.5	41.0	48.5	54.9	60.2	64.4			66.0	70.6	83
20	50	26.4	35.8	42.0							43.8	45.0	78
	60	27.2	37.4	45.1	50.1						50.9	52.6	80
	70	27.8	38.4	47.1	53.6	57.6					57.7	59.8	81
	80	28.1	39.1	48.4	56.0	61.4					64.2	66.9	82
	90	28.4	39.6	49.4	57.7	64.2	68.9				70.7	73.8	82
	100	28.6	40.0	50.1	58.9	66.3	72.0	76.1			77.0	80.6	83
	110	28.7	40.3	50.7	59.9	67.9	74.4	79.6	83.2		83.3	87.3	83
22	60	33.0	45.3	54.7	60.6						62.2	63.8	80
	70	33.7	46.6	57.1	64.9	69.8					70.6	72.5	81
	80	34.1	47.4	58.7	67.8	74.4	78.5				78.7	81.1	82
	90	34.4	48.0	59.9	69.8	77.8	83.5				86.6	89.4	82
	100	34.7	48.5	60.7	71.4	80.3	87.3	92.2			94.4	97.7	83
	110	34.9	48.8	61.4	72.6	82.2	90.2	96.4	100.7		102.2	105.9	83
24	60	39.4	54.0	65.2	72.3						74.6	76.0	80
	70	40.2	55.5	68.0	77.3	83.1					84.7	86.5	81
	80	40.7	56.5	69.9	80.8	88.6	93.5				94.4	96.6	82
	90	41.1	57.2	71.3	83.2	92.6	99.4	103.6			104.0	106.6	82
	100	41.4	57.7	72.4	85.0	95.6	103.9	109.8			113.5	116.4	83
	110	41.6	58.2	73.2	86.5	97.9	107.4	114.8	120.0		122.8	126.2	83
26	60	46.3	63.5	76.6	84.9						88.0	89.3	80
	70	47.2	65.2	79.9	90.8	97.6					99.9	101.6	81
	80	47.8	66.4	82.2	94.9	104.1	109.8				111.5	113.5	82
	90	48.3	67.2	83.8	97.7	108.8	116.8	121.7			122.9	125.2	82
	100	48.6	67.8	85.0	99.9	112.3	122.0	129.0	133.4		134.1	136.8	83
	110	48.9	68.3	85.9	101.5	115.0	126.1	134.8	140.9	144.9	145.1	148.3	83

[a] Includes 1.0-foot stump allowance.

Table 142--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 basswood (species 950) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	9.2									11.3	12.9	79
	40	9.6	13.1								13.2	16.2	81
	50	9.8	13.6								14.9	19.5	82
	60	9.9	13.8								16.5	22.6	82
	70	10.0	14.0	17.4							18.1	25.7	82
	80	10.1	14.1	17.7							19.7	28.8	82
	90	10.1	14.2	17.9	21.1						21.3	31.9	83
14	40	13.1	17.9								19.8	21.9	81
	50	13.4	18.5	22.3							23.1	26.2	82
	60	13.6	18.9	23.2							26.2	30.4	82
	70	13.7	19.1	23.7	27.5						29.3	34.5	82
	80	13.8	19.3	24.1	28.2	31.7					32.3	38.6	82
	90	13.9	19.4	24.4	28.8	32.5					35.4	42.7	83
	100	13.9	19.5	24.6	29.2	33.2	36.7				38.4	46.7	83
16	40	17.2	23.4								26.9	28.5	81
	50	17.6	24.2	29.2							31.7	34.0	82
	60	17.8	24.7	30.3	34.6						36.3	39.4	82
	70	18.0	25.1	31.0	35.9	39.7					40.8	44.7	82
	80	18.1	25.3	31.5	36.9	41.3	44.8				45.3	49.9	82
	90	18.2	25.5	31.9	37.6	42.5	46.5				49.8	55.1	83
	100	18.3	25.6	32.2	38.1	43.3	47.8	51.7			54.2	60.3	83
18	40	21.9	29.7	34.3							34.7	35.9	81
	50	22.4	30.8	36.9	40.9						41.1	42.8	82
	60	22.7	31.4	38.4	43.7						47.2	49.6	82
	70	22.9	31.8	39.3	45.5	50.2					53.2	56.2	82
	80	23.0	32.1	40.0	46.7	52.2	56.6				59.2	62.7	82
	90	23.1	32.3	40.5	47.6	53.7	58.8	62.9			65.1	69.2	83
	100	23.2	32.5	40.8	48.3	54.8	60.5	65.2	69.1		71.0	75.7	83
20	40	27.1	36.7	42.4							43.3	44.3	81
	50	27.7	38.0	45.6	50.5						51.3	52.7	82
	60	28.1	38.8	47.4	53.9	58.3					59.1	60.9	82
	70	28.3	39.3	48.6	56.1	61.9	66.0				66.7	69.0	82
	80	28.5	39.7	49.4	57.7	64.5	69.8	73.7			74.3	77.1	82
	90	28.7	40.0	50.0	58.8	66.3	72.5	77.5	81.2		81.8	85.0	83
	100	28.8	40.2	50.5	59.6	67.7	74.6	80.4	85.1	88.7	89.3	92.9	83
22	50	33.6	46.1	55.2	61.0						62.5	63.6	82
	60	34.0	47.0	57.4	65.3	70.5					72.0	73.5	82
	70	34.4	47.7	58.9	67.9	74.9	79.8				81.4	83.3	82
	80	34.6	48.1	59.9	69.8	78.0	84.3	89.0			90.7	92.9	82
	90	34.8	48.5	60.6	71.2	80.2	87.7	93.6	98.1		99.9	102.5	83
	100	34.9	48.7	61.1	72.2	81.9	90.2	97.2	102.9	107.1	109.0	112.0	83
24	50	40.0	54.9	65.7	72.6						74.7	75.6	82
	60	40.6	56.1	68.4	77.7	83.8					86.1	87.3	82
	70	41.0	56.8	70.1	80.9	89.1	94.8				97.3	98.9	82
	80	41.3	57.4	71.3	83.1	92.8	100.3	105.7			108.4	110.3	82
	90	41.5	57.7	72.2	84.7	95.4	104.3	111.3	116.5		119.4	121.6	83
	100	41.6	58.0	72.8	86.0	97.5	107.4	115.6	122.3	127.3	130.4	132.9	83
26	50	47.0	64.5	77.2	85.2						87.8	88.6	82
	60	47.7	65.9	80.3	91.1	98.3					101.3	102.3	82
	70	48.2	66.8	82.3	94.9	104.6	111.2				114.5	115.8	82
	80	48.5	67.4	83.7	97.6	108.9	117.7	124.0			127.6	129.1	82
	90	48.7	67.8	84.8	99.5	112.0	122.4	130.6	136.6	140.5	140.6	142.4	83
	100	48.9	68.2	85.5	100.9	114.4	126.0	135.6	143.4	149.2	153.5	155.6	83

[a] Includes 1.0-foot stump allowance.

Table 143--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 basswood (species 950) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	9.8									11.3	19.7	85
	30	9.8	13.9								15.9	22.8	83
	40	9.9	14.0	17.7							20.5	26.7	83
12	50	10.0	14.1	18.0	21.6	24.7					25.1	30.7	82
	60	10.1	14.2	18.2	21.9	25.4	28.6				29.7	34.9	82
	70	10.1	14.3	18.3	22.1	25.7	29.1	32.4			34.2	39.2	82
	80	10.1	14.3	18.3	22.2	26.0	29.5	32.9	36.1		38.8	43.6	82
	40	13.6	19.1	23.6							26.7	31.7	83
	50	13.7	19.3	24.2	28.5	32.0					32.4	37.0	82
	60	13.8	19.4	24.5	29.2	33.3	36.9				38.0	42.3	82
14	70	13.8	19.5	24.7	29.6	34.1	38.2	41.7			43.7	47.7	82
	80	13.9	19.5	24.9	29.9	34.6	39.0	43.0	46.6		49.3	53.2	82
	90	13.9	19.6	25.0	30.1	35.0	39.5	43.8	47.7	51.4	54.9	58.7	82
	100	13.9	19.6	25.0	30.3	35.2	39.9	44.4	48.6	52.5	60.5	64.2	82
	40	17.9	24.9	30.5							33.9	38.1	83
	50	18.0	25.2	31.4	36.5	40.4					40.8	44.7	82
	60	18.1	25.4	31.9	37.6	42.6	46.5				47.7	51.4	82
16	70	18.2	25.5	32.2	38.3	43.8	48.5	52.6			54.6	58.1	82
	80	18.2	25.6	32.4	38.7	44.6	49.8	54.5	58.6		61.5	64.8	82
	90	18.3	25.6	32.6	39.1	45.1	50.7	55.9	60.5	64.6	68.3	71.5	82
	100	18.3	25.7	32.7	39.3	45.6	51.4	56.9	61.9	66.4	75.2	78.3	82
	40	22.7	31.5	38.2							42.0	45.7	83
	50	22.9	31.9	39.5	45.6	50.0					50.4	53.8	82
	60	23.0	32.1	40.2	47.2	53.0	57.5				58.7	61.9	82
18	70	23.1	32.3	40.7	48.2	54.7	60.3	64.9			67.0	70.0	82
	80	23.2	32.4	41.0	48.8	55.9	62.2	67.6	72.2		75.3	78.2	82
	90	23.3	32.5	41.2	49.3	56.7	63.5	69.6	74.9	79.5	83.6	86.3	82
	100	23.3	32.6	41.4	49.6	57.3	64.4	71.0	76.9	82.2	91.8	94.5	82
	40	28.1	38.9	46.9							51.1	54.4	83
	50	28.3	39.4	48.6	55.8	60.7					61.1	64.1	82
	60	28.5	39.7	49.5	57.9	64.7	69.7				71.0	73.8	82
20	70	28.6	39.9	50.1	59.2	67.0	73.5	78.6			80.9	83.6	82
	80	28.7	40.1	50.5	60.0	68.5	76.0	82.3	87.4		90.7	93.3	82
	90	28.8	40.2	50.8	60.6	69.6	77.7	84.9	91.1	96.3	100.6	103.0	82
	100	28.9	40.3	51.1	61.1	70.4	79.0	86.8	93.8	99.9	110.4	112.8	82
	50	34.4	47.7	58.7	67.1	72.5					72.9	75.7	82
	60	34.6	48.1	59.9	69.7	77.6	83.2				84.6	87.2	82
	70	34.7	48.4	60.6	71.4	80.6	88.1	93.8			96.2	98.6	82
22	80	34.8	48.6	61.1	72.5	82.5	91.2	98.5	104.3		107.8	110.1	82
	90	34.9	48.7	61.5	73.2	83.9	93.5	101.8	109.0	114.8	119.4	121.6	82
	100	35.0	48.9	61.8	73.8	85.0	95.1	104.3	112.4	119.4	130.9	133.1	82
	50	41.0	56.8	69.7	79.4	85.5					85.9	88.4	82
	60	41.2	57.3	71.2	82.7	91.8	98.0				99.5	101.8	82
	70	41.4	57.6	72.1	84.7	95.4	104.1	110.4			113.0	115.2	82
24	80	41.6	57.9	72.7	86.1	97.8	108.0	116.3	122.8		126.5	128.6	82
	90	41.7	58.1	73.2	87.0	99.6	110.7	120.4	128.5	135.0	140.0	142.0	82
	100	41.8	58.2	73.6	87.8	100.9	112.7	123.4	132.7	140.7	153.4	155.4	82
	50	48.2	66.7	81.7	92.8	99.5					100.0	102.3	82
	60	48.5	67.3	83.5	96.8	107.2	114.1				115.6	117.9	82
	70	48.7	67.7	84.6	99.2	111.6	121.4	128.5			131.3	133.3	82
26	80	48.9	68.0	85.3	100.9	114.5	126.1	135.7	142.8		146.8	148.8	82
	90	49.0	68.2	85.9	102.0	116.6	129.4	140.6	149.8	157.1	162.4	164.3	82
	100	49.1	68.4	86.3	102.9	118.1	131.9	144.2	154.9	164.0	177.9	179.7	82

[a] Includes 1.0-foot stump allowance.

Table 144--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for basswood (species 950) South-wide[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[b]	1.5	1.7	1.9	2.0	2.1	2.2											
6[b]	2.3	2.7	3.0	3.3	3.5	3.8	4.0	4.3									
7	3.3	3.8	4.3	4.7	5.1	5.5	5.9	6.3	6.7	7.0							
8	4.4	5.1	5.7	6.4	6.9	7.5	8.0	8.5	9.1	9.6	10.1	10.6					
9	5.6	6.6	7.4	8.2	8.9	9.7	10.4	11.0	11.7	12.4	13.0	13.7	14.3	15.0			
10	7.0	8.2	9.2	10.2	11.2	12.1	13.0	13.8	14.7	15.5	16.4	17.2	18.0	18.8	19.6	20.4	
11	8.5	10.0	11.3	12.5	13.6	14.8	15.9	16.9	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
12	10.2	11.9	13.5	14.9	16.3	17.7	19.0	20.3	21.5	22.8	24.0	25.2	26.4	27.6	28.8	30.0	31.2
13	12.0	14.0	15.9	17.6	19.3	20.9	22.4	23.9	25.4	26.9	28.3	29.8	31.2	32.6	34.0	35.4	36.8
14	14.0	16.3	18.5	20.5	22.4	24.3	26.1	27.9	29.6	31.3	33.0	34.7	36.3	38.0	39.6	41.3	42.9
15	16.1	18.8	21.3	23.6	25.8	28.0	30.1	32.1	34.1	36.1	38.0	39.9	41.9	43.8	45.7	47.6	49.4
16	18.3	21.4	24.3	26.9	29.5	31.9	34.3	36.6	38.9	41.1	43.4	45.6	47.8	49.9	52.1	54.3	56.4

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 145--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 basswood (species 950) South-wide[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[b]	1.6	2.1	2.5	2.9	3.4	3.8											
6[b]	2.3	2.9	3.5	4.0	4.6	5.1	5.6	6.1									
7	3.2	4.0	4.7	5.3	6.0	6.7	7.3	7.9	8.6	9.2							
8	4.2	5.1	6.0	6.9	7.7	8.5	9.3	10.1	10.9	11.6	12.4	13.2					
9	5.3	6.5	7.6	8.6	9.6	10.6	11.5	12.5	13.5	14.4	15.3	16.3	17.2	18.1			
10	6.6	8.0	9.3	10.5	11.7	12.9	14.1	15.2	16.4	17.5	18.6	19.7	20.9	22.0	23.1	24.2	
11	8.0	9.6	11.2	12.7	14.1	15.5	16.9	18.2	19.6	20.9	22.2	23.6	24.9	26.2	27.5	28.8	30.1
12	9.5	11.5	13.3	15.0	16.7	18.3	19.9	21.5	23.1	24.6	26.2	27.7	29.3	30.8	32.4	33.9	35.4
13	11.2	13.4	15.5	17.5	19.5	21.4	23.2	25.1	26.9	28.7	30.5	32.3	34.1	35.9	37.6	39.4	41.2
14	13.0	15.6	18.0	20.3	22.5	24.7	26.8	28.9	31.0	33.1	35.2	37.2	39.3	41.3	43.3	45.3	47.4
15	14.9	17.9	20.6	23.3	25.8	28.3	30.7	33.1	35.5	37.8	40.2	42.5	44.8	47.1	49.4	51.7	54.0
16	17.0	20.3	23.5	26.4	29.3	32.1	34.8	37.5	40.2	42.9	45.5	48.2	50.8	53.4	56.0	58.6	61.2

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 146--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 elm (species 970) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.7									10.9	12.2	72
	50	9.2	12.3								12.3	14.7	75
	60	9.5	12.9								13.5	17.0	77
	70	9.7	13.2								14.5	19.1	78
	80	9.8	13.5								15.5	21.2	79
	90	9.9	13.7								16.4	23.2	79
	100	10.0	13.8	17.2							17.3	25.2	80
14	40	11.9	15.5								15.7	16.8	72
	50	12.6	16.8								18.2	20.2	75
	60	13.0	17.6								20.5	23.3	77
	70	13.3	18.1	21.9							22.6	26.3	78
	80	13.5	18.5	22.6							24.6	29.2	79
	90	13.6	18.7	23.1							26.5	32.0	79
	100	13.7	18.9	23.5	27.3						28.4	34.8	80
16	50	16.5	22.1								24.8	26.6	75
	60	17.1	23.1	27.3							28.2	30.7	77
	70	17.4	23.8	28.7							31.4	34.6	78
	80	17.7	24.2	29.6	33.6						34.4	38.5	79
	90	17.9	24.6	30.3	34.8						37.4	42.2	79
	100	18.0	24.8	30.8	35.7	39.5					40.3	45.9	80
	110	18.2	25.0	31.2	36.4	40.7					43.1	49.5	80
18	50	21.0	28.0	32.1							32.2	33.8	75
	60	21.7	29.3	34.7							36.8	39.0	77
	70	22.2	30.2	36.4	40.5						41.1	44.0	78
	80	22.5	30.8	37.6	42.6						45.3	48.9	79
	90	22.7	31.2	38.4	44.1	48.3					49.4	53.7	79
	100	22.9	31.5	39.1	45.3	50.1					53.4	58.3	80
	110	23.1	31.8	39.5	46.2	51.6	55.7				57.3	63.0	80
20	50	26.0	34.7	39.6							40.4	41.8	75
	60	26.9	36.3	42.9							46.3	48.3	77
	70	27.5	37.3	45.0	50.1						51.9	54.5	78
	80	27.9	38.1	46.5	52.7	56.8					57.3	60.6	79
	90	28.2	38.6	47.5	54.6	59.7					62.6	66.5	79
	100	28.4	39.0	48.3	56.0	61.9	66.3				67.8	72.3	80
	110	28.6	39.3	48.9	57.1	63.7	68.8	72.6			72.9	78.0	80
22	60	32.6	44.0	52.0	56.4						56.8	58.6	77
	70	33.3	45.3	54.6	60.7						63.8	66.2	78
	80	33.8	46.1	56.4	63.8	68.8					70.5	73.5	79
	90	34.2	46.8	57.6	66.1	72.3	76.4				77.1	80.6	79
	100	34.5	47.3	58.6	67.9	75.0	80.3				83.6	87.7	80
	110	34.7	47.6	59.3	69.2	77.2	83.4	87.9			90.0	94.7	80
24	60	38.9	52.4	61.9	67.2						68.2	69.9	77
	70	39.7	54.0	65.0	72.3	76.5					76.7	78.9	78
	80	40.3	55.0	67.1	76.0	81.9					84.9	87.6	79
	90	40.8	55.8	68.7	78.8	86.1	91.1				92.9	96.1	79
	100	41.1	56.3	69.8	80.9	89.4	95.6	99.9			100.8	104.5	80
	110	41.4	56.8	70.6	82.5	92.0	99.3	104.7	108.5		108.6	112.9	80
26	60	45.7	61.6	72.8	79.0						80.6	82.1	77
	70	46.7	63.4	76.4	85.0	89.9					90.7	92.7	78
	80	47.4	64.6	78.9	89.3	96.2	100.4				100.5	103.0	79
	90	47.9	65.5	80.7	92.5	101.1	106.9				110.0	113.0	79
	100	48.3	66.2	82.0	95.0	105.0	112.3	117.3			119.4	122.9	80
	110	48.6	66.7	83.0	96.9	108.0	116.6	123.0	127.4		128.7	132.6	80

[a] Includes 1.0-foot stump allowance.

Table 147--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 elm (species 970) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	8.5									10.0	11.6	73
	40	9.1									11.6	14.8	76
	50	9.4	12.8								13.0	17.9	78
12	60	9.6	13.2								14.2	20.8	78
	70	9.8	13.4								15.4	23.7	79
	80	9.9	13.6								16.6	26.5	79
	90	9.9	13.7	17.0							17.7	29.3	79
	40	12.5	16.7								17.7	20.1	76
	50	13.0	17.5								20.6	24.1	78
	60	13.3	18.1	21.9							23.3	28.0	78
14	70	13.5	18.4	22.5	25.8						25.9	31.8	79
	80	13.6	18.6	23.0	26.6						28.4	35.5	79
	90	13.7	18.8	23.3	27.2	30.6					30.9	39.2	79
	100	13.8	19.0	23.6	27.7	31.3					33.4	42.8	80
	40	16.5	21.9								24.3	26.1	76
	50	17.1	23.0	27.3							28.6	31.3	78
	60	17.5	23.7	28.6	32.3						32.7	36.2	78
16	70	17.7	24.2	29.5	33.8						36.6	41.1	79
	80	17.9	24.5	30.1	34.8	38.7					40.5	45.8	79
	90	18.0	24.7	30.6	35.6	39.9	43.4				44.3	50.6	79
	100	18.2	24.9	30.9	36.2	40.8	44.8	48.1			48.1	55.2	80
	40	21.0	27.8								31.5	32.9	76
	50	21.7	29.2	34.6							37.3	39.4	78
	60	22.2	30.1	36.3	40.8						42.8	45.6	78
18	70	22.5	30.7	37.4	42.8	46.8					48.1	51.6	79
	80	22.8	31.1	38.2	44.1	48.9	52.6				53.4	57.6	79
	90	23.0	31.4	38.8	45.1	50.5	54.9	58.3			58.6	63.5	79
	100	23.1	31.6	39.2	45.9	51.7	56.6	60.7			63.7	69.3	80
	40	26.0	34.4	39.1							39.4	40.5	76
	50	26.9	36.2	42.7	46.7						46.8	48.4	78
	60	27.5	37.3	44.8	50.4						53.8	56.0	78
20	70	27.9	38.0	46.3	52.8	57.7					60.6	63.4	79
	80	28.2	38.5	47.2	54.5	60.4	64.8				67.3	70.7	79
	90	28.5	38.9	48.0	55.8	62.3	67.7	71.8			73.9	77.9	79
	100	28.6	39.2	48.5	56.7	63.8	69.9	74.8	78.7		80.5	85.0	80
	50	32.7	43.8	51.7	56.5						57.1	58.5	78
	60	33.4	45.2	54.3	61.0	65.2					65.7	67.6	78
	70	33.9	46.0	56.0	63.9	69.8	73.8				74.2	76.5	79
22	80	34.3	46.7	57.2	66.0	73.0	78.4	82.1			82.4	85.2	79
	90	34.6	47.1	58.1	67.5	75.4	81.8	86.8	90.4		90.6	93.8	79
	100	34.8	47.5	58.8	68.7	77.3	84.5	90.4	95.1	98.6	98.6	102.4	80
	50	39.0	52.3	61.6	67.2						68.3	69.5	78
	60	39.8	53.8	64.7	72.6	77.6					78.7	80.3	78
	70	40.4	54.9	66.8	76.1	83.0	87.7				88.8	90.8	79
24	80	40.9	55.6	68.2	78.6	86.9	93.2	97.6			98.8	101.1	79
	90	41.2	56.2	69.3	80.4	89.8	97.4	103.2	107.4		108.6	111.3	79
	100	41.5	56.6	70.1	81.8	92.0	100.6	107.6	113.1	117.1	118.3	121.4	80
	50	45.8	61.4	72.3	78.8						80.4	81.4	78
	60	46.9	63.3	76.0	85.2	91.0					92.7	94.1	78
	70	47.6	64.5	78.4	89.3	97.4	102.8				104.7	106.3	79
26	80	48.1	65.4	80.1	92.3	102.0	109.4	114.4			116.4	118.4	79
	90	48.5	66.0	81.4	94.5	105.4	114.2	121.0	125.9		128.0	130.3	79
	100	48.8	66.6	82.3	96.1	108.0	118.0	126.2	132.6	137.2	139.4	142.1	80

[a] Includes 1.0-foot stump allowance.

Table 148--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 elm (species 970) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.9									10.1	16.1	76
	30	9.3	12.9								14.8	19.0	78
	40	9.5	13.3	16.7							19.4	22.8	79
	50	9.7	13.5	17.1	20.5	23.6					24.0	26.8	79
	60	9.8	13.7	17.4	20.9	24.2	27.3				28.4	31.0	79
	70	9.9	13.8	17.5	21.2	24.6	27.9	31.0			32.9	35.2	79
	80	9.9	13.8	17.6	21.3	24.9	28.3	31.6	34.7		37.3	39.4	80
14	40	13.3	18.2	22.4							25.4	29.0	79
	50	13.5	18.6	23.2	27.2	30.6					31.0	34.0	79
	60	13.6	18.8	23.6	28.0	31.9	35.4				36.5	39.2	79
	70	13.7	19.0	23.9	28.5	32.7	36.6	40.1			42.0	44.4	79
	80	13.8	19.1	24.1	28.8	33.3	37.4	41.3	44.7		47.4	49.7	80
	90	13.8	19.1	24.2	29.1	33.7	38.0	42.1	45.9	49.4	52.9	55.0	80
	100	13.9	19.2	24.3	29.2	33.9	38.4	42.7	46.7	50.5	58.3	60.2	80
16	40	17.5	23.9	29.0							32.3	36.1	79
	50	17.8	24.4	30.1	35.0	38.7					39.1	42.3	79
	60	18.0	24.7	30.8	36.2	40.8	44.6				45.8	48.7	79
	70	18.1	24.9	31.2	36.9	42.1	46.6	50.5			52.5	55.1	79
	80	18.2	25.1	31.5	37.5	42.9	47.9	52.4	56.3		59.1	61.5	80
	90	18.3	25.2	31.7	37.8	43.6	48.9	53.7	58.1	62.0	65.7	67.9	80
	100	18.4	25.3	31.9	38.1	44.0	49.5	54.7	59.5	63.8	72.3	74.4	80
18	40	22.3	30.3	36.5							40.1	44.1	79
	50	22.7	31.0	38.0	43.7	47.9					48.3	51.7	79
	60	22.9	31.4	38.9	45.4	50.9	55.1				56.4	59.4	79
	70	23.1	31.7	39.5	46.5	52.7	58.0	62.3			64.4	67.1	79
	80	23.3	31.9	39.9	47.2	53.9	59.8	65.0	69.4		72.4	74.8	80
	90	23.4	32.0	40.2	47.8	54.8	61.2	66.9	72.0	76.4	80.3	82.6	80
	100	23.4	32.2	40.4	48.2	55.4	62.1	68.3	73.9	79.0	88.2	90.4	80
20	40	27.7	37.5	44.8							48.8	53.1	79
	50	28.2	38.4	46.9	53.5	58.1					58.5	62.2	79
	60	28.5	38.9	48.0	55.8	62.1	66.9				68.1	71.3	79
	70	28.7	39.3	48.8	57.2	64.5	70.7	75.5			77.7	80.6	79
	80	28.9	39.5	49.3	58.2	66.1	73.1	79.1	84.0		87.1	89.8	80
	90	29.0	39.7	49.7	58.9	67.3	74.9	81.7	87.5	92.4	96.6	99.0	80
	100	29.1	39.9	50.0	59.4	68.2	76.2	83.5	90.1	95.9	106.0	108.3	80
22	50	34.2	46.5	56.6	64.4	69.5					69.9	73.7	79
	60	34.6	47.2	58.1	67.2	74.6	79.8				81.2	84.6	79
	70	34.9	47.6	59.0	69.0	77.6	84.7	90.0			92.4	95.4	79
	80	35.1	47.9	59.7	70.3	79.7	87.8	94.7	100.1		103.5	106.3	80
	90	35.2	48.2	60.2	71.2	81.1	90.1	98.0	104.7	110.1	114.6	117.1	80
	100	35.4	48.4	60.5	71.8	82.3	91.8	100.4	108.0	114.6	125.6	128.0	80
24	50	40.9	55.4	67.3	76.2	81.9					82.3	86.4	79
	60	41.3	56.2	69.1	79.8	88.2	94.0				95.4	99.0	79
	70	41.7	56.8	70.2	82.0	92.0	100.0	106.0			108.5	111.7	79
	80	41.9	57.2	71.0	83.5	94.5	104.0	111.8	117.8		121.4	124.3	80
	90	42.1	57.5	71.6	84.6	96.3	106.7	115.8	123.5	129.6	134.3	137.0	80
	100	42.2	57.7	72.1	85.4	97.7	108.8	118.8	127.6	135.1	147.1	149.6	80
26	50	48.1	65.1	78.9	89.1	95.3					95.8	100.1	79
	60	48.6	66.1	81.0	93.4	103.0	109.5				110.9	114.7	79
	70	49.0	66.7	82.4	96.1	107.6	116.7	123.4			126.0	129.3	79
	80	49.3	67.2	83.4	97.9	110.6	121.5	130.3	137.1		140.9	144.0	80
	90	49.5	67.5	84.1	99.2	112.8	124.8	135.2	143.9	150.7	155.7	158.6	80
	100	49.7	67.8	84.7	100.2	114.5	127.4	138.8	148.9	157.4	170.5	173.2	80

[a] Includes 1.0-foot stump allowance.

Table 149--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for elm (species 970) South-wide[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[b]	1.5	1.6	1.7	1.8	1.9	1.9											
6	2.2	2.5	2.8	3.0	3.2	3.4	3.6	3.8									
7	3.1	3.6	4.0	4.4	4.7	5.0	5.3	5.6	5.9	6.2							
8	4.2	4.8	5.4	5.9	6.4	6.8	7.3	7.7	8.1	8.5	9.0	9.4					
9	5.4	6.3	7.0	7.7	8.3	8.9	9.5	10.0	10.6	11.2	11.7	12.2	12.8	13.3			
10	6.8	7.8	8.7	9.6	10.4	11.2	11.9	12.6	13.4	14.1	14.7	15.4	16.1	16.8	17.5	18.1	
11	8.3	9.6	10.7	11.7	12.7	13.7	14.6	15.5	16.4	17.2	18.1	18.9	19.8	20.6	21.4	22.3	23.1
12	10.0	11.4	12.8	14.1	15.3	16.4	17.5	18.6	19.7	20.7	21.8	22.8	23.8	24.8	25.8	26.8	27.8
13	11.7	13.5	15.1	16.6	18.0	19.4	20.7	22.0	23.2	24.5	25.7	26.9	28.1	29.3	30.5	31.7	32.9
14	13.7	15.7	17.6	19.3	21.0	22.6	24.1	25.6	27.1	28.6	30.0	31.4	32.8	34.2	35.6	37.0	38.4
15	15.8	18.1	20.3	22.3	24.2	26.0	27.8	29.5	31.2	32.9	34.6	36.2	37.8	39.5	41.1	42.7	44.2
16	18.0	20.7	23.1	25.4	27.6	29.7	31.7	33.7	35.7	37.6	39.5	41.4	43.2	45.1	46.9	48.7	50.5

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 150--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 elm (species 970) South-wide[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[b]	1.4	1.8	2.3	2.7	3.1	3.5											
6[b]	1.9	2.5	3.1	3.6	4.2	4.7	5.2	5.6									
7[b]	2.6	3.4	4.1	4.8	5.4	6.0	6.6	7.3	7.9	8.5							
8	3.5	4.5	5.4	6.2	7.0	7.8	8.5	9.3	10.0	10.7	11.4	12.2					
9	4.5	5.7	6.8	7.8	8.8	9.7	10.6	11.5	12.4	13.3	14.2	15.0	15.9	16.8			
10	5.7	7.1	8.4	9.6	10.8	11.9	13.0	14.1	15.1	16.2	17.2	18.2	19.3	20.3	21.3	22.3	
11	6.9	8.6	10.2	11.6	13.0	14.3	15.6	16.8	18.1	19.3	20.6	21.8	23.0	24.2	25.4	26.6	27.8
12	8.3	10.3	12.1	13.8	15.4	16.9	18.4	19.9	21.4	22.8	24.2	25.6	27.1	28.5	29.9	31.2	32.6
13	9.8	12.1	14.2	16.1	18.0	19.8	21.5	23.2	24.9	26.6	28.2	29.9	31.5	33.1	34.7	36.3	37.9
14	11.4	14.1	16.5	18.7	20.8	22.9	24.9	26.8	28.7	30.6	32.5	34.4	36.3	38.1	39.9	41.8	43.6
15	13.1	16.2	18.9	21.4	23.8	26.2	28.4	30.7	32.9	35.0	37.2	39.3	41.4	43.5	45.6	47.7	49.7
16	15.0	18.4	21.5	24.4	27.1	29.7	32.3	34.8	37.2	39.7	42.1	44.5	46.9	49.2	51.6	53.9	56.3

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 151--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.1									9.5	11.3	69
	50	8.7									11.3	14.1	74
	60	9.1	12.4								12.8	16.5	76
	70	9.4	12.9								14.2	18.8	77
	80	9.5	13.2								15.5	21.0	78
	90	9.7	13.4	16.6							16.7	23.2	79
	100	9.7	13.6	16.9							17.9	25.3	80
14	40	11.0									14.2	15.6	69
	50	12.0	16.0								17.2	19.3	74
	60	12.5	17.0								19.8	22.7	76
	70	12.9	17.6	21.4							22.3	25.9	77
	80	13.1	18.0	22.2							24.6	29.0	78
	90	13.2	18.3	22.7	26.3						26.8	32.0	79
	100	13.4	18.5	23.1	27.0						29.0	34.9	80
16	50	15.7	21.0								23.6	25.4	74
	60	16.4	22.3	26.5							27.4	29.9	76
	70	16.9	23.1	28.0							30.9	34.1	77
	80	17.2	23.7	29.1	33.1						34.3	38.1	78
	90	17.4	24.0	29.8	34.4						37.6	42.1	79
	100	17.6	24.3	30.3	35.3	39.3					40.8	45.9	80
	110	17.7	24.5	30.7	36.1	40.4	43.8				43.9	49.7	80
18	50	20.0	26.7	30.7							30.7	32.3	74
	60	20.9	28.3	33.6							35.8	38.0	76
	70	21.4	29.3	35.6	39.7						40.5	43.4	77
	80	21.8	30.0	36.9	42.0						45.1	48.5	78
	90	22.1	30.5	37.8	43.6	47.9					49.5	53.5	79
	100	22.3	30.9	38.5	44.8	49.8	53.4				53.8	58.4	80
	110	22.5	31.2	39.0	45.7	51.3	55.6				58.1	63.2	80
20	50	24.7	33.0	37.9							38.6	40.1	74
	60	25.8	35.0	41.6							45.1	47.1	76
	70	26.6	36.3	44.0	49.2						51.2	53.7	77
	80	27.0	37.2	45.6	51.9	56.1					57.0	60.1	78
	90	27.4	37.8	46.7	53.9	59.2					62.6	66.2	79
	100	27.6	38.2	47.6	55.4	61.5	66.0				68.2	72.3	80
	110	27.8	38.6	48.2	56.6	63.4	68.7	72.6			73.7	78.3	80
22	60	31.3	42.5	50.4	54.9						55.3	57.1	76
	70	32.2	44.0	53.3	59.6						62.8	65.1	77
	80	32.8	45.0	55.3	62.9	68.0					70.0	72.8	78
	90	33.2	45.8	56.6	65.3	71.7	76.0				77.1	80.3	79
	100	33.5	46.3	57.6	67.2	74.6	80.0	83.7			84.0	87.7	80
	110	33.8	46.7	58.4	68.5	76.8	83.2	87.9			90.7	95.0	80
24	60	37.4	50.6	60.1	65.4						66.4	68.1	76
	70	38.4	52.4	63.5	71.0	75.2					75.5	77.7	77
	80	39.1	53.7	65.8	74.9	81.0					84.3	86.9	78
	90	39.6	54.6	67.5	77.9	85.4	90.5				92.8	95.8	79
	100	40.0	55.2	68.7	80.0	88.8	95.3	99.7			101.1	104.6	80
	110	40.3	55.7	69.6	81.7	91.5	99.1	104.7	108.7		109.3	113.2	80
26	60	43.9	59.5	70.6	76.8						78.5	80.0	76
	70	45.2	61.6	74.6	83.4	88.4					89.3	91.3	77
	80	46.0	63.1	77.4	88.0	95.1	99.4				99.7	102.1	78
	90	46.6	64.1	79.3	91.5	100.3	106.3				109.8	112.6	79
	100	47.0	64.9	80.7	94.0	104.3	111.9	117.1			119.7	122.9	80
	110	47.4	65.5	81.8	95.9	107.5	116.4	123.0	127.6		129.5	133.0	80

[a] Includes 1.0-foot stump allowance.

Table 152--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.3									9.5	11.4	73
	40	9.0									11.4	14.8	76
	50	9.3	12.7								13.0	17.9	78
	60	9.5	13.0								14.5	20.9	78
	70	9.6	13.3								15.9	23.8	79
	80	9.7	13.4	16.7							17.3	26.7	79
	90	9.8	13.6	16.9							18.6	29.5	80
14	40	12.3	16.4								17.5	19.9	76
	50	12.7	17.3								20.5	24.0	78
	60	13.0	17.8	21.7							23.4	28.0	78
	70	13.2	18.2	22.3	25.7						26.2	31.8	79
	80	13.3	18.4	22.8	26.5						28.9	35.6	79
	90	13.4	18.6	23.1	27.1	30.4					31.6	39.4	80
	100	13.5	18.7	23.3	27.5	31.1					34.3	43.1	80
16	40	16.1	21.5								24.0	25.8	76
	50	16.7	22.7	27.0							28.5	31.1	78
	60	17.1	23.3	28.3	32.0						32.7	36.2	78
	70	17.3	23.8	29.2	33.5						36.9	41.1	79
	80	17.5	24.1	29.8	34.6	38.5					40.9	46.0	79
	90	17.6	24.3	30.2	35.3	39.7	43.3				44.9	50.7	80
	100	17.7	24.5	30.6	35.9	40.6	44.6	48.0			48.8	55.5	80
18	40	20.4	27.3								31.1	32.5	76
	50	21.2	28.7	34.2							37.1	39.1	78
	60	21.7	29.6	35.9	40.5						42.8	45.5	78
	70	22.0	30.2	37.0	42.4	46.5					48.3	51.6	79
	80	22.2	30.6	37.7	43.8	48.6	52.4				53.7	57.7	79
	90	22.4	30.9	38.3	44.7	50.2	54.7	58.2			59.0	63.6	80
	100	22.5	31.1	38.7	45.5	51.4	56.4	60.6	63.9		64.3	69.6	80
20	40	25.3	33.7	38.5							38.9	40.0	76
	50	26.3	35.5	42.2	46.3						46.5	48.1	78
	60	26.9	36.6	44.3	50.0	53.7					53.7	55.9	78
	70	27.3	37.3	45.7	52.4	57.4					60.7	63.4	79
	80	27.5	37.8	46.7	54.0	60.0	64.6				67.6	70.8	79
	90	27.7	38.2	47.4	55.3	61.9	67.4	71.7			74.3	78.1	80
	100	27.9	38.5	47.9	56.2	63.4	69.6	74.6	78.7		81.1	85.3	80
22	50	31.9	43.1	51.0	55.9						56.7	58.1	78
	60	32.6	44.4	53.6	60.4	64.8					65.5	67.3	78
	70	33.1	45.3	55.3	63.4	69.4	73.5				74.1	76.4	79
	80	33.4	45.9	56.5	65.4	72.6	78.1	82.0			82.6	85.2	79
	90	33.7	46.3	57.4	66.9	74.9	81.5	86.6	90.3		90.9	94.0	80
	100	33.8	46.6	58.0	68.0	76.7	84.1	90.2	95.0	98.6	99.2	102.7	80
24	50	38.0	51.3	60.8	66.5						67.8	69.0	78
	60	38.9	52.9	63.9	71.9	77.1					78.4	79.9	78
	70	39.4	53.9	65.9	75.4	82.5	87.3				88.7	90.6	79
	80	39.8	54.6	67.3	77.9	86.3	92.8	97.4			98.9	101.1	79
	90	40.1	55.2	68.3	79.6	89.2	96.9	102.9	107.3		108.9	111.5	80
	100	40.4	55.6	69.1	81.0	91.3	100.0	107.2	112.9	117.1	118.8	121.7	80
26	50	44.7	60.3	71.3	78.0						79.8	80.8	78
	60	45.7	62.2	75.0	84.4	90.4					92.3	93.6	78
	70	46.4	63.4	77.4	88.5	96.8	102.4				104.5	106.1	79
	80	46.8	64.2	79.0	91.4	101.3	108.9	114.1			116.5	118.4	79
	90	47.2	64.8	80.3	93.5	104.6	113.7	120.7	125.7		128.3	130.5	80
	100	47.5	65.3	81.2	95.1	107.2	117.4	125.8	132.4	137.2	139.9	142.4	80

[a] Includes 1.0-foot stump allowance.

Table 153--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.6									9.9	15.1	76
	30	9.2	12.7								14.6	19.1	78
	40	9.4	13.2	16.6							19.2	23.4	79
12	50	9.6	13.4	17.0	20.3	23.3					23.7	27.6	79
	60	9.7	13.5	17.2	20.7	24.0	27.0				28.1	31.9	79
	70	9.7	13.6	17.4	20.9	24.4	27.6	30.7			32.5	36.2	79
	80	9.8	13.7	17.5	21.1	24.6	28.0	31.2	34.3		36.8	40.6	79
	40	12.9	17.9	22.1							25.0	28.5	79
	50	13.2	18.3	22.8	26.8	30.1					30.5	33.9	79
	60	13.3	18.5	23.2	27.6	31.4	34.8				35.9	39.2	79
14	70	13.4	18.6	23.5	28.1	32.2	36.1	39.4			41.3	44.6	79
	80	13.4	18.7	23.7	28.4	32.8	36.9	40.6	44.0		46.7	49.9	79
	90	13.5	18.8	23.8	28.6	33.2	37.5	41.5	45.2	48.6	52.0	55.2	79
	100	13.5	18.8	23.9	28.8	33.5	37.9	42.1	46.0	49.7	57.4	60.5	79
	40	17.0	23.4	28.4							31.6	34.8	79
	50	17.3	23.9	29.6	34.3	38.0					38.3	41.4	79
	60	17.5	24.2	30.2	35.5	40.1	43.8				45.0	47.9	79
16	70	17.6	24.4	30.6	36.3	41.4	45.8	49.6			51.5	54.4	79
	80	17.7	24.5	30.9	36.8	42.2	47.1	51.5	55.3		58.1	60.9	79
	90	17.8	24.6	31.1	37.2	42.8	48.1	52.8	57.2	61.0	64.6	67.4	79
	100	17.8	24.7	31.3	37.5	43.3	48.8	53.8	58.5	62.8	71.1	73.8	79
	40	21.6	29.6	35.6							39.1	42.1	79
	50	22.0	30.2	37.2	42.8	46.9					47.2	50.0	79
	60	22.2	30.7	38.1	44.5	49.9	54.0				55.2	57.9	79
18	70	22.4	30.9	38.7	45.6	51.7	56.9	61.1			63.1	65.8	79
	80	22.5	31.1	39.1	46.3	52.9	58.7	63.8	68.1		71.0	73.6	79
	90	22.6	31.3	39.4	46.9	53.8	60.1	65.7	70.7	75.0	78.8	81.3	79
	100	22.7	31.4	39.6	47.3	54.4	61.1	67.2	72.7	77.6	86.6	89.1	79
	40	26.8	36.5	43.7							47.6	50.3	79
	50	27.2	37.4	45.8	52.3	56.8					57.2	59.8	79
	60	27.5	37.9	47.0	54.6	60.9	65.5				66.7	69.2	79
20	70	27.7	38.2	47.7	56.0	63.3	69.3	73.9			76.1	78.5	79
	80	27.9	38.5	48.2	57.0	64.9	71.7	77.6	82.3		85.4	87.8	79
	90	28.0	38.7	48.6	57.7	66.0	73.5	80.2	85.9	90.7	94.7	97.0	79
	100	28.1	38.8	48.9	58.2	66.9	74.8	82.1	88.5	94.2	104.0	106.3	79
	50	33.1	45.3	55.3	62.9	67.8					68.2	70.7	79
	60	33.4	45.9	56.7	65.8	73.0	78.1				79.4	81.7	79
	70	33.7	46.3	57.7	67.6	76.0	82.9	88.1			90.4	92.7	79
22	80	33.8	46.6	58.3	68.8	78.1	86.1	92.8	98.1		101.4	103.6	79
	90	34.0	46.9	58.8	69.7	79.6	88.4	96.1	102.7	108.0	112.3	114.5	79
	100	34.1	47.0	59.1	70.4	80.7	90.1	98.5	106.0	112.5	123.1	125.3	79
	50	39.4	53.9	65.6	74.4	79.9					80.3	82.6	79
	60	39.9	54.7	67.4	78.0	86.3	91.9				93.3	95.5	79
	70	40.2	55.2	68.6	80.2	90.0	97.9	103.7			106.1	108.3	79
24	80	40.4	55.6	69.4	81.7	92.6	101.9	109.5	115.4		118.8	121.0	79
	90	40.5	55.9	70.0	82.8	94.4	104.7	113.6	121.0	127.0	131.5	133.6	79
	100	40.7	56.1	70.4	83.6	95.8	106.8	116.6	125.2	132.5	144.2	146.2	79
	50	46.4	63.3	76.9	87.0	93.0					93.4	95.7	79
	60	46.9	64.3	79.1	91.3	100.7	107.0				108.4	110.5	79
	70	47.2	64.9	80.5	94.0	105.3	114.2	120.7			123.2	125.2	79
26	80	47.5	65.3	81.4	95.8	108.3	119.0	127.7	134.2		137.9	139.9	79
	90	47.7	65.6	82.1	97.1	110.5	122.4	132.6	141.0	147.6	152.5	154.5	79
	100	47.8	65.9	82.6	98.1	112.2	124.9	136.2	146.0	154.3	167.0	169.0	79

[a] Includes 1.0-foot stump allowance.

Table 154--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) South-wide[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	1.4	1.5	1.6	1.7	1.8											
6	1.9	2.2	2.5	2.8	3.1	3.3	3.5	3.7									
7	2.7	3.2	3.7	4.1	4.5	4.8	5.2	5.5	5.9	6.2							
8	3.7	4.4	5.0	5.6	6.1	6.6	7.1	7.6	8.0	8.5	8.9	9.4					
9	4.7	5.6	6.5	7.2	7.9	8.6	9.2	9.8	10.5	11.0	11.6	12.2	12.8	13.3			
10	5.9	7.0	8.1	9.0	9.9	10.8	11.6	12.4	13.1	13.9	14.6	15.4	16.1	16.8	17.5	18.2	
11	7.2	8.6	9.9	11.0	12.1	13.2	14.2	15.2	16.1	17.0	17.9	18.8	19.7	20.6	21.5	22.4	23.2
12	8.6	10.3	11.8	13.3	14.6	15.8	17.0	18.2	19.3	20.5	21.6	22.6	23.7	24.8	25.8	26.9	27.9
13	10.2	12.2	14.0	15.6	17.2	18.7	20.1	21.5	22.9	24.2	25.5	26.8	28.0	29.3	30.5	31.8	33.0
14	11.9	14.2	16.3	18.2	20.0	21.8	23.4	25.1	26.6	28.2	29.7	31.2	32.7	34.1	35.6	37.1	38.5
15	13.7	16.4	18.8	21.0	23.1	25.1	27.0	28.9	30.7	32.5	34.2	36.0	37.7	39.4	41.0	42.7	44.4
16	15.6	18.7	21.4	24.0	26.4	28.6	30.8	33.0	35.0	37.1	39.1	41.1	43.0	44.9	46.9	48.8	50.7

[a] Includes 0.5-foot stump allowance.

Table 155--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) South-wide[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	2.3	2.8	3.2	3.6											
6	2.0	2.6	3.2	3.8	4.3	4.8	5.3	5.8									
7	2.7	3.5	4.2	4.9	5.6	6.3	6.9	7.5	8.1	8.8							
8	3.5	4.5	5.4	6.3	7.1	7.9	8.7	9.5	10.2	11.0	11.7	12.5					
9	4.4	5.7	6.8	7.9	8.9	9.8	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1			
10	5.5	7.0	8.3	9.6	10.8	11.9	13.1	14.2	15.3	16.3	17.4	18.5	19.5	20.6	21.6	22.6	
11	6.7	8.4	10.0	11.5	12.9	14.3	15.6	16.9	18.2	19.5	20.7	22.0	23.2	24.4	25.6	26.9	28.1
12	7.9	10.0	11.9	13.6	15.3	16.9	18.4	19.9	21.4	22.9	24.3	25.8	27.2	28.7	30.1	31.5	32.9
13	9.3	11.8	13.9	15.9	17.8	19.7	21.5	23.2	24.9	26.6	28.3	30.0	31.6	33.3	34.9	36.5	38.2
14	10.8	13.6	16.1	18.4	20.6	22.7	24.7	26.7	28.7	30.6	32.6	34.5	36.4	38.2	40.1	42.0	43.8
15	12.5	15.6	18.5	21.1	23.6	26.0	28.3	30.5	32.8	35.0	37.2	39.3	41.5	43.6	45.7	47.8	49.9
16	14.2	17.8	21.0	23.9	26.7	29.4	32.0	34.6	37.1	39.6	42.1	44.5	46.9	49.3	51.7	54.1	56.5

[a] Includes 0.5-foot stump allowance.

Table 156--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 beech (species 531) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	9.1									10.1	12.4	72
	50	10.0									12.2	15.5	78
	60	10.4									14.0	18.2	81
	70	10.8	14.8								15.6	20.8	83
	80	11.0	15.2								17.1	23.3	84
	90	11.1	15.5								18.5	25.7	85
	100	11.3	15.7	19.4							19.9	28.0	86
14	40	12.5									15.1	17.0	72
	50	13.6	18.0								18.4	21.2	78
	60	14.2	19.3								21.4	25.0	81
	70	14.7	20.1	24.1							24.1	28.6	83
	80	15.0	20.7	25.1							26.7	32.0	84
	90	15.2	21.1	25.9							29.2	35.3	85
	100	15.4	21.4	26.5	30.5						31.6	38.5	86
16	50	17.8	23.5								25.4	27.9	78
	60	18.6	25.2	29.5							29.7	32.9	81
	70	19.2	26.3	31.4							33.6	37.5	83
	80	19.6	27.0	32.8	37.0						37.4	42.0	84
	90	19.9	27.5	33.8	38.6						41.0	46.4	85
	100	20.1	27.9	34.6	39.9	43.9					44.6	50.6	86
	110	20.2	28.2	35.2	40.9	45.4					48.0	54.8	86
18	50	22.5	29.8								33.2	35.4	78
	60	23.6	31.9	37.4							38.9	41.7	81
	70	24.3	33.3	39.8	44.1						44.2	47.7	83
	80	24.8	34.2	41.6	46.8						49.3	53.4	84
	90	25.2	34.9	42.9	48.9	53.2					54.1	58.9	85
	100	25.4	35.4	43.8	50.5	55.6					58.9	64.3	86
	110	25.7	35.8	44.6	51.8	57.5	61.9				63.6	69.7	86
20	50	27.8	36.8	41.7							41.8	43.8	78
	60	29.1	39.4	46.2							49.1	51.6	81
	70	30.0	41.1	49.2	54.4						55.9	59.0	83
	80	30.6	42.3	51.3	57.8	62.1					62.3	66.1	84
	90	31.1	43.1	52.9	60.4	65.7					68.6	72.9	85
	100	31.4	43.7	54.1	62.4	68.7	73.2				74.8	79.6	86
	110	31.7	44.2	55.1	64.0	71.0	76.4	80.5			80.8	86.3	86
22	60	35.3	47.7	55.9							60.2	62.6	81
	70	36.3	49.8	59.5	65.9						68.6	71.5	83
	80	37.1	51.2	62.2	70.0	75.2					76.7	80.1	84
	90	37.6	52.2	64.1	73.1	79.6	84.0				84.5	88.4	85
	100	38.1	52.9	65.5	75.5	83.1	88.7				92.1	96.5	86
	110	38.4	53.5	66.7	77.4	86.0	92.5	97.4			99.6	104.5	86
24	60	42.0	56.8	66.5	71.9						72.4	74.5	81
	70	43.3	59.3	70.9	78.4						82.6	85.2	83
	80	44.2	60.9	74.0	83.3	89.5					92.3	95.4	84
	90	44.8	62.1	76.3	87.0	94.7	100.0				101.7	105.3	85
	100	45.3	63.0	78.0	89.9	98.9	105.5	110.1			111.0	115.0	86
	110	45.7	63.7	79.4	92.2	102.3	110.1	115.9	120.0		120.0	124.6	86
26	60	49.3	66.7	78.1	84.4						85.6	87.6	81
	70	50.8	69.6	83.2	92.1	97.2					97.7	100.1	83
	80	51.9	71.5	86.9	97.8	105.0					109.2	112.1	84
	90	52.6	72.9	89.6	102.1	111.2	117.3				120.4	123.7	85
	100	53.2	74.0	91.6	105.5	116.1	123.9	129.2			131.4	135.1	86
	110	53.7	74.8	93.2	108.2	120.1	129.3	136.1	140.8		142.1	146.3	86

[a] Includes 1.0-foot stump allowance.

Table 157--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 beech (species 531) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	9.8									11.0	13.3	78
	40	10.5									13.4	17.2	82
	50	10.9	14.8								15.5	20.8	84
	60	11.1	15.2								17.5	24.3	85
	70	11.3	15.5	19.1							19.4	27.7	85
	80	11.4	15.7	19.5							21.2	31.1	86
	90	11.4	15.9	19.8							23.0	34.4	86
14	40	14.3	19.1								20.3	23.1	82
	50	14.8	20.1	24.0							24.0	27.9	84
	60	15.1	20.7	25.2							27.5	32.5	85
	70	15.3	21.1	25.9	29.9						31.0	37.0	85
	80	15.5	21.4	26.5	30.8						34.3	41.4	86
	90	15.6	21.6	26.9	31.5	35.4					37.6	45.8	86
	100	15.7	21.7	27.2	32.0	36.2	39.9				40.8	50.2	86
16	40	18.7	24.9								27.8	29.9	82
	50	19.4	26.3	31.3							33.1	36.0	84
	60	19.7	27.0	32.8	37.1						38.2	41.9	85
	70	20.0	27.5	33.8	38.9	42.8					43.1	47.7	85
	80	20.2	27.9	34.5	40.1	44.7					47.9	53.4	86
	90	20.3	28.2	35.0	41.0	46.1	50.3				52.7	59.0	86
	100	20.4	28.4	35.4	41.7	47.2	51.9	55.8			57.4	64.5	86
18	40	23.7	31.6								36.0	37.6	82
	50	24.5	33.2	39.5							43.0	45.3	84
	60	25.0	34.2	41.5	46.9						49.7	52.6	85
	70	25.3	34.9	42.8	49.1	53.9					56.2	59.8	85
	80	25.6	35.3	43.7	50.7	56.4	60.8				62.6	66.9	86
	90	25.7	35.6	44.3	51.8	58.2	63.5	67.6			68.9	73.9	86
	100	25.9	35.9	44.8	52.7	59.6	65.5	70.4	74.3		75.2	80.8	86
20	40	29.3	38.9	44.5							44.9	46.3	82
	50	30.3	41.0	48.7	53.5						53.7	55.6	84
	60	30.9	42.2	51.2	57.8	62.1					62.2	64.6	85
	70	31.3	43.0	52.8	60.6	66.4					70.4	73.4	85
	80	31.6	43.6	53.9	62.5	69.5	74.9				78.5	82.0	86
	90	31.8	44.0	54.7	63.9	71.7	78.1	83.2			86.5	90.6	86
	100	32.0	44.3	55.3	65.0	73.5	80.7	86.6	91.4		94.4	99.0	86
22	50	36.6	49.6	58.9	64.6						65.5	67.1	84
	60	37.4	51.1	61.9	69.8	74.9					75.8	77.9	85
	70	37.9	52.1	63.8	73.2	80.2	85.0				85.9	88.4	85
	80	38.2	52.7	65.2	75.6	84.0	90.4	94.9			95.8	98.8	86
	90	38.5	53.2	66.2	77.3	86.7	94.4	100.4	104.7		105.6	109.0	86
	100	38.7	53.6	66.9	78.7	88.8	97.5	104.6	110.2	114.5	115.3	119.2	86
24	50	43.6	59.1	70.1	76.8						78.2	79.6	84
	60	44.5	60.8	73.6	83.0	89.0					90.6	92.3	85
	70	45.1	62.0	75.9	87.0	95.4	101.0				102.7	104.8	85
	80	45.5	62.8	77.6	89.9	99.8	107.4	112.7			114.6	117.1	86
	90	45.8	63.4	78.7	92.0	103.1	112.2	119.2	124.3		126.3	129.2	86
	100	46.1	63.8	79.6	93.6	105.6	115.8	124.3	130.9	135.9	138.0	141.2	86
26	50	51.2	69.3	82.2	90.0						92.0	93.2	84
	60	52.3	71.4	86.4	97.3	104.3					106.6	108.1	85
	70	52.9	72.8	89.1	102.1	111.8	118.3				120.9	122.7	85
	80	53.4	73.7	91.0	105.4	117.0	125.9	132.1			134.9	137.0	86
	90	53.8	74.4	92.4	107.9	120.9	131.5	139.7	145.7		148.7	151.2	86
	100	54.1	74.9	93.5	109.8	123.9	135.8	145.7	153.4	159.1	162.4	165.2	86

[a] Includes 1.0-foot stump allowance.

Table 158--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 beech (species 531) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	10.3									11.7	15.4	83
	30	10.9	15.0								17.2	20.8	84
	40	11.2	15.5	19.4							22.4	25.9	85
	50	11.3	15.7	19.9	23.7	27.2					27.6	31.1	85
	60	11.5	15.9	20.1	24.1	27.9	31.4				32.6	36.1	85
	70	11.6	16.0	20.3	24.4	28.4	32.1	35.6			37.7	41.2	85
	80	11.6	16.1	20.4	24.6	28.7	32.6	36.3	39.8		42.7	46.2	85
14	40	15.1	20.8	25.7							29.1	32.4	85
	50	15.3	21.2	26.5	31.1	35.0					35.4	38.7	85
	60	15.5	21.5	27.0	32.0	36.5	40.4				41.7	45.0	85
	70	15.6	21.6	27.3	32.5	37.4	41.8	45.8			47.9	51.2	85
	80	15.7	21.7	27.5	32.9	38.0	42.7	47.1	51.1		54.1	57.4	85
	90	15.8	21.8	27.6	33.2	38.4	43.4	48.0	52.4	56.3	60.3	63.6	85
	100	15.8	21.9	27.7	33.4	38.7	43.9	48.7	53.3	57.6	66.4	69.8	85
16	40	19.7	27.1	33.0							36.7	40.0	85
	50	20.0	27.6	34.2	39.8	44.1					44.5	47.7	85
	60	20.2	27.9	34.9	41.1	46.4	50.8				52.1	55.4	85
	70	20.3	28.1	35.3	41.9	47.8	53.1	57.5			59.7	62.9	85
	80	20.4	28.3	35.6	42.5	48.8	54.5	59.6	64.1		67.3	70.5	85
	90	20.5	28.4	35.8	42.9	49.4	55.5	61.1	66.2	70.7	74.9	78.1	85
	100	20.6	28.5	36.0	43.2	49.9	56.3	62.2	67.7	72.7	82.4	85.6	85
18	40	24.9	34.1	41.2							45.4	48.6	85
	50	25.2	34.8	42.9	49.5	54.3					54.8	57.9	85
	60	25.5	35.2	43.9	51.4	57.7	62.6				64.0	67.2	85
	70	25.6	35.5	44.4	52.5	59.7	65.8	70.8			73.2	76.3	85
	80	25.8	35.7	44.9	53.3	61.0	67.9	73.8	78.9		82.3	85.4	85
	90	25.9	35.8	45.2	53.9	61.9	69.3	76.0	81.9	86.9	91.4	94.5	85
	100	26.0	35.9	45.4	54.3	62.6	70.4	77.5	84.0	89.8	100.5	103.6	85
20	40	30.7	42.0	50.5							55.1	58.4	85
	50	31.1	42.8	52.7	60.5	65.8					66.3	69.4	85
	60	31.4	43.4	53.9	62.9	70.3	75.8				77.3	80.4	85
	70	31.6	43.7	54.7	64.4	72.9	80.1	85.7			88.2	91.3	85
	80	31.8	44.0	55.2	65.4	74.7	82.8	89.7	95.4		99.1	102.1	85
	90	31.9	44.2	55.6	66.2	75.9	84.7	92.6	99.4	105.1	109.9	113.0	85
	100	32.0	44.3	55.9	66.7	76.8	86.1	94.6	102.3	109.0	120.7	123.8	85
22	50	37.6	51.8	63.5	72.6	78.6					79.0	82.2	85
	60	38.0	52.4	65.0	75.7	84.3	90.4				92.0	95.1	85
	70	38.2	52.8	66.0	77.6	87.6	95.8	102.1			104.8	107.9	85
	80	38.4	53.1	66.6	78.9	89.8	99.3	107.3	113.7		117.6	120.7	85
	90	38.6	53.4	67.1	79.8	91.4	101.8	110.9	118.8	125.2	130.3	133.4	85
	100	38.7	53.5	67.5	80.5	92.5	103.6	113.6	122.5	130.2	143.0	146.1	85
24	50	44.8	61.5	75.3	85.9	92.5					93.0	96.1	85
	60	45.2	62.3	77.2	89.7	99.6	106.4				108.0	111.1	85
	70	45.5	62.8	78.4	92.0	103.6	113.1	120.2			123.0	126.1	85
	80	45.7	63.2	79.2	93.6	106.4	117.4	126.6	133.7		137.9	141.0	85
	90	45.9	63.5	79.8	94.7	108.3	120.4	131.0	140.0	147.2	152.7	155.8	85
	100	46.0	63.7	80.2	95.6	109.7	122.7	134.3	144.6	153.4	167.5	170.6	85
26	50	52.6	72.2	88.2	100.3	107.7					108.1	111.3	85
	60	53.0	73.1	90.4	104.9	116.2	123.8				125.5	128.6	85
	70	53.4	73.7	91.8	107.7	121.1	131.9	139.8			142.8	145.9	85
	80	53.6	74.1	92.8	109.6	124.4	137.1	147.5	155.5		160.0	163.0	85
	90	53.8	74.5	93.5	110.9	126.7	140.7	152.9	163.1	171.2	177.1	180.1	85
	100	54.0	74.7	94.1	112.0	128.5	143.4	156.9	168.6	178.6	194.1	197.2	85

[a] Includes 1.0-foot stump allowance.

Table 159--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for beech (species 531) South-wide[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	1.2	1.5	1.9	2.1	2.2											
6	2.1	2.5	2.8	3.2	3.5	3.7	4.0	4.2									
7	3.0	3.6	4.1	4.6	5.0	5.4	5.8	6.2	6.6	7.0							
8	4.0	4.8	5.5	6.2	6.8	7.4	7.9	8.5	9.0	9.5	10.0	10.5					
9	5.1	6.2	7.1	8.0	8.8	9.5	10.3	11.0	11.7	12.3	13.0	13.6	14.3	14.9			
10	6.4	7.7	8.9	10.0	11.0	11.9	12.9	13.8	14.6	15.5	16.3	17.1	17.9	18.7	19.5	20.3	
11	7.8	9.4	10.8	12.2	13.4	14.6	15.7	16.8	17.9	18.9	19.9	20.9	21.9	22.9	23.9	24.9	25.8
12	9.3	11.2	13.0	14.6	16.1	17.5	18.8	20.1	21.4	22.7	23.9	25.1	26.3	27.5	28.7	29.8	31.0
13	11.0	13.3	15.3	17.2	18.9	20.6	22.2	23.8	25.3	26.8	28.2	29.7	31.1	32.5	33.9	35.2	36.6
14	12.8	15.4	17.8	20.0	22.0	24.0	25.9	27.7	29.4	31.2	32.9	34.5	36.2	37.8	39.4	41.1	42.6
15	14.7	17.7	20.5	23.0	25.4	27.6	29.8	31.9	33.9	35.9	37.9	39.8	41.7	43.6	45.4	47.3	49.1
16	16.7	20.2	23.3	26.2	28.9	31.5	34.0	36.3	38.7	40.9	43.2	45.4	47.6	49.7	51.8	53.9	56.0

[a] Includes 0.5-foot stump allowance.

Table 160--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 beech (species 531) South-wide[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	1.9	2.4	2.9	3.4	4.0	4.5											
6	2.4	3.2	3.9	4.6	5.2	5.8	6.4	7.0									
7	3.2	4.2	5.1	5.9	6.7	7.5	8.2	9.0	9.7	10.4							
8	4.2	5.4	6.5	7.5	8.5	9.4	10.3	11.2	12.1	13.0	13.9	14.7					
9	5.2	6.7	8.0	9.3	10.4	11.6	12.7	13.8	14.8	15.9	16.9	18.0	19.0	20.0			
10	6.4	8.2	9.8	11.3	12.7	14.0	15.3	16.6	17.9	19.1	20.4	21.6	22.9	24.1	25.3	26.5	
11	7.8	9.9	11.7	13.5	15.1	16.7	18.3	19.8	21.3	22.8	24.2	25.7	27.1	28.6	30.0	31.4	32.8
12	9.2	11.7	13.9	15.9	17.8	19.7	21.5	23.2	25.0	26.7	28.4	30.1	31.8	33.5	35.1	36.8	38.4
13	10.8	13.7	16.2	18.5	20.8	22.9	25.0	27.0	29.0	31.0	33.0	34.9	36.9	38.8	40.7	42.6	44.5
14	12.5	15.8	18.7	21.4	23.9	26.4	28.8	31.1	33.4	35.7	37.9	40.1	42.3	44.6	46.7	48.9	51.1
15	14.3	18.1	21.4	24.5	27.3	30.1	32.8	35.5	38.1	40.7	43.2	45.7	48.2	50.7	53.2	55.7	58.2
16	16.3	20.6	24.3	27.7	31.0	34.1	37.2	40.1	43.1	46.0	48.9	51.7	54.6	57.4	60.2	63.0	65.7

[a] Includes 0.5-foot stump allowance.

Table 161--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 birch (species 370) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	9.3									11.4	13.5	79
	50	9.6									12.6	15.6	79
	60	9.8	13.4								13.6	17.6	80
	70	9.9	13.6								14.6	19.6	80
	80	10.0	13.8								15.6	21.5	80
	90	10.1	13.9								16.6	23.4	80
	100	10.2	14.0	17.4							17.6	25.4	80
14	40	12.7									16.7	18.4	79
	50	13.0	17.7								18.8	21.3	79
	60	13.3	18.2								20.8	24.1	80
	70	13.5	18.5	22.4							22.7	26.8	80
	80	13.6	18.8	23.0							24.6	29.5	80
	90	13.7	18.9	23.4							26.4	32.2	80
	100	13.8	19.1	23.7	27.4						28.3	34.8	80
16	50	17.0	23.1								25.7	27.9	79
	60	17.3	23.7	28.1							28.7	31.6	80
	70	17.5	24.1	29.2							31.6	35.2	80
	80	17.7	24.5	29.9	33.9						34.4	38.8	80
	90	17.9	24.7	30.5	35.0						37.2	42.3	80
	100	18.0	24.9	30.9	35.8	39.5					40.0	45.8	80
	110	18.1	25.0	31.2	36.4	40.6					42.8	49.2	80
18	50	21.4	29.2								33.4	35.4	79
	60	21.8	30.0	35.6							37.5	40.1	80
	70	22.2	30.5	36.9	41.1						41.4	44.7	80
	80	22.4	30.9	37.9	42.9						45.3	49.2	80
	90	22.6	31.2	38.5	44.2	48.3					49.2	53.6	80
	100	22.8	31.5	39.1	45.2	50.0					53.0	58.1	80
	110	22.9	31.7	39.5	46.1	51.3	55.3				56.7	62.5	80
20	50	26.4	36.0	41.4							41.9	43.7	79
	60	26.9	37.0	43.9							47.2	49.5	80
	70	27.3	37.6	45.5	50.7						52.3	55.2	80
	80	27.6	38.1	46.7	52.9	57.0					57.3	60.8	80
	90	27.9	38.5	47.6	54.5	59.6					62.3	66.3	80
	100	28.1	38.8	48.2	55.8	61.6	65.9				67.2	71.8	80
	110	28.3	39.0	48.7	56.8	63.3	68.3	72.0			72.1	77.3	80
22	60	32.6	44.7	53.1	57.7						57.8	59.9	80
	70	33.0	45.5	55.1	61.3						64.2	66.8	80
	80	33.4	46.1	56.5	64.0	68.9					70.5	73.6	80
	90	33.7	46.6	57.5	66.0	72.1	76.2				76.7	80.3	80
	100	34.0	46.9	58.3	67.5	74.6	79.7				82.8	87.0	80
	110	34.2	47.2	58.9	68.7	76.6	82.6	87.0			88.9	93.6	80
24	60	38.7	53.2	63.1	68.6						69.4	71.4	80
	70	39.3	54.1	65.5	72.9						77.1	79.6	80
	80	39.7	54.8	67.2	76.1	82.0					84.8	87.7	80
	90	40.1	55.4	68.4	78.5	85.7	90.6				92.3	95.7	80
	100	40.4	55.8	69.3	80.3	88.7	94.8	99.0			99.8	103.6	80
	110	40.6	56.1	70.0	81.7	91.1	98.2	103.5			107.2	111.5	80
26	60	45.4	62.4	74.0	80.5						82.0	83.8	80
	70	46.0	63.5	76.8	85.5	90.6					91.2	93.4	80
	80	46.6	64.3	78.8	89.3	96.2					100.2	102.9	80
	90	47.0	64.9	80.2	92.0	100.6	106.3				109.2	112.3	80
	100	47.3	65.4	81.3	94.2	104.0	111.2	116.2			118.1	121.7	80
	110	47.6	65.9	82.1	95.9	106.8	115.3	121.5	125.8		127.0	130.9	80

[a] Includes 1.0-foot stump allowance.

Table 162--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 birch (species 370) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	9.0									10.1	12.5	76
	40	9.5									12.0	15.9	78
	50	9.8	13.4								13.7	19.1	79
	60	10.0	13.7								15.3	22.3	80
	70	10.2	13.9								16.9	25.3	80
	80	10.3	14.1	17.5							18.4	28.4	80
	90	10.3	14.2	17.7							19.8	31.4	80
14	40	13.0	17.4								18.7	21.3	78
	50	13.4	18.2	21.8							21.9	25.6	79
	60	13.6	18.6	22.7							24.9	29.7	80
	70	13.8	18.9	23.3	26.9						27.9	33.8	80
	80	13.9	19.1	23.7	27.6						30.8	37.8	80
	90	14.0	19.3	24.0	28.1	31.8					33.7	41.7	80
	100	14.1	19.4	24.2	28.6	32.4	35.8				36.6	45.7	80
16	40	16.9	22.7								25.6	27.6	78
	50	17.4	23.7	28.3							30.3	33.1	79
	60	17.7	24.3	29.5	33.6						34.8	38.3	80
	70	18.0	24.6	30.3	35.0	38.6					39.2	43.5	80
	80	18.1	24.9	30.9	35.9	40.2					43.5	48.6	80
	90	18.3	25.1	31.3	36.6	41.3	45.2				47.8	53.7	80
	100	18.4	25.3	31.6	37.2	42.1	46.5	50.2			52.0	58.7	80
18	40	21.3	28.6	33.1							33.2	34.7	78
	50	22.0	29.9	35.8							39.4	41.5	79
	60	22.4	30.6	37.3	42.3						45.4	48.1	80
	70	22.7	31.1	38.3	44.1	48.7					51.2	54.5	80
	80	22.9	31.5	39.0	45.4	50.6	54.8				57.0	60.9	80
	90	23.1	31.8	39.5	46.3	52.1	57.0	60.9			62.7	67.2	80
	100	23.2	32.0	39.9	46.9	53.2	58.6	63.2	66.9		68.4	73.5	80
20	40	26.3	35.3	40.7							41.4	42.6	78
	50	27.1	36.9	44.0	48.7						49.2	50.9	79
	60	27.6	37.8	45.9	52.1	56.4					56.8	59.0	80
	70	28.0	38.4	47.2	54.3	59.9	63.8				64.2	66.8	80
	80	28.3	38.8	48.0	55.9	62.3	67.5	71.2			71.5	74.6	80
	90	28.5	39.2	48.7	57.0	64.1	70.1	74.9	78.5		78.7	82.3	80
	100	28.6	39.4	49.2	57.9	65.5	72.1	77.7	82.3	85.8	85.9	90.0	80
22	50	32.8	44.5	53.2	58.7						60.0	61.3	79
	60	33.4	45.7	55.5	62.9	68.0					69.2	71.0	80
	70	33.8	46.4	57.0	65.6	72.3	77.0				78.3	80.4	80
	80	34.2	46.9	58.1	67.5	75.3	81.4	85.9			87.3	89.8	80
	90	34.4	47.3	58.8	68.9	77.5	84.6	90.4	94.6		96.1	99.0	80
	100	34.6	47.6	59.4	69.9	79.1	87.1	93.8	99.2	103.4	104.9	108.2	80
24	50	39.0	53.0	63.2	69.8						71.6	72.7	79
	60	39.7	54.3	66.0	74.8	80.7					82.7	84.1	80
	70	40.2	55.2	67.8	78.0	85.9	91.4				93.6	95.3	80
	80	40.6	55.8	69.0	80.2	89.4	96.7	101.9			104.3	106.4	80
	90	40.9	56.3	69.9	81.9	92.1	100.5	107.3	112.3		114.9	117.3	80
	100	41.1	56.6	70.6	83.1	94.1	103.5	111.4	117.8	122.6	125.4	128.2	80
26	50	45.7	62.1	74.1	81.7						84.1	85.1	79
	60	46.6	63.7	77.4	87.6	94.5					97.2	98.4	80
	70	47.2	64.7	79.5	91.4	100.6	107.0				110.0	111.5	80
	80	47.6	65.5	80.9	94.1	104.8	113.2	119.3			122.7	124.4	80
	90	47.9	66.0	82.0	96.0	107.9	117.8	125.7	131.5		135.2	137.2	80
	100	48.2	66.4	82.8	97.5	110.3	121.3	130.5	137.9	143.6	147.6	149.9	80

[a] Includes 1.0-foot stump allowance.

Table 163--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 birch (species 370) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	9.7									11.1	16.2	82
	30	9.9	13.7								15.8	21.7	81
	40	10.1	14.0	17.6							20.4	26.8	80
	50	10.2	14.1	17.8	21.3	24.5					24.9	31.8	80
	60	10.3	14.2	18.0	21.6	25.0	28.3				29.4	36.7	80
	70	10.4	14.3	18.1	21.8	25.3	28.7	32.0			33.9	41.5	80
	80	10.4	14.4	18.2	21.9	25.5	29.0	32.4	35.6		38.4	46.2	80
14	40	13.7	18.9	23.2							26.3	30.7	80
	50	13.9	19.1	23.8	28.0	31.5					31.9	36.6	80
	60	14.0	19.3	24.2	28.6	32.7	36.2				37.4	42.3	80
	70	14.1	19.4	24.4	29.0	33.4	37.3	40.9			42.9	48.1	80
	80	14.2	19.5	24.5	29.3	33.8	38.0	41.9	45.5		48.3	53.7	80
	90	14.2	19.5	24.6	29.5	34.1	38.5	42.7	46.6	50.1	53.8	59.4	80
	100	14.3	19.6	24.7	29.7	34.4	38.9	43.2	47.3	51.2	59.2	65.0	80
16	40	17.9	24.5	29.8							33.2	36.5	80
	50	18.1	24.9	30.7	35.7	39.5					39.9	43.4	80
	60	18.3	25.1	31.3	36.7	41.5	45.4				46.6	50.3	80
	70	18.4	25.2	31.6	37.4	42.6	47.2	51.2			53.2	57.1	80
	80	18.5	25.4	31.8	37.8	43.4	48.4	52.9	56.9		59.9	63.8	80
	90	18.5	25.5	32.0	38.2	43.9	49.3	54.2	58.6	62.6	66.5	70.6	80
	100	18.6	25.5	32.1	38.4	44.3	49.9	55.1	59.9	64.3	73.1	77.3	80
18	40	22.6	30.9	37.2							40.9	43.5	80
	50	22.9	31.4	38.5	44.4	48.6					49.0	51.8	80
	60	23.1	31.7	39.3	45.9	51.4	55.8				57.0	59.9	80
	70	23.2	31.9	39.8	46.8	53.1	58.4	62.8			65.0	68.0	80
	80	23.4	32.0	40.1	47.5	54.2	60.2	65.4	69.8		72.9	76.0	80
	90	23.4	32.2	40.3	47.9	55.0	61.4	67.2	72.3	76.8	80.8	84.0	80
	100	23.5	32.3	40.5	48.3	55.6	62.3	68.5	74.2	79.3	88.7	92.0	80
20	40	27.9	38.0	45.5							49.6	51.7	80
	50	28.2	38.6	47.3	54.1	58.8					59.2	61.4	80
	60	28.5	39.0	48.2	56.1	62.5	67.4				68.7	71.0	80
	70	28.7	39.3	48.9	57.4	64.8	70.9	75.8			78.1	80.5	80
	80	28.8	39.5	49.3	58.2	66.2	73.3	79.3	84.2		87.5	90.0	80
	90	28.9	39.6	49.6	58.9	67.3	74.9	81.7	87.6	92.6	96.8	99.4	80
	100	29.0	39.8	49.9	59.3	68.1	76.2	83.5	90.1	95.9	106.2	108.8	80
22	50	34.1	46.6	56.9	64.8	70.0					70.4	72.3	80
	60	34.4	47.1	58.2	67.4	74.8	80.2				81.5	83.5	80
	70	34.6	47.5	58.9	69.0	77.7	84.8	90.2			92.6	94.6	80
	80	34.8	47.7	59.5	70.1	79.6	87.8	94.7	100.1		103.6	105.7	80
	90	34.9	47.9	59.9	70.9	80.9	89.9	97.8	104.5	110.0	114.5	116.7	80
	100	35.0	48.1	60.2	71.5	82.0	91.5	100.1	107.7	114.3	125.5	127.7	80
24	50	40.6	55.4	67.5	76.6	82.3					82.7	84.3	80
	60	40.9	56.0	69.0	79.8	88.3	94.2				95.6	97.2	80
	70	41.2	56.4	70.0	81.8	91.8	99.9	105.9			108.4	110.1	80
	80	41.4	56.7	70.7	83.2	94.2	103.6	111.5	117.6		121.2	123.0	80
	90	41.5	57.0	71.2	84.1	95.9	106.3	115.4	123.0	129.1	133.9	135.7	80
	100	41.7	57.1	71.5	84.9	97.1	108.3	118.2	127.0	134.5	146.6	148.5	80
26	50	47.6	64.9	78.9	89.3	95.6					96.1	97.4	80
	60	48.0	65.7	80.8	93.2	102.9	109.4				110.9	112.3	80
	70	48.3	66.1	82.0	95.7	107.2	116.4	123.0			125.7	127.1	80
	80	48.5	66.5	82.8	97.3	110.0	120.9	129.8	136.5		140.4	141.9	80
	90	48.7	66.8	83.4	98.5	112.1	124.1	134.5	143.1	149.9	155.0	156.6	80
	100	48.9	67.0	83.8	99.4	113.6	126.5	137.9	147.9	156.4	169.6	171.2	80

[a] Includes 1.0-foot stump allowance.

Table 164--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for birch (species 370) South-wide[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	1.8	1.9	2.0	2.0	2.1	2.2											
6	2.8	3.0	3.2	3.3	3.5	3.7	3.9	4.0									
7	3.9	4.2	4.5	4.8	5.1	5.4	5.7	5.9	6.2	6.5							
8	5.1	5.6	6.0	6.5	6.9	7.3	7.7	8.1	8.5	8.8	9.2	9.6					
9	6.6	7.2	7.7	8.3	8.8	9.4	9.9	10.5	11.0	11.5	12.0	12.5	13.0	13.5			
10	8.1	8.9	9.6	10.3	11.0	11.7	12.4	13.1	13.7	14.4	15.1	15.7	16.4	17.0	17.6	18.3	
11	9.9	10.8	11.7	12.6	13.5	14.3	15.1	16.0	16.8	17.6	18.4	19.2	20.0	20.8	21.6	22.4	23.2
12	11.8	12.9	14.0	15.0	16.1	17.1	18.1	19.1	20.1	21.1	22.1	23.0	24.0	25.0	25.9	26.9	27.8
13	13.8	15.2	16.4	17.7	18.9	20.2	21.4	22.5	23.7	24.9	26.0	27.2	28.3	29.5	30.6	31.7	32.8
14	16.0	17.6	19.1	20.6	22.0	23.4	24.8	26.2	27.6	29.0	30.3	31.6	33.0	34.3	35.6	36.9	38.3
15	18.4	20.2	21.9	23.6	25.3	26.9	28.6	30.2	31.7	33.3	34.9	36.4	38.0	39.5	41.0	42.5	44.1
16	21.0	23.0	25.0	26.9	28.8	30.7	32.5	34.4	36.2	38.0	39.8	41.5	43.3	45.0	46.8	48.5	50.2

[a] Includes 0.5-foot stump allowance.

Table 165--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 birch (species 370) South-wide[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	2.2	2.6	3.1	3.5	4.0											
6	2.4	3.0	3.6	4.2	4.7	5.3	5.8	6.3									
7	3.2	4.0	4.7	5.5	6.2	6.8	7.5	8.2	8.8	9.4							
8	4.1	5.1	6.1	6.9	7.8	8.6	9.4	10.2	11.0	11.8	12.6	13.4					
9	5.2	6.4	7.5	8.6	9.6	10.6	11.6	12.6	13.5	14.5	15.4	16.4	17.3	18.2			
10	6.4	7.8	9.2	10.5	11.7	12.9	14.1	15.2	16.3	17.5	18.6	19.7	20.8	21.9	23.0	24.1	
11	7.7	9.4	11.0	12.5	14.0	15.4	16.7	18.1	19.4	20.8	22.1	23.4	24.7	26.0	27.3	28.6	29.8
12	9.1	11.1	13.0	14.7	16.4	18.1	19.7	21.3	22.8	24.4	25.9	27.4	28.9	30.5	32.0	33.4	34.9
13	10.7	13.0	15.1	17.2	19.1	21.0	22.9	24.7	26.5	28.3	30.1	31.8	33.6	35.3	37.0	38.8	40.5
14	12.3	15.0	17.5	19.8	22.0	24.2	26.3	28.4	30.5	32.5	34.5	36.6	38.6	40.5	42.5	44.5	46.5
15	14.1	17.2	20.0	22.6	25.2	27.6	30.0	32.4	34.8	37.1	39.4	41.6	43.9	46.2	48.4	50.6	52.9
16	16.1	19.5	22.7	25.6	28.5	31.3	34.0	36.7	39.3	41.9	44.5	47.1	49.6	52.2	54.7	57.2	59.7

[a] Includes 0.5-foot stump allowance.

Table 166--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.0									8.2	9.8	63
	50	8.0									10.6	13.0	71
	60	8.6	11.8								12.6	15.9	75
	70	8.9	12.4								14.4	18.5	77
	80	9.2	12.9	16.0							16.1	21.1	79
	90	9.4	13.2	16.5							17.6	23.5	80
	100	9.5	13.4	16.9							19.2	25.9	80
14	40	9.6									12.3	13.5	63
	50	10.9	14.7								16.0	17.9	71
	60	11.7	16.1								19.2	21.9	75
	70	12.3	17.0	20.8							22.1	25.5	77
	80	12.6	17.6	21.9							24.9	29.0	79
	90	12.8	18.0	22.6	26.3						27.5	32.4	80
	100	13.0	18.3	23.1	27.2						30.1	35.6	80
16	50	14.4	19.3								21.9	23.6	71
	60	15.4	21.1	25.4							26.4	28.8	75
	70	16.1	22.3	27.3							30.6	33.6	77
	80	16.6	23.1	28.7	32.9						34.6	38.2	79
	90	16.9	23.7	29.6	34.5	38.0					38.4	42.6	80
	100	17.1	24.1	30.3	35.6	39.8					42.0	46.9	80
	110	17.3	24.4	30.8	36.5	41.2	44.8				45.6	51.1	81
18	50	18.3	24.5	28.4							28.5	30.0	71
	60	19.6	26.9	32.2							34.5	36.6	75
	70	20.5	28.3	34.7	39.0						40.1	42.7	77
	80	21.1	29.3	36.4	41.7	45.3					45.3	48.5	79
	90	21.5	30.0	37.6	43.7	48.2					50.4	54.2	80
	100	21.8	30.6	38.5	45.2	50.4	54.3				55.3	59.6	80
	110	22.0	31.0	39.1	46.3	52.2	56.8				60.1	65.0	81
20	50	22.6	30.4	35.1							35.8	37.1	71
	60	24.3	33.2	39.8							43.5	45.3	75
	70	25.4	35.1	42.9	48.2						50.5	52.9	77
	80	26.1	36.3	45.0	51.6	56.0					57.3	60.1	79
	90	26.6	37.2	46.5	54.1	59.6	63.3				63.7	67.1	80
	100	27.0	37.8	47.6	55.9	62.4	67.1				70.0	73.9	80
	110	27.3	38.3	48.4	57.3	64.6	70.2	74.4			76.1	80.5	81
22	60	29.5	40.3	48.3	52.7						53.3	55.0	75
	70	30.8	42.6	52.0	58.4						62.0	64.2	77
	80	31.7	44.1	54.6	62.5	67.8					70.3	73.0	79
	90	32.3	45.1	56.4	65.5	72.2	76.8				78.3	81.4	80
	100	32.8	45.9	57.7	67.7	75.6	81.4	85.3			86.1	89.6	80
	110	33.1	46.5	58.7	69.4	78.2	85.1	90.1	93.6		93.7	97.7	81
24	60	35.2	48.1	57.5	62.9						64.0	65.6	75
	70	36.8	50.7	62.0	69.7	74.1					74.6	76.6	77
	80	37.8	52.5	65.1	74.5	80.8					84.6	87.0	79
	90	38.5	53.8	67.2	78.1	86.1	91.4				94.2	97.0	80
	100	39.1	54.7	68.8	80.7	90.1	96.9	101.6			103.6	106.8	80
	110	39.5	55.5	70.0	82.7	93.2	101.3	107.3	111.5		112.8	116.5	81
26	60	41.4	56.5	67.6	73.9						75.7	77.1	75
	70	43.2	59.6	72.9	81.8	87.0					88.2	90.0	77
	80	44.5	61.8	76.5	87.6	95.0	99.4				100.0	102.2	79
	90	45.3	63.3	79.0	91.8	101.1	107.4	111.3			111.5	114.1	80
	100	46.0	64.4	80.8	94.9	105.8	113.9	119.4			122.6	125.6	80
	110	46.5	65.2	82.3	97.2	109.5	119.0	126.1	131.0		133.5	136.9	81

[a] Includes 1.0-foot stump allowance.

Table 167--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.7									8.9	10.8	71
	40	8.5									11.2	14.5	75
	50	8.9	12.4								13.3	17.9	78
	60	9.2	12.8								15.2	21.1	79
	70	9.4	13.1	16.3							17.1	24.3	79
	80	9.5	13.3	16.6							18.8	27.4	80
	90	9.6	13.4	16.9	20.0						20.5	30.5	80
14	40	11.7	15.8								17.3	19.5	75
	50	12.3	16.9	20.4							20.9	24.1	78
	60	12.6	17.5	21.5							24.3	28.4	79
	70	12.8	17.9	22.2	25.8						27.6	32.6	79
	80	13.0	18.2	22.7	26.6	29.9					30.8	36.7	80
	90	13.1	18.4	23.1	27.2	30.9	33.9				33.9	40.8	80
	100	13.2	18.5	23.4	27.7	31.6	35.0				37.1	44.8	80
16	40	15.3	20.7								23.7	25.4	75
	50	16.1	22.1	26.6							28.9	31.2	78
	60	16.6	22.9	28.1	32.1						33.8	36.8	79
	70	16.9	23.5	29.1	33.7	37.3					38.5	42.1	79
	80	17.1	23.8	29.7	34.8	39.0	42.4				43.1	47.4	80
	90	17.2	24.1	30.2	35.6	40.3	44.2	47.4			47.7	52.7	80
	100	17.4	24.3	30.6	36.2	41.2	45.6	49.3			52.2	57.8	80
18	40	19.5	26.3	30.5							30.8	32.0	75
	50	20.5	28.1	33.7	37.5						37.6	39.3	78
	60	21.1	29.1	35.6	40.6						44.0	46.3	79
	70	21.5	29.8	36.9	42.7	47.2					50.2	53.0	79
	80	21.7	30.3	37.7	44.1	49.4	53.6				56.3	59.6	80
	90	21.9	30.6	38.3	45.1	51.0	55.9	59.9			62.3	66.1	80
	100	22.1	30.9	38.8	45.9	52.2	57.6	62.3	66.0		68.3	72.6	80
20	40	24.2	32.6	37.7							38.4	39.4	75
	50	25.4	34.7	41.7	46.2						47.0	48.4	78
	60	26.1	36.0	44.1	50.2	54.3					55.1	56.9	79
	70	26.6	36.9	45.6	52.7	58.2	62.2				63.0	65.2	79
	80	26.9	37.5	46.6	54.5	61.0	66.1	69.9			70.7	73.3	80
	90	27.2	37.9	47.4	55.8	62.9	69.0	73.8	77.4		78.2	81.2	80
	100	27.4	38.2	48.0	56.7	64.5	71.1	76.8	81.4	84.9	85.7	89.1	80
22	50	30.8	42.1	50.5	55.9						57.3	58.4	78
	60	31.7	43.7	53.4	60.7	65.7					67.2	68.7	79
	70	32.3	44.7	55.2	63.8	70.5	75.1				76.8	78.6	79
	80	32.7	45.4	56.5	66.0	73.8	79.9	84.4			86.2	88.3	80
	90	33.0	45.9	57.4	67.5	76.2	83.4	89.2	93.5		95.5	97.9	80
	100	33.2	46.3	58.2	68.7	78.0	86.1	92.8	98.3	102.6	104.7	107.4	80
24	50	36.7	50.2	60.1	66.5						68.5	69.4	78
	60	37.8	52.1	63.6	72.3	78.1					80.4	81.6	79
	70	38.5	53.3	65.8	76.0	83.8	89.4				91.9	93.3	79
	80	39.0	54.2	67.3	78.6	87.8	95.1	100.3			103.1	104.9	80
	90	39.4	54.8	68.5	80.4	90.7	99.2	106.1	111.2		114.2	116.2	80
	100	39.7	55.2	69.3	81.9	92.9	102.4	110.4	116.9	121.9	125.2	127.5	80
26	50	43.2	59.0	70.6	78.1						80.6	81.4	78
	60	44.5	61.2	74.7	84.8	91.7					94.6	95.6	79
	70	45.3	62.7	77.3	89.2	98.4	104.8				108.1	109.3	79
	80	45.9	63.7	79.1	92.2	103.1	111.5	117.7			121.4	122.8	80
	90	46.3	64.4	80.4	94.5	106.5	116.5	124.4	130.3	134.2	134.4	136.1	80
	100	46.7	64.9	81.4	96.2	109.1	120.2	129.6	137.1	142.9	147.4	149.3	80

[a] Includes 1.0-foot stump allowance.

Table 168--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.1									9.3	14.6	74
	30	8.8	12.4								14.3	18.2	78
	40	9.2	13.0	16.4							19.0	22.3	79
	50	9.4	13.2	16.9	20.3	23.3					23.7	26.6	80
	60	9.5	13.4	17.2	20.7	24.1	27.1				28.2	30.9	80
	70	9.6	13.5	17.3	21.0	24.5	27.8	30.9			32.7	35.2	80
	80	9.6	13.6	17.5	21.2	24.8	28.3	31.5	34.6		37.2	39.5	80
14	40	12.6	17.6	21.9							24.9	28.3	79
	50	12.8	18.1	22.7	26.9	30.3					30.6	33.6	80
	60	13.0	18.3	23.2	27.7	31.7	35.2				36.3	39.0	80
	70	13.1	18.5	23.5	28.2	32.6	36.5	40.0			41.9	44.4	80
	80	13.2	18.6	23.7	28.6	33.2	37.4	41.3	44.8		47.5	49.9	80
	90	13.3	18.7	23.9	28.8	33.6	38.0	42.2	46.1	49.6	53.1	55.3	80
	100	13.3	18.8	24.0	29.0	33.9	38.5	42.8	46.9	50.8	58.6	60.7	80
16	40	16.5	23.0	28.3							31.6	35.1	79
	50	16.9	23.6	29.5	34.5	38.3					38.7	41.8	80
	60	17.1	24.0	30.2	35.8	40.6	44.5				45.7	48.5	80
	70	17.3	24.2	30.7	36.6	41.9	46.6	50.6			52.6	55.2	80
	80	17.4	24.4	31.0	37.1	42.8	48.0	52.6	56.6		59.4	61.9	80
	90	17.5	24.5	31.2	37.5	43.4	48.9	54.0	58.5	62.6	66.3	68.6	80
	100	17.5	24.6	31.4	37.8	43.9	49.6	55.0	59.9	64.4	73.1	75.3	80
18	40	21.0	29.1	35.5							39.2	42.9	79
	50	21.5	29.9	37.2	43.2	47.5					47.8	51.1	80
	60	21.8	30.4	38.2	45.0	50.7	55.1				56.3	59.2	80
	70	22.0	30.7	38.8	46.1	52.5	58.1	62.6			64.7	67.4	80
	80	22.1	31.0	39.2	46.8	53.7	60.0	65.4	69.9		73.0	75.5	80
	90	22.2	31.1	39.5	47.3	54.6	61.3	67.3	72.7	77.3	81.3	83.6	80
	100	22.3	31.3	39.7	47.8	55.3	62.3	68.8	74.7	79.9	89.5	91.8	80
20	40	26.1	36.0	43.6							47.8	51.6	79
	50	26.6	37.0	45.8	52.9	57.7					58.1	61.4	80
	60	27.0	37.6	47.1	55.2	61.9	66.9				68.2	71.2	80
	70	27.3	38.0	47.9	56.7	64.4	70.8	75.9			78.2	81.0	80
	80	27.4	38.3	48.4	57.6	66.0	73.4	79.7	84.9		88.1	90.8	80
	90	27.6	38.5	48.8	58.3	67.1	75.1	82.3	88.5	93.7	98.0	100.5	80
	100	27.7	38.7	49.1	58.9	68.0	76.4	84.2	91.1	97.3	107.9	110.2	80
22	50	32.3	44.9	55.4	63.6	69.0					69.4	72.9	80
	60	32.8	45.6	56.9	66.6	74.4	80.0				81.4	84.5	80
	70	33.1	46.1	57.9	68.4	77.5	85.0	90.8			93.2	96.1	80
	80	33.3	46.5	58.6	69.6	79.5	88.2	95.5	101.4		104.9	107.6	80
	90	33.5	46.7	59.1	70.5	81.0	90.4	98.8	106.0	111.9	116.6	119.1	80
	100	33.6	46.9	59.5	71.2	82.1	92.1	101.2	109.4	116.4	128.2	130.6	80
24	50	38.6	53.5	65.8	75.3	81.4					81.8	85.5	80
	60	39.1	54.4	67.7	79.0	88.0	94.3				95.8	99.1	80
	70	39.5	55.0	68.9	81.2	91.8	100.5	107.0			109.6	112.6	80
	80	39.8	55.4	69.8	82.8	94.4	104.5	112.9	119.5		123.3	126.1	80
	90	40.0	55.7	70.4	83.9	96.2	107.2	116.9	125.2	131.8	136.9	139.5	80
	100	40.1	56.0	70.8	84.7	97.5	109.3	119.9	129.3	137.4	150.4	152.9	80
26	50	45.4	62.8	77.2	88.1	94.9					95.3	99.1	80
	60	46.0	63.9	79.5	92.5	102.9	109.9				111.5	114.9	80
	70	46.5	64.6	80.9	95.2	107.5	117.4	124.6			127.4	130.6	80
	80	46.8	65.1	81.9	97.1	110.5	122.1	131.8	139.1		143.3	146.2	80
	90	47.0	65.5	82.6	98.4	112.7	125.5	136.6	146.1	153.5	159.0	161.7	80
	100	47.2	65.8	83.2	99.4	114.3	128.0	140.2	151.0	160.3	174.6	177.2	80

[a] Includes 1.0-foot stump allowance.

Table 169--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) South-wide[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	0.6	1.3	1.4	1.5	1.7	1.8											
6	1.7	1.9	2.2	2.6	2.9	3.2	3.5	3.7									
7	2.1	2.7	3.2	3.7	4.2	4.6	5.0	5.4	5.8	6.2							
8	2.8	3.6	4.3	5.0	5.7	6.3	6.8	7.4	7.9	8.5	9.0	9.5					
9	3.6	4.6	5.6	6.5	7.3	8.1	8.9	9.6	10.3	11.0	11.7	12.3	13.0	13.6			
10	4.5	5.8	7.0	8.1	9.2	10.2	11.1	12.1	12.9	13.8	14.7	15.5	16.3	17.1	17.9	18.7	
11	5.4	7.1	8.6	9.9	11.2	12.5	13.6	14.8	15.8	16.9	18.0	19.0	20.0	21.0	21.9	22.9	23.9
12	6.5	8.5	10.3	11.9	13.5	15.0	16.4	17.7	19.0	20.3	21.6	22.8	24.0	25.2	26.4	27.5	28.7
13	7.7	10.0	12.1	14.1	15.9	17.7	19.3	20.9	22.5	24.0	25.5	26.9	28.3	29.8	31.1	32.5	33.9
14	9.0	11.6	14.1	16.4	18.5	20.6	22.5	24.4	26.2	28.0	29.7	31.4	33.0	34.7	36.3	37.9	39.5
15	10.4	13.4	16.3	18.9	21.4	23.7	25.9	28.1	30.2	32.2	34.2	36.2	38.1	40.0	41.9	43.7	45.6
16	11.8	15.3	18.6	21.6	24.4	27.1	29.6	32.1	34.5	36.8	39.0	41.3	43.5	45.6	47.8	49.9	52.0

[a] Includes 0.5-foot stump allowance.

Table 170--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) South-wide[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	1.4	1.8	2.2	2.7	3.1	3.6											
6	1.7	2.4	3.0	3.6	4.2	4.8	5.3	5.8									
7	2.3	3.2	4.0	4.8	5.5	6.2	6.8	7.5	8.2	8.8							
8	3.0	4.1	5.1	6.1	7.0	7.8	8.6	9.5	10.3	11.1	11.8	12.6					
9	3.8	5.2	6.4	7.6	8.6	9.7	10.7	11.7	12.7	13.6	14.6	15.5	16.5	17.4			
10	4.7	6.4	7.9	9.2	10.5	11.8	13.0	14.2	15.4	16.5	17.7	18.8	19.9	21.0	22.1	23.3	
11	5.7	7.7	9.5	11.1	12.6	14.1	15.6	17.0	18.4	19.7	21.1	22.4	23.7	25.0	26.4	27.7	29.0
12	6.8	9.1	11.2	13.1	14.9	16.7	18.4	20.0	21.6	23.2	24.8	26.4	27.9	29.5	31.0	32.5	34.0
13	8.1	10.7	13.1	15.3	17.4	19.5	21.4	23.3	25.2	27.0	28.9	30.7	32.5	34.2	36.0	37.8	39.5
14	9.4	12.4	15.2	17.7	20.2	22.5	24.7	26.9	29.1	31.2	33.3	35.3	37.4	39.4	41.5	43.5	45.5
15	10.8	14.3	17.4	20.3	23.1	25.7	28.3	30.8	33.2	35.6	38.0	40.3	42.7	45.0	47.3	49.6	51.9
16	12.3	16.2	19.8	23.1	26.2	29.2	32.1	34.9	37.6	40.4	43.0	45.7	48.3	51.0	53.6	56.2	58.7

[a] Includes 0.5-foot stump allowance.

Table 171--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 pecan (species 404) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.0									7.6	9.6	60
	50	8.1									10.0	12.9	69
	60	8.7	11.8								12.0	15.9	73
	70	9.1	12.5								13.9	18.6	76
	80	9.4	13.0								15.5	21.2	77
	90	9.6	13.3	16.6							17.1	23.7	79
	100	9.7	13.6	17.0							18.6	26.1	79
14	40	9.6									11.9	13.2	60
	50	11.0	14.6								15.8	17.8	69
	60	11.9	16.1								19.2	21.8	73
	70	12.5	17.1	20.8							22.2	25.6	76
	80	12.9	17.7	21.9							25.1	29.2	77
	90	13.1	18.2	22.6	26.3						27.9	32.6	79
	100	13.3	18.5	23.2	27.2	30.4					30.5	35.9	79
16	50	14.5	19.2								21.7	23.3	69
	60	15.7	21.1	25.2							26.5	28.7	73
	70	16.4	22.4	27.3	30.7						30.8	33.6	76
	80	16.9	23.2	28.6	32.9						34.9	38.3	77
	90	17.3	23.8	29.6	34.4	38.1					38.8	42.8	79
	100	17.5	24.3	30.4	35.6	39.8					42.6	47.2	79
	110	17.7	24.6	30.9	36.5	41.2	44.9				46.3	51.5	80
18	50	18.4	24.3	28.0							28.2	29.7	69
	60	19.9	26.8	32.0							34.5	36.5	73
	70	20.8	28.4	34.6	38.9						40.2	42.8	76
	80	21.5	29.5	36.3	41.7	45.3					45.7	48.7	77
	90	21.9	30.3	37.6	43.7	48.3					50.9	54.4	79
	100	22.3	30.8	38.5	45.1	50.5	54.5				55.9	60.0	79
	110	22.5	31.3	39.2	46.3	52.2	56.9	60.4			60.8	65.5	80
20	50	22.8	30.1	34.7							35.4	36.7	69
	60	24.6	33.2	39.6	43.3						43.4	45.1	73
	70	25.8	35.1	42.8	48.1						50.7	52.9	76
	80	26.6	36.5	44.9	51.6	56.0					57.6	60.3	77
	90	27.1	37.4	46.5	54.0	59.7	63.5				64.2	67.4	79
	100	27.6	38.1	47.6	55.8	62.4	67.3				70.6	74.3	79
	110	27.9	38.7	48.5	57.2	64.6	70.4	74.7			76.9	81.1	80
22	60	29.9	40.2	48.0	52.5						53.1	54.8	73
	70	31.3	42.6	51.8	58.3	62.1					62.1	64.2	76
	80	32.3	44.2	54.5	62.5	67.9					70.7	73.1	77
	90	32.9	45.4	56.3	65.4	72.3	77.0				78.8	81.8	79
	100	33.4	46.2	57.7	67.6	75.6	81.6	85.7			86.8	90.1	79
	110	33.8	46.9	58.8	69.3	78.2	85.2	90.5	94.1		94.5	98.3	80
24	60	35.6	47.9	57.2	62.5						63.8	65.3	73
	70	37.3	50.8	61.8	69.5	74.0					74.7	76.5	76
	80	38.5	52.7	64.9	74.4	80.9	84.8				84.9	87.2	77
	90	39.3	54.1	67.1	78.0	86.1	91.7				94.8	97.5	79
	100	39.9	55.1	68.8	80.6	90.1	97.2	102.0			104.4	107.4	79
	110	40.4	55.9	70.1	82.6	93.2	101.5	107.7	112.1		113.7	117.2	80
26	60	41.9	56.3	67.2	73.5						75.4	76.7	73
	70	43.9	59.7	72.6	81.6	86.9					88.2	90.0	76
	80	45.2	62.0	76.3	87.4	95.0	99.6				100.4	102.5	77
	90	46.2	63.6	78.9	91.6	101.2	107.7	111.7			112.1	114.5	79
	100	46.9	64.8	80.8	94.7	105.9	114.1	119.8			123.4	126.2	79
	110	47.5	65.7	82.3	97.0	109.4	119.3	126.5	131.6		134.5	137.7	80

[a] Includes 1.0-foot stump allowance.

Table 172--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 pecan (species 404) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	7.3									7.9	9.8	65
	40	8.4									10.3	13.6	72
	50	9.0	12.2								12.2	17.0	75
12	60	9.3	12.7								14.0	20.3	77
	70	9.5	13.1								15.6	23.4	78
	80	9.7	13.4	16.6							17.2	26.4	79
	90	9.8	13.6	16.9							18.7	29.4	80
	40	11.5	15.2								16.0	18.3	72
	50	12.3	16.6								19.6	22.9	75
	60	12.7	17.4	21.1							22.9	27.2	77
14	70	13.0	17.9	22.0	25.4						26.0	31.3	78
	80	13.3	18.3	22.7	26.3						29.0	35.3	79
	90	13.4	18.5	23.1	27.1	30.5					31.9	39.3	80
	100	13.5	18.7	23.4	27.6	31.3	34.4				34.8	43.2	80
	40	15.1	19.9								22.1	23.8	72
	50	16.1	21.7	25.8							27.3	29.7	75
	60	16.7	22.8	27.6	31.2						32.0	35.2	77
16	70	17.1	23.5	28.8	33.1	36.4					36.6	40.5	78
	80	17.4	24.0	29.6	34.4	38.3					41.0	45.7	79
	90	17.6	24.3	30.2	35.4	39.7	43.4				45.3	50.7	80
	100	17.7	24.6	30.7	36.1	40.8	44.9	48.3			49.6	55.7	80
	40	19.1	25.2								28.7	30.0	72
	50	20.4	27.6	32.7							35.5	37.4	75
	60	21.2	28.9	35.0	39.5						41.9	44.3	77
18	70	21.7	29.8	36.5	41.9	46.0					47.9	51.0	78
	80	22.1	30.4	37.6	43.6	48.5	52.3				53.8	57.4	79
	90	22.4	30.8	38.3	44.8	50.3	54.8	58.4			59.6	63.7	80
	100	22.6	31.2	38.9	45.7	51.7	56.7	61.0	64.4		65.3	70.0	80
	40	23.7	31.2	35.6							35.9	37.0	72
	50	25.3	34.1	40.4	44.3						44.6	46.0	75
	60	26.3	35.8	43.2	48.8	52.4					52.6	54.5	77
20	70	26.9	36.9	45.1	51.7	56.7	60.2				60.2	62.6	78
	80	27.4	37.6	46.4	53.8	59.8	64.4				67.7	70.5	79
	90	27.7	38.2	47.4	55.3	62.1	67.6	71.9			75.0	78.3	80
	100	27.9	38.6	48.1	56.5	63.8	70.0	75.2	79.3		82.2	85.9	80
	50	30.7	41.3	48.9	53.6						54.4	55.6	75
	60	31.9	43.3	52.4	59.0	63.3					64.2	65.8	77
	70	32.7	44.7	54.6	62.6	68.6	72.7				73.6	75.5	78
22	80	33.2	45.6	56.2	65.1	72.3	77.9	81.8			82.7	85.0	79
	90	33.6	46.3	57.4	67.0	75.1	81.7	86.9	90.7		91.7	94.4	80
	100	33.9	46.8	58.2	68.4	77.2	84.7	90.9	95.8	99.5	100.5	103.5	80
	50	36.6	49.2	58.2	63.7						65.0	66.0	75
	60	38.0	51.7	62.4	70.2	75.3					76.8	78.1	77
	70	39.0	53.2	65.1	74.5	81.6	86.4				88.1	89.7	78
24	80	39.6	54.3	67.0	77.6	86.1	92.6	97.2			99.0	100.9	79
	90	40.1	55.1	68.4	79.8	89.4	97.2	103.4	107.8		109.8	112.0	80
	100	40.4	55.7	69.4	81.4	91.9	100.8	108.1	113.9	118.2	120.3	122.9	80
	50	43.0	57.8	68.3	74.8						76.6	77.4	75
	60	44.7	60.7	73.2	82.4	88.4					90.5	91.6	77
	70	45.8	62.6	76.4	87.5	95.8	101.4				103.7	105.1	78
26	80	46.6	63.9	78.7	91.1	101.0	108.7	114.0			116.6	118.2	79
	90	47.1	64.8	80.3	93.7	104.9	114.1	121.2	126.4		129.3	131.1	80
	100	47.5	65.5	81.5	95.6	107.9	118.3	126.8	133.6	138.6	141.7	143.9	80

[a] Includes 1.0-foot stump allowance.

Table 173--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 pecan (species 404) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.3									9.4	16.1	73
	30	9.0	12.4								14.3	18.5	77
	40	9.4	13.0	16.3							18.8	22.1	78
12	50	9.6	13.3	16.8	20.0	22.9					23.3	26.0	78
	60	9.7	13.5	17.1	20.5	23.7	26.6				27.6	30.0	79
	70	9.8	13.7	17.3	20.8	24.2	27.3	30.3			32.0	34.0	79
	80	9.9	13.8	17.5	21.1	24.5	27.8	30.9	33.9		36.3	38.2	79
	40	12.7	17.6	21.6							24.4	27.9	78
	50	13.0	18.0	22.5	26.3	29.5					29.9	32.8	78
	60	13.2	18.3	23.0	27.2	31.0	34.3				35.3	37.8	79
14	70	13.4	18.5	23.3	27.8	31.9	35.6	38.9			40.7	42.9	79
	80	13.5	18.7	23.6	28.2	32.5	36.5	40.2	43.5		46.0	48.0	79
	90	13.6	18.8	23.8	28.5	33.0	37.2	41.1	44.7	48.0	51.3	53.1	79
	100	13.6	18.9	23.9	28.7	33.3	37.6	41.8	45.6	49.2	56.6	58.3	79
	40	16.6	22.8	27.7							30.8	34.7	78
	50	17.0	23.5	29.1	33.7	37.2					37.6	40.7	78
	60	17.3	23.9	29.8	35.0	39.5	43.1				44.2	46.9	79
16	70	17.5	24.2	30.3	35.9	40.9	45.2	48.9			50.7	53.1	79
	80	17.6	24.4	30.7	36.5	41.8	46.6	50.9	54.6		57.2	59.4	79
	90	17.7	24.5	30.9	36.9	42.5	47.6	52.3	56.5	60.2	63.7	65.7	79
	100	17.8	24.6	31.1	37.2	43.0	48.4	53.4	58.0	62.1	70.1	71.9	79
	40	21.1	28.8	34.7							38.1	42.3	78
	50	21.6	29.7	36.5	42.0	45.9					46.3	49.7	78
	60	21.9	30.2	37.5	43.9	49.1	53.1				54.3	57.2	79
18	70	22.1	30.6	38.2	45.1	51.0	56.1	60.2			62.2	64.7	79
	80	22.3	30.8	38.7	45.9	52.3	58.1	63.0	67.2		70.0	72.3	79
	90	22.5	31.0	39.0	46.5	53.3	59.5	65.0	69.9	74.1	77.8	79.9	79
	100	22.6	31.2	39.3	46.9	54.0	60.6	66.5	72.0	76.8	85.5	87.5	79
	40	26.1	35.5	42.5							46.3	50.8	78
	50	26.7	36.6	44.9	51.3	55.7					56.0	59.7	78
	60	27.1	37.3	46.2	53.8	59.9	64.4				65.5	68.7	79
20	70	27.4	37.8	47.1	55.3	62.4	68.3	72.9			74.9	77.7	79
	80	27.6	38.1	47.7	56.4	64.1	70.9	76.7	81.3		84.3	86.7	79
	90	27.8	38.4	48.2	57.2	65.4	72.8	79.3	84.9	89.6	93.5	95.8	79
	100	27.9	38.6	48.5	57.8	66.3	74.2	81.3	87.6	93.2	102.7	104.8	79
	50	32.3	44.3	54.1	61.6	66.4					66.8	70.7	78
	60	32.8	45.1	55.8	64.7	71.8	76.8				78.0	81.4	79
	70	33.2	45.7	56.9	66.7	75.0	81.8	86.9			89.1	92.0	79
22	80	33.5	46.1	57.7	68.0	77.2	85.1	91.7	96.9		100.0	102.7	79
	90	33.7	46.5	58.2	69.0	78.8	87.5	95.1	101.5	106.8	110.9	113.3	79
	100	33.9	46.7	58.7	69.8	80.0	89.3	97.6	105.0	111.3	121.8	124.0	79
	50	38.5	52.7	64.3	72.9	78.3					78.6	82.8	78
	60	39.1	53.8	66.3	76.7	84.8	90.4				91.7	95.3	79
	70	39.6	54.4	67.7	79.1	88.8	96.6	102.3			104.6	107.7	79
24	80	39.9	55.0	68.6	80.8	91.5	100.7	108.2	114.0		117.3	120.2	79
	90	40.2	55.3	69.3	82.0	93.5	103.6	112.4	119.7	125.6	130.0	132.6	79
	100	40.4	55.6	69.8	82.9	94.9	105.8	115.5	124.0	131.2	142.6	145.0	79
	50	45.3	61.9	75.3	85.2	91.1					91.5	96.0	78
	60	46.0	63.1	77.8	89.8	99.0	105.2				106.6	110.4	79
	70	46.5	63.9	79.4	92.7	103.8	112.7	119.0			121.4	124.8	79
26	80	46.9	64.5	80.5	94.7	107.1	117.6	126.2	132.6		136.2	139.2	79
	90	47.2	65.0	81.3	96.1	109.4	121.1	131.2	139.5	146.0	150.8	153.5	79
	100	47.5	65.4	81.9	97.2	111.2	123.8	135.0	144.7	152.8	165.3	167.8	79

[a] Includes 1.0-foot stump allowance.

Table 174--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for pecan (species 404) South-wide[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	0.8	0.9	1.3	1.6	1.8											
6	1.7	1.9	2.2	2.6	2.9	3.2	3.5	3.8									
7	2.2	2.7	3.2	3.8	4.3	4.7	5.2	5.6	6.0	6.4							
8	2.7	3.6	4.3	5.0	5.7	6.3	6.9	7.5	8.1	8.6	9.1	9.7					
9	3.5	4.6	5.6	6.5	7.4	8.2	9.0	9.7	10.4	11.2	11.8	12.5	13.2	13.8			
10	4.4	5.7	6.9	8.1	9.2	10.2	11.2	12.2	13.1	14.0	14.8	15.7	16.5	17.4	18.2	19.0	
11	5.3	6.9	8.5	9.9	11.2	12.5	13.7	14.9	16.0	17.1	18.1	19.2	20.2	21.2	22.2	23.2	24.2
12	6.4	8.3	10.1	11.9	13.5	15.0	16.4	17.8	19.2	20.5	21.8	23.0	24.2	25.5	26.7	27.9	29.0
13	7.5	9.8	12.0	14.0	15.9	17.7	19.4	21.0	22.6	24.2	25.7	27.2	28.6	30.1	31.5	32.9	34.3
14	8.8	11.4	13.9	16.3	18.5	20.6	22.6	24.5	26.3	28.1	29.9	31.6	33.3	35.0	36.7	38.3	39.9
15	10.1	13.1	16.0	18.8	21.3	23.7	26.0	28.2	30.3	32.4	34.5	36.4	38.4	40.3	42.3	44.1	46.0
16	11.5	15.0	18.3	21.4	24.3	27.0	29.7	32.2	34.6	37.0	39.3	41.6	43.8	46.0	48.2	50.4	52.5

[a] Includes 0.5-foot stump allowance.

Table 175--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 pecan (species 404) South-wide[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	1.8	2.1	2.6	3.0	3.5											
6	1.7	2.2	2.8	3.4	4.0	4.6	5.1	5.6									
7	2.0	2.9	3.7	4.5	5.2	5.9	6.6	7.2	7.9	8.5							
8	2.5	3.7	4.7	5.7	6.6	7.5	8.3	9.1	9.9	10.7	11.4	12.2					
9	3.2	4.6	5.9	7.1	8.2	9.3	10.3	11.2	12.2	13.2	14.1	15.0	15.9	16.8			
10	4.0	5.7	7.2	8.7	10.0	11.3	12.5	13.6	14.8	15.9	17.0	18.1	19.2	20.3	21.4	22.4	
11	4.8	6.8	8.7	10.4	12.0	13.5	14.9	16.3	17.7	19.0	20.3	21.6	22.9	24.2	25.5	26.7	28.0
12	5.7	8.1	10.3	12.3	14.1	15.9	17.6	19.2	20.8	22.4	23.9	25.4	26.9	28.4	29.9	31.4	32.8
13	6.7	9.5	12.0	14.4	16.5	18.5	20.5	22.4	24.2	26.1	27.8	29.6	31.3	33.1	34.8	36.5	38.2
14	7.8	11.0	13.9	16.6	19.1	21.4	23.7	25.8	28.0	30.0	32.1	34.1	36.1	38.1	40.0	42.0	43.9
15	9.0	12.6	16.0	19.0	21.8	24.5	27.1	29.5	31.9	34.3	36.6	38.9	41.2	43.5	45.7	47.9	50.1
16	10.2	14.4	18.1	21.6	24.8	27.8	30.7	33.5	36.2	38.9	41.5	44.1	46.7	49.2	51.7	54.2	56.7

[a] Includes 0.5-foot stump allowance.

Table 176--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 ash (species 541) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										6.4	9.1	55
	50	8.1									9.4	12.4	65
	60	8.7	11.6								11.7	15.5	71
12	70	9.1	12.3								13.7	18.3	75
	80	9.3	12.8								15.6	20.9	77
	90	9.5	13.2	16.4							17.3	23.5	78
	100	9.6	13.4	16.8							19.0	25.9	79
	40	9.6									11.1	12.5	55
	50	11.1	14.3								15.1	17.1	65
	60	11.9	15.8								18.6	21.2	71
14	70	12.4	16.9	20.4							21.8	25.1	75
	80	12.8	17.5	21.5	24.7						24.9	28.7	77
	90	13.0	18.0	22.3	25.9						27.8	32.3	78
	100	13.2	18.3	22.9	26.9	30.1					30.6	35.7	79
	50	14.5	18.7								20.9	22.5	65
	60	15.6	20.8	24.6							25.8	27.9	71
	70	16.3	22.1	26.7	30.1						30.3	33.0	75
16	80	16.8	23.0	28.2	32.3						34.5	37.8	77
	90	17.1	23.6	29.3	34.0	37.6					38.6	42.4	78
	100	17.3	24.0	30.0	35.2	39.4	42.5				42.6	46.9	79
	110	17.5	24.4	30.6	36.1	40.8	44.5				46.4	51.3	80
	50	18.4	23.7	27.1							27.2	28.6	65
	60	19.9	26.4	31.2							33.6	35.5	71
	70	20.7	28.0	33.9	38.1						39.5	41.9	75
18	80	21.3	29.2	35.8	41.0	44.6					45.1	48.0	77
	90	21.7	29.9	37.1	43.1	47.6					50.5	53.9	78
	100	22.0	30.5	38.1	44.6	49.9	53.9				55.7	59.6	79
	110	22.2	30.9	38.8	45.8	51.7	56.4	60.0			60.8	65.2	80
	50	22.8	29.4	33.5							34.1	35.4	65
	60	24.6	32.6	38.6	42.2						42.2	44.0	71
	70	25.7	34.7	42.0	47.2						49.8	51.9	75
20	80	26.4	36.1	44.3	50.7	55.2					56.8	59.4	77
	90	26.9	37.0	45.9	53.3	58.9	62.8				63.7	66.7	78
	100	27.2	37.8	47.1	55.2	61.7	66.7	70.1			70.3	73.8	79
	110	27.5	38.3	48.0	56.6	63.9	69.8	74.1			76.8	80.7	80
	60	29.8	39.5	46.8	51.1						51.8	53.3	71
	70	31.2	42.1	50.9	57.2	60.9					61.0	62.9	75
	80	32.0	43.7	53.6	61.4	66.8					69.7	72.1	77
22	90	32.6	44.9	55.6	64.5	71.4	76.0				78.1	80.9	78
	100	33.0	45.8	57.1	66.8	74.8	80.8	84.9			86.3	89.4	79
	110	33.4	46.4	58.2	68.6	77.4	84.5	89.8	93.5		94.3	97.8	80
	60	35.6	47.1	55.8	60.9						62.1	63.6	71
	70	37.2	50.1	60.6	68.1	72.5					73.3	75.0	75
	80	38.2	52.1	63.9	73.2	79.6	83.5				83.8	85.9	77
24	90	38.9	53.5	66.3	76.9	85.0	90.6				93.9	96.4	78
	100	39.4	54.6	68.0	79.6	89.1	96.2	101.1			103.7	106.6	79
	110	39.8	55.3	69.4	81.7	92.2	100.7	107.0	111.4		113.4	116.6	80
	60	41.9	55.4	65.6	71.6						73.4	74.7	71
	70	43.7	58.9	71.2	80.0	85.2					86.6	88.2	75
	80	44.9	61.3	75.1	86.0	93.5	98.1				99.0	101.0	77
26	90	45.8	62.9	77.9	90.3	99.9	106.4	110.4			111.0	113.3	78
	100	46.4	64.1	80.0	93.5	104.6	113.0	118.8	122.4		122.6	125.3	79
	110	46.8	65.0	81.5	96.0	108.3	118.2	125.6	130.8		134.0	137.0	80

[a] Includes 1.0-foot stump allowance.

Table 177--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 ash (species 541) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.6									8.1	10.1	63
	40	8.6									10.7	14.0	71
	50	9.1	12.3								12.9	17.4	75
	60	9.4	12.8								14.9	20.7	77
	70	9.5	13.1	16.2							16.8	23.9	78
	80	9.6	13.3	16.6							18.7	27.0	79
	90	9.7	13.5	16.9	19.9						20.5	30.1	80
14	40	11.8	15.5								16.6	18.8	71
	50	12.5	16.8	20.0							20.4	23.4	75
	60	12.8	17.5	21.3							23.9	27.8	77
	70	13.0	17.9	22.1	25.6						27.2	32.0	78
	80	13.2	18.2	22.6	26.5	29.7					30.5	36.2	79
	90	13.3	18.4	23.0	27.1	30.7	33.6				33.7	40.3	80
	100	13.3	18.6	23.3	27.6	31.4	34.7				36.9	44.3	80
16	40	15.5	20.3								22.8	24.4	71
	50	16.3	22.0	26.2							28.2	30.4	75
	60	16.8	22.9	27.8	31.6						33.2	36.0	77
	70	17.1	23.5	28.9	33.4	36.9					38.0	41.5	78
	80	17.3	23.9	29.6	34.6	38.7	42.0				42.6	46.8	79
	90	17.4	24.1	30.1	35.4	40.0	43.8	46.9			47.2	52.0	80
	100	17.5	24.3	30.5	36.1	41.0	45.3	48.9			51.8	57.2	80
18	40	19.7	25.8	29.5							29.6	30.8	71
	50	20.8	27.9	33.1	36.6						36.6	38.3	75
	60	21.3	29.0	35.3	40.0						43.2	45.3	77
	70	21.7	29.8	36.6	42.2	46.6					49.5	52.1	78
	80	21.9	30.3	37.5	43.8	48.9	53.0				55.6	58.8	79
	90	22.1	30.6	38.2	44.9	50.6	55.4	59.3			61.7	65.3	80
	100	22.2	30.9	38.7	45.7	51.9	57.2	61.8	65.5		67.7	71.8	80
20	40	24.4	31.9	36.4							37.0	37.9	71
	50	25.7	34.5	40.9	45.1						45.8	47.1	75
	60	26.4	35.9	43.6	49.4	53.3					54.0	55.7	77
	70	26.9	36.8	45.3	52.1	57.5	61.2				62.0	64.1	78
	80	27.2	37.4	46.4	54.0	60.3	65.3	69.0			69.8	72.2	79
	90	27.4	37.9	47.2	55.4	62.5	68.3	73.0	76.6		77.4	80.2	80
	100	27.5	38.2	47.8	56.5	64.1	70.6	76.1	80.6	84.1	84.9	88.2	80
22	50	31.2	41.8	49.6	54.6						55.8	56.9	75
	60	32.1	43.6	52.8	59.8	64.5					65.9	67.3	77
	70	32.6	44.7	54.8	63.1	69.5	74.0				75.6	77.3	78
	80	33.0	45.4	56.2	65.4	73.0	79.0	83.3			85.1	87.1	79
	90	33.2	45.9	57.2	67.1	75.6	82.6	88.3	92.5		94.4	96.7	80
	100	33.4	46.3	58.0	68.4	77.5	85.4	92.0	97.4	101.5	103.7	106.3	80
24	50	37.2	49.8	59.0	64.9						66.7	67.6	75
	60	38.3	51.9	62.9	71.1	76.7					78.8	79.9	77
	70	38.9	53.2	65.3	75.1	82.7	88.0				90.4	91.8	78
	80	39.3	54.1	67.0	77.9	86.9	93.9	99.0			101.7	103.4	79
	90	39.6	54.7	68.2	79.9	90.0	98.3	105.0	109.9		112.9	114.8	80
	100	39.8	55.2	69.1	81.4	92.3	101.6	109.5	115.8	120.7	123.9	126.1	80
26	50	43.7	58.5	69.3	76.2						78.5	79.3	75
	60	45.0	61.0	73.8	83.5	90.0					92.7	93.7	77
	70	45.7	62.6	76.7	88.2	97.0	103.2				106.4	107.5	78
	80	46.2	63.6	78.7	91.5	102.0	110.2	116.1			119.7	121.1	79
	90	46.6	64.3	80.1	93.8	105.6	115.4	123.1	128.9	132.6	132.9	134.4	80
	100	46.8	64.9	81.1	95.6	108.3	119.3	128.4	135.8	141.4	145.9	147.6	80

[a] Includes 1.0-foot stump allowance.

Table 178--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 ash (species 541) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.9									10.0	19.2	73
	30	9.5	13.0								14.8	19.6	77
	40	9.7	13.4	16.8							19.3	22.6	78
12	50	9.8	13.6	17.2	20.4	23.4					23.7	26.2	79
	60	9.9	13.7	17.4	20.9	24.1	27.1				28.1	30.1	79
	70	9.9	13.8	17.5	21.1	24.5	27.7	30.7			32.4	34.1	80
	80	9.9	13.9	17.6	21.3	24.8	28.1	31.3	34.3		36.8	38.2	80
	40	13.1	18.1	22.2							25.1	28.8	78
	50	13.3	18.4	22.9	26.9	30.2					30.5	33.4	79
	60	13.4	18.6	23.3	27.7	31.6	34.9				36.0	38.3	79
14	70	13.4	18.7	23.6	28.2	32.4	36.2	39.5			41.4	43.3	80
	80	13.4	18.7	23.8	28.5	32.9	37.0	40.8	44.2		46.7	48.4	80
	90	13.5	18.8	23.9	28.7	33.3	37.6	41.6	45.4	48.7	52.1	53.6	80
	100	13.5	18.8	24.0	28.9	33.6	38.0	42.3	46.2	49.9	57.4	58.7	80
	40	17.2	23.5	28.5							31.7	36.0	78
	50	17.3	23.9	29.6	34.4	38.1					38.4	41.7	79
	60	17.4	24.2	30.2	35.6	40.2	43.9				45.1	47.7	79
16	70	17.5	24.3	30.6	36.3	41.5	46.0	49.8			51.7	53.9	80
	80	17.5	24.4	30.8	36.8	42.3	47.3	51.7	55.5		58.2	60.1	80
	90	17.6	24.5	31.0	37.2	42.9	48.2	53.0	57.4	61.3	64.8	66.5	80
	100	17.6	24.5	31.2	37.4	43.3	48.9	54.0	58.8	63.1	71.4	72.8	80
	40	21.7	29.6	35.7							39.3	44.2	78
	50	21.9	30.2	37.3	42.9	47.0					47.4	51.1	79
	60	22.1	30.5	38.1	44.6	50.0	54.2				55.4	58.4	79
18	70	22.1	30.7	38.6	45.6	51.8	57.1	61.4			63.4	65.9	80
	80	22.2	30.9	38.9	46.3	53.0	58.9	64.1	68.4		71.3	73.5	80
	90	22.2	31.0	39.2	46.8	53.8	60.2	66.0	71.1	75.4	79.2	81.1	80
	100	22.3	31.0	39.3	47.1	54.4	61.2	67.4	73.1	78.1	87.2	88.8	80
	40	26.9	36.5	43.8							47.7	53.3	78
	50	27.1	37.3	45.8	52.5	57.0					57.4	61.6	79
	60	27.3	37.7	46.9	54.7	61.1	65.8				67.0	70.3	79
20	70	27.4	37.9	47.5	56.0	63.4	69.6	74.3			76.5	79.3	80
	80	27.4	38.1	48.0	56.9	64.9	72.0	78.0	82.9		86.0	88.4	80
	90	27.5	38.2	48.3	57.5	66.0	73.7	80.5	86.4	91.3	95.4	97.5	80
	100	27.5	38.3	48.5	58.0	66.9	75.0	82.4	89.0	94.9	104.8	106.7	80
	50	32.9	45.1	55.2	63.1	68.1					68.5	73.2	79
	60	33.0	45.6	56.6	65.8	73.2	78.5				79.8	83.5	79
	70	33.2	45.9	57.4	67.5	76.2	83.3	88.7			91.0	94.1	80
22	80	33.2	46.1	58.0	68.7	78.2	86.4	93.4	98.8		102.2	104.8	80
	90	33.3	46.3	58.4	69.5	79.6	88.6	96.6	103.4	108.9	113.3	115.6	80
	100	33.3	46.4	58.7	70.1	80.6	90.3	99.0	106.7	113.4	124.4	126.4	80
	50	39.2	53.7	65.6	74.7	80.3					80.7	85.9	79
	60	39.4	54.3	67.2	78.1	86.6	92.5				93.9	98.0	79
	70	39.5	54.7	68.2	80.1	90.3	98.4	104.5			106.9	110.3	80
24	80	39.6	54.9	68.9	81.5	92.7	102.3	110.2	116.4		119.9	122.9	80
	90	39.7	55.1	69.4	82.5	94.4	105.0	114.2	122.0	128.2	132.9	135.4	80
	100	39.7	55.3	69.8	83.3	95.7	107.0	117.1	126.1	133.7	145.8	148.1	80
	50	46.0	63.0	76.9	87.3	93.6					94.0	99.7	79
	60	46.3	63.8	78.8	91.4	101.1	107.7				109.1	113.7	79
	70	46.4	64.2	80.1	93.9	105.5	114.9	121.6			124.2	128.0	80
26	80	46.5	64.5	80.9	95.5	108.5	119.5	128.6	135.4		139.2	142.5	80
	90	46.6	64.7	81.5	96.7	110.5	122.8	133.4	142.2	149.1	154.2	157.0	80
	100	46.7	64.9	81.9	97.6	112.1	125.2	136.9	147.1	155.8	169.1	171.6	80

[a] Includes 1.0-foot stump allowance.

Table 179--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 ash (species 541) South-wide[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	0.9	1.1	1.3	1.6	1.7											
6	1.3	1.9	2.1	2.5	2.8	3.1	3.5	3.7									
7	2.3	2.5	3.1	3.6	4.1	4.6	5.0	5.5	5.9	6.3							
8	2.9	3.3	4.1	4.8	5.5	6.1	6.8	7.4	7.9	8.5	9.0	9.6					
9	3.5	4.3	5.3	6.2	7.1	7.9	8.7	9.5	10.2	11.0	11.7	12.4	13.0	13.7			
10	4.2	5.3	6.6	7.7	8.8	9.9	10.9	11.9	12.8	13.7	14.6	15.5	16.3	17.2	18.0	18.9	
11	5.0	6.5	8.0	9.4	10.8	12.1	13.3	14.5	15.6	16.7	17.8	18.9	20.0	21.0	22.0	23.1	24.1
12	6.0	7.8	9.6	11.3	12.9	14.5	15.9	17.4	18.7	20.1	21.4	22.7	23.9	25.2	26.4	27.6	28.9
13	7.0	9.2	11.3	13.3	15.2	17.1	18.8	20.5	22.1	23.7	25.2	26.7	28.2	29.7	31.2	32.6	34.1
14	8.2	10.7	13.1	15.5	17.7	19.9	21.9	23.8	25.7	27.6	29.4	31.2	32.9	34.6	36.3	38.0	39.7
15	9.4	12.3	15.1	17.9	20.4	22.9	25.2	27.5	29.6	31.8	33.8	35.9	37.9	39.9	41.8	43.8	45.7
16	10.8	14.0	17.3	20.4	23.3	26.1	28.8	31.3	33.8	36.2	38.6	40.9	43.2	45.5	47.7	49.9	52.1

[a] Includes 0.5-foot stump allowance.

Table 180--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 ash (species 541) South-wide[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	2.0	2.3	2.7	3.1	3.6											
6	2.0	2.3	3.0	3.6	4.1	4.7	5.2	5.8									
7	2.3	3.0	3.9	4.6	5.4	6.1	6.7	7.4	8.0	8.7							
8	2.8	3.9	4.9	5.9	6.8	7.6	8.5	9.3	10.1	10.9	11.7	12.5					
9	3.4	4.8	6.1	7.3	8.4	9.4	10.5	11.5	12.4	13.4	14.4	15.3	16.2	17.2			
10	4.2	5.9	7.4	8.9	10.2	11.5	12.7	13.9	15.1	16.2	17.4	18.5	19.6	20.7	21.9	23.0	
11	5.1	7.1	8.9	10.6	12.2	13.7	15.2	16.6	18.0	19.4	20.7	22.1	23.4	24.7	26.0	27.3	28.6
12	6.0	8.4	10.6	12.6	14.4	16.2	17.9	19.6	21.2	22.8	24.4	25.9	27.5	29.0	30.6	32.1	33.6
13	7.1	9.8	12.4	14.7	16.8	18.9	20.9	22.8	24.7	26.5	28.4	30.2	32.0	33.8	35.5	37.3	39.1
14	8.2	11.4	14.3	17.0	19.5	21.8	24.1	26.3	28.5	30.6	32.7	34.8	36.8	38.9	40.9	42.9	44.9
15	9.4	13.0	16.4	19.4	22.3	24.9	27.5	30.1	32.5	34.9	37.3	39.7	42.0	44.4	46.7	49.0	51.3
16	10.7	14.8	18.6	22.1	25.3	28.3	31.2	34.1	36.9	39.6	42.3	45.0	47.6	50.2	52.8	55.4	58.0

[a] Includes 0.5-foot stump allowance.

Table 181--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 green ash (species 544) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										4.8	8.5	52
	50	7.9									8.3	11.9	63
	60	8.7									10.9	14.9	70
12	70	9.2	12.3								13.1	17.8	74
	80	9.5	12.9								15.1	20.4	76
	90	9.7	13.3	16.3							17.0	22.9	78
	100	9.8	13.6	16.8							18.7	25.4	79
	40	9.1									9.5	11.6	52
	50	10.8	13.8								13.9	16.3	63
	60	11.8	15.6								17.6	20.5	70
14	70	12.5	16.7	20.1							21.0	24.4	74
	80	12.9	17.5	21.4							24.0	28.0	76
	90	13.2	18.1	22.2	25.7						27.0	31.5	78
	100	13.4	18.5	22.9	26.7	29.7					29.7	34.8	79
	50	14.1	18.0								19.5	21.4	63
	60	15.5	20.4	23.9							24.5	26.9	70
	70	16.3	21.9	26.3							29.1	32.0	74
16	80	16.9	22.9	27.9	31.8						33.4	36.7	76
	90	17.3	23.6	29.1	33.5	36.9					37.4	41.3	78
	100	17.5	24.2	30.0	34.9	38.8					41.3	45.7	79
	110	17.8	24.6	30.6	35.9	40.3	43.8				45.1	50.0	80
	50	17.9	22.8								25.5	27.1	63
	60	19.6	25.8	30.3							32.1	34.1	70
	70	20.7	27.7	33.3	37.2						38.1	40.6	74
18	80	21.4	29.0	35.4	40.3	43.6					43.7	46.7	76
	90	21.9	29.9	36.8	42.5	46.7					49.0	52.5	78
	100	22.2	30.6	37.9	44.2	49.2	52.9				54.2	58.1	79
	110	22.5	31.1	38.8	45.5	51.1	55.5	58.8			59.2	63.6	80
	50	22.1	28.2	32.0							32.1	33.6	63
	60	24.2	31.9	37.5							40.4	42.3	70
	70	25.6	34.3	41.1	46.0						48.0	50.2	74
20	80	26.5	35.9	43.7	49.7	53.8					55.1	57.7	76
	90	27.1	37.0	45.5	52.5	57.8	61.3				61.8	64.9	78
	100	27.5	37.8	46.9	54.6	60.8	65.3				68.4	71.9	79
	110	27.8	38.4	47.9	56.2	63.1	68.6	72.6			74.7	78.6	80
	60	29.4	38.6	45.4	49.3						49.5	51.2	70
	70	31.0	41.5	49.8	55.6						58.8	60.9	74
	80	32.1	43.4	52.9	60.2	65.2					67.5	70.0	76
22	90	32.8	44.8	55.1	63.6	69.9	74.2				75.9	78.7	78
	100	33.3	45.8	56.8	66.1	73.6	79.1	82.9			83.9	87.1	79
	110	33.7	46.6	58.0	68.0	76.4	83.0	87.9	91.4		91.8	95.3	80
	60	35.0	46.0	54.0	58.7						59.5	61.0	70
	70	36.9	49.4	59.3	66.3	70.3					70.7	72.6	74
	80	38.2	51.7	63.0	71.7	77.6					81.2	83.4	76
24	90	39.1	53.4	65.7	75.7	83.3	88.4				91.2	93.8	78
	100	39.7	54.6	67.6	78.7	87.6	94.2	98.8			100.9	103.8	79
	110	40.2	55.5	69.1	81.0	91.0	98.8	104.7	108.8		110.3	113.6	80
	60	41.1	54.0	63.5	68.9						70.3	71.7	70
	70	43.4	58.1	69.7	77.8	82.5					83.5	85.3	74
	80	44.9	60.8	74.0	84.2	91.2	95.3				95.9	98.0	76
26	90	45.9	62.7	77.1	88.9	97.8	103.8	107.5			107.8	110.2	78
	100	46.7	64.1	79.4	92.4	102.9	110.6	115.9			119.2	121.9	79
	110	47.2	65.2	81.2	95.1	106.8	116.1	122.9	127.7		130.4	133.4	80

[a] Includes 1.0-foot stump allowance.

Table 182--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 green ash (species 544) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30										4.7	8.6	54
	40	8.3									9.2	12.9	67
	50	9.0									12.0	16.7	73
12	60	9.5	12.8								14.4	20.2	76
	70	9.7	13.3	16.3							16.7	23.5	78
	80	9.9	13.6	16.9							18.8	26.7	79
	90	10.0	13.9	17.3	20.3						20.8	29.9	80
	40	11.2	14.5								14.7	17.3	67
	50	12.3	16.3								19.0	22.3	73
	60	12.9	17.4	21.0							22.9	27.0	76
14	70	13.2	18.1	22.1	25.4						26.5	31.4	78
	80	13.5	18.5	22.9	26.6	29.7					30.0	35.7	79
	90	13.6	18.9	23.5	27.5	30.9					33.3	39.8	80
	100	13.8	19.1	23.9	28.1	31.8	35.0				36.6	43.9	81
	40	14.7	18.9								20.4	22.4	67
	50	16.1	21.3	25.2							26.3	28.8	73
	60	16.8	22.7	27.4	30.9						31.7	34.8	76
16	70	17.3	23.6	28.9	33.1	36.4					36.8	40.5	78
	80	17.6	24.2	29.9	34.7	38.6	41.6				41.6	46.0	79
	90	17.8	24.6	30.6	35.8	40.2	43.9				46.4	51.3	80
	100	18.0	24.9	31.2	36.7	41.5	45.6	49.0			51.0	56.6	81
	40	18.6	23.9								26.6	28.1	67
	50	20.4	27.0	31.8							34.3	36.2	73
	60	21.3	28.8	34.7	39.0						41.3	43.7	76
18	70	21.9	29.9	36.6	41.9	45.9					47.9	50.8	78
	80	22.3	30.7	37.9	43.9	48.7	52.5				54.3	57.6	79
	90	22.6	31.2	38.8	45.3	50.8	55.4	58.9			60.5	64.3	80
	100	22.8	31.6	39.5	46.4	52.4	57.6	61.8	65.2		66.5	70.9	81
	40	23.0	29.5	33.3							33.3	34.6	67
	50	25.2	33.4	39.2	42.9						42.9	44.5	73
	60	26.4	35.6	42.8	48.1	51.6					51.7	53.7	76
20	70	27.1	37.0	45.1	51.7	56.6	59.9				60.0	62.3	78
	80	27.6	37.9	46.7	54.1	60.1	64.7	67.9			68.0	70.7	79
	90	28.0	38.6	47.9	55.9	62.7	68.2	72.5	75.7		75.8	78.9	80
	100	28.2	39.1	48.7	57.3	64.7	71.0	76.2	80.3	83.4	83.4	86.9	81
	50	30.5	40.4	47.4	51.8						52.4	53.7	73
	60	32.0	43.1	51.8	58.2	62.3					63.1	64.7	76
	70	32.9	44.8	54.6	62.5	68.3	72.3				73.2	75.1	78
22	80	33.5	45.9	56.6	65.5	72.6	78.1	82.0			82.9	85.2	79
	90	33.9	46.7	58.0	67.7	75.8	82.4	87.6	91.4		92.4	95.0	80
	100	34.2	47.3	59.0	69.3	78.2	85.8	92.0	96.9	100.6	101.7	104.6	81
	50	36.3	48.1	56.5	61.5						62.6	63.7	73
	60	38.1	51.3	61.7	69.2	74.1					75.4	76.8	76
	70	39.2	53.3	65.0	74.3	81.2	85.9				87.5	89.1	78
24	80	39.9	54.7	67.4	77.9	86.4	92.8	97.3			99.1	101.0	79
	90	40.4	55.6	69.0	80.5	90.2	98.0	104.1	108.5		110.5	112.6	80
	100	40.7	56.3	70.3	82.5	93.1	102.0	109.4	115.2	119.5	121.6	124.1	81
	50	42.7	56.5	66.3	72.2						73.7	74.6	73
	60	44.7	60.3	72.4	81.2	86.8					88.7	89.9	76
	70	46.0	62.6	76.4	87.2	95.3	100.7				102.9	104.3	78
26	80	46.8	64.2	79.1	91.4	101.3	108.8	114.1			116.6	118.2	79
	90	47.4	65.4	81.0	94.5	105.8	115.0	122.0	127.1		130.0	131.8	80
	100	47.8	66.2	82.5	96.8	109.2	119.7	128.2	135.0	140.0	143.1	145.2	81

[a] Includes 1.0-foot stump allowance.

Table 183--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 green ash (species 544) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.3									9.4	16.2	70
	30	8.4	11.2								13.0	17.3	68
	40	8.6	11.4	14.1							16.5	19.8	67
12	50	8.7	11.5	14.2	17.0	19.7					20.1	22.8	66
	60	8.8	11.6	14.3	17.1	19.8	22.5				23.5	25.8	66
	70	8.9	11.7	14.4	17.1	19.8	22.6	25.3			27.0	29.0	66
	80	9.0	11.7	14.4	17.2	19.9	22.6	25.3	28.1		30.4	32.3	66
	40	11.6	15.3	18.6							21.2	24.7	67
	50	11.8	15.5	18.9	22.1	25.1					25.4	28.3	66
	60	12.0	15.6	19.1	22.5	25.6	28.6				29.6	32.0	66
14	70	12.1	15.7	19.3	22.7	25.9	29.0	32.0			33.7	35.9	66
	80	12.2	15.8	19.4	22.8	26.2	29.4	32.5	35.4		37.9	39.8	66
	90	12.2	15.9	19.5	22.9	26.3	29.6	32.8	35.9	38.8	42.0	43.7	66
	100	12.3	15.9	19.5	23.0	26.4	29.8	33.0	36.2	39.2	46.1	47.7	66
	40	15.2	19.8	23.8							26.6	30.4	67
	50	15.4	20.1	24.4	28.1	31.3					31.6	34.7	66
	60	15.6	20.3	24.7	28.7	32.4	35.6				36.6	39.2	66
16	70	15.8	20.5	24.9	29.1	33.0	36.5	39.8			41.6	43.8	66
	80	15.9	20.6	25.1	29.4	33.4	37.2	40.7	43.9		46.5	48.5	66
	90	15.9	20.7	25.2	29.6	33.7	37.7	41.4	44.8	48.1	51.4	53.2	66
	100	16.0	20.8	25.3	29.8	34.0	38.0	41.9	45.5	49.0	56.2	57.9	66
	40	19.2	25.0	29.7							32.7	36.8	67
	50	19.5	25.4	30.5	34.9	38.3					38.7	42.0	66
	60	19.8	25.7	31.1	35.8	40.0	43.5				44.6	47.4	66
18	70	19.9	25.9	31.4	36.4	41.0	45.1	48.6			50.4	52.9	66
	80	20.1	26.0	31.6	36.9	41.7	46.1	50.1	53.6		56.2	58.4	66
	90	20.2	26.2	31.8	37.2	42.2	46.8	51.1	55.1	58.6	62.0	64.0	66
	100	20.3	26.3	32.0	37.4	42.5	47.4	51.9	56.1	60.0	67.8	69.6	66
	40	23.7	30.8	36.2							39.5	43.9	67
	50	24.1	31.3	37.5	42.5	46.2					46.6	50.1	66
	60	24.4	31.7	38.2	43.8	48.6	52.4				53.5	56.5	66
20	70	24.6	31.9	38.6	44.6	50.0	54.6	58.4			60.4	63.0	66
	80	24.8	32.1	38.9	45.2	50.9	56.0	60.6	64.4		67.2	69.5	66
	90	24.9	32.3	39.2	45.6	51.6	57.1	62.1	66.5	70.4	74.0	76.0	66
	100	25.0	32.4	39.4	46.0	52.1	57.9	63.2	68.0	72.4	80.7	82.6	66
	50	29.2	37.9	45.1	50.9	55.0					55.3	59.1	66
	60	29.6	38.3	46.0	52.6	58.1	62.2				63.4	66.6	66
	70	29.8	38.6	46.6	53.7	59.9	65.2	69.4			71.4	74.1	66
22	80	30.0	38.9	47.0	54.5	61.1	67.1	72.2	76.4		79.3	81.7	66
	90	30.2	39.1	47.3	55.0	62.0	68.4	74.1	79.1	83.4	87.2	89.4	66
	100	30.3	39.2	47.6	55.4	62.7	69.4	75.6	81.2	86.1	95.0	97.0	66
	50	34.8	45.0	53.5	60.1	64.5					64.9	68.9	66
	60	35.2	45.6	54.6	62.3	68.5	73.0				74.2	77.6	66
	70	35.5	46.0	55.4	63.7	70.8	76.7	81.3			83.4	86.4	66
24	80	35.8	46.3	55.9	64.6	72.4	79.1	84.9	89.5		92.5	95.1	66
	90	36.0	46.5	56.3	65.3	73.5	80.9	87.4	93.0	97.7	101.6	104.0	66
	100	36.1	46.7	56.6	65.8	74.3	82.1	89.2	95.6	101.1	110.7	112.8	66
	50	40.8	52.8	62.6	70.1	75.0					75.3	79.6	66
	60	41.4	53.5	64.0	72.8	79.8	84.7				86.0	89.6	66
	70	41.7	54.0	64.9	74.5	82.6	89.3	94.3			96.5	99.6	66
26	80	42.0	54.3	65.5	75.6	84.5	92.3	98.7	103.8		107.0	109.7	66
	90	42.3	54.6	66.0	76.5	85.9	94.4	101.8	108.1	113.2	117.4	119.8	66
	100	42.4	54.8	66.4	77.1	87.0	96.0	104.1	111.2	117.4	127.7	130.0	66

[a] Includes 1.0-foot stump allowance.

Table 184--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for green ash (species 544) South-wide[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	1.0	1.0	1.1	1.2	1.4	1.7											
6	1.3	1.5	1.9	2.4	2.8	3.1	3.5	3.8									
7	1.7	2.5	2.9	3.5	4.0	4.5	5.0	5.4	5.9	6.3							
8	2.2	3.1	3.9	4.7	5.4	6.0	6.7	7.3	7.8	8.4	8.9	9.5					
9	2.9	4.0	5.0	5.9	6.9	7.7	8.5	9.3	10.1	10.8	11.5	12.2	12.9	13.5			
10	4.0	4.9	6.2	7.4	8.5	9.6	10.6	11.6	12.6	13.5	14.4	15.2	16.1	16.9	17.7	18.6	
11	4.7	6.0	7.5	9.0	10.4	11.7	12.9	14.1	15.3	16.4	17.5	18.6	19.6	20.6	21.7	22.7	23.6
12	5.5	7.2	9.0	10.7	12.4	14.0	15.5	16.9	18.3	19.6	20.9	22.2	23.5	24.7	25.9	27.1	28.3
13	6.4	8.4	10.6	12.7	14.6	16.5	18.2	19.9	21.6	23.1	24.7	26.2	27.7	29.1	30.6	32.0	33.4
14	7.4	9.8	12.3	14.7	17.0	19.2	21.2	23.2	25.1	26.9	28.7	30.5	32.2	33.9	35.6	37.2	38.9
15	8.5	11.3	14.2	16.9	19.6	22.0	24.4	26.7	28.9	31.0	33.1	35.1	37.1	39.0	40.9	42.8	44.7
16	9.7	12.9	16.1	19.3	22.3	25.1	27.8	30.4	32.9	35.3	37.7	40.0	42.3	44.5	46.7	48.8	51.0

[a] Includes 0.5-foot stump allowance.

Table 185--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 green ash (species 544) South-wide[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	1.9	2.3	2.6	2.9	3.3	3.7											
6	2.1	2.5	2.9	3.5	4.1	4.7	5.3	5.9									
7	2.5	2.9	3.5	4.4	5.2	6.0	6.7	7.4	8.1	8.8							
8	2.9	3.3	4.4	5.5	6.5	7.5	8.4	9.2	10.1	10.9	11.8	12.6					
9	3.3	4.0	5.4	6.7	8.0	9.1	10.2	11.3	12.3	13.4	14.4	15.4	16.3	17.3			
10	3.9	4.9	6.5	8.1	9.6	11.0	12.3	13.6	14.9	16.1	17.3	18.5	19.6	20.8	21.9	23.0	
11	4.5	5.8	7.8	9.7	11.4	13.1	14.7	16.2	17.7	19.1	20.5	21.9	23.3	24.6	26.0	27.3	28.6
12	5.2	6.8	9.2	11.4	13.4	15.4	17.2	19.0	20.7	22.4	24.1	25.7	27.3	28.9	30.4	32.0	33.6
13	5.9	8.0	10.7	13.2	15.6	17.9	20.0	22.1	24.1	26.0	27.9	29.8	31.7	33.5	35.3	37.1	38.9
14	6.7	9.2	12.3	15.3	18.0	20.6	23.1	25.4	27.7	29.9	32.1	34.3	36.4	38.5	40.6	42.6	44.7
15	7.5	10.5	14.1	17.4	20.6	23.5	26.3	29.0	31.6	34.1	36.6	39.1	41.5	43.9	46.2	48.6	50.9
16	8.4	11.9	16.0	19.8	23.3	26.6	29.8	32.8	35.8	38.6	41.4	44.2	46.9	49.6	52.3	54.9	57.5

[a] Includes 0.5-foot stump allowance.

Table 186--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										5.0	9.4	58
	50	8.3									9.7	13.0	69
	60	9.1	12.3								12.5	16.3	74
12	70	9.5	13.1								14.8	19.3	78
	80	9.9	13.7								16.9	22.1	80
	90	10.1	14.1	17.6							18.9	24.9	81
	100	10.3	14.4	18.1							20.7	27.5	83
	40	9.6									11.0	12.8	58
	50	11.3	14.9								15.5	17.9	69
	60	12.3	16.7								19.4	22.4	74
14	70	13.0	17.9	21.8							22.8	26.5	78
	80	13.4	18.6	23.1							26.0	30.4	80
	90	13.7	19.2	24.0	27.8						29.1	34.1	81
	100	14.0	19.6	24.7	28.9						32.1	37.8	83
	50	14.8	19.5								21.4	23.4	69
	60	16.1	21.9	26.0							26.7	29.3	74
	70	17.0	23.4	28.5							31.6	34.8	78
16	80	17.6	24.4	30.2	34.5						36.1	39.9	80
	90	18.0	25.1	31.3	36.4	40.1					40.4	44.8	81
	100	18.3	25.6	32.2	37.8	42.2					44.6	49.6	83
	110	18.5	26.0	32.9	38.9	43.8	47.6				48.7	54.2	83
	50	18.7	24.7								28.0	29.8	69
	60	20.5	27.7	33.0							34.9	37.3	74
	70	21.5	29.6	36.1	40.4						41.3	44.2	78
18	80	22.3	30.9	38.2	43.7						47.3	50.7	80
	90	22.8	31.8	39.7	46.1	50.7					53.0	56.9	81
	100	23.1	32.4	40.8	47.9	53.4	57.4				58.5	63.0	83
	110	23.4	32.9	41.6	49.2	55.5	60.2	63.8			63.9	68.9	83
	50	23.2	30.5	35.0							35.2	36.8	69
	60	25.3	34.2	40.7							44.0	46.1	74
	70	26.6	36.6	44.6	49.9						52.1	54.6	78
20	80	27.5	38.1	47.2	54.0	58.4					59.6	62.7	80
	90	28.1	39.3	49.0	56.9	62.6	66.5				66.9	70.4	81
	100	28.6	40.1	50.4	59.1	65.9	70.9				73.9	77.9	83
	110	28.9	40.7	51.4	60.8	68.5	74.4	78.8			80.8	85.2	83
	60	30.6	41.4	49.3	53.7						54.0	55.9	74
	70	32.2	44.3	53.9	60.4						63.9	66.2	78
	80	33.3	46.2	57.1	65.3	70.8					73.2	76.0	80
22	90	34.1	47.5	59.4	68.9	75.8	80.5				82.1	85.3	81
	100	34.6	48.5	61.0	71.6	79.8	85.8	89.9			90.8	94.4	83
	110	35.0	49.3	62.3	73.6	82.9	90.1	95.3	99.1		99.2	103.3	83
	60	36.5	49.3	58.7	63.9						64.8	66.6	74
	70	38.4	52.7	64.2	71.9	76.4					76.8	78.9	78
	80	39.7	55.0	68.0	77.8	84.2					88.0	90.5	80
24	90	40.6	56.6	70.7	82.0	90.3	95.9				98.7	101.7	81
	100	41.2	57.8	72.7	85.2	95.0	102.1	107.1			109.2	112.5	83
	110	41.7	58.7	74.1	87.7	98.7	107.2	113.5	117.9		119.4	123.1	83
	60	42.8	57.9	68.9	75.1						76.6	78.2	74
	70	45.1	61.9	75.4	84.5	89.7					90.7	92.7	78
	80	46.6	64.6	79.9	91.3	98.9	103.4				104.0	106.3	80
26	90	47.7	66.5	83.0	96.3	106.0	112.6	116.6			116.7	119.4	81
	100	48.4	67.8	85.3	100.1	111.5	119.9	125.7			129.1	132.1	83
	110	49.0	68.9	87.0	102.9	115.9	125.9	133.3	138.4		141.1	144.6	83

[a] Includes 1.0-foot stump allowance.

Table 187--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.1									8.7	11.0	70
	40	9.1									11.4	15.0	76
	50	9.6	13.1								13.7	18.6	79
	60	9.9	13.6								15.9	22.0	80
	70	10.1	13.9	17.2							17.8	25.4	81
	80	10.2	14.1	17.6							19.8	28.6	82
	90	10.3	14.3	17.9	21.1						21.6	31.8	82
14	40	12.4	16.5								17.7	20.2	76
	50	13.0	17.8	21.3							21.6	25.0	79
	60	13.4	18.5	22.6							25.2	29.5	80
	70	13.7	18.9	23.4	27.1						28.7	33.9	81
	80	13.9	19.2	24.0	28.0	31.4					32.1	38.2	82
	90	14.0	19.5	24.4	28.7	32.4					35.4	42.4	82
	100	14.1	19.6	24.7	29.2	33.2	36.7				38.6	46.6	82
16	40	16.2	21.6								24.3	26.1	76
	50	17.0	23.2	27.8							29.8	32.3	79
	60	17.6	24.1	29.5	33.5						35.0	38.1	80
	70	17.9	24.7	30.5	35.3	39.0					39.9	43.8	81
	80	18.1	25.1	31.3	36.5	40.8	44.3				44.8	49.3	82
	90	18.3	25.4	31.8	37.4	42.2	46.2	49.5			49.5	54.7	82
	100	18.4	25.6	32.2	38.1	43.2	47.7	51.5			54.2	60.1	82
18	40	20.5	27.3	31.5							31.5	32.9	76
	50	21.6	29.4	35.1							38.7	40.6	79
	60	22.3	30.6	37.2	42.3						45.5	47.9	80
	70	22.7	31.3	38.6	44.6	49.2					52.0	55.0	81
	80	23.0	31.8	39.6	46.1	51.6	55.9				58.4	61.9	82
	90	23.2	32.2	40.2	47.3	53.3	58.3	62.4			64.7	68.7	82
	100	23.3	32.5	40.7	48.1	54.6	60.2	65.0	68.8		70.9	75.4	82
20	40	25.3	33.7	38.8							39.4	40.5	76
	50	26.7	36.3	43.3	47.8						48.4	50.0	79
	60	27.5	37.7	46.0	52.2	56.4					57.0	58.9	80
	70	28.0	38.7	47.7	55.0	60.6	64.6				65.2	67.5	81
	80	28.4	39.3	48.8	56.9	63.6	68.8	72.6			73.2	76.0	82
	90	28.6	39.8	49.7	58.3	65.7	71.9	76.8	80.5		81.1	84.3	82
	100	28.8	40.1	50.3	59.4	67.4	74.3	80.0	84.7	88.3	88.9	92.5	82
22	50	32.3	43.9	52.4	57.8						59.0	60.3	79
	60	33.3	45.7	55.6	63.1	68.1					69.4	71.0	80
	70	33.9	46.8	57.7	66.5	73.2	78.0				79.5	81.4	81
	80	34.3	47.6	59.1	68.8	76.8	83.1	87.6			89.3	91.5	82
	90	34.7	48.2	60.1	70.6	79.5	86.9	92.8	97.1		98.9	101.5	82
	100	34.9	48.6	60.9	71.9	81.5	89.8	96.7	102.3	106.6	108.5	111.4	82
24	50	38.5	52.3	62.3	68.7						70.5	71.5	79
	60	39.7	54.4	66.2	75.0	80.9					83.0	84.3	80
	70	40.4	55.8	68.6	79.1	87.1	92.6				95.0	96.6	81
	80	40.9	56.7	70.3	81.9	91.4	98.8	104.1			106.7	108.6	82
	90	41.3	57.3	71.6	84.0	94.5	103.3	110.2	115.4		118.3	120.4	82
	100	41.5	57.8	72.5	85.5	96.9	106.7	114.9	121.5	126.5	129.7	132.1	82
26	50	45.2	61.4	73.2	80.6						82.9	83.8	79
	60	46.6	63.9	77.7	88.0	94.9					97.6	98.7	80
	70	47.5	65.5	80.6	92.8	102.1	108.6				111.7	113.1	81
	80	48.0	66.5	82.6	96.1	107.2	115.8	122.0			125.5	127.1	82
	90	48.5	67.3	84.0	98.5	110.9	121.1	129.2	135.2	139.1	139.1	140.9	82
	100	48.8	67.9	85.1	100.4	113.7	125.2	134.8	142.5	148.3	152.6	154.6	82

[a] Includes 1.0-foot stump allowance.

Table 188--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.5									9.7	15.3	74
	30	9.5	13.1								15.1	19.8	79
	40	9.9	13.8	17.4							20.1	24.6	80
12	50	10.2	14.2	17.9	21.4	24.6					25.0	29.4	81
	60	10.3	14.4	18.3	22.0	25.4	28.6				29.7	34.1	81
	70	10.4	14.5	18.5	22.3	25.9	29.4	32.6			34.4	38.8	82
	80	10.5	14.6	18.6	22.5	26.2	29.8	33.3	36.5		39.1	43.5	82
	40	13.4	18.6	23.1							26.2	29.9	80
	50	13.7	19.1	24.0	28.3	31.9					32.2	35.9	81
	60	13.9	19.4	24.5	29.2	33.4	37.0				38.2	41.8	81
14	70	14.0	19.6	24.8	29.8	34.3	38.4	42.1			44.1	47.7	82
	80	14.1	19.7	25.1	30.1	34.9	39.3	43.4	47.1		49.9	53.6	82
	90	14.2	19.8	25.2	30.4	35.3	40.0	44.4	48.4	52.1	55.8	59.4	82
	100	14.3	19.9	25.4	30.6	35.6	40.5	45.0	49.3	53.4	61.6	65.2	82
	40	17.5	24.2	29.7							33.1	36.4	80
	50	17.9	24.9	31.0	36.2	40.3					40.6	43.8	81
	60	18.1	25.2	31.7	37.6	42.6	46.8				48.0	51.1	81
16	70	18.3	25.5	32.2	38.4	44.0	49.0	53.2			55.3	58.4	82
	80	18.4	25.7	32.5	39.0	44.9	50.3	55.2	59.5		62.5	65.6	82
	90	18.5	25.8	32.8	39.4	45.5	51.3	56.6	61.5	65.7	69.6	72.8	82
	100	18.5	25.9	32.9	39.7	46.0	52.0	57.7	62.9	67.7	76.8	79.9	82
	40	22.1	30.5	37.1							41.1	43.9	80
	50	22.6	31.4	39.0	45.2	49.8					50.2	53.0	81
	60	22.9	31.9	40.0	47.1	53.1	57.8				59.1	61.9	81
18	70	23.1	32.2	40.6	48.2	55.0	60.9	65.7			67.9	70.7	82
	80	23.3	32.4	41.0	49.0	56.3	62.8	68.6	73.4		76.7	79.5	82
	90	23.4	32.6	41.3	49.5	57.2	64.2	70.6	76.3	81.2	85.4	88.2	82
	100	23.4	32.7	41.6	49.9	57.8	65.2	72.0	78.3	83.9	94.1	96.9	82
	40	27.3	37.6	45.5							50.0	52.5	80
	50	27.9	38.7	47.9	55.3	60.5					60.9	63.4	81
	60	28.3	39.3	49.2	57.7	64.8	70.2				71.6	74.1	81
20	70	28.5	39.7	50.0	59.2	67.3	74.2	79.7			82.1	84.6	82
	80	28.7	40.0	50.5	60.2	69.0	76.8	83.6	89.1		92.6	95.1	82
	90	28.8	40.2	50.9	60.9	70.1	78.6	86.2	92.8	98.4	103.0	105.5	82
	100	28.9	40.4	51.2	61.4	71.0	79.9	88.1	95.5	102.1	113.4	115.9	82
	50	33.8	46.7	57.7	66.4	72.3					72.7	75.0	81
	60	34.2	47.5	59.3	69.5	77.8	83.9				85.3	87.6	81
	70	34.5	48.0	60.3	71.3	81.0	89.0	95.2			97.8	100.1	82
22	80	34.7	48.4	61.0	72.6	83.0	92.2	100.1	106.4		110.2	112.5	82
	90	34.9	48.6	61.5	73.5	84.5	94.5	103.4	111.1	117.5	122.5	124.8	82
	100	35.0	48.8	61.9	74.2	85.6	96.2	105.8	114.5	122.1	134.8	137.1	82
	50	40.2	55.6	68.5	78.6	85.2					85.6	87.8	81
	60	40.7	56.5	70.5	82.4	92.0	98.8				100.4	102.6	81
	70	41.1	57.1	71.7	84.7	95.9	105.2	112.2			115.0	117.1	82
24	80	41.3	57.5	72.5	86.2	98.4	109.2	118.2	125.3		129.5	131.6	82
	90	41.5	57.9	73.1	87.3	100.3	112.0	122.3	131.2	138.4	143.9	146.0	82
	100	41.6	58.1	73.6	88.1	101.6	114.0	125.3	135.4	144.1	158.2	160.3	82
	50	47.2	65.2	80.3	91.9	99.3					99.7	101.7	81
	60	47.8	66.3	82.6	96.4	107.5	115.1				116.8	118.8	81
	70	48.2	67.0	84.1	99.1	112.1	122.8	130.7			133.7	135.7	82
26	80	48.5	67.5	85.1	101.0	115.2	127.6	137.9	146.0		150.4	152.4	82
	90	48.7	67.9	85.8	102.3	117.4	130.9	142.9	153.0	161.1	167.1	169.1	82
	100	48.9	68.2	86.3	103.3	119.0	133.4	146.5	158.1	168.0	183.7	185.6	82

[a] Includes 1.0-foot stump allowance.

Table 189--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) South-wide[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	0.8	1.0	1.1	1.4	1.9											
6	1.1	1.4	2.2	2.6	3.0	3.4	3.7	4.1									
7	1.6	2.5	3.2	3.8	4.3	4.8	5.3	5.8	6.3	6.7							
8	2.7	3.4	4.2	5.0	5.8	6.5	7.2	7.8	8.4	9.1	9.6	10.2					
9	3.3	4.3	5.4	6.5	7.5	8.4	9.2	10.1	10.9	11.7	12.4	13.2	13.9	14.6			
10	4.0	5.4	6.8	8.1	9.3	10.5	11.5	12.6	13.6	14.6	15.5	16.5	17.4	18.3	19.2	20.1	
11	4.9	6.6	8.3	9.8	11.3	12.7	14.1	15.4	16.6	17.8	19.0	20.1	21.2	22.4	23.4	24.5	25.6
12	5.8	7.9	9.9	11.8	13.6	15.2	16.9	18.4	19.9	21.3	22.7	24.1	25.4	26.8	28.1	29.4	30.7
13	6.9	9.3	11.6	13.9	16.0	18.0	19.9	21.7	23.4	25.1	26.8	28.4	30.0	31.6	33.1	34.7	36.2
14	8.0	10.8	13.5	16.1	18.6	20.9	23.1	25.2	27.3	29.2	31.2	33.1	34.9	36.7	38.5	40.3	42.1
15	9.2	12.4	15.6	18.6	21.4	24.1	26.6	29.0	31.4	33.6	35.9	38.0	40.2	42.3	44.4	46.4	48.5
16	10.5	14.1	17.8	21.2	24.4	27.4	30.3	33.1	35.8	38.4	40.9	43.4	45.8	48.2	50.6	52.9	55.3

[a] Includes 0.5-foot stump allowance.

Table 190--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) South-wide[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	2.0	2.5	3.0	3.5	3.9											
6	1.9	2.6	3.3	3.9	4.6	5.1	5.7	6.3									
7	2.4	3.4	4.3	5.1	5.9	6.6	7.3	8.0	8.7	9.4							
8	3.1	4.3	5.4	6.4	7.4	8.3	9.2	10.0	10.9	11.7	12.5	13.3					
9	3.8	5.3	6.7	7.9	9.1	10.2	11.3	12.3	13.4	14.4	15.4	16.4	17.3	18.3			
10	4.7	6.5	8.1	9.6	11.0	12.4	13.7	14.9	16.1	17.4	18.5	19.7	20.9	22.1	23.2	24.4	
11	5.7	7.8	9.8	11.5	13.2	14.8	16.3	17.8	19.2	20.7	22.1	23.5	24.8	26.2	27.6	28.9	30.3
12	6.8	9.3	11.5	13.6	15.5	17.4	19.2	20.9	22.6	24.3	25.9	27.6	29.2	30.8	32.4	34.0	35.5
13	7.9	10.8	13.5	15.9	18.1	20.3	22.3	24.3	26.3	28.2	30.1	32.0	33.9	35.7	37.6	39.4	41.2
14	9.2	12.5	15.5	18.3	20.9	23.4	25.7	28.0	30.3	32.5	34.7	36.8	39.0	41.1	43.2	45.3	47.4
15	10.5	14.3	17.8	20.9	23.9	26.7	29.4	32.0	34.6	37.1	39.6	42.0	44.4	46.9	49.3	51.7	54.0
16	12.0	16.3	20.2	23.8	27.1	30.2	33.3	36.2	39.1	42.0	44.8	47.6	50.3	53.0	55.7	58.4	61.1

[a] Includes 0.5-foot stump allowance.

Table 191--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 overcup oak (species 822) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	7.7									8.5	10.7	65
	50	8.5									10.3	13.5	70
	60	9.0									11.9	16.0	73
12	70	9.3	12.6								13.2	18.4	75
	80	9.5	13.0								14.5	20.7	76
	90	9.7	13.2								15.7	22.8	77
	100	9.8	13.4	16.7							16.8	25.0	78
	40	10.4									13.1	14.6	65
	50	11.5	15.3								16.2	18.4	70
	60	12.2	16.4								18.9	21.9	73
14	70	12.6	17.1	20.7							21.4	25.2	75
	80	12.9	17.6	21.6							23.7	28.3	76
	90	13.1	17.9	22.2	25.6						26.0	31.3	77
	100	13.3	18.2	22.6	26.4						28.2	34.3	78
	50	15.1	19.9								22.2	24.2	70
	60	15.9	21.4	25.4							26.2	28.8	73
	70	16.5	22.3	27.1							29.8	33.0	75
16	80	16.8	23.0	28.2	32.1						33.2	37.2	76
	90	17.1	23.4	28.9	33.5						36.5	41.1	77
	100	17.3	23.8	29.5	34.4	38.3					39.7	45.0	78
	110	17.5	24.0	30.0	35.2	39.5					42.9	48.8	78
	50	19.1	25.2								28.9	30.6	70
	60	20.1	27.1	32.2							34.2	36.5	73
	70	20.8	28.3	34.2	38.4						39.0	41.9	75
18	80	21.3	29.1	35.6	40.7						43.7	47.2	76
	90	21.6	29.6	36.6	42.3	46.6					48.1	52.2	77
	100	21.9	30.1	37.4	43.6	48.5	52.2				52.5	57.1	78
	110	22.1	30.4	37.9	44.5	50.0	54.3				56.7	62.0	78
	50	23.5	31.2	35.9							36.4	37.9	70
	60	24.9	33.4	39.8							43.1	45.1	73
	70	25.7	34.9	42.3	47.4						49.3	51.9	75
20	80	26.3	35.9	44.0	50.2	54.4					55.2	58.3	76
	90	26.7	36.6	45.2	52.3	57.5					60.9	64.6	77
	100	27.1	37.1	46.1	53.8	59.9	64.4				66.5	70.7	78
	110	27.3	37.5	46.8	55.0	61.8	67.1	71.0			72.0	76.7	78
	60	30.1	40.5	48.1	52.5						52.8	54.7	73
	70	31.1	42.3	51.2	57.4						60.5	62.9	75
	80	31.9	43.5	53.3	60.8	65.9					67.9	70.7	76
22	90	32.4	44.3	54.8	63.3	69.6	73.9				75.0	78.3	77
	100	32.8	45.0	55.9	65.1	72.5	78.0	81.7			81.9	85.7	78
	110	33.1	45.5	56.7	66.5	74.8	81.2	85.9			88.7	93.0	78
	60	35.9	48.2	57.3	62.5						63.4	65.2	73
	70	37.1	50.3	61.0	68.3	72.5					72.8	74.9	75
	80	37.9	51.8	63.4	72.4	78.4					81.6	84.3	76
24	90	38.6	52.8	65.2	75.4	82.9	88.0				90.2	93.3	77
	100	39.0	53.5	66.5	77.5	86.4	92.8	97.3			98.6	102.1	78
	110	39.4	54.1	67.5	79.2	89.0	96.7	102.3	106.3		106.9	110.8	78
	60	42.1	56.6	67.3	73.4						74.9	76.5	73
	70	43.6	59.1	71.6	80.2	85.2					86.0	88.0	75
	80	44.6	60.8	74.5	85.0	92.1	96.3				96.6	99.0	76
26	90	45.3	62.0	76.5	88.5	97.3	103.4				106.8	109.6	77
	100	45.8	62.9	78.1	91.1	101.4	109.0	114.2			116.8	120.0	78
	110	46.3	63.6	79.3	93.0	104.5	113.5	120.1	124.8		126.6	130.2	78

[a] Includes 1.0-foot stump allowance.

Table 192--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 overcup oak (species 822) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.9									8.5	10.6	68
	40	8.8									10.3	14.0	73
	50	9.2									11.9	17.1	75
	60	9.5	12.8								13.2	20.1	76
	70	9.7	13.1								14.5	22.9	77
	80	9.8	13.3								15.7	25.7	77
	90	9.9	13.5	16.7							16.9	28.5	78
14	40	11.9	15.7								16.1	18.8	73
	50	12.5	16.7								19.1	22.9	75
	60	12.8	17.4	21.0							21.9	26.8	76
	70	13.1	17.8	21.7							24.5	30.5	77
	80	13.2	18.0	22.2	25.7						27.0	34.2	77
	90	13.4	18.3	22.6	26.3	29.5					29.5	37.8	78
	100	13.5	18.4	22.9	26.8	30.3					32.0	41.4	78
16	40	15.5	20.4								22.3	24.3	73
	50	16.2	21.8	25.8							26.7	29.5	75
	60	16.7	22.6	27.3	30.7						30.8	34.5	76
	70	17.0	23.2	28.2	32.3						34.7	39.3	77
	80	17.2	23.5	28.9	33.5	37.1					38.6	44.0	77
	90	17.4	23.8	29.4	34.3	38.4	41.8				42.4	48.7	78
	100	17.5	24.0	29.8	34.9	39.4	43.2				46.1	53.3	78
18	40	19.5	25.8								28.9	30.5	73
	50	20.5	27.5	32.5							34.8	37.1	75
	60	21.1	28.6	34.4	38.8						40.4	43.3	76
	70	21.5	29.3	35.7	40.8	44.7					45.7	49.3	77
	80	21.8	29.8	36.6	42.2	46.8	50.4				50.9	55.2	77
	90	22.0	30.1	37.2	43.3	48.5	52.7	56.0			56.0	61.0	78
	100	22.2	30.4	37.7	44.1	49.7	54.4	58.4			61.0	66.7	78
20	40	24.1	31.8	36.1							36.2	37.5	73
	50	25.3	34.0	40.1							43.7	45.5	75
	60	26.1	35.3	42.5	47.7						50.8	53.1	76
	70	26.6	36.1	44.0	50.3	55.0					57.6	60.5	77
	80	26.9	36.7	45.1	52.1	57.7	62.0				64.2	67.7	77
	90	27.2	37.2	45.9	53.4	59.7	64.9	68.9			70.7	74.8	78
	100	27.4	37.5	46.5	54.4	61.3	67.1	71.9	75.7		77.1	81.7	78
22	50	30.7	41.1	48.5	53.0						53.4	54.9	75
	60	31.6	42.7	51.4	57.7	61.8					62.1	64.0	76
	70	32.2	43.7	53.3	60.8	66.4	70.2				70.4	72.9	77
	80	32.6	44.5	54.6	63.0	69.7	74.9	78.5			78.6	81.5	77
	90	32.9	45.0	55.5	64.6	72.2	78.4	83.2			86.6	90.0	78
	100	33.2	45.4	56.3	65.8	74.1	81.1	86.8	91.3		94.5	98.4	78
24	50	36.5	48.9	57.7	63.0						63.9	65.2	75
	60	37.6	50.8	61.1	68.6	73.4					74.3	76.0	76
	70	38.3	52.1	63.4	72.3	79.0	83.4				84.4	86.4	77
	80	38.8	52.9	65.0	74.9	82.9	89.0	93.2			94.2	96.6	77
	90	39.2	53.6	66.1	76.9	85.9	93.2	98.8	102.9		103.8	106.7	78
	100	39.5	54.0	67.0	78.3	88.1	96.4	103.1	108.5	112.4	113.4	116.6	78
26	50	42.9	57.5	67.7	73.8						75.2	76.3	75
	60	44.2	59.7	71.7	80.5	86.0					87.5	89.0	76
	70	45.0	61.1	74.4	84.9	92.6	97.8				99.4	101.2	77
	80	45.6	62.2	76.2	87.9	97.3	104.3	109.2			111.0	113.1	77
	90	46.1	62.9	77.6	90.2	100.7	109.2	115.8	120.5		122.4	124.8	78
	100	46.4	63.5	78.6	91.9	103.4	113.0	120.9	127.1	131.7	133.7	136.4	78

[a] Includes 1.0-foot stump allowance.

Table 193--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 overcup oak (species 822) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.6									9.8	13.8	74
	30	9.3	12.7								14.6	18.9	76
	40	9.6	13.2	16.5							19.1	23.8	77
	50	9.8	13.4	16.9	20.1	23.1					23.5	28.6	77
	60	9.9	13.6	17.2	20.5	23.7	26.8				27.8	33.3	77
	70	10.0	13.8	17.3	20.8	24.1	27.3	30.3			32.1	38.0	77
	80	10.1	13.8	17.5	21.0	24.4	27.7	30.8	33.9		36.4	42.6	78
14	40	12.9	17.6	21.6							24.5	28.5	77
	50	13.1	18.0	22.4	26.3	29.6					29.9	34.2	77
	60	13.3	18.3	22.9	27.1	30.8	34.1				35.3	39.8	77
	70	13.5	18.5	23.2	27.5	31.6	35.3	38.7			40.5	45.4	77
	80	13.6	18.6	23.4	27.9	32.1	36.1	39.8	43.1		45.8	50.9	78
	90	13.6	18.7	23.5	28.1	32.5	36.7	40.6	44.2	47.6	51.0	56.3	78
	100	13.7	18.8	23.6	28.3	32.8	37.1	41.1	45.0	48.6	56.2	61.8	78
16	40	16.7	22.8	27.7							30.8	34.3	77
	50	17.0	23.3	28.8	33.4	37.0					37.4	41.1	77
	60	17.3	23.7	29.5	34.6	39.1	42.7				43.9	47.8	77
	70	17.5	23.9	29.9	35.4	40.3	44.6	48.3			50.3	54.5	77
	80	17.6	24.1	30.2	35.9	41.1	45.9	50.1	53.9		56.6	61.1	78
	90	17.7	24.2	30.4	36.3	41.7	46.8	51.4	55.6	59.4	63.0	67.6	78
	100	17.8	24.4	30.6	36.6	42.2	47.4	52.4	56.9	61.1	69.3	74.1	78
18	40	21.0	28.6	34.5							38.0	41.1	77
	50	21.5	29.4	36.1	41.5	45.5					45.9	49.2	77
	60	21.8	29.8	37.0	43.2	48.4	52.5				53.7	57.2	77
	70	22.0	30.2	37.6	44.3	50.1	55.2	59.3			61.3	65.1	77
	80	22.2	30.4	38.0	45.0	51.3	57.0	61.9	66.1		69.0	72.9	78
	90	22.3	30.6	38.3	45.5	52.2	58.2	63.7	68.6	72.8	76.6	80.7	78
	100	22.4	30.7	38.6	45.9	52.8	59.2	65.1	70.4	75.2	84.1	88.5	78
20	40	25.9	35.2	42.1							46.0	48.8	77
	50	26.5	36.2	44.2	50.6	55.0					55.4	58.5	77
	60	26.9	36.8	45.4	52.8	58.9	63.4				64.6	67.9	77
	70	27.1	37.2	46.2	54.2	61.2	67.0	71.6			73.7	77.2	77
	80	27.3	37.4	46.7	55.2	62.7	69.4	75.1	79.7		82.8	86.4	78
	90	27.5	37.7	47.1	55.9	63.9	71.1	77.5	83.1	87.8	91.8	95.6	78
	100	27.6	37.8	47.4	56.4	64.7	72.4	79.4	85.6	91.1	100.8	104.7	78
22	50	32.0	43.7	53.3	60.7	65.5					65.9	68.8	77
	60	32.5	44.4	54.8	63.5	70.5	75.5				76.8	79.8	77
	70	32.8	44.9	55.7	65.3	73.4	80.1	85.2			87.5	90.7	77
	80	33.1	45.3	56.4	66.5	75.4	83.2	89.7	94.9		98.1	101.4	78
	90	33.2	45.5	56.9	67.4	76.8	85.3	92.8	99.2	104.4	108.7	112.1	78
	100	33.4	45.7	57.3	68.0	77.9	87.0	95.1	102.4	108.6	119.2	122.8	78
24	50	38.1	51.9	63.2	71.7	77.1					77.4	80.1	77
	60	38.6	52.8	65.0	75.2	83.2	88.7				90.1	92.9	77
	70	39.0	53.4	66.2	77.4	86.8	94.5	100.2			102.5	105.5	77
	80	39.3	53.8	67.0	78.8	89.3	98.2	105.7	111.4		114.9	118.0	78
	90	39.6	54.2	67.6	79.9	91.1	100.9	109.5	116.8	122.6	127.1	130.4	78
	100	39.7	54.4	68.1	80.8	92.4	103.0	112.4	120.8	127.9	139.4	142.8	78
26	50	44.7	60.9	73.9	83.7	89.6					90.0	92.5	77
	60	45.3	61.9	76.1	87.9	97.0	103.1				104.5	107.2	77
	70	45.8	62.6	77.6	90.5	101.4	110.1	116.4			118.9	121.7	77
	80	46.2	63.2	78.6	92.3	104.4	114.7	123.1	129.5		133.1	136.0	78
	90	46.4	63.5	79.3	93.6	106.5	117.9	127.8	136.0	142.4	147.2	150.3	78
	100	46.6	63.8	79.8	94.6	108.1	120.4	131.2	140.7	148.8	161.3	164.5	78

[a] Includes 1.0-foot stump allowance.

Table 194--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for overcup oak (species 822) South-wide[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	1.3	1.5	1.7	2.1	2.3	2.4											
6	2.3	2.6	2.9	3.2	3.5	3.8	4.0	4.3									
7	2.9	3.4	3.9	4.4	4.8	5.2	5.6	5.9	6.3	6.6							
8	3.6	4.4	5.1	5.7	6.2	6.8	7.3	7.8	8.3	8.7	9.2	9.6					
9	4.5	5.5	6.4	7.2	7.9	8.6	9.3	9.9	10.5	11.2	11.8	12.3	12.9	13.5			
10	5.5	6.7	7.8	8.8	9.8	10.6	11.5	12.3	13.1	13.9	14.6	15.4	16.1	16.8	17.5	18.2	
11	6.7	8.1	9.5	10.7	11.8	12.9	13.9	14.9	15.9	16.9	17.8	18.7	19.6	20.5	21.4	22.2	23.1
12	7.9	9.7	11.2	12.7	14.1	15.4	16.6	17.8	19.0	20.1	21.3	22.4	23.4	24.5	25.6	26.6	27.7
13	9.3	11.3	13.2	14.9	16.5	18.1	19.5	21.0	22.3	23.7	25.0	26.3	27.6	28.9	30.1	31.4	32.6
14	10.7	13.1	15.3	17.3	19.2	21.0	22.7	24.4	26.0	27.5	29.1	30.6	32.1	33.6	35.1	36.5	38.0
15	12.3	15.1	17.6	19.9	22.1	24.1	26.1	28.0	29.9	31.7	33.5	35.2	36.9	38.7	40.3	42.0	43.7
16	14.0	17.1	20.0	22.6	25.1	27.5	29.7	31.9	34.0	36.1	38.1	40.1	42.1	44.1	46.0	47.9	49.8

[a] Includes 0.5-foot stump allowance.

Table 195--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 overcup oak (species 822) South-wide[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	2.0	2.5	2.9	3.4	3.9	4.3											
6	2.2	2.9	3.6	4.2	4.7	5.3	5.8	6.3									
7	2.7	3.6	4.4	5.2	5.9	6.5	7.1	7.8	8.4	9.0							
8	3.4	4.5	5.5	6.4	7.2	8.0	8.8	9.5	10.3	11.0	11.7	12.4					
9	4.2	5.5	6.7	7.7	8.7	9.7	10.6	11.6	12.5	13.3	14.2	15.1	15.9	16.8			
10	5.0	6.6	8.0	9.3	10.5	11.7	12.8	13.9	14.9	16.0	17.0	18.0	19.0	20.0	21.0	22.0	
11	6.0	7.9	9.5	11.0	12.5	13.8	15.1	16.4	17.7	18.9	20.1	21.3	22.5	23.7	24.9	26.0	27.2
12	7.1	9.3	11.2	13.0	14.6	16.2	17.7	19.2	20.7	22.1	23.5	24.9	26.3	27.7	29.1	30.4	31.8
13	8.2	10.8	13.0	15.1	17.0	18.8	20.6	22.3	24.0	25.6	27.3	28.9	30.5	32.1	33.7	35.2	36.8
14	9.5	12.4	15.0	17.3	19.5	21.6	23.7	25.6	27.6	29.4	31.3	33.2	35.0	36.8	38.6	40.4	42.2
15	10.9	14.2	17.1	19.8	22.3	24.7	27.0	29.2	31.4	33.5	35.7	37.8	39.8	41.9	44.0	46.0	48.0
16	12.4	16.1	19.4	22.4	25.2	27.9	30.5	33.0	35.5	37.9	40.3	42.7	45.0	47.4	49.7	52.0	54.3

[a] Includes 0.5-foot stump allowance.

Table 196--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.0									10.0	11.6	71
	50	8.5	11.6								11.8	14.2	75
	60	8.9	12.2								13.4	16.6	77
	70	9.1	12.6								14.9	18.9	78
	80	9.2	12.9	16.0							16.2	21.1	79
	90	9.3	13.0	16.3							17.6	23.3	79
	100	9.4	13.2	16.6							18.9	25.4	80
14	40	10.9	14.4								14.7	15.8	71
	50	11.7	15.9								17.6	19.5	75
	60	12.1	16.7	20.1							20.3	22.8	77
	70	12.4	17.2	21.1							22.8	26.0	78
	80	12.6	17.6	21.8	25.0						25.2	29.0	79
	90	12.7	17.8	22.3	25.9						27.5	32.0	79
	100	12.8	18.0	22.6	26.6	29.7					29.8	35.0	80
16	50	15.3	20.8								24.0	25.6	75
	60	15.9	21.9	26.3							27.8	30.0	77
	70	16.2	22.6	27.6	31.1						31.3	34.1	78
	80	16.5	23.0	28.5	32.7						34.8	38.1	79
	90	16.7	23.3	29.1	33.9	37.4					38.1	42.1	79
	100	16.8	23.6	29.6	34.8	38.9					41.4	45.9	80
	110	16.9	23.7	30.0	35.4	39.9	43.5				44.7	49.8	80
18	50	19.4	26.4	30.6							31.1	32.5	75
	60	20.2	27.7	33.3							36.1	38.0	77
	70	20.6	28.6	35.0	39.4						40.9	43.3	78
	80	20.9	29.2	36.2	41.5	45.1					45.5	48.4	79
	90	21.1	29.6	37.0	43.0	47.4					49.9	53.4	79
	100	21.3	29.9	37.5	44.1	49.2	53.0				54.4	58.4	80
	110	21.4	30.1	38.0	44.9	50.6	55.1	58.4			58.7	63.2	80
20	50	24.1	32.6	37.9							38.9	40.2	75
	60	25.0	34.3	41.2	45.2						45.4	47.1	77
	70	25.5	35.4	43.3	48.8						51.4	53.6	78
	80	25.9	36.1	44.7	51.3	55.7					57.3	60.0	79
	90	26.2	36.6	45.7	53.1	58.6	62.4				63.0	66.2	79
	100	26.4	37.0	46.4	54.5	60.9	65.6				68.6	72.2	80
	110	26.5	37.3	47.0	55.5	62.6	68.1	72.2			74.2	78.3	80
22	60	30.3	41.6	49.9	54.7						55.5	57.1	77
	70	30.9	42.9	52.5	59.1	62.9					63.0	65.0	78
	80	31.4	43.7	54.2	62.2	67.5					70.3	72.7	79
	90	31.7	44.4	55.4	64.4	71.0	75.6				77.4	80.2	79
	100	32.0	44.8	56.2	66.0	73.7	79.4	83.3			84.3	87.6	80
	110	32.2	45.2	56.9	67.2	75.8	82.5	87.4	90.9		91.2	94.9	80
24	60	36.1	49.6	59.5	65.2						66.6	68.1	77
	70	36.9	51.1	62.5	70.4	74.9					75.7	77.5	78
	80	37.5	52.1	64.5	74.0	80.4	84.2				84.4	86.7	79
	90	37.8	52.9	65.9	76.7	84.6	90.0				93.0	95.6	79
	100	38.1	53.4	67.0	78.6	87.8	94.6	99.2			101.4	104.4	80
	110	38.4	53.8	67.8	80.0	90.3	98.2	104.1	108.3		109.7	113.1	80
26	60	42.4	58.2	69.9	76.6						78.6	80.0	77
	70	43.4	60.0	73.4	82.7	88.0					89.4	91.1	78
	80	44.0	61.3	75.8	87.0	94.5	98.9				99.8	101.8	79
	90	44.5	62.1	77.5	90.0	99.4	105.7	109.6			109.9	112.3	79
	100	44.8	62.8	78.7	92.3	103.1	111.1	116.5			119.9	122.7	80
	110	45.1	63.2	79.7	94.0	106.0	115.4	122.3	127.1		129.8	132.9	80

[a] Includes 1.0-foot stump allowance.

Table 197--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.4									10.0	11.5	74
	40	8.9									11.9	14.7	77
	50	9.1	12.5								13.5	17.7	78
	60	9.2	12.8								15.0	20.6	79
	70	9.3	13.0	16.1							16.5	23.4	79
	80	9.4	13.1	16.3							18.0	26.2	79
	90	9.4	13.2	16.5							19.4	29.0	79
14	40	12.2	16.4								17.8	19.8	77
	50	12.5	17.1	20.5							20.8	23.8	78
	60	12.6	17.5	21.3							23.7	27.6	79
	70	12.8	17.7	21.9	25.3						26.5	31.3	79
	80	12.8	17.9	22.3	26.0	29.0					29.2	35.0	79
	90	12.9	18.0	22.5	26.5	29.9					31.9	38.7	79
	100	12.9	18.1	22.8	26.9	30.5	33.7				34.7	42.4	80
16	40	16.0	21.4								24.3	25.8	77
	50	16.4	22.4	26.7							28.6	30.8	78
	60	16.6	22.9	27.9	31.6						32.8	35.7	79
	70	16.7	23.2	28.6	33.0	36.3					36.9	40.5	79
	80	16.8	23.4	29.1	33.9	37.8					40.9	45.2	79
	90	16.9	23.6	29.5	34.6	39.0	42.6				44.9	49.9	79
	100	17.0	23.7	29.8	35.1	39.8	43.8	47.2			48.9	54.6	80
18	40	20.3	27.2	31.2							31.3	32.5	77
	50	20.8	28.4	33.8							37.1	38.8	78
	60	21.1	29.0	35.3	40.0						42.6	44.9	79
	70	21.3	29.4	36.2	41.7	45.9					48.1	50.9	79
	80	21.4	29.7	36.9	42.9	47.8	51.6				53.4	56.8	79
	90	21.5	29.9	37.4	43.8	49.3	53.8	57.3			58.7	62.7	79
	100	21.5	30.1	37.7	44.5	50.4	55.4	59.6	62.9		64.0	68.5	80
20	40	25.1	33.6	38.5							39.1	40.0	77
	50	25.7	35.1	41.8	45.9						46.4	47.7	78
	60	26.1	35.9	43.6	49.3	53.0					53.4	55.2	79
	70	26.3	36.4	44.8	51.5	56.5	60.0				60.3	62.5	79
	80	26.5	36.8	45.6	53.0	59.0	63.6	66.9			67.0	69.7	79
	90	26.6	37.0	46.2	54.1	60.8	66.3	70.6	73.8		73.8	76.9	79
	100	26.7	37.2	46.6	55.0	62.2	68.3	73.4	77.5		80.5	84.1	80
22	50	31.2	42.5	50.5	55.5						56.5	57.6	78
	60	31.6	43.5	52.8	59.6	64.1					65.1	66.6	79
	70	31.9	44.1	54.2	62.3	68.4	72.5				73.5	75.4	79
	80	32.1	44.6	55.2	64.2	71.4	76.9	80.8			81.8	84.1	79
	90	32.3	44.9	56.0	65.5	73.6	80.2	85.3	89.0		90.1	92.7	79
	100	32.4	45.1	56.5	66.5	75.2	82.6	88.8	93.6	97.2	98.3	101.2	80
24	50	37.2	50.6	60.2	66.0						67.5	68.4	78
	60	37.7	51.8	62.9	71.0	76.2					77.8	79.1	79
	70	38.1	52.6	64.6	74.2	81.3	86.2				87.9	89.5	79
	80	38.3	53.1	65.8	76.4	84.9	91.4	96.0			97.9	99.7	79
	90	38.5	53.5	66.7	78.0	87.6	95.3	101.4	105.8		107.8	109.9	79
	100	38.6	53.8	67.3	79.2	89.6	98.3	105.5	111.3	115.5	117.6	120.1	80
26	50	43.7	59.5	70.7	77.4						79.4	80.2	78
	60	44.4	60.9	73.9	83.3	89.4					91.6	92.6	79
	70	44.8	61.8	75.9	87.1	95.4	101.1				103.5	104.8	79
	80	45.0	62.4	77.3	89.7	99.7	107.3	112.6			115.2	116.8	79
	90	45.2	62.9	78.3	91.6	102.8	111.9	118.9	124.0		126.9	128.7	79
	100	45.4	63.2	79.1	93.0	105.1	115.4	123.8	130.5	135.4	138.5	140.6	80

[a] Includes 1.0-foot stump allowance.

Table 198--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.5									9.7	14.4	76
	30	9.1	12.6								14.4	18.4	78
	40	9.3	13.0	16.3							18.8	22.6	79
	50	9.4	13.2	16.7	19.9	22.8					23.1	26.8	79
	60	9.5	13.3	16.9	20.3	23.5	26.4				27.4	31.0	79
	70	9.5	13.4	17.1	20.6	23.9	27.1	30.0			31.7	35.2	79
	80	9.6	13.4	17.2	20.8	24.2	27.5	30.6	33.5		35.9	39.4	79
14	40	12.6	17.6	21.6							24.4	27.6	79
	50	12.8	17.9	22.4	26.3	29.4					29.8	32.9	79
	60	12.9	18.1	22.8	27.0	30.8	34.0				35.1	38.1	79
	70	13.0	18.2	23.0	27.5	31.6	35.3	38.6			40.3	43.3	79
	80	13.0	18.2	23.2	27.9	32.2	36.2	39.8	43.1		45.6	48.5	79
	90	13.0	18.3	23.3	28.1	32.6	36.8	40.7	44.3	47.6	50.8	53.7	79
	100	13.1	18.4	23.4	28.3	32.9	37.2	41.4	45.2	48.8	56.1	58.9	79
16	40	16.5	22.8	27.8							30.9	33.8	79
	50	16.7	23.3	28.9	33.6	37.1					37.5	40.2	79
	60	16.9	23.5	29.5	34.8	39.3	42.9				43.9	46.6	79
	70	16.9	23.7	29.9	35.5	40.5	44.9	48.5			50.4	53.0	79
	80	17.0	23.8	30.2	36.0	41.4	46.2	50.5	54.2		56.8	59.4	79
	90	17.0	23.9	30.4	36.4	42.0	47.2	51.9	56.1	59.8	63.2	65.7	79
	100	17.1	24.0	30.5	36.7	42.5	47.9	52.9	57.5	61.7	69.6	72.1	79
18	40	21.0	28.9	34.9							38.3	40.9	79
	50	21.2	29.5	36.4	41.9	45.8					46.2	48.7	79
	60	21.4	29.8	37.2	43.6	48.9	52.9				54.0	56.4	79
	70	21.5	30.0	37.7	44.6	50.7	55.8	59.8			61.8	64.1	79
	80	21.5	30.2	38.1	45.3	51.9	57.6	62.6	66.7		69.5	71.8	79
	90	21.6	30.3	38.3	45.8	52.7	59.0	64.5	69.4	73.6	77.2	79.5	79
	100	21.6	30.3	38.5	46.2	53.3	59.9	66.0	71.4	76.3	84.9	87.2	79
20	40	25.9	35.6	42.7							46.5	48.9	79
	50	26.2	36.4	44.7	51.2	55.6					56.0	58.3	79
	60	26.4	36.8	45.8	53.5	59.6	64.1				65.3	67.5	79
	70	26.6	37.1	46.5	54.8	62.0	67.9	72.5			74.5	76.7	79
	80	26.7	37.2	46.9	55.7	63.6	70.4	76.2	80.8		83.7	85.9	79
	90	26.7	37.4	47.3	56.4	64.7	72.1	78.7	84.4	89.1	92.9	95.0	79
	100	26.8	37.5	47.5	56.9	65.5	73.4	80.6	87.0	92.6	102.1	104.2	79
22	50	31.8	44.0	54.0	61.6	66.4					66.8	68.9	79
	60	32.0	44.5	55.3	64.4	71.5	76.5				77.8	79.8	79
	70	32.2	44.9	56.2	66.1	74.5	81.4	86.5			88.6	90.7	79
	80	32.3	45.1	56.7	67.2	76.5	84.5	91.1	96.3		99.5	101.5	79
	90	32.4	45.3	57.2	68.1	77.9	86.7	94.4	100.9	106.1	110.3	112.2	79
	100	32.4	45.4	57.5	68.7	79.0	88.4	96.8	104.2	110.6	121.1	123.0	79
24	50	37.9	52.4	64.1	72.9	78.3					78.6	80.6	79
	60	38.2	53.0	65.8	76.3	84.5	90.1				91.4	93.4	79
	70	38.4	53.4	66.8	78.4	88.2	96.1	101.8			104.1	106.0	79
	80	38.5	53.7	67.5	79.8	90.7	100.0	107.6	113.4		116.7	118.6	79
	90	38.6	53.9	68.0	80.9	92.4	102.7	111.6	119.0	124.9	129.3	131.1	79
	100	38.7	54.1	68.4	81.6	93.8	104.8	114.6	123.1	130.4	141.9	143.7	79
26	50	44.6	61.5	75.1	85.2	91.1					91.5	93.4	79
	60	44.9	62.3	77.1	89.3	98.7	104.9				106.3	108.1	79
	70	45.1	62.7	78.3	91.8	103.1	112.1	118.5			120.9	122.7	79
	80	45.3	63.1	79.2	93.6	106.1	116.8	125.4	131.9		135.5	137.2	79
	90	45.4	63.3	79.8	94.8	108.2	120.1	130.3	138.7	145.3	150.0	151.7	79
	100	45.5	63.5	80.3	95.7	109.8	122.6	133.9	143.7	152.0	164.5	166.2	79

[a] Includes 1.0-foot stump allowance.

Table 199--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) South-wide[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	1.5	1.6	1.8	1.9	2.0	2.2											
6	2.1	2.5	2.8	3.1	3.3	3.6	3.8	4.0									
7	2.9	3.4	3.9	4.3	4.7	5.1	5.4	5.8	6.1	6.4							
8	3.9	4.5	5.2	5.7	6.3	6.8	7.3	7.7	8.2	8.7	9.1	9.6					
9	4.9	5.8	6.6	7.4	8.0	8.7	9.4	10.0	10.6	11.2	11.8	12.4	12.9	13.5			
10	6.1	7.2	8.2	9.2	10.0	10.9	11.7	12.5	13.2	14.0	14.7	15.5	16.2	16.9	17.7	18.4	
11	7.4	8.8	10.0	11.2	12.2	13.3	14.2	15.2	16.2	17.1	18.0	18.9	19.8	20.7	21.6	22.5	23.3
12	8.9	10.5	12.0	13.3	14.6	15.9	17.1	18.2	19.4	20.5	21.6	22.7	23.7	24.8	25.9	26.9	28.0
13	10.5	12.4	14.1	15.7	17.2	18.7	20.1	21.5	22.8	24.1	25.4	26.7	28.0	29.3	30.5	31.8	33.0
14	12.2	14.4	16.4	18.3	20.1	21.8	23.4	25.0	26.6	28.1	29.6	31.1	32.6	34.1	35.6	37.0	38.5
15	14.0	16.6	18.9	21.1	23.1	25.1	26.9	28.8	30.6	32.4	34.1	35.8	37.6	39.3	41.0	42.6	44.3
16	16.0	18.9	21.5	24.0	26.3	28.6	30.7	32.8	34.9	36.9	38.9	40.9	42.8	44.8	46.7	48.6	50.6

[a] Includes 0.5-foot stump allowance.

Table 200--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) South-wide[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	2.0	2.4	2.8	3.2	3.6											
6	2.1	2.7	3.3	3.8	4.3	4.8	5.3	5.8									
7	2.8	3.6	4.3	5.0	5.6	6.2	6.8	7.4	8.0	8.6							
8	3.7	4.6	5.5	6.3	7.1	7.8	8.6	9.3	10.0	10.8	11.5	12.2					
9	4.6	5.8	6.9	7.8	8.8	9.7	10.6	11.5	12.4	13.2	14.1	14.9	15.8	16.6			
10	5.7	7.1	8.4	9.6	10.7	11.8	12.9	13.9	15.0	16.0	17.0	18.0	19.1	20.1	21.1	22.1	
11	6.9	8.6	10.1	11.5	12.8	14.1	15.4	16.6	17.8	19.1	20.3	21.5	22.7	23.9	25.1	26.3	27.4
12	8.3	10.2	12.0	13.6	15.1	16.7	18.1	19.6	21.0	22.4	23.8	25.2	26.6	28.0	29.4	30.8	32.2
13	9.7	12.0	14.0	15.9	17.7	19.4	21.1	22.8	24.5	26.1	27.7	29.3	31.0	32.6	34.2	35.8	37.4
14	11.3	13.9	16.2	18.4	20.4	22.4	24.4	26.3	28.2	30.1	31.9	33.8	35.6	37.5	39.3	41.1	43.0
15	12.9	15.9	18.6	21.0	23.4	25.6	27.9	30.0	32.2	34.3	36.4	38.5	40.6	42.7	44.8	46.9	49.0
16	14.7	18.1	21.1	23.9	26.5	29.1	31.6	34.0	36.5	38.9	41.3	43.6	46.0	48.4	50.7	53.1	55.4

[a] Includes 0.5-foot stump allowance.

Table 201--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.1									9.7	11.6	71
	50	8.7									11.5	14.2	74
	60	9.1	12.5								13.0	16.6	76
	70	9.3	12.9								14.4	18.8	78
	80	9.5	13.1								15.7	21.0	78
	90	9.6	13.3	16.6							17.0	23.1	79
	100	9.7	13.5	16.9							18.2	25.2	79
14	40	11.1									14.4	15.9	71
	50	11.9	16.1								17.3	19.5	74
	60	12.4	17.0								19.9	22.8	76
	70	12.7	17.5	21.3							22.2	25.9	78
	80	12.9	17.9	22.1							24.5	28.9	78
	90	13.1	18.2	22.6	26.1						26.7	31.8	79
	100	13.2	18.4	23.0	26.9						28.9	34.7	79
16	50	15.6	21.1								23.7	25.6	74
	60	16.2	22.2	26.5							27.3	29.9	76
	70	16.6	22.9	27.9							30.8	34.0	78
	80	16.9	23.4	28.9	32.9						34.1	37.9	78
	90	17.1	23.8	29.6	34.2						37.3	41.8	79
	100	17.3	24.0	30.1	35.1	39.0					40.5	45.6	79
	110	17.4	24.2	30.5	35.8	40.2	43.5				43.6	49.3	80
18	50	19.8	26.7	30.7							30.8	32.4	74
	60	20.6	28.1	33.5							35.7	37.9	76
	70	21.1	29.0	35.4	39.5						40.3	43.2	78
	80	21.4	29.7	36.6	41.7						44.8	48.2	78
	90	21.7	30.1	37.5	43.3	47.5					49.1	53.1	79
	100	21.9	30.5	38.1	44.5	49.4	53.0				53.4	57.9	79
	110	22.0	30.7	38.6	45.4	50.9	55.1				57.6	62.7	80
20	50	24.4	33.0	38.0							38.6	40.1	74
	60	25.4	34.8	41.4							44.9	47.0	76
	70	26.1	35.9	43.7	48.9						50.9	53.4	78
	80	26.5	36.7	45.2	51.5	55.7					56.6	59.6	78
	90	26.8	37.2	46.3	53.5	58.7					62.2	65.7	79
	100	27.1	37.6	47.1	55.0	61.0	65.5				67.6	71.7	79
	110	27.3	37.9	47.7	56.1	62.9	68.1	71.9			73.0	77.6	80
22	60	30.8	42.1	50.2	54.7						55.1	56.9	76
	70	31.6	43.5	52.9	59.2						62.4	64.7	78
	80	32.1	44.4	54.8	62.4	67.4					69.5	72.3	78
	90	32.5	45.1	56.0	64.8	71.1	75.3				76.4	79.7	79
	100	32.8	45.6	57.0	66.5	73.9	79.2	82.9			83.2	86.9	79
	110	33.0	46.0	57.7	67.9	76.1	82.4	87.1			89.9	94.1	80
24	60	36.7	50.2	59.8	65.1						66.1	67.8	76
	70	37.6	51.8	63.0	70.4	74.7					75.0	77.1	78
	80	38.2	52.9	65.2	74.3	80.3					83.6	86.1	78
	90	38.7	53.7	66.7	77.1	84.6	89.7				92.0	94.9	79
	100	39.1	54.3	67.9	79.2	88.0	94.3	98.7			100.2	103.6	79
	110	39.3	54.7	68.7	80.8	90.6	98.1	103.7	107.6		108.3	112.1	80
26	60	43.1	58.9	70.2	76.5						78.1	79.7	76
	70	44.2	60.8	74.0	82.7	87.7					88.7	90.6	78
	80	44.9	62.1	76.6	87.2	94.3	98.5				98.9	101.2	78
	90	45.5	63.1	78.4	90.5	99.3	105.3				108.8	111.5	79
	100	45.9	63.8	79.7	93.0	103.3	110.8	115.9			118.5	121.7	79
	110	46.2	64.3	80.7	94.9	106.4	115.2	121.7	126.3		128.2	131.7	80

[a] Includes 1.0-foot stump allowance.

Table 202--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.5									9.6	11.6	72
	40	9.1									11.6	15.0	76
	50	9.4	12.8								13.4	18.3	77
	60	9.6	13.1								15.1	21.3	78
	70	9.7	13.3	16.5							16.7	24.4	79
	80	9.8	13.5	16.8							18.3	27.3	79
	90	9.8	13.6	17.0							19.8	30.3	79
14	40	12.4	16.6								17.9	20.3	76
	50	12.8	17.4	20.9							21.2	24.5	77
	60	13.1	17.9	21.8							24.3	28.6	78
	70	13.2	18.2	22.4	26.0						27.4	32.6	79
	80	13.3	18.4	22.9	26.7	29.9					30.3	36.5	79
	90	13.4	18.6	23.2	27.2	30.8					33.2	40.4	79
	100	13.5	18.7	23.4	27.6	31.4	34.7				36.1	44.3	80
16	40	16.2	21.7								24.6	26.3	76
	50	16.8	22.8	27.3							29.4	31.8	77
	60	17.1	23.4	28.5	32.4						33.9	37.0	78
	70	17.3	23.8	29.3	33.9	37.4					38.3	42.1	79
	80	17.5	24.1	29.9	34.8	39.0	42.3				42.6	47.2	79
	90	17.6	24.3	30.3	35.5	40.1	43.9				46.9	52.2	79
	100	17.7	24.4	30.6	36.1	41.0	45.2	48.8			51.2	57.1	80
18	40	20.6	27.5	31.7							31.9	33.1	76
	50	21.3	28.9	34.5							38.1	40.0	77
	60	21.7	29.7	36.1	41.0						44.2	46.5	78
	70	22.0	30.2	37.1	42.8	47.3					50.0	52.9	79
	80	22.2	30.5	37.8	44.1	49.2	53.3				55.8	59.2	79
	90	22.3	30.8	38.3	45.0	50.7	55.5	59.3			61.5	65.5	79
	100	22.4	31.0	38.7	45.7	51.8	57.1	61.6	65.3		67.1	71.7	80
20	40	25.5	33.9	39.1							39.8	40.8	76
	50	26.3	35.7	42.6	47.0						47.7	49.2	77
	60	26.9	36.7	44.6	50.6	54.7					55.3	57.2	78
	70	27.2	37.3	45.8	52.8	58.2	62.1				62.7	65.0	79
	80	27.4	37.7	46.7	54.4	60.7	65.7	69.4			70.0	72.7	79
	90	27.6	38.0	47.4	55.5	62.5	68.4	73.1	76.6		77.2	80.3	79
	100	27.7	38.3	47.8	56.4	63.9	70.4	75.9	80.4	83.8	84.3	87.9	80
22	50	31.9	43.2	51.5	56.9						58.2	59.3	77
	60	32.5	44.4	53.9	61.2	66.0					67.4	69.0	78
	70	32.9	45.2	55.5	63.9	70.4	75.0				76.5	78.4	79
	80	33.2	45.7	56.6	65.8	73.4	79.4	83.8			85.4	87.6	79
	90	33.4	46.1	57.3	67.2	75.6	82.7	88.3	92.5		94.2	96.8	79
	100	33.6	46.4	57.9	68.2	77.3	85.1	91.7	97.1	101.2	103.0	105.9	80
24	50	38.0	51.4	61.3	67.6						69.5	70.4	77
	60	38.8	52.9	64.2	72.8	78.5					80.6	81.9	78
	70	39.3	53.8	66.1	76.0	83.7	89.1				91.5	93.0	79
	80	39.6	54.4	67.3	78.3	87.3	94.4	99.6			102.1	104.0	79
	90	39.8	54.9	68.3	80.0	90.0	98.3	104.9	109.9		112.7	114.8	79
	100	40.0	55.2	69.0	81.2	92.0	101.2	109.0	115.3	120.1	123.2	125.6	80
26	50	44.7	60.4	72.0	79.3						81.7	82.6	77
	60	45.6	62.1	75.4	85.4	92.1					94.8	95.9	78
	70	46.1	63.2	77.6	89.2	98.2	104.5				107.6	108.9	79
	80	46.5	63.9	79.1	91.9	102.5	110.7	116.7			120.2	121.7	79
	90	46.8	64.5	80.2	93.9	105.6	115.3	123.0	128.8	132.6	132.6	134.4	79
	100	47.0	64.9	81.0	95.3	107.9	118.8	127.9	135.2	140.8	145.0	147.0	80

[a] Includes 1.0-foot stump allowance.

Table 203--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.6									9.9	14.1	75
	30	9.2	12.8								14.7	18.3	77
	40	9.5	13.2	16.7							19.4	22.7	78
	50	9.6	13.4	17.0	20.4	23.5					23.9	27.0	79
	60	9.7	13.5	17.2	20.8	24.1	27.3				28.4	31.3	79
	70	9.8	13.6	17.4	21.0	24.5	27.8	31.0			32.8	35.7	79
	80	9.8	13.7	17.5	21.1	24.7	28.2	31.5	34.7		37.2	40.0	79
14	40	13.0	18.0	22.3							25.4	28.3	78
	50	13.2	18.3	23.0	27.2	30.8					31.1	33.8	79
	60	13.3	18.5	23.3	27.8	32.0	35.6				36.8	39.4	79
	70	13.4	18.6	23.5	28.2	32.7	36.7	40.4			42.4	44.9	79
	80	13.4	18.7	23.7	28.5	33.1	37.4	41.5	45.1		47.9	50.4	79
	90	13.5	18.7	23.8	28.7	33.4	37.9	42.2	46.2	49.9	53.5	55.9	79
	100	13.5	18.8	23.9	28.8	33.6	38.3	42.7	46.9	50.9	59.0	61.4	79
16	40	17.0	23.4	28.8							32.4	35.0	78
	50	17.3	23.9	29.8	35.0	39.1					39.5	41.9	79
	60	17.4	24.1	30.3	36.0	41.0	45.2				46.5	48.8	79
	70	17.5	24.3	30.7	36.6	42.1	47.0	51.2			53.4	55.7	79
	80	17.6	24.4	30.9	37.0	42.8	48.1	53.0	57.2		60.3	62.5	79
	90	17.6	24.5	31.1	37.3	43.3	48.9	54.1	58.9	63.2	67.2	69.3	79
	100	17.7	24.6	31.2	37.5	43.6	49.4	54.9	60.0	64.8	74.0	76.1	79
18	40	21.6	29.6	36.2							40.3	42.7	78
	50	21.9	30.2	37.6	43.8	48.5					48.9	51.2	79
	60	22.1	30.6	38.3	45.3	51.3	56.1				57.4	59.6	79
	70	22.2	30.8	38.8	46.1	52.8	58.7	63.6			65.9	68.0	79
	80	22.3	30.9	39.1	46.7	53.7	60.2	66.0	70.9		74.3	76.3	79
	90	22.4	31.0	39.3	47.1	54.4	61.3	67.6	73.3	78.3	82.7	84.7	79
	100	22.5	31.1	39.4	47.4	54.9	62.1	68.8	74.9	80.6	91.0	93.0	79
20	40	26.7	36.6	44.5							49.2	51.4	78
	50	27.1	37.3	46.3	53.7	59.1					59.5	61.7	79
	60	27.3	37.8	47.2	55.6	62.8	68.3				69.7	71.8	79
	70	27.5	38.0	47.8	56.7	64.7	71.7	77.3			79.9	81.8	79
	80	27.6	38.2	48.2	57.5	66.0	73.8	80.6	86.3		89.9	91.9	79
	90	27.7	38.4	48.5	58.0	66.9	75.2	82.7	89.4	95.2	100.0	101.9	79
	100	27.8	38.5	48.7	58.4	67.6	76.2	84.2	91.6	98.2	110.0	111.8	79
22	50	32.9	45.2	55.9	64.7	70.8					71.2	73.3	79
	60	33.2	45.7	57.1	67.0	75.4	81.8				83.3	85.3	79
	70	33.4	46.1	57.8	68.5	78.0	86.1	92.6			95.3	97.2	79
	80	33.5	46.3	58.3	69.4	79.6	88.7	96.7	103.2		107.3	109.1	79
	90	33.6	46.5	58.6	70.1	80.7	90.5	99.4	107.3	113.8	119.2	120.9	79
	100	33.7	46.6	58.9	70.6	81.6	91.9	101.4	110.0	117.8	131.0	132.7	79
24	50	39.2	53.8	66.4	76.6	83.6					84.1	86.0	79
	60	39.5	54.4	67.9	79.6	89.3	96.5				98.2	100.1	79
	70	39.8	54.9	68.7	81.3	92.4	101.9	109.2			112.3	114.0	79
	80	39.9	55.1	69.3	82.5	94.5	105.1	114.4	121.8		126.2	128.0	79
	90	40.1	55.4	69.8	83.3	95.9	107.4	117.7	126.8	134.3	140.1	141.8	79
	100	40.2	55.5	70.1	83.9	96.9	109.0	120.1	130.2	139.2	154.0	155.7	79
26	50	46.0	63.2	77.9	89.7	97.5					98.0	99.8	79
	60	46.4	63.9	79.6	93.2	104.4	112.6				114.4	116.2	79
	70	46.7	64.4	80.7	95.3	108.2	119.0	127.4			130.7	132.4	79
	80	46.9	64.8	81.4	96.7	110.6	123.0	133.6	142.0		146.9	148.5	79
	90	47.1	65.0	81.9	97.7	112.3	125.7	137.6	148.0	156.5	163.0	164.6	79
	100	47.2	65.2	82.3	98.4	113.6	127.6	140.5	152.2	162.4	179.0	180.6	79

[a] Includes 1.0-foot stump allowance.

Table 204--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) South-wide[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	1.1	1.5	1.7	1.9	2.0	2.1											
6	2.1	2.5	2.8	3.0	3.3	3.5	3.8	4.0									
7	2.9	3.5	3.9	4.3	4.7	5.1	5.4	5.7	6.1	6.4							
8	3.9	4.6	5.2	5.8	6.3	6.8	7.3	7.7	8.2	8.7	9.1	9.5					
9	5.0	5.9	6.7	7.4	8.1	8.7	9.4	10.0	10.6	11.2	11.8	12.3	12.9	13.5			
10	6.2	7.3	8.3	9.2	10.1	10.9	11.7	12.5	13.3	14.0	14.7	15.5	16.2	16.9	17.6	18.3	
11	7.5	8.9	10.1	11.2	12.3	13.3	14.3	15.2	16.2	17.1	18.0	18.9	19.8	20.6	21.5	22.4	23.2
12	9.0	10.6	12.1	13.4	14.7	15.9	17.1	18.3	19.4	20.5	21.6	22.6	23.7	24.7	25.8	26.8	27.9
13	10.6	12.5	14.2	15.8	17.3	18.8	20.2	21.5	22.9	24.2	25.4	26.7	28.0	29.2	30.4	31.7	32.9
14	12.3	14.5	16.5	18.4	20.2	21.8	23.5	25.1	26.6	28.1	29.6	31.1	32.6	34.0	35.4	36.9	38.3
15	14.2	16.7	19.0	21.2	23.2	25.1	27.0	28.8	30.6	32.4	34.1	35.8	37.5	39.2	40.8	42.5	44.1
16	16.1	19.0	21.7	24.1	26.4	28.7	30.8	32.9	34.9	36.9	38.9	40.8	42.8	44.7	46.6	48.4	50.3

[a] Includes 0.5-foot stump allowance.

Table 205--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) South-wide[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	1.6	1.9	2.4	2.8	3.3	3.7											
6	2.0	2.7	3.3	3.8	4.4	4.9	5.4	5.9									
7	2.7	3.6	4.3	5.0	5.7	6.4	7.0	7.7	8.3	8.9							
8	3.6	4.6	5.6	6.4	7.3	8.1	8.9	9.7	10.4	11.2	11.9	12.7					
9	4.5	5.8	6.9	8.0	9.0	10.0	11.0	11.9	12.9	13.8	14.7	15.6	16.5	17.4			
10	5.6	7.1	8.5	9.8	11.0	12.2	13.3	14.5	15.6	16.7	17.8	18.8	19.9	21.0	22.1	23.1	
11	6.7	8.6	10.2	11.7	13.2	14.6	15.9	17.3	18.6	19.9	21.2	22.4	23.7	25.0	26.2	27.5	28.8
12	8.0	10.2	12.1	13.9	15.6	17.2	18.8	20.3	21.9	23.4	24.9	26.4	27.9	29.4	30.8	32.3	33.8
13	9.4	11.9	14.1	16.2	18.2	20.1	21.9	23.7	25.5	27.2	29.0	30.7	32.4	34.1	35.8	37.5	39.2
14	10.9	13.8	16.4	18.7	21.0	23.1	25.2	27.3	29.3	31.4	33.3	35.3	37.3	39.2	41.2	43.1	45.1
15	12.5	15.8	18.7	21.4	24.0	26.5	28.9	31.2	33.5	35.8	38.1	40.3	42.5	44.8	47.0	49.2	51.4
16	14.2	18.0	21.3	24.3	27.2	30.0	32.7	35.4	38.0	40.5	43.1	45.6	48.2	50.7	53.2	55.6	58.1

[a] Includes 0.5-foot stump allowance.

Table 206--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	8.1									9.7	11.4	70
	50	8.7									11.5	14.2	74
	60	9.1	12.5								13.0	16.7	77
	70	9.4	12.9								14.4	19.0	78
	80	9.6	13.3								15.7	21.2	79
	90	9.7	13.5	16.7							17.0	23.4	80
	100	9.8	13.6	17.0							18.2	25.5	80
14	40	11.0									14.3	15.7	70
	50	11.9	16.1								17.3	19.4	74
	60	12.5	17.0								20.0	22.9	77
	70	12.8	17.6	21.5							22.4	26.1	78
	80	13.0	18.1	22.2							24.8	29.1	79
	90	13.2	18.4	22.8	26.4						27.0	32.2	80
	100	13.3	18.6	23.2	27.1						29.2	35.1	80
16	50	15.6	21.0								23.7	25.5	74
	60	16.3	22.3	26.5							27.5	30.0	77
	70	16.8	23.1	28.1							31.0	34.2	78
	80	17.1	23.6	29.1	33.2						34.4	38.3	79
	90	17.3	24.0	29.8	34.5						37.7	42.2	80
	100	17.5	24.3	30.3	35.4	39.4					41.0	46.1	80
	110	17.6	24.5	30.8	36.2	40.6	44.0				44.1	49.9	80
18	50	19.8	26.6	30.7							30.7	32.4	74
	60	20.7	28.2	33.6							35.9	38.1	77
	70	21.2	29.2	35.6	39.8						40.6	43.5	78
	80	21.6	29.9	36.8	42.0						45.2	48.6	79
	90	21.9	30.4	37.8	43.7	48.0					49.7	53.7	80
	100	22.1	30.8	38.4	44.9	49.9	53.5				54.0	58.6	80
	110	22.3	31.1	39.0	45.8	51.4	55.7				58.3	63.5	80
20	50	24.4	32.9	37.9							38.6	40.1	74
	60	25.6	34.9	41.6							45.1	47.1	77
	70	26.3	36.1	43.9	49.2						51.3	53.8	78
	80	26.8	37.0	45.5	51.9	56.2					57.1	60.2	79
	90	27.1	37.6	46.7	53.9	59.3					62.8	66.4	80
	100	27.4	38.1	47.5	55.4	61.6	66.2				68.4	72.5	80
	110	27.6	38.4	48.2	56.6	63.5	68.8	72.8			73.9	78.6	80
22	60	31.0	42.2	50.3	54.9						55.3	57.1	77
	70	31.8	43.8	53.2	59.5						62.9	65.2	78
	80	32.4	44.8	55.1	62.9	68.0					70.2	73.0	79
	90	32.9	45.6	56.5	65.3	71.7	76.1				77.2	80.5	80
	100	33.2	46.1	57.5	67.1	74.6	80.1	83.9			84.2	87.9	80
	110	33.4	46.5	58.3	68.5	76.9	83.3	88.1			91.0	95.2	80
24	60	36.9	50.3	59.9	65.4						66.4	68.1	77
	70	37.9	52.1	63.4	70.9	75.3					75.6	77.7	78
	80	38.6	53.4	65.7	74.9	81.0					84.4	87.0	79
	90	39.2	54.3	67.3	77.8	85.4	90.6				93.0	96.0	80
	100	39.5	54.9	68.5	79.9	88.9	95.4	99.9			101.4	104.8	80
	110	39.8	55.4	69.5	81.6	91.5	99.2	104.9	108.9		109.6	113.5	80
26	60	43.3	59.1	70.4	76.8						78.5	80.0	77
	70	44.6	61.2	74.4	83.3	88.4					89.3	91.3	78
	80	45.4	62.7	77.1	87.9	95.1	99.4				99.8	102.2	79
	90	46.0	63.7	79.0	91.3	100.3	106.4				110.0	112.7	80
	100	46.5	64.5	80.5	93.9	104.3	112.0	117.3			119.9	123.1	80
	110	46.8	65.1	81.6	95.8	107.5	116.5	123.2	127.8		129.8	133.3	80

[a] Includes 1.0-foot stump allowance.

Table 207--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.3									9.5	11.4	73
	40	9.0									11.5	14.8	76
	50	9.3	12.8								13.2	17.9	78
	60	9.6	13.1								14.7	20.9	79
	70	9.7	13.4								16.2	23.9	80
	80	9.8	13.6	16.8							17.6	26.7	80
	90	9.9	13.7	17.1							19.0	29.6	80
14	40	12.2	16.4								17.5	19.8	76
	50	12.7	17.3								20.6	24.0	78
	60	13.0	17.9	21.7							23.5	28.0	79
	70	13.2	18.2	22.4	25.8						26.3	31.8	80
	80	13.3	18.5	22.9	26.6						29.1	35.6	80
	90	13.4	18.6	23.2	27.2	30.6					31.8	39.4	80
	100	13.5	18.8	23.5	27.7	31.3	34.4				34.5	43.1	80
16	40	16.0	21.4								23.9	25.7	76
	50	16.6	22.6	27.0							28.4	31.0	78
	60	17.0	23.4	28.3	32.1						32.7	36.1	79
	70	17.3	23.8	29.2	33.6						36.9	41.1	80
	80	17.4	24.1	29.9	34.7	38.6					41.0	45.9	80
	90	17.6	24.4	30.3	35.5	39.8	43.4				45.0	50.7	80
	100	17.7	24.5	30.7	36.1	40.8	44.8	48.2			49.0	55.5	80
18	40	20.3	27.1								30.9	32.3	76
	50	21.1	28.7	34.1							37.0	39.0	78
	60	21.6	29.6	35.9	40.5						42.7	45.3	79
	70	21.9	30.2	37.0	42.5	46.6					48.2	51.5	80
	80	22.1	30.6	37.8	43.8	48.7	52.5				53.7	57.6	80
	90	22.3	30.8	38.4	44.8	50.3	54.8	58.3			59.1	63.6	80
	100	22.4	31.1	38.8	45.6	51.5	56.6	60.7	64.0		64.4	69.6	80
20	40	25.1	33.5	38.3							38.6	39.8	76
	50	26.1	35.4	42.1	46.1						46.3	47.9	78
	60	26.7	36.5	44.3	49.9						53.5	55.7	79
	70	27.1	37.3	45.7	52.4	57.4					60.6	63.2	80
	80	27.3	37.7	46.7	54.1	60.1	64.6				67.5	70.7	80
	90	27.5	38.1	47.4	55.3	62.0	67.5	71.8			74.3	78.0	80
	100	27.7	38.4	47.9	56.3	63.6	69.7	74.8	78.8		81.1	85.3	80
22	50	31.6	42.9	50.9	55.7						56.4	57.8	78
	60	32.3	44.2	53.5	60.3	64.7					65.3	67.1	79
	70	32.8	45.1	55.3	63.3	69.3	73.4				74.0	76.2	80
	80	33.1	45.7	56.5	65.4	72.6	78.1	81.9			82.4	85.1	80
	90	33.4	46.2	57.3	66.9	75.0	81.6	86.7	90.3		90.8	93.9	80
	100	33.6	46.5	58.0	68.1	76.9	84.3	90.3	95.1	98.7	99.1	102.6	80
24	50	37.6	51.1	60.5	66.2						67.4	68.6	78
	60	38.5	52.7	63.7	71.7	76.9					78.1	79.6	79
	70	39.1	53.7	65.8	75.3	82.4	87.2				88.5	90.4	80
	80	39.5	54.4	67.2	77.8	86.3	92.8	97.3			98.7	100.9	80
	90	39.8	55.0	68.3	79.7	89.2	97.0	103.0	107.3		108.7	111.3	80
	100	40.0	55.4	69.1	81.1	91.4	100.2	107.4	113.0	117.2	118.7	121.6	80
26	50	44.2	60.0	71.0	77.7						79.4	80.4	78
	60	45.2	61.9	74.8	84.2	90.1					92.0	93.3	79
	70	45.9	63.1	77.2	88.4	96.7	102.2				104.2	105.8	80
	80	46.4	63.9	78.9	91.3	101.3	108.8	114.0			116.2	118.1	80
	90	46.7	64.6	80.1	93.5	104.7	113.7	120.7	125.7		128.1	130.3	80
	100	47.0	65.0	81.1	95.2	107.3	117.5	125.9	132.5	137.3	139.8	142.3	80

[a] Includes 1.0-foot stump allowance.

Table 208--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.8									10.0	14.3	77
	30	9.3	12.9								14.9	19.0	79
	40	9.6	13.4	16.8							19.5	23.6	79
	50	9.8	13.7	17.3	20.6	23.6					24.0	28.1	79
	60	9.9	13.8	17.5	21.0	24.3	27.4				28.4	32.6	80
	70	10.0	13.9	17.7	21.3	24.7	28.0	31.0			32.8	37.1	80
	80	10.1	14.0	17.8	21.5	25.0	28.4	31.6	34.7		37.2	41.5	80
14	40	13.0	18.0	22.2							25.1	28.5	79
	50	13.2	18.4	23.0	27.0	30.3					30.7	34.1	79
	60	13.4	18.6	23.4	27.8	31.7	35.1				36.2	39.6	80
	70	13.5	18.8	23.7	28.3	32.5	36.3	39.7			41.6	45.1	80
	80	13.6	18.9	23.9	28.6	33.1	37.2	40.9	44.3		47.0	50.5	80
	90	13.6	19.0	24.1	28.9	33.5	37.8	41.8	45.5	48.9	52.4	55.9	80
	100	13.7	19.0	24.2	29.1	33.8	38.2	42.4	46.4	50.1	57.7	61.3	80
16	40	17.0	23.4	28.5							31.7	34.6	79
	50	17.3	23.9	29.6	34.4	38.1					38.4	41.4	79
	60	17.5	24.2	30.3	35.7	40.2	44.0				45.1	48.1	80
	70	17.6	24.4	30.7	36.4	41.5	46.0	49.8			51.7	54.7	80
	80	17.7	24.6	31.0	37.0	42.4	47.3	51.7	55.5		58.3	61.3	80
	90	17.8	24.7	31.2	37.3	43.0	48.3	53.1	57.4	61.2	64.8	67.8	80
	100	17.8	24.8	31.4	37.6	43.5	49.0	54.1	58.8	63.1	71.3	74.4	80
18	40	21.4	29.5	35.6							39.1	41.7	79
	50	21.8	30.2	37.2	42.8	46.9					47.3	49.9	79
	60	22.1	30.6	38.1	44.6	49.9	54.1				55.3	57.9	80
	70	22.2	30.9	38.7	45.7	51.8	57.0	61.2			63.2	65.8	80
	80	22.4	31.1	39.1	46.4	53.0	58.9	63.9	68.2		71.1	73.7	80
	90	22.5	31.2	39.4	46.9	53.9	60.2	65.9	70.9	75.1	79.0	81.6	80
	100	22.5	31.3	39.6	47.3	54.5	61.2	67.3	72.9	77.8	86.8	89.5	80
20	40	26.5	36.3	43.6							47.5	49.8	79
	50	26.9	37.2	45.7	52.3	56.8					57.1	59.5	79
	60	27.2	37.7	46.8	54.6	60.8	65.4				66.7	69.0	80
	70	27.5	38.1	47.6	56.0	63.2	69.2	73.9			76.1	78.4	80
	80	27.6	38.3	48.1	57.0	64.9	71.8	77.6	82.4		85.4	87.8	80
	90	27.7	38.5	48.5	57.7	66.0	73.6	80.2	86.0	90.7	94.8	97.2	80
	100	27.8	38.6	48.8	58.2	66.9	74.9	82.1	88.6	94.3	104.1	106.5	80
22	50	32.6	44.9	55.0	62.7	67.7					68.1	70.2	79
	60	33.0	45.6	56.5	65.6	72.8	77.9				79.2	81.4	80
	70	33.2	46.0	57.4	67.4	75.9	82.8	88.0			90.3	92.5	80
	80	33.4	46.3	58.1	68.6	78.0	86.0	92.8	98.0		101.3	103.5	80
	90	33.6	46.6	58.6	69.5	79.5	88.3	96.1	102.6	108.0	112.2	114.4	80
	100	33.7	46.7	58.9	70.2	80.6	90.0	98.5	106.0	112.5	123.2	125.4	80
24	50	38.8	53.5	65.3	74.1	79.6					80.0	82.0	79
	60	39.3	54.2	67.1	77.7	86.0	91.7				93.0	95.0	80
	70	39.6	54.8	68.2	79.9	89.8	97.7	103.5			105.9	107.9	80
	80	39.8	55.1	69.0	81.5	92.4	101.7	109.4	115.2		118.7	120.7	80
	90	40.0	55.4	69.6	82.5	94.2	104.5	113.4	120.9	126.8	131.4	133.4	80
	100	40.1	55.6	70.1	83.4	95.6	106.6	116.5	125.1	132.4	144.1	146.1	80
26	50	45.6	62.7	76.5	86.6	92.6					93.0	94.9	79
	60	46.1	63.7	78.6	90.9	100.3	106.6				108.0	109.9	80
	70	46.5	64.3	80.0	93.6	104.9	113.9	120.3			122.9	124.7	80
	80	46.7	64.7	80.9	95.4	108.0	118.7	127.4	133.9		137.6	139.5	80
	90	46.9	65.0	81.6	96.7	110.2	122.1	132.3	140.8	147.4	152.2	154.1	80
	100	47.1	65.3	82.2	97.7	111.9	124.7	136.0	145.9	154.1	166.9	168.8	80

[a] Includes 1.0-foot stump allowance.

Table 209--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) South-wide[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	1.6	1.7	1.8	2.0	2.1	2.2											
6	2.1	2.5	2.8	3.1	3.4	3.6	3.9	4.1									
7	2.9	3.4	3.9	4.3	4.7	5.1	5.5	5.8	6.2	6.5							
8	3.8	4.5	5.2	5.8	6.3	6.8	7.3	7.8	8.3	8.8	9.2	9.7					
9	4.9	5.8	6.6	7.4	8.1	8.8	9.4	10.1	10.7	11.3	11.9	12.5	13.1	13.6			
10	6.0	7.2	8.2	9.2	10.1	11.0	11.8	12.6	13.4	14.1	14.9	15.6	16.3	17.1	17.8	18.5	
11	7.3	8.7	10.0	11.2	12.3	13.3	14.4	15.3	16.3	17.2	18.2	19.1	20.0	20.9	21.7	22.6	23.5
12	8.7	10.4	11.9	13.4	14.7	16.0	17.2	18.4	19.5	20.6	21.8	22.9	23.9	25.0	26.1	27.1	28.2
13	10.3	12.3	14.1	15.7	17.3	18.8	20.2	21.6	23.0	24.3	25.7	27.0	28.2	29.5	30.8	32.0	33.3
14	11.9	14.2	16.3	18.3	20.1	21.9	23.6	25.2	26.8	28.3	29.9	31.4	32.9	34.4	35.8	37.3	38.7
15	13.7	16.4	18.8	21.0	23.2	25.2	27.1	29.0	30.8	32.6	34.4	36.1	37.8	39.6	41.3	42.9	44.6
16	15.6	18.7	21.4	24.0	26.4	28.7	30.9	33.0	35.1	37.2	39.2	41.2	43.2	45.1	47.1	49.0	50.9

[a] Includes 0.5-foot stump allowance.

Table 210--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) South-wide[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	2.1	2.6	3.1	3.5	4.0											
6	2.1	2.8	3.4	4.0	4.6	5.1	5.6	6.2									
7	2.8	3.6	4.4	5.1	5.8	6.5	7.1	7.8	8.4	9.0							
8	3.6	4.6	5.6	6.5	7.3	8.1	8.9	9.7	10.4	11.2	11.9	12.7					
9	4.5	5.7	6.9	8.0	9.0	10.0	10.9	11.9	12.8	13.7	14.6	15.5	16.3	17.2			
10	5.5	7.0	8.4	9.7	10.9	12.0	13.2	14.3	15.4	16.5	17.5	18.6	19.6	20.7	21.7	22.8	
11	6.6	8.4	10.0	11.6	13.0	14.4	15.7	17.0	18.3	19.6	20.8	22.1	23.3	24.5	25.7	27.0	28.2
12	7.8	10.0	11.9	13.6	15.3	16.9	18.4	20.0	21.5	22.9	24.4	25.9	27.3	28.7	30.2	31.6	33.0
13	9.2	11.7	13.8	15.9	17.8	19.7	21.5	23.2	24.9	26.6	28.3	30.0	31.7	33.3	34.9	36.6	38.2
14	10.7	13.5	16.0	18.3	20.5	22.6	24.7	26.7	28.7	30.6	32.6	34.5	36.4	38.3	40.1	42.0	43.9
15	12.2	15.4	18.3	20.9	23.5	25.9	28.2	30.5	32.7	34.9	37.1	39.3	41.4	43.6	45.7	47.8	50.0
16	13.9	17.5	20.8	23.8	26.6	29.3	31.9	34.5	37.0	39.5	42.0	44.4	46.9	49.3	51.7	54.1	56.5

[a] Includes 0.5-foot stump allowance.

Table 211--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.4									7.8	10.3	65
	50	8.4									10.6	13.7	73
	60	9.0	12.5								12.9	16.7	77
	70	9.4	13.2								14.9	19.5	80
	80	9.7	13.6								16.7	22.1	81
	90	9.9	14.0	17.5							18.5	24.7	82
	100	10.0	14.2	17.9							20.2	27.2	83
14	40	10.1									12.5	14.2	65
	50	11.5	15.5								16.5	18.8	73
	60	12.4	17.0								19.9	22.9	77
	70	12.9	18.0	22.0							23.1	26.8	80
	80	13.3	18.6	23.1							26.0	30.5	81
	90	13.5	19.1	23.9	27.7						28.9	34.0	82
	100	13.7	19.4	24.4	28.7						31.6	37.4	83
16	50	15.1	20.3								22.7	24.7	73
	60	16.2	22.3	26.6							27.5	30.1	77
	70	16.9	23.5	28.8							32.0	35.2	80
	80	17.4	24.4	30.2	34.6						36.2	40.0	81
	90	17.7	25.0	31.2	36.3	39.9					40.2	44.7	82
	100	18.0	25.4	32.0	37.5	41.8					44.1	49.2	83
	110	18.2	25.7	32.6	38.5	43.3	47.1				47.9	53.6	84
18	50	19.2	25.8								29.6	31.4	73
	60	20.6	28.2	33.8							36.0	38.3	77
	70	21.5	29.8	36.5	40.9						41.9	44.7	80
	80	22.1	30.9	38.3	43.8						47.4	50.9	81
	90	22.5	31.7	39.6	46.0	50.6					52.8	56.8	82
	100	22.9	32.2	40.6	47.6	53.0	57.0				58.0	62.5	83
	110	23.1	32.7	41.3	48.8	54.9	59.6				63.1	68.1	84
20	50	23.7	31.9	36.8							37.2	38.9	73
	60	25.5	34.9	41.8							45.3	47.4	77
	70	26.6	36.9	45.1	50.6						52.8	55.4	80
	80	27.3	38.2	47.3	54.2	58.7					59.9	63.0	81
	90	27.9	39.2	48.9	56.8	62.5	66.4				66.7	70.3	82
	100	28.3	39.9	50.1	58.8	65.5	70.4				73.3	77.4	83
	110	28.6	40.4	51.1	60.3	67.9	73.7	78.0			79.8	84.4	84
22	60	30.9	42.3	50.6	55.2						55.6	57.5	77
	70	32.2	44.7	54.6	61.2						64.8	67.2	80
	80	33.1	46.3	57.3	65.6	71.1					73.5	76.3	81
	90	33.8	47.4	59.3	68.8	75.7	80.4				81.9	85.2	82
	100	34.3	48.3	60.7	71.2	79.3	85.3	89.4			90.1	93.8	83
	110	34.7	48.9	61.8	73.0	82.2	89.2	94.4	98.1		98.1	102.3	84
24	60	36.8	50.4	60.3	65.8						66.8	68.6	77
	70	38.4	53.3	65.0	72.9	77.5					77.9	80.1	80
	80	39.5	55.2	68.3	78.1	84.7					88.4	91.0	81
	90	40.3	56.5	70.6	82.0	90.2	95.8				98.6	101.5	82
	100	40.9	57.5	72.4	84.8	94.5	101.6	106.4			108.4	111.8	83
	110	41.3	58.3	73.7	87.0	97.9	106.3	112.5	116.8		118.1	121.9	84
26	60	43.2	59.3	70.8	77.3						78.9	80.6	77
	70	45.1	62.6	76.4	85.7	91.0					92.1	94.1	80
	80	46.4	64.8	80.2	91.8	99.4	104.0				104.5	106.9	81
	90	47.4	66.4	83.0	96.3	105.9	112.5	116.5			116.6	119.3	82
	100	48.1	67.6	85.0	99.6	111.0	119.3	125.0			128.3	131.4	83
	110	48.6	68.5	86.5	102.2	114.9	124.8	132.1	137.2		139.7	143.2	84

[a] Includes 1.0-foot stump allowance.

Table 212--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	8.1									9.0	11.2	71
	40	9.1									11.7	15.2	77
	50	9.5	13.1								14.0	18.9	80
12	60	9.8	13.6								16.1	22.4	81
	70	10.0	14.0	17.4							18.2	25.7	82
	80	10.1	14.2	17.8							20.1	29.0	83
	90	10.2	14.3	18.0	21.3						22.0	32.3	83
	40	12.4	16.7								18.0	20.5	77
	50	13.0	17.9	21.6							22.0	25.3	80
	60	13.4	18.6	22.8							25.6	29.9	81
14	70	13.6	19.0	23.6	27.4						29.1	34.4	82
	80	13.8	19.3	24.2	28.3	31.8					32.6	38.8	83
	90	13.9	19.5	24.5	29.0	32.8					35.9	43.1	83
	100	14.0	19.7	24.9	29.5	33.6	37.1				39.3	47.4	83
	40	16.2	21.8								24.8	26.6	77
	50	17.0	23.4	28.1							30.3	32.8	80
	60	17.5	24.3	29.8	33.9						35.5	38.7	81
16	70	17.8	24.9	30.8	35.7	39.5					40.5	44.4	82
	80	18.1	25.3	31.5	36.9	41.4	44.9				45.5	50.1	83
	90	18.2	25.5	32.1	37.8	42.7	46.9	50.2			50.3	55.6	83
	100	18.3	25.8	32.5	38.5	43.8	48.4	52.2			55.1	61.1	83
	40	20.6	27.7	32.0							32.1	33.5	77
	50	21.6	29.6	35.6							39.3	41.3	80
	60	22.2	30.8	37.7	42.9						46.2	48.7	81
18	70	22.6	31.5	39.0	45.1	49.9					52.8	55.8	82
	80	22.9	32.0	39.9	46.7	52.2	56.6				59.3	62.8	83
	90	23.1	32.4	40.6	47.8	54.0	59.2	63.3			65.7	69.8	83
	100	23.3	32.6	41.1	48.7	55.3	61.1	65.9	69.9		72.0	76.6	83
	40	25.4	34.2	39.4							40.1	41.2	77
	50	26.8	36.6	43.9	48.6						49.2	50.7	80
	60	27.5	38.1	46.5	52.9	57.2					57.8	59.8	81
20	70	28.0	39.0	48.2	55.7	61.5	65.5				66.2	68.6	82
	80	28.3	39.6	49.3	57.6	64.4	69.8	73.7			74.3	77.1	83
	90	28.6	40.0	50.2	59.0	66.6	72.9	78.0	81.7		82.4	85.6	83
	100	28.8	40.4	50.8	60.1	68.3	75.3	81.2	86.0	89.7	90.3	94.0	83
	50	32.4	44.4	53.1	58.7						60.0	61.2	80
	60	33.3	46.1	56.3	64.0	69.1					70.5	72.1	81
	70	33.9	47.2	58.3	67.4	74.3	79.1				80.7	82.6	82
22	80	34.3	47.9	59.7	69.7	77.9	84.3	89.0			90.7	93.0	83
	90	34.6	48.5	60.7	71.4	80.6	88.1	94.2	98.6		100.5	103.1	83
	100	34.9	48.9	61.5	72.7	82.6	91.1	98.1	103.9	108.2	110.2	113.2	83
	50	38.6	52.9	63.2	69.8						71.7	72.7	80
	60	39.7	54.9	67.0	76.1	82.1					84.3	85.6	81
	70	40.5	56.2	69.4	80.1	88.3	94.1				96.5	98.1	82
24	80	40.9	57.1	71.1	83.0	92.7	100.3	105.7			108.4	110.3	83
	90	41.3	57.8	72.3	85.0	95.9	104.8	111.9	117.2		120.1	122.3	83
	100	41.6	58.2	73.2	86.6	98.3	108.3	116.7	123.4	128.6	131.8	134.3	83
	50	45.4	62.1	74.2	81.9						84.3	85.2	80
	60	46.7	64.5	78.7	89.3	96.3					99.2	100.3	81
	70	47.5	66.0	81.5	94.1	103.6	110.3				113.5	114.9	82
26	80	48.1	67.1	83.5	97.4	108.7	117.6	123.9			127.5	129.1	83
	90	48.5	67.8	84.9	99.8	112.5	123.0	131.2	137.4	141.3	141.4	143.2	83
	100	48.8	68.4	86.0	101.6	115.3	127.1	136.9	144.7	150.7	155.0	157.1	83

[a] Includes 1.0-foot stump allowance.

Table 213--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.6									9.8	14.4	75
	30	9.5	13.2								15.2	19.2	80
	40	9.9	13.9	17.5							20.3	24.0	81
12	50	10.1	14.2	18.0	21.6	24.8					25.2	28.8	82
	60	10.2	14.4	18.4	22.1	25.6	28.9				30.0	33.5	82
	70	10.3	14.5	18.6	22.4	26.1	29.6	32.9			34.7	38.2	82
	80	10.4	14.6	18.7	22.6	26.4	30.1	33.5	36.8		39.5	42.9	83
	40	13.4	18.7	23.2							26.3	29.7	81
	50	13.7	19.2	24.1	28.4	32.0					32.4	35.7	82
	60	13.8	19.4	24.6	29.4	33.6	37.2				38.4	41.7	82
14	70	14.0	19.6	24.9	29.9	34.5	38.7	42.4			44.4	47.5	82
	80	14.0	19.8	25.2	30.3	35.1	39.6	43.7	47.4		50.3	53.4	83
	90	14.1	19.8	25.3	30.6	35.6	40.3	44.7	48.7	52.5	56.1	59.3	83
	100	14.2	19.9	25.5	30.8	35.9	40.7	45.3	49.7	53.7	62.0	65.1	83
	40	17.5	24.3	29.8							33.3	36.5	81
	50	17.8	24.9	31.1	36.4	40.4					40.8	43.9	82
	60	18.0	25.3	31.9	37.8	42.8	47.0				48.2	51.2	82
16	70	18.2	25.5	32.4	38.6	44.2	49.2	53.4			55.5	58.5	82
	80	18.3	25.7	32.7	39.2	45.2	50.6	55.5	59.7		62.7	65.7	83
	90	18.4	25.8	32.9	39.6	45.8	51.6	57.0	61.8	66.0	69.9	72.9	83
	100	18.4	25.9	33.1	39.9	46.3	52.4	58.0	63.3	68.0	77.1	80.0	83
	40	22.1	30.6	37.3							41.2	44.3	81
	50	22.6	31.5	39.1	45.4	49.9					50.3	53.3	82
	60	22.8	32.0	40.1	47.3	53.3	58.0				59.3	62.2	82
18	70	23.0	32.3	40.8	48.5	55.3	61.1	65.9			68.1	71.0	82
	80	23.2	32.5	41.2	49.2	56.6	63.1	68.9	73.7		76.9	79.7	83
	90	23.2	32.7	41.5	49.8	57.5	64.5	70.9	76.6	81.4	85.6	88.4	83
	100	23.3	32.8	41.8	50.2	58.2	65.6	72.4	78.7	84.2	94.3	97.1	83
	40	27.3	37.8	45.7							50.1	53.1	81
	50	27.9	38.8	48.1	55.5	60.6					61.0	63.9	82
	60	28.2	39.4	49.4	58.0	65.1	70.3				71.7	74.5	82
20	70	28.4	39.8	50.2	59.5	67.6	74.5	79.9			82.2	85.0	82
	80	28.6	40.1	50.8	60.5	69.3	77.1	83.8	89.3		92.7	95.4	83
	90	28.7	40.3	51.2	61.2	70.5	79.0	86.5	93.1	98.6	103.2	105.8	83
	100	28.8	40.5	51.5	61.8	71.4	80.4	88.5	95.9	102.4	113.6	116.2	83
	50	33.7	46.9	58.0	66.7	72.4					72.8	75.6	82
	60	34.1	47.7	59.6	69.8	78.0	84.0				85.4	88.2	82
	70	34.4	48.2	60.6	71.7	81.3	89.3	95.3			97.9	100.6	82
22	80	34.6	48.5	61.3	73.0	83.4	92.6	100.4	106.5		110.3	112.9	83
	90	34.8	48.8	61.8	73.9	85.0	95.0	103.8	111.4	117.6	122.6	125.2	83
	100	34.9	49.0	62.2	74.6	86.1	96.7	106.3	114.9	122.4	134.8	137.4	83
	50	40.2	55.9	68.9	78.9	85.3					85.8	88.5	82
	60	40.7	56.8	70.8	82.8	92.3	99.0				100.5	103.2	82
	70	41.0	57.3	72.1	85.1	96.3	105.4	112.3			115.0	117.6	82
24	80	41.2	57.8	72.9	86.7	98.9	109.6	118.5	125.5		129.5	132.0	83
	90	41.4	58.0	73.5	87.8	100.8	112.5	122.8	131.5	138.5	143.8	146.4	83
	100	41.5	58.3	74.0	88.7	102.2	114.7	125.9	135.8	144.4	158.1	160.6	83
	50	47.2	65.6	80.7	92.3	99.4					99.9	102.6	82
	60	47.8	66.6	83.1	96.9	107.8	115.2				116.9	119.5	82
	70	48.2	67.3	84.5	99.7	112.6	123.1	130.7			133.7	136.2	82
26	80	48.4	67.8	85.5	101.6	115.8	128.1	138.2	146.0		150.4	152.9	83
	90	48.6	68.1	86.3	102.9	118.0	131.6	143.4	153.3	161.2	167.0	169.4	83
	100	48.8	68.4	86.8	103.9	119.7	134.1	147.1	158.6	168.3	183.5	185.9	83

[a] Includes 1.0-foot stump allowance.

Table 214--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) South-wide[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	0.6	0.7	0.9	1.3	1.7	1.9											
6	1.1	1.9	2.3	2.7	3.0	3.4	3.7	4.0									
7	2.2	2.8	3.4	3.9	4.4	4.9	5.3	5.8	6.2	6.6							
8	2.9	3.7	4.5	5.3	6.0	6.6	7.2	7.8	8.4	9.0	9.5	10.0					
9	3.7	4.8	5.9	6.8	7.7	8.6	9.4	10.1	10.9	11.6	12.3	13.0	13.7	14.4			
10	4.7	6.1	7.3	8.5	9.7	10.7	11.7	12.7	13.6	14.6	15.5	16.3	17.2	18.1	18.9	19.7	
11	5.7	7.4	9.0	10.4	11.8	13.1	14.3	15.5	16.7	17.8	18.9	20.0	21.0	22.1	23.1	24.2	25.2
12	6.8	8.9	10.8	12.5	14.1	15.7	17.2	18.6	20.0	21.3	22.7	24.0	25.2	26.5	27.7	29.0	30.2
13	8.1	10.5	12.7	14.8	16.7	18.5	20.3	22.0	23.6	25.2	26.8	28.3	29.8	31.3	32.8	34.2	35.6
14	9.4	12.2	14.8	17.2	19.4	21.6	23.6	25.6	27.5	29.3	31.2	32.9	34.7	36.4	38.2	39.8	41.5
15	10.8	14.0	17.0	19.8	22.4	24.9	27.2	29.5	31.7	33.8	35.9	38.0	40.0	42.0	43.9	45.9	47.8
16	12.4	16.0	19.4	22.6	25.6	28.4	31.0	33.6	36.1	38.6	41.0	43.3	45.6	47.9	50.1	52.4	54.6

[a] Includes 0.5-foot stump allowance.

Table 215--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) South-wide[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	1.6	2.0	2.5	3.0	3.5	4.0											
6	1.9	2.6	3.3	4.0	4.6	5.2	5.8	6.4									
7	2.4	3.4	4.3	5.1	5.9	6.7	7.4	8.1	8.8	9.5							
8	3.1	4.3	5.4	6.5	7.4	8.4	9.3	10.2	11.0	11.9	12.7	13.6					
9	3.9	5.4	6.8	8.0	9.2	10.3	11.4	12.5	13.5	14.6	15.6	16.6	17.6	18.6			
10	4.8	6.6	8.2	9.7	11.2	12.5	13.8	15.1	16.4	17.6	18.8	20.0	21.2	22.4	23.6	24.8	
11	5.8	8.0	9.9	11.7	13.3	14.9	16.5	18.0	19.5	20.9	22.4	23.8	25.2	26.6	28.0	29.4	30.8
12	6.9	9.4	11.7	13.8	15.7	17.6	19.4	21.2	22.9	24.6	26.3	27.9	29.6	31.2	32.9	34.5	36.1
13	8.1	11.0	13.7	16.1	18.3	20.5	22.6	24.6	26.6	28.6	30.5	32.5	34.4	36.3	38.1	40.0	41.9
14	9.4	12.8	15.8	18.6	21.2	23.6	26.0	28.4	30.7	32.9	35.1	37.3	39.5	41.7	43.8	46.0	48.1
15	10.8	14.6	18.1	21.2	24.2	27.0	29.7	32.4	35.0	37.6	40.1	42.6	45.1	47.5	50.0	52.4	54.8
16	12.3	16.6	20.5	24.1	27.4	30.6	33.7	36.7	39.6	42.5	45.4	48.2	51.0	53.8	56.5	59.3	62.0

[a] Includes 0.5-foot stump allowance.

Table 216--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										4.8	8.8	57
	50	7.7									8.8	12.2	66
	60	8.4									11.1	15.2	71
12	70	8.9	12.2								13.1	17.9	75
	80	9.2	12.7								14.9	20.6	77
	90	9.4	13.0	16.3							16.6	23.1	78
	100	9.5	13.3	16.7							18.2	25.5	79
	40	9.0									10.5	12.1	57
	50	10.6	13.9								14.5	16.7	66
	60	11.5	15.6								18.0	20.9	71
14	70	12.1	16.6	20.2							21.1	24.7	75
	80	12.6	17.3	21.4							24.0	28.3	77
	90	12.9	17.8	22.2	25.8						26.8	31.8	78
	100	13.1	18.2	22.8	26.8						29.4	35.1	79
	50	13.9	18.2								20.1	22.0	66
	60	15.1	20.4	24.3							24.9	27.5	71
	70	15.9	21.8	26.5							29.3	32.5	75
16	80	16.5	22.7	28.0	32.1						33.5	37.2	77
	90	16.9	23.4	29.1	33.8	37.3					37.4	41.8	78
	100	17.1	23.9	29.9	35.0	39.1					41.2	46.2	79
	110	17.4	24.2	30.5	36.0	40.6	44.2				44.9	50.5	80
	50	17.6	23.1								26.3	28.0	66
	60	19.2	25.9	30.8							32.7	34.9	71
	70	20.2	27.6	33.6	37.7						38.5	41.3	75
18	80	20.9	28.8	35.5	40.7						44.0	47.3	77
	90	21.4	29.6	36.9	42.8	47.2					49.2	53.1	78
	100	21.8	30.3	37.9	44.4	49.6	53.4				54.2	58.7	79
	110	22.0	30.7	38.7	45.6	51.5	56.0				59.2	64.2	80
	50	21.8	28.6	32.9							33.2	34.7	66
	60	23.8	32.0	38.1							41.2	43.2	71
	70	25.1	34.2	41.5	46.6						48.6	51.1	75
20	80	25.9	35.6	43.9	50.3	54.6					55.6	58.6	77
	90	26.5	36.7	45.6	52.9	58.4	62.1				62.2	65.7	78
	100	27.0	37.4	46.9	54.9	61.3	66.0				68.7	72.7	79
	110	27.3	38.0	47.8	56.4	63.6	69.2	73.3			75.0	79.4	80
	60	28.9	38.8	46.2	50.4						50.6	52.4	71
	70	30.4	41.4	50.3	56.5						59.7	62.0	75
	80	31.4	43.2	53.2	60.9	66.1					68.3	71.0	77
22	90	32.2	44.5	55.3	64.1	70.7	75.2				76.5	79.7	78
	100	32.7	45.4	56.8	66.5	74.3	80.0	83.9			84.5	88.1	79
	110	33.1	46.1	57.9	68.4	77.0	83.8	88.8			92.3	96.3	80
	60	34.4	46.2	55.0	60.0						60.8	62.5	71
	70	36.2	49.4	60.0	67.3	71.5					71.8	73.9	75
	80	37.5	51.5	63.4	72.6	78.7					82.2	84.7	77
24	90	38.3	53.0	65.8	76.4	84.2	89.5				92.1	95.0	78
	100	39.0	54.1	67.7	79.3	88.5	95.2	99.9			101.7	105.0	79
	110	39.5	54.9	69.0	81.4	91.8	99.8	105.8	110.0		111.1	114.8	80
	60	40.5	54.3	64.6	70.5						71.9	73.5	71
	70	42.6	58.0	70.5	79.1	84.0					84.9	86.9	75
	80	44.1	60.5	74.5	85.3	92.5	96.8				97.2	99.5	77
26	90	45.1	62.3	77.4	89.8	98.9	105.1				109.0	111.7	78
	100	45.8	63.6	79.5	93.1	103.9	111.9	117.3			120.4	123.4	79
	110	46.4	64.6	81.1	95.6	107.8	117.2	124.2	129.1		131.5	134.9	80

[a] Includes 1.0-foot stump allowance.

Table 217--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	7.5									8.0	10.3	66
	40	8.4									10.3	14.0	72
	50	8.9	12.1								12.2	17.4	75
12	60	9.2	12.6								14.0	20.6	76
	70	9.4	12.9								15.6	23.7	77
	80	9.5	13.1	16.3							17.2	26.8	78
	90	9.6	13.3	16.6							18.7	29.7	78
	40	11.5	15.4								16.3	18.8	72
	50	12.2	16.5	19.8							19.8	23.3	75
	60	12.6	17.2	21.0							23.1	27.6	76
14	70	12.8	17.6	21.7	25.1						26.2	31.7	77
	80	13.0	17.9	22.2	26.0	29.1					29.2	35.7	78
	90	13.1	18.1	22.6	26.6	30.0					32.1	39.7	78
	100	13.2	18.3	22.9	27.0	30.7	34.0				35.0	43.6	78
	40	15.1	20.1								22.6	24.4	72
	50	16.0	21.6	25.8							27.6	30.2	75
	60	16.5	22.5	27.4	31.2						32.4	35.7	76
16	70	16.8	23.0	28.4	32.8	36.2					36.9	40.9	77
	80	17.0	23.4	29.0	33.9	37.9	41.2				41.3	46.1	78
	90	17.2	23.7	29.5	34.7	39.1	42.9				45.7	51.1	78
	100	17.3	23.9	29.9	35.3	40.1	44.2	47.8			49.9	56.2	78
	40	19.2	25.5	29.4							29.4	30.8	72
	50	20.3	27.4	32.7							36.1	38.0	75
	60	20.9	28.5	34.7	39.4						42.3	44.8	76
18	70	21.4	29.2	35.9	41.4	45.8					48.3	51.4	77
	80	21.6	29.7	36.8	42.9	47.9	51.9				54.2	57.8	78
	90	21.9	30.1	37.4	43.9	49.5	54.2	58.0			60.0	64.2	78
	100	22.0	30.3	37.9	44.7	50.7	55.9	60.3	64.0		65.7	70.4	78
	40	23.8	31.5	36.2							36.8	37.9	72
	50	25.1	33.9	40.4	44.7						45.2	46.7	75
	60	25.9	35.2	42.8	48.6	52.6					53.1	55.1	76
20	70	26.4	36.1	44.4	51.1	56.4	60.2				60.7	63.1	77
	80	26.8	36.8	45.5	52.9	59.1	64.0	67.7			68.1	71.0	78
	90	27.1	37.2	46.2	54.2	61.1	66.8	71.4	75.0		75.4	78.7	78
	100	27.2	37.5	46.8	55.2	62.5	68.9	74.3	78.8	82.2	82.7	86.4	78
	50	30.5	41.0	48.9	54.0						55.2	56.4	75
	60	31.4	42.7	51.8	58.8	63.5					64.8	66.4	76
	70	32.1	43.8	53.7	61.9	68.2	72.7				74.2	76.1	77
22	80	32.5	44.5	55.1	64.0	71.5	77.4	81.7			83.2	85.5	78
	90	32.8	45.1	56.0	65.6	73.9	80.8	86.3	90.5		92.2	94.8	78
	100	33.0	45.5	56.7	66.8	75.7	83.3	89.8	95.1	99.2	101.0	104.0	78
	50	36.3	48.9	58.2	64.2						66.0	67.0	75
	60	37.5	50.9	61.7	69.9	75.5					77.5	78.9	76
	70	38.2	52.2	64.0	73.6	81.1	86.4				88.7	90.3	77
24	80	38.7	53.1	65.6	76.2	85.0	92.0	97.1			99.6	101.5	78
	90	39.1	53.7	66.7	78.1	87.9	96.0	102.6	107.5		110.3	112.5	78
	100	39.4	54.2	67.6	79.5	90.0	99.2	106.8	113.1	117.8	120.9	123.3	78
	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
26	80	45.5	62.4	77.0	89.5	99.8	107.9	113.8			117.2	118.8	78
	90	46.0	63.1	78.3	91.7	103.1	112.7	120.3	126.0	129.8	129.8	131.7	78
	100	46.3	63.7	79.4	93.4	105.7	116.3	125.3	132.5	138.1	142.3	144.4	78

[a] Includes 1.0-foot stump allowance.

Table 218--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	7.8									8.9	15.0	70
	30	8.8	12.1								13.9	18.3	75
	40	9.2	12.7	16.0							18.6	22.3	76
12	50	9.4	13.1	16.5	19.7	22.7					23.0	26.4	77
	60	9.6	13.3	16.8	20.2	23.4	26.4				27.4	30.6	77
	70	9.7	13.4	17.0	20.5	23.8	27.0	30.0			31.8	34.8	78
	80	9.7	13.5	17.1	20.7	24.1	27.4	30.6	33.6		36.1	38.9	78
	40	12.5	17.2	21.2							24.1	27.3	76
	50	12.8	17.7	22.1	26.0	29.3					29.7	32.6	77
	60	13.0	18.0	22.6	26.9	30.7	34.0				35.1	37.8	77
14	70	13.2	18.2	22.9	27.4	31.5	35.3	38.6			40.5	43.0	78
	80	13.3	18.3	23.2	27.7	32.0	36.1	39.8	43.2		45.8	48.3	78
	90	13.3	18.4	23.3	28.0	32.4	36.7	40.6	44.3	47.7	51.1	53.5	78
	100	13.4	18.5	23.4	28.2	32.7	37.1	41.2	45.1	48.8	56.4	58.7	78
	40	16.4	22.4	27.3							30.5	33.4	76
	50	16.8	23.1	28.6	33.3	36.9					37.3	39.9	77
	60	17.1	23.5	29.3	34.6	39.1	42.8				44.0	46.4	77
16	70	17.2	23.7	29.8	35.3	40.4	44.8	48.6			50.5	52.8	78
	80	17.3	23.9	30.1	35.9	41.2	46.1	50.5	54.3		57.1	59.3	78
	90	17.4	24.1	30.3	36.3	41.8	47.0	51.8	56.1	59.9	63.6	65.7	78
	100	17.5	24.2	30.5	36.6	42.3	47.7	52.7	57.4	61.7	70.0	72.1	78
	40	20.8	28.3	34.2							37.7	40.4	76
	50	21.3	29.2	36.0	41.5	45.6					46.0	48.4	77
	60	21.6	29.7	37.0	43.3	48.6	52.8				54.0	56.2	77
18	70	21.8	30.1	37.6	44.4	50.4	55.7	59.9			62.0	64.1	78
	80	22.0	30.3	38.0	45.1	51.6	57.5	62.6	66.9		69.8	71.8	78
	90	22.1	30.5	38.3	45.7	52.5	58.8	64.4	69.5	73.8	77.7	79.6	78
	100	22.2	30.6	38.6	46.1	53.1	59.7	65.8	71.4	76.3	85.5	87.3	78
	40	25.7	34.9	41.9							45.9	48.3	76
	50	26.4	36.0	44.2	50.8	55.3					55.7	57.9	77
	60	26.7	36.7	45.5	53.1	59.3	64.0				65.3	67.4	77
20	70	27.0	37.1	46.3	54.5	61.7	67.8	72.6			74.8	76.7	78
	80	27.2	37.4	46.9	55.5	63.3	70.2	76.1	81.0		84.1	86.0	78
	90	27.3	37.6	47.3	56.2	64.4	71.9	78.6	84.4	89.3	93.5	95.2	78
	100	27.4	37.8	47.6	56.7	65.3	73.2	80.4	86.9	92.7	102.7	104.5	78
	50	31.9	43.6	53.4	61.0	66.1					66.4	68.5	77
	60	32.4	44.4	55.0	63.9	71.2	76.4				77.8	79.7	77
	70	32.7	44.9	56.0	65.7	74.2	81.2	86.6			88.9	90.7	78
22	80	33.0	45.3	56.7	67.0	76.2	84.3	91.1	96.6		99.9	101.7	78
	90	33.1	45.6	57.2	67.9	77.6	86.5	94.3	101.0	106.5	110.9	112.6	78
	100	33.2	45.8	57.5	68.5	78.7	88.1	96.6	104.2	110.8	121.8	123.4	78
	50	38.1	51.9	63.4	72.2	77.8					78.2	80.2	77
	60	38.6	52.9	65.3	75.8	84.2	90.0				91.4	93.2	77
	70	39.0	53.5	66.5	78.0	87.9	95.9	101.9			104.4	106.1	78
24	80	39.3	53.9	67.4	79.5	90.3	99.7	107.6	113.7		117.3	118.9	78
	90	39.5	54.3	68.0	80.6	92.1	102.4	111.4	119.1	125.3	130.1	131.6	78
	100	39.6	54.5	68.5	81.4	93.4	104.4	114.3	123.1	130.6	142.8	144.3	78
	50	44.7	60.9	74.3	84.4	90.6					91.0	92.9	77
	60	45.4	62.1	76.6	88.7	98.3	104.8				106.3	108.0	77
	70	45.8	62.8	78.1	91.4	102.7	111.9	118.6			121.3	122.9	78
26	80	46.2	63.4	79.1	93.2	105.7	116.5	125.4	132.3		136.1	137.7	78
	90	46.4	63.7	79.8	94.5	107.9	119.7	130.1	138.8	145.7	150.9	152.4	78
	100	46.6	64.0	80.3	95.5	109.5	122.2	133.6	143.6	152.2	165.5	167.0	78

[a] Includes 1.0-foot stump allowance.

Table 219--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) South-wide[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	0.6	0.7	0.8	0.9	1.1	1.5											
6	0.9	1.3	2.0	2.3	2.7	3.0	3.3	3.6									
7	2.0	2.3	2.9	3.4	3.9	4.4	4.8	5.3	5.7	6.1							
8	2.6	3.1	3.9	4.6	5.3	6.0	6.6	7.2	7.7	8.3	8.8	9.3					
9	3.1	4.0	5.0	6.0	6.9	7.7	8.5	9.3	10.0	10.7	11.4	12.1	12.8	13.4			
10	3.8	5.1	6.3	7.5	8.6	9.7	10.7	11.6	12.6	13.5	14.4	15.2	16.1	16.9	17.7	18.5	
11	4.6	6.2	7.7	9.2	10.6	11.8	13.1	14.3	15.4	16.5	17.6	18.6	19.7	20.7	21.7	22.7	23.7
12	5.5	7.4	9.3	11.0	12.7	14.2	15.7	17.1	18.5	19.8	21.1	22.4	23.6	24.8	26.0	27.2	28.4
13	6.5	8.8	11.0	13.0	14.9	16.8	18.5	20.2	21.8	23.4	24.9	26.4	27.9	29.3	30.8	32.2	33.6
14	7.6	10.2	12.8	15.2	17.4	19.5	21.6	23.5	25.4	27.2	29.0	30.8	32.5	34.2	35.8	37.5	39.1
15	8.8	11.8	14.7	17.5	20.1	22.5	24.9	27.1	29.3	31.4	33.4	35.5	37.4	39.4	41.3	43.2	45.1
16	10.0	13.4	16.8	19.9	22.9	25.7	28.4	30.9	33.4	35.8	38.2	40.5	42.7	44.9	47.1	49.3	51.5

[a] Includes 0.5-foot stump allowance.

Table 220--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) South-wide[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	1.6	2.0	2.4	2.7	3.2	3.6											
6	1.9	2.3	3.0	3.6	4.2	4.8	5.3	5.9									
7	2.2	3.1	3.9	4.7	5.4	6.1	6.8	7.5	8.1	8.8							
8	2.8	4.0	5.0	5.9	6.9	7.7	8.6	9.4	10.2	11.0	11.7	12.5					
9	3.6	5.0	6.2	7.4	8.5	9.5	10.5	11.5	12.5	13.4	14.4	15.3	16.2	17.2			
10	4.4	6.1	7.6	9.0	10.3	11.5	12.8	13.9	15.1	16.2	17.4	18.5	19.6	20.7	21.8	22.8	
11	5.3	7.3	9.1	10.8	12.3	13.8	15.2	16.6	18.0	19.3	20.7	22.0	23.3	24.6	25.8	27.1	28.4
12	6.3	8.7	10.8	12.7	14.5	16.3	17.9	19.6	21.2	22.7	24.3	25.8	27.3	28.8	30.3	31.8	33.3
13	7.4	10.1	12.6	14.8	16.9	18.9	20.9	22.8	24.6	26.4	28.2	30.0	31.7	33.4	35.2	36.9	38.6
14	8.6	11.7	14.5	17.1	19.5	21.8	24.1	26.2	28.3	30.4	32.4	34.5	36.5	38.5	40.4	42.4	44.4
15	9.9	13.4	16.7	19.6	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
16	11.3	15.3	18.9	22.2	25.4	28.3	31.2	33.9	36.6	39.3	41.9	44.5	47.1	49.6	52.1	54.7	57.2

[a] Includes 0.5-foot stump allowance.

Table 221--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 cherrybark oak (species 813) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										4.8	8.1	50
	50	7.8									8.2	11.8	64
	60	8.7									11.0	15.1	71
12	70	9.2	12.5								13.3	18.1	75
	80	9.6	13.2								15.4	21.0	78
	90	9.9	13.7	17.0							17.3	23.8	80
	100	10.1	14.0	17.6							19.1	26.4	81
	40	8.8									9.4	11.2	50
	50	10.7	13.7								13.8	16.2	64
	60	11.9	15.8								17.7	20.8	71
14	70	12.6	17.1	20.7							21.2	25.0	75
	80	13.2	18.0	22.2							24.4	29.0	78
	90	13.5	18.7	23.2	26.9						27.5	32.8	80
	100	13.8	19.2	24.0	28.1						30.4	36.4	81
	50	14.0	18.0								19.3	21.3	64
	60	15.6	20.7	24.4							24.6	27.3	71
	70	16.6	22.4	27.1							29.5	32.9	75
16	80	17.2	23.6	29.0	33.1						34.1	38.1	78
	90	17.7	24.5	30.4	35.2						38.4	43.1	80
	100	18.1	25.2	31.5	36.8	40.9					42.6	47.9	81
	110	18.4	25.7	32.3	38.0	42.7	46.3				46.7	52.6	82
	50	17.8	22.8								25.3	27.1	64
	60	19.7	26.2	30.9							32.3	34.7	71
	70	21.0	28.4	34.4	38.4						38.8	41.8	75
18	80	21.9	30.0	36.8	41.9						44.9	48.4	78
	90	22.5	31.1	38.6	44.6	49.0					50.6	54.8	80
	100	23.0	31.9	39.9	46.6	51.8	55.6				56.2	60.9	81
	110	23.3	32.5	40.9	48.2	54.1	58.7				61.6	66.9	82
	50	22.0	28.2								31.9	33.5	64
	60	24.4	32.4	38.2							40.8	43.0	71
	70	26.0	35.2	42.5	47.4						49.0	51.7	75
20	80	27.1	37.1	45.5	51.8	56.0					56.7	59.9	78
	90	27.9	38.4	47.7	55.1	60.5					64.1	67.8	80
	100	28.4	39.5	49.3	57.6	64.0	68.8				71.2	75.4	81
	110	28.9	40.2	50.6	59.5	66.9	72.5	76.7			78.0	82.8	82
	60	29.6	39.3	46.3							50.2	52.1	71
	70	31.5	42.6	51.5	57.4						60.3	62.7	75
	80	32.8	44.9	55.1	62.8	67.8					69.8	72.7	78
22	90	33.8	46.6	57.8	66.7	73.3	77.7				78.8	82.2	80
	100	34.5	47.8	59.7	69.8	77.6	83.3	87.2			87.6	91.4	81
	110	35.0	48.8	61.2	72.1	81.0	87.8	92.8			96.1	100.4	82
	60	35.3	46.8	55.1	59.8						60.3	62.1	71
	70	37.5	50.8	61.3	68.4	72.4					72.5	74.7	75
	80	39.1	53.5	65.7	74.7	80.8					83.9	86.6	78
24	90	40.2	55.5	68.8	79.5	87.3	92.5				94.9	98.0	80
	100	41.1	57.0	71.1	83.1	92.4	99.1	103.8			105.4	108.9	81
	110	41.7	58.1	72.9	85.8	96.4	104.5	110.5	114.8		115.7	119.6	82
	60	41.4	54.9	64.7	70.2						71.3	73.0	71
	70	44.1	59.6	72.0	80.3	85.1					85.7	87.8	75
	80	46.0	62.9	77.1	87.8	94.8	99.1				99.3	101.7	78
26	90	47.3	65.2	80.8	93.3	102.5	108.6				112.2	115.1	80
	100	48.3	66.9	83.5	97.6	108.4	116.4	121.9			124.7	128.0	81
	110	49.0	68.2	85.7	100.8	113.2	122.7	129.8	134.7		136.9	140.6	82

[a] Includes 1.0-foot stump allowance.

Table 222--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 cherrybark oak (species 813) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30										6.7	10.0	64
	40	8.7									10.3	14.2	72
	50	9.3	12.6								12.7	17.9	76
12	60	9.7	13.2								14.8	21.5	78
	70	9.9	13.7								16.8	24.9	80
	80	10.1	14.0	17.4							18.7	28.2	81
	90	10.2	14.2	17.7							20.6	31.4	81
	40	11.9	15.7								16.4	19.1	72
	50	12.7	17.2								20.4	24.1	76
	60	13.2	18.1	22.0							24.1	28.8	78
14	70	13.6	18.7	23.0	26.6						27.6	33.3	80
	80	13.8	19.1	23.7	27.6	30.9					31.0	37.7	81
	90	14.0	19.3	24.1	28.4	32.0					34.3	42.0	81
	100	14.1	19.6	24.5	29.0	32.9	36.3				37.6	46.2	82
	40	15.6	20.5								22.7	24.7	72
	50	16.7	22.5	26.8							28.4	31.2	76
	60	17.4	23.7	28.8	32.7						33.7	37.2	78
16	70	17.8	24.4	30.0	34.6	38.2					38.8	43.0	80
	80	18.1	25.0	30.9	36.0	40.3	43.6				43.7	48.6	81
	90	18.3	25.3	31.6	37.0	41.8	45.7				48.5	54.1	81
	100	18.5	25.6	32.1	37.8	42.9	47.3	51.0			53.2	59.6	82
	40	19.8	26.0								29.6	31.2	72
	50	21.2	28.5	33.9							37.1	39.2	76
	60	22.0	30.0	36.4	41.3						44.1	46.7	78
18	70	22.6	31.0	38.0	43.8	48.3					50.7	54.0	80
	80	23.0	31.6	39.2	45.6	50.9	55.1				57.2	61.0	81
	90	23.3	32.1	40.0	46.9	52.8	57.7	61.7			63.5	67.9	81
	100	23.5	32.5	40.6	47.9	54.3	59.8	64.4	68.2		69.8	74.7	82
	40	24.4	32.1	36.8							37.1	38.3	72
	50	26.2	35.2	41.9	46.2						46.5	48.2	76
	60	27.2	37.1	45.0	50.9	54.9					55.3	57.4	78
20	70	27.9	38.3	47.0	54.0	59.5	63.4				63.7	66.3	80
	80	28.4	39.1	48.4	56.3	62.7	67.8	71.6			71.8	74.9	81
	90	28.8	39.7	49.4	57.9	65.1	71.2	76.0	79.6		79.8	83.3	81
	100	29.1	40.2	50.2	59.1	66.9	73.7	79.4	84.0	87.5	87.7	91.7	82
	50	31.7	42.7	50.7	55.8						56.7	58.1	76
	60	33.0	44.9	54.4	61.6	66.4					67.5	69.2	78
	70	33.9	46.4	56.9	65.4	71.9	76.5				77.7	79.9	80
22	80	34.5	47.4	58.6	68.1	75.9	82.0	86.4			87.7	90.2	81
	90	34.9	48.1	59.8	70.0	78.8	86.0	91.8	96.1		97.5	100.4	81
	100	35.3	48.7	60.8	71.5	81.0	89.1	95.9	101.4	105.6	107.1	110.4	82
	50	37.8	50.8	60.3	66.3						67.9	69.0	76
	60	39.3	53.5	64.8	73.2	78.9					80.7	82.2	78
	70	40.4	55.2	67.7	77.8	85.5	90.9				93.0	94.8	80
24	80	41.1	56.4	69.7	81.0	90.2	97.4	102.6			104.9	107.0	81
	90	41.6	57.3	71.2	83.4	93.7	102.3	109.1	114.1		116.6	119.1	81
	100	42.0	58.0	72.4	85.2	96.4	106.0	114.0	120.5	125.4	128.2	130.9	82
	50	44.4	59.6	70.8	77.8						79.9	80.9	76
	60	46.2	62.8	76.0	85.9	92.5					95.0	96.2	78
	70	47.4	64.8	79.5	91.3	100.3	106.6				109.5	111.0	80
26	80	48.3	66.3	81.9	95.1	105.9	114.3	120.3			123.5	125.3	81
	90	48.9	67.3	83.6	97.8	109.9	119.9	127.9	133.7		137.3	139.4	81
	100	49.4	68.1	85.0	100.0	113.1	124.3	133.7	141.2	146.9	150.9	153.2	82

[a] Includes 1.0-foot stump allowance.

Table 223--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 cherrybark oak (species 813) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	8.0									9.1	16.6	70
	30	9.1	12.6								14.6	20.4	76
	40	9.7	13.4	16.9							19.7	25.1	79
12	50	9.9	13.8	17.5	21.0	24.2					24.5	29.8	80
	60	10.1	14.1	17.9	21.5	25.0	28.2				29.3	34.6	80
	70	10.3	14.3	18.2	21.9	25.5	28.9	32.1			34.0	39.3	81
	80	10.3	14.4	18.3	22.2	25.8	29.4	32.8	36.1		38.7	44.0	81
	40	13.2	18.2	22.5							25.6	29.8	79
	50	13.6	18.8	23.6	27.8	31.3					31.7	35.8	80
	60	13.8	19.2	24.2	28.8	32.9	36.5				37.7	41.8	80
14	70	14.0	19.4	24.5	29.4	33.8	38.0	41.6			43.6	47.7	81
	80	14.1	19.6	24.8	29.8	34.5	38.9	42.9	46.6		49.5	53.6	81
	90	14.2	19.7	25.0	30.1	34.9	39.5	43.9	47.9	51.6	55.3	59.4	81
	100	14.3	19.8	25.2	30.3	35.3	40.0	44.5	48.8	52.8	61.0	65.2	81
	40	17.3	23.7	29.0							32.5	35.9	79
	50	17.8	24.5	30.5	35.6	39.6					40.0	43.4	80
	60	18.1	25.0	31.4	37.1	42.1	46.2				47.4	50.8	80
16	70	18.3	25.4	31.9	38.0	43.5	48.4	52.5			54.7	58.0	81
	80	18.5	25.6	32.3	38.6	44.4	49.8	54.6	58.8		61.9	65.3	81
	90	18.6	25.8	32.6	39.1	45.1	50.8	56.0	60.8	65.1	69.0	72.4	81
	100	18.7	25.9	32.8	39.4	45.6	51.6	57.1	62.3	67.0	76.1	79.6	81
	40	21.9	30.0	36.4							40.3	43.2	79
	50	22.5	31.0	38.4	44.5	49.0					49.4	52.3	80
	60	23.0	31.7	39.6	46.5	52.4	57.1				58.4	61.3	80
18	70	23.2	32.1	40.3	47.8	54.4	60.2	64.9			67.2	70.1	81
	80	23.5	32.4	40.8	48.6	55.7	62.2	67.9	72.7		75.9	78.8	81
	90	23.6	32.7	41.2	49.2	56.7	63.6	69.9	75.5	80.3	84.6	87.5	81
	100	23.7	32.8	41.5	49.7	57.4	64.6	71.4	77.5	83.1	93.2	96.1	81
	40	27.1	36.9	44.6							49.0	51.6	79
	50	27.9	38.3	47.2	54.5	59.6					60.0	62.5	80
	60	28.4	39.1	48.7	57.1	64.0	69.3				70.7	73.2	80
20	70	28.7	39.7	49.7	58.7	66.6	73.4	78.8			81.2	83.7	81
	80	29.0	40.1	50.3	59.8	68.4	76.0	82.7	88.1		91.6	94.2	81
	90	29.2	40.3	50.8	60.6	69.6	77.9	85.3	91.9	97.4	102.0	104.5	81
	100	29.4	40.6	51.2	61.2	70.6	79.3	87.3	94.6	101.0	112.3	114.8	81
	50	33.8	46.3	57.0	65.5	71.2					71.6	73.9	80
	60	34.4	47.4	58.8	68.7	76.9	82.8				84.3	86.5	80
	70	34.8	48.0	60.0	70.8	80.2	88.0	94.1			96.7	99.0	81
22	80	35.1	48.5	60.8	72.1	82.3	91.4	99.1	105.2		109.0	111.3	81
	90	35.4	48.8	61.4	73.1	83.9	93.7	102.4	110.0	116.3	121.3	123.5	81
	100	35.6	49.1	61.9	73.9	85.1	95.5	104.9	113.4	120.9	133.4	135.7	81
	50	40.2	55.2	67.7	77.5	83.9					84.4	86.4	80
	60	41.0	56.4	69.9	81.5	90.9	97.6				99.2	101.2	80
	70	41.5	57.2	71.4	84.0	95.0	104.0	110.9			113.7	115.7	81
24	80	41.9	57.7	72.4	85.7	97.7	108.1	117.0	124.0		128.1	130.1	81
	90	42.2	58.1	73.1	86.9	99.6	111.0	121.2	129.9	136.9	142.3	144.4	81
	100	42.4	58.5	73.6	87.8	101.0	113.2	124.2	134.1	142.7	156.5	158.6	81
	50	47.3	64.7	79.3	90.6	97.8					98.3	100.1	80
	60	48.1	66.2	82.0	95.4	106.2	113.7				115.4	117.2	80
	70	48.8	67.1	83.7	98.4	111.1	121.4	129.2			132.2	134.0	81
26	80	49.2	67.8	84.9	100.4	114.3	126.4	136.5	144.4		148.8	150.6	81
	90	49.5	68.3	85.7	101.9	116.6	129.9	141.5	151.5	159.4	165.3	167.1	81
	100	49.8	68.7	86.4	103.0	118.4	132.5	145.2	156.5	166.3	181.7	183.5	81

[a] Includes 1.0-foot stump allowance.

Table 224--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for cherrybark oak (species 813) South-wide[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[b]	0.6	0.6	0.7	0.9	1.0	1.3											
6	0.9	1.1	1.8	2.1	2.4	2.8	3.1	3.4									
7	1.4	2.3	2.6	3.2	3.7	4.2	4.7	5.2	5.6	6.0							
8	2.0	3.0	3.6	4.3	5.1	5.8	6.5	7.1	7.7	8.3	8.9	9.5					
9	3.2	3.6	4.6	5.7	6.6	7.5	8.4	9.3	10.1	10.9	11.6	12.4	13.1	13.8			
10	3.9	4.5	5.8	7.1	8.3	9.5	10.6	11.7	12.7	13.7	14.7	15.6	16.5	17.5	18.3	19.2	
11	4.6	5.6	7.2	8.7	10.2	11.6	13.0	14.3	15.6	16.8	18.0	19.1	20.3	21.4	22.5	23.6	24.7
12	5.3	6.7	8.6	10.5	12.3	14.0	15.6	17.2	18.7	20.2	21.6	23.0	24.4	25.7	27.1	28.4	29.7
13	6.1	7.9	10.2	12.4	14.5	16.5	18.5	20.3	22.1	23.8	25.5	27.2	28.8	30.4	32.0	33.5	35.1
14	7.0	9.2	11.8	14.4	16.9	19.3	21.5	23.7	25.8	27.8	29.8	31.7	33.6	35.4	37.3	39.1	40.9
15	7.9	10.6	13.7	16.6	19.5	22.2	24.8	27.3	29.7	32.0	34.3	36.5	38.7	40.9	43.0	45.0	47.1
16	8.9	12.1	15.6	19.0	22.3	25.4	28.3	31.2	33.9	36.6	39.2	41.7	44.2	46.6	49.0	51.4	53.8

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 225--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 cherrybark oak (species 813) South-wide[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[b]	1.5	1.9	2.3	2.6	3.1	3.5											
6	1.9	2.3	2.8	3.5	4.1	4.7	5.3	5.8									
7	2.2	2.9	3.8	4.6	5.4	6.2	6.9	7.6	8.3	9.0							
8	2.7	3.7	4.8	5.9	6.9	7.8	8.7	9.6	10.5	11.3	12.2	13.0					
9	3.2	4.7	6.0	7.3	8.5	9.7	10.8	11.9	12.9	14.0	15.0	16.0	17.0	18.0			
10	3.9	5.7	7.4	8.9	10.4	11.8	13.1	14.4	15.7	16.9	18.1	19.4	20.5	21.7	22.9	24.1	
11	4.7	6.9	8.9	10.7	12.5	14.1	15.7	17.2	18.7	20.2	21.6	23.1	24.5	25.9	27.3	28.6	30.0
12	5.6	8.2	10.5	12.7	14.7	16.7	18.5	20.3	22.0	23.8	25.5	27.1	28.8	30.4	32.0	33.7	35.3
13	6.6	9.6	12.3	14.8	17.2	19.4	21.6	23.6	25.7	27.7	29.6	31.5	33.5	35.3	37.2	39.1	40.9
14	7.7	11.1	14.2	17.1	19.8	22.4	24.9	27.2	29.6	31.9	34.1	36.3	38.5	40.7	42.8	45.0	47.1
15	8.8	12.7	16.3	19.6	22.7	25.6	28.4	31.1	33.8	36.4	38.9	41.4	43.9	46.4	48.8	51.3	53.7
16	10.0	14.4	18.5	22.2	25.7	29.0	32.2	35.3	38.3	41.2	44.1	46.9	49.7	52.5	55.3	58.0	60.7

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 226--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 water oak (species 827) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	8.5									9.8	12.1	71
	50	9.1									11.7	14.9	75
	60	9.6	13.0								13.3	17.5	77
12	70	9.8	13.5								14.8	19.9	79
	80	10.0	13.8								16.2	22.2	80
	90	10.2	14.0	17.4							17.5	24.5	80
	100	10.3	14.2	17.7							18.8	26.7	81
	40	11.6									15.0	16.5	71
	50	12.5	16.8								18.1	20.4	75
	60	13.1	17.8								20.9	24.0	77
14	70	13.4	18.4	22.4							23.5	27.3	79
	80	13.7	18.8	23.1							26.0	30.6	80
	90	13.9	19.1	23.7	27.5						28.4	33.7	80
	100	14.0	19.4	24.1	28.2						30.7	36.8	81
	50	16.4	22.0								24.8	26.8	75
	60	17.1	23.2	27.8							28.9	31.5	77
	70	17.6	24.1	29.3							32.6	35.9	79
16	80	17.9	24.6	30.3	34.7						36.2	40.2	80
	90	18.2	25.0	31.0	35.9	39.6					39.7	44.3	80
	100	18.4	25.3	31.6	36.9	41.1					43.1	48.4	81
	110	18.5	25.6	32.0	37.6	42.3	45.9				46.4	52.4	81
	50	20.8	27.8	32.2							32.3	34.1	75
	60	21.7	29.5	35.2							37.7	40.0	77
	70	22.3	30.5	37.1	41.7						42.7	45.7	79
18	80	22.8	31.2	38.4	43.9						47.5	51.1	80
	90	23.1	31.8	39.3	45.5	50.2					52.2	56.3	80
	100	23.3	32.1	40.0	46.7	52.1	56.0				56.8	61.5	81
	110	23.5	32.4	40.5	47.6	53.6	58.2				61.3	66.6	81
	50	25.7	34.4	39.8							40.6	42.2	75
	60	26.9	36.4	43.5							47.4	49.6	77
	70	27.6	37.7	45.9	51.5						53.9	56.5	79
20	80	28.2	38.6	47.5	54.3	58.9					60.0	63.2	80
	90	28.6	39.3	48.6	56.3	62.0	65.9				66.0	69.7	80
	100	28.9	39.7	49.4	57.7	64.4	69.2				71.9	76.1	81
	110	29.1	40.1	50.1	58.9	66.2	71.9	76.2			77.7	82.4	81
	60	32.6	44.1	52.7	57.6						58.2	60.1	77
	70	33.5	45.7	55.6	62.4						66.1	68.5	79
	80	34.2	46.8	57.5	65.7	71.3					73.7	76.6	80
22	90	34.6	47.6	58.9	68.1	75.1	79.8				81.2	84.5	80
	100	35.0	48.2	59.9	69.9	77.9	83.8	87.9			88.5	92.3	81
	110	35.3	48.6	60.7	71.3	80.2	87.1	92.3			95.6	100.0	81
	60	38.8	52.6	62.8	68.7						69.8	71.6	77
	70	39.9	54.5	66.2	74.3	79.0					79.5	81.7	79
	80	40.7	55.7	68.5	78.3	84.9					88.7	91.3	80
24	90	41.3	56.7	70.1	81.2	89.4	95.0				97.7	100.8	80
	100	41.7	57.4	71.3	83.3	92.8	99.8	104.7			106.5	110.0	81
	110	42.1	57.9	72.3	84.9	95.5	103.7	109.9	114.1		115.2	119.1	81
	60	45.6	61.8	73.7	80.6						82.5	84.2	77
	70	46.9	64.0	77.7	87.3	92.8					93.9	96.0	79
	80	47.8	65.5	80.4	91.9	99.7	104.4				104.9	107.3	80
26	90	48.5	66.6	82.3	95.3	105.0	111.5				115.5	118.4	80
	100	49.0	67.4	83.8	97.8	109.0	117.2	122.9			126.0	129.3	81
	110	49.4	68.0	84.9	99.7	112.1	121.8	129.0	134.0		136.3	140.0	81

[a] Includes 1.0-foot stump allowance.

Table 227--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 water oak (species 827) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	9.0									10.5	12.6	77
	40	9.5									12.3	16.0	79
	50	9.8	13.4								13.9	19.2	79
12	60	10.0	13.7								15.4	22.4	80
	70	10.2	13.9								16.9	25.4	80
	80	10.2	14.1	17.5							18.3	28.5	80
	90	10.3	14.2	17.7							19.7	31.5	80
	40	13.0	17.5								19.0	21.5	79
	50	13.4	18.3	21.9							22.2	25.8	79
	60	13.7	18.7	22.8							25.2	30.0	80
14	70	13.9	19.0	23.4	27.1						28.2	34.0	80
	80	14.0	19.2	23.8	27.8						31.1	38.0	80
	90	14.1	19.4	24.1	28.3	31.9					33.9	42.0	80
	100	14.2	19.5	24.3	28.7	32.6	36.0				36.8	46.0	80
	40	17.1	22.9								26.1	27.9	79
	50	17.6	23.9	28.6							30.7	33.4	79
	60	17.9	24.5	29.8	33.9						35.2	38.7	80
16	70	18.2	24.9	30.6	35.3	39.0					39.6	43.9	80
	80	18.4	25.2	31.1	36.2	40.5	43.9				43.9	49.0	80
	90	18.5	25.4	31.5	36.9	41.6	45.6				48.2	54.1	80
	100	18.6	25.5	31.8	37.5	42.5	46.8	50.5			52.5	59.2	80
	40	21.6	29.0	33.6							33.7	35.2	79
	50	22.3	30.3	36.2							40.0	42.0	79
	60	22.8	31.0	37.7	42.8						46.0	48.7	80
18	70	23.1	31.5	38.7	44.6	49.2					51.9	55.1	80
	80	23.3	31.9	39.4	45.8	51.2	55.4				57.7	61.6	80
	90	23.5	32.2	39.9	46.7	52.6	57.5	61.5			63.4	67.9	80
	100	23.6	32.4	40.3	47.4	53.7	59.1	63.8	67.5		69.1	74.2	80
	40	26.8	35.9	41.4							42.1	43.3	79
	50	27.6	37.4	44.7	49.4						50.1	51.7	79
	60	28.2	38.4	46.6	52.8	57.1					57.7	59.8	80
20	70	28.5	39.0	47.8	55.0	60.7	64.6				65.1	67.7	80
	80	28.8	39.4	48.7	56.6	63.1	68.3	72.1			72.5	75.5	80
	90	29.0	39.8	49.3	57.7	64.9	70.9	75.7	79.4		79.7	83.3	80
	100	29.2	40.0	49.8	58.5	66.2	72.9	78.5	83.1	86.7	86.9	91.0	80
	50	33.5	45.3	54.1	59.7						61.0	62.3	79
	60	34.1	46.5	56.4	63.9	69.0					70.4	72.1	80
	70	34.6	47.2	57.9	66.6	73.3	78.1				79.5	81.6	80
22	80	34.9	47.8	58.9	68.4	76.3	82.5	87.0			88.5	91.0	80
	90	35.2	48.2	59.7	69.8	78.5	85.7	91.5	95.8		97.4	100.3	80
	100	35.4	48.5	60.3	70.8	80.1	88.1	94.9	100.4	104.6	106.2	109.5	80
	50	39.9	54.0	64.4	71.0						72.9	74.0	79
	60	40.7	55.3	67.1	76.0	82.0					84.1	85.5	80
	70	41.2	56.2	68.9	79.2	87.2	92.8				95.1	96.8	80
24	80	41.6	56.9	70.2	81.4	90.7	98.0	103.3			105.9	107.9	80
	90	41.9	57.4	71.1	83.1	93.3	101.9	108.7	113.8		116.5	118.9	80
	100	42.2	57.7	71.8	84.3	95.3	104.8	112.8	119.3	124.2	127.1	129.9	80
	50	46.9	63.4	75.5	83.3						85.8	86.7	79
	60	47.8	65.0	78.8	89.2	96.2					99.0	100.2	80
	70	48.4	66.1	80.9	93.0	102.2	108.7				111.9	113.4	80
26	80	48.9	66.8	82.4	95.6	106.5	115.0	121.1			124.6	126.3	80
	90	49.3	67.4	83.5	97.5	109.5	119.5	127.5	133.4		137.2	139.2	80
	100	49.6	67.8	84.3	99.0	111.9	123.0	132.3	139.8	145.5	149.7	152.0	80

[a] Includes 1.0-foot stump allowance.

Table 228--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 water oak (species 827) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	9.4									10.7	15.9	80
	30	9.7	13.5								15.6	21.2	80
	40	10.0	13.9	17.5							20.3	26.3	80
12	50	10.2	14.1	17.8	21.3	24.6					25.0	31.3	80
	60	10.3	14.2	18.0	21.7	25.1	28.4				29.6	36.2	80
	70	10.4	14.3	18.2	21.9	25.4	28.9	32.2			34.1	41.0	80
	80	10.5	14.4	18.2	22.0	25.7	29.2	32.6	35.9		38.7	45.7	80
	40	13.6	18.8	23.2							26.4	30.8	80
	50	13.9	19.1	23.9	28.1	31.8					32.2	36.8	80
	60	14.0	19.3	24.2	28.8	33.0	36.6				37.8	42.6	80
14	70	14.1	19.4	24.5	29.2	33.6	37.7	41.4			43.5	48.4	80
	80	14.2	19.5	24.6	29.5	34.1	38.4	42.5	46.2		49.1	54.2	80
	90	14.3	19.6	24.8	29.7	34.4	38.9	43.2	47.2	50.9	54.7	60.0	80
	100	14.3	19.7	24.9	29.9	34.7	39.3	43.7	47.9	51.9	60.3	65.7	80
	40	17.8	24.4	29.9							33.4	36.8	80
	50	18.1	24.9	30.9	36.0	40.1					40.5	44.1	80
	60	18.3	25.2	31.4	37.1	42.0	46.1				47.4	51.1	80
16	70	18.5	25.4	31.8	37.7	43.1	48.0	52.1			54.3	58.2	80
	80	18.6	25.5	32.0	38.2	43.9	49.1	53.9	58.1		61.2	65.1	80
	90	18.7	25.6	32.2	38.5	44.4	49.9	55.1	59.8	64.0	68.0	72.1	80
	100	18.8	25.7	32.4	38.7	44.8	50.5	55.9	61.0	65.6	74.8	79.0	80
	40	22.6	30.8	37.4							41.4	44.2	80
	50	23.0	31.4	38.8	44.9	49.5					49.9	52.8	80
	60	23.2	31.8	39.6	46.4	52.3	56.9				58.3	61.3	80
18	70	23.4	32.1	40.1	47.4	53.9	59.6	64.3			66.6	69.7	80
	80	23.6	32.3	40.4	48.0	54.9	61.2	66.8	71.6		74.8	78.1	80
	90	23.7	32.4	40.7	48.4	55.7	62.4	68.5	74.0	78.8	83.1	86.4	80
	100	23.8	32.5	40.9	48.8	56.3	63.3	69.8	75.8	81.2	91.3	94.7	80
	40	27.9	38.0	45.9							50.3	52.7	80
	50	28.4	38.8	47.7	54.9	60.0					60.4	62.9	80
	60	28.7	39.3	48.7	56.9	63.8	69.0				70.4	73.0	80
20	70	28.9	39.6	49.4	58.2	65.9	72.6	77.9			80.3	82.9	80
	80	29.1	39.8	49.8	59.0	67.3	74.8	81.3	86.6		90.1	92.8	80
	90	29.3	40.0	50.1	59.6	68.3	76.4	83.6	89.9	95.3	99.9	102.7	80
	100	29.4	40.2	50.4	60.1	69.1	77.5	85.3	92.3	98.6	109.7	112.5	80
	50	34.4	46.9	57.5	66.0	71.7					72.1	74.2	80
	60	34.8	47.5	58.8	68.5	76.5	82.4				83.9	86.0	80
	70	35.1	47.9	59.6	70.1	79.2	86.9	92.9			95.5	97.7	80
22	80	35.3	48.2	60.2	71.2	81.0	89.8	97.3	103.3		107.1	109.4	80
	90	35.4	48.4	60.6	71.9	82.3	91.8	100.2	107.5	113.6	118.6	121.0	80
	100	35.6	48.6	60.9	72.5	83.3	93.3	102.4	110.6	117.8	130.1	132.5	80
	50	40.9	55.8	68.3	78.1	84.4					84.9	86.7	80
	60	41.4	56.6	69.9	81.2	90.4	97.0				98.6	100.5	80
	70	41.8	57.0	70.9	83.2	93.8	102.6	109.3			112.1	114.1	80
24	80	42.0	57.4	71.6	84.5	96.1	106.2	114.8	121.6		125.6	127.6	80
	90	42.2	57.7	72.1	85.4	97.7	108.7	118.5	126.8	133.7	139.0	141.1	80
	100	42.4	57.9	72.5	86.2	98.9	110.5	121.2	130.6	138.9	152.4	154.5	80
	50	48.1	65.5	80.0	91.2	98.3					98.8	100.4	80
	60	48.7	66.4	81.9	95.1	105.6	112.9				114.6	116.3	80
	70	49.1	67.0	83.1	97.4	109.7	119.8	127.2			130.2	132.0	80
26	80	49.4	67.4	84.0	99.0	112.4	124.1	133.8	141.4		145.8	147.5	80
	90	49.6	67.7	84.6	100.1	114.3	127.1	138.3	147.8	155.5	161.2	163.1	80
	100	49.8	68.0	85.1	101.0	115.8	129.3	141.6	152.4	161.8	176.7	178.5	80

[a] Includes 1.0-foot stump allowance.

Table 229--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for water oak (species 827) South-wide[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	1.2	1.6	1.7	1.9	2.0											
6	2.1	2.4	2.8	3.1	3.3	3.6	3.8	4.1									
7	3.0	3.5	4.0	4.4	4.8	5.2	5.6	6.0	6.3	6.7							
8	4.0	4.7	5.4	6.0	6.5	7.1	7.6	8.1	8.6	9.1	9.5	10.0					
9	5.1	6.0	6.9	7.7	8.4	9.1	9.8	10.5	11.1	11.8	12.4	13.0	13.6	14.2			
10	6.4	7.5	8.6	9.6	10.6	11.4	12.3	13.1	14.0	14.8	15.5	16.3	17.1	17.8	18.6	19.3	
11	7.7	9.2	10.5	11.7	12.9	14.0	15.0	16.1	17.1	18.1	19.0	20.0	20.9	21.9	22.8	23.7	24.6
12	9.3	11.0	12.6	14.1	15.4	16.8	18.0	19.3	20.5	21.7	22.8	24.0	25.1	26.2	27.3	28.5	29.6
13	10.9	13.0	14.8	16.6	18.2	19.8	21.3	22.7	24.2	25.6	26.9	28.3	29.6	31.0	32.3	33.6	34.9
14	12.7	15.1	17.3	19.3	21.2	23.0	24.8	26.5	28.1	29.8	31.4	33.0	34.5	36.1	37.6	39.2	40.7
15	14.6	17.4	19.9	22.2	24.4	26.5	28.5	30.5	32.4	34.3	36.2	38.0	39.8	41.6	43.4	45.1	46.9
16	16.7	19.8	22.7	25.3	27.8	30.2	32.5	34.8	37.0	39.1	41.2	43.3	45.4	47.4	49.5	51.5	53.5

[a] Includes 0.5-foot stump allowance.

Table 230--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 water oak (species 827) South-wide[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	2.1	2.6	3.1	3.5	3.9											
6	2.3	3.0	3.6	4.1	4.7	5.2	5.8	6.3									
7	3.2	4.0	4.7	5.4	6.1	6.8	7.4	8.1	8.7	9.4							
8	4.1	5.1	6.0	6.9	7.7	8.6	9.4	10.2	11.0	11.8	12.5	13.3					
9	5.2	6.4	7.5	8.6	9.6	10.6	11.6	12.6	13.5	14.5	15.4	16.3	17.3	18.2			
10	6.4	7.9	9.2	10.5	11.7	12.9	14.1	15.2	16.4	17.5	18.6	19.7	20.8	21.9	23.0	24.1	
11	7.8	9.5	11.1	12.6	14.0	15.4	16.8	18.2	19.5	20.8	22.2	23.5	24.8	26.1	27.4	28.6	29.9
12	9.3	11.3	13.1	14.9	16.5	18.2	19.8	21.4	22.9	24.5	26.0	27.6	29.1	30.6	32.1	33.6	35.1
13	10.9	13.2	15.3	17.3	19.3	21.2	23.1	24.9	26.7	28.5	30.3	32.0	33.8	35.5	37.3	39.0	40.7
14	12.6	15.3	17.7	20.0	22.3	24.5	26.6	28.7	30.8	32.8	34.8	36.8	38.8	40.8	42.8	44.8	46.8
15	14.5	17.5	20.3	22.9	25.5	28.0	30.4	32.8	35.1	37.4	39.7	42.0	44.3	46.6	48.8	51.1	53.3
16	16.5	19.9	23.0	26.0	28.9	31.7	34.4	37.1	39.8	42.4	45.0	47.6	50.1	52.7	55.2	57.7	60.3

[a] Includes 0.5-foot stump allowance.

Table 231--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 Nuttall oak (species 828) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	8.1									9.1	11.1	67
	50	8.9									11.1	14.1	73
	60	9.4	12.7								12.8	16.7	76
12	70	9.7	13.3								14.3	19.2	78
	80	9.9	13.6								15.7	21.6	79
	90	10.0	13.9								17.1	23.9	80
	100	10.2	14.1	17.6							18.3	26.1	81
	40	11.3									14.0	15.5	67
	50	12.3	16.3								17.3	19.5	73
	60	13.0	17.5								20.1	23.2	76
14	70	13.4	18.3	22.1							22.7	26.6	78
	80	13.7	18.8	23.0							25.2	29.9	79
	90	13.9	19.1	23.7	27.3						27.6	33.1	80
	100	14.1	19.4	24.2	28.1						29.9	36.2	81
	50	16.3	21.5								23.8	25.8	73
	60	17.2	23.1	27.3							27.9	30.6	76
	70	17.7	24.0	29.0							31.7	35.1	78
16	80	18.1	24.7	30.3	34.3						35.3	39.4	79
	90	18.3	25.2	31.1	35.8						38.8	43.6	80
	100	18.5	25.5	31.8	36.9	40.9					42.2	47.7	81
	110	18.7	25.8	32.2	37.8	42.3					45.5	51.7	81
	50	20.8	27.4								31.1	32.9	73
	60	21.9	29.3	34.7							36.6	39.0	76
	70	22.6	30.6	36.9	41.1						41.7	44.7	78
18	80	23.0	31.4	38.5	43.6						46.5	50.2	79
	90	23.4	32.0	39.5	45.5	49.8					51.2	55.5	80
	100	23.6	32.5	40.3	46.9	51.9	55.6				55.8	60.7	81
	110	23.8	32.8	41.0	48.0	53.6	58.0				60.3	65.8	81
	50	25.8	34.0	38.7							39.2	40.8	73
	60	27.1	36.4	42.9							46.2	48.3	76
	70	28.0	37.9	45.7	50.9						52.7	55.4	78
20	80	28.6	38.9	47.6	54.0	58.2					58.9	62.2	79
	90	29.0	39.7	49.0	56.3	61.6					64.9	68.8	80
	100	29.3	40.2	49.9	58.0	64.3	68.8				70.8	75.2	81
	110	29.5	40.7	50.7	59.4	66.4	71.8	75.7			76.6	81.5	81
	60	33.0	44.1	52.1	56.5						56.7	58.7	76
	70	34.0	46.0	55.4	61.7						64.8	67.3	78
	80	34.7	47.2	57.7	65.5	70.6					72.5	75.5	79
22	90	35.2	48.1	59.4	68.3	74.7	79.0				80.0	83.5	80
	100	35.6	48.8	60.6	70.4	77.9	83.4	87.2			87.3	91.3	81
	110	35.9	49.3	61.5	72.0	80.4	86.9	91.8			94.4	98.9	81
	60	39.3	52.6	62.1	67.3						68.2	70.0	76
	70	40.6	54.8	66.1	73.5	77.8					77.9	80.2	78
	80	41.4	56.3	68.8	78.0	84.1					87.3	90.0	79
24	90	42.0	57.4	70.8	81.3	89.0	94.2				96.3	99.5	80
	100	42.5	58.2	72.2	83.8	92.8	99.4	103.9			105.2	108.8	81
	110	42.8	58.8	73.3	85.7	95.8	103.6	109.3	113.3		113.9	118.0	81
	60	46.3	61.8	72.9	79.1						80.6	82.3	76
	70	47.7	64.5	77.6	86.4	91.4					92.2	94.3	78
	80	48.7	66.2	80.9	91.7	98.8	103.1				103.3	105.8	79
26	90	49.4	67.5	83.1	95.6	104.6	110.6				114.0	117.0	80
	100	49.9	68.4	84.8	98.5	109.0	116.7	122.0			124.5	127.9	81
	110	50.3	69.1	86.1	100.7	112.6	121.7	128.4	133.1		134.9	138.7	81

[a] Includes 1.0-foot stump allowance.

Table 232--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 Nuttall oak (species 828) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	30	8.4									9.2	11.2	70
	40	9.2									11.1	14.7	76
	50	9.6									12.8	18.0	78
12	60	9.9	13.5								14.3	21.1	79
	70	10.0	13.8								15.7	24.1	80
	80	10.1	14.0								17.1	27.0	81
	90	10.2	14.1	17.6							18.4	29.9	81
	40	12.8	16.8								17.4	20.0	76
	50	13.3	17.9								20.5	24.3	78
	60	13.7	18.5	22.4							23.4	28.4	79
14	70	13.9	19.0	23.2							26.2	32.3	80
	80	14.0	19.3	23.7	27.4						28.9	36.2	81
	90	14.1	19.5	24.1	28.1	31.5					31.5	40.0	81
	100	14.2	19.6	24.4	28.6	32.3					34.2	43.8	81
	40	16.9	22.1								24.0	26.1	76
	50	17.6	23.5	27.7							28.6	31.5	78
	60	18.0	24.4	29.3	32.9						32.9	36.7	79
16	70	18.3	24.9	30.4	34.7						37.1	41.8	80
	80	18.5	25.3	31.1	35.9	39.7					41.1	46.7	81
	90	18.7	25.6	31.6	36.8	41.1	44.6				45.1	51.6	81
	100	18.8	25.8	32.0	37.5	42.2	46.2				49.0	56.4	81
	40	21.5	28.1								31.3	32.9	76
	50	22.4	29.9	35.2							37.4	39.7	78
	60	23.0	31.0	37.2	41.7						43.2	46.2	79
18	70	23.3	31.7	38.5	43.9	47.9					48.7	52.5	80
	80	23.6	32.2	39.5	45.5	50.3	53.9				54.2	58.7	81
	90	23.8	32.6	40.2	46.7	52.1	56.4				59.6	64.8	81
	100	23.9	32.8	40.7	47.5	53.4	58.4	62.4			64.8	70.8	81
	40	26.7	34.8	39.2							39.2	40.6	76
	50	27.8	37.1	43.5							47.0	48.9	78
	60	28.5	38.4	46.0	51.5						54.3	56.8	79
20	70	28.9	39.3	47.7	54.2	59.1					61.4	64.5	80
	80	29.3	39.9	48.8	56.2	62.0	66.4				68.4	72.0	81
	90	29.5	40.3	49.7	57.7	64.3	69.6	73.7			75.2	79.5	81
	100	29.7	40.7	50.3	58.8	66.0	72.0	77.0	80.8		81.9	86.8	81
	50	33.8	45.0	52.7	57.2						57.4	59.0	78
	60	34.6	46.6	55.8	62.3	66.3					66.5	68.6	79
	70	35.1	47.6	57.8	65.7	71.4					75.2	77.8	80
22	80	35.5	48.4	59.2	68.1	75.1	80.3				83.7	86.8	81
	90	35.8	48.9	60.2	69.8	77.8	84.1	89.0			92.1	95.7	81
	100	36.1	49.3	61.0	71.2	79.9	87.1	93.0	97.6		100.4	104.5	81
	50	40.3	53.6	62.7	68.0						68.8	70.2	78
	60	41.3	55.5	66.4	74.1	78.9					79.6	81.4	79
	70	41.9	56.8	68.8	78.2	85.0	89.4				90.1	92.3	80
24	80	42.4	57.7	70.5	81.0	89.3	95.5	99.7			100.3	103.0	81
	90	42.8	58.3	71.8	83.2	92.6	100.1	105.8	109.8		110.4	113.5	81
	100	43.0	58.8	72.7	84.8	95.1	103.7	110.6	116.0	119.8	120.4	123.9	81
	50	47.4	63.0	73.7	79.8						81.0	82.2	78
	60	48.6	65.3	78.0	87.0	92.5					93.8	95.4	79
	70	49.3	66.8	80.9	91.8	99.7	104.8				106.2	108.1	80
26	80	49.9	67.8	82.9	95.2	104.8	112.0	116.9			118.3	120.6	81
	90	50.3	68.5	84.3	97.7	108.7	117.4	124.1	128.7		130.2	132.8	81
	100	50.6	69.1	85.4	99.6	111.6	121.7	129.7	136.0	140.4	142.0	145.0	81

[a] Includes 1.0-foot stump allowance.

Table 233--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 Nuttall oak (species 828) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	20	9.4									10.7	17.5	79
	30	9.6	13.3								15.3	21.0	80
	40	9.7	13.7	17.2							19.9	25.1	81
12	50	9.9	13.8	17.6	21.0	24.1					24.4	29.4	81
	60	9.9	14.0	17.8	21.4	24.7	27.9				29.0	33.8	81
	70	10.0	14.1	17.9	21.6	25.2	28.5	31.6			33.5	38.2	81
	80	10.1	14.1	18.0	21.8	25.4	28.9	32.2	35.4		38.0	42.6	81
	40	13.6	18.8	23.1							26.1	30.4	81
	50	13.8	19.1	23.8	27.9	31.3					31.7	35.8	81
	60	13.9	19.3	24.2	28.7	32.6	36.1				37.2	41.2	81
14	70	14.0	19.4	24.5	29.2	33.5	37.4	40.8			42.7	46.6	81
	80	14.0	19.5	24.7	29.5	34.1	38.2	42.1	45.6		48.3	52.1	81
	90	14.1	19.6	24.8	29.8	34.5	38.9	43.0	46.8	50.3	53.8	57.5	81
	100	14.1	19.7	24.9	30.0	34.8	39.3	43.6	47.7	51.5	59.3	63.0	81
	40	18.1	24.7	29.9							33.2	36.9	81
	50	18.2	25.1	31.0	35.8	39.6					39.9	43.5	81
	60	18.4	25.4	31.6	37.1	41.7	45.5				46.7	50.1	81
16	70	18.5	25.6	32.0	37.9	43.1	47.6	51.4			53.4	56.8	81
	80	18.6	25.7	32.3	38.4	44.0	49.0	53.4	57.3		60.1	63.4	81
	90	18.7	25.8	32.5	38.8	44.6	50.0	54.9	59.3	63.1	66.8	70.0	81
	100	18.7	25.9	32.7	39.1	45.1	50.7	55.9	60.7	65.1	73.5	76.6	81
	40	23.1	31.4	37.6							41.2	44.5	81
	50	23.3	31.9	39.1	44.9	49.0					49.3	52.5	81
	60	23.5	32.3	40.0	46.6	52.0	56.2				57.4	60.5	81
18	70	23.6	32.5	40.5	47.7	53.9	59.2	63.4			65.5	68.5	81
	80	23.8	32.7	40.9	48.4	55.2	61.2	66.3	70.6		73.6	76.4	81
	90	23.8	32.9	41.2	49.0	56.1	62.6	68.3	73.4	77.7	81.6	84.4	81
	100	23.9	33.0	41.5	49.4	56.8	63.6	69.8	75.5	80.5	89.6	92.3	81
	40	28.7	38.8	46.2							50.1	53.2	81
	50	29.0	39.5	48.2	54.9	59.4					59.8	62.7	81
	60	29.2	40.0	49.3	57.2	63.5	68.2				69.4	72.2	81
20	70	29.4	40.3	50.1	58.7	66.0	72.1	76.9			79.0	81.7	81
	80	29.5	40.5	50.6	59.7	67.7	74.7	80.7	85.4		88.6	91.1	81
	90	29.6	40.7	51.0	60.4	68.9	76.6	83.4	89.2	94.0	98.1	100.6	81
	100	29.7	40.9	51.3	60.9	69.9	78.0	85.4	91.9	97.6	107.5	110.0	81
	50	35.2	47.9	58.2	66.0	71.0					71.4	74.0	81
	60	35.5	48.5	59.7	69.0	76.3	81.4				82.7	85.2	81
	70	35.7	48.9	60.6	70.8	79.4	86.4	91.7			93.9	96.4	81
22	80	35.9	49.2	61.2	72.1	81.6	89.8	96.5	101.8		105.1	107.5	81
	90	36.0	49.4	61.7	73.0	83.1	92.1	100.0	106.6	112.0	116.3	118.6	81
	100	36.1	49.6	62.1	73.7	84.3	93.9	102.6	110.1	116.7	127.4	129.7	81
	50	42.0	57.1	69.2	78.2	83.7					84.1	86.5	81
	60	42.4	57.8	71.0	81.8	90.2	95.9				97.2	99.5	81
	70	42.6	58.3	72.1	84.1	94.1	102.1	107.9			110.3	112.5	81
24	80	42.8	58.6	72.9	85.6	96.7	106.2	113.9	119.8		123.3	125.5	81
	90	43.0	58.9	73.5	86.8	98.7	109.1	118.2	125.7	131.7	136.2	138.4	81
	100	43.1	59.1	74.0	87.6	100.1	111.4	121.4	130.1	137.5	149.2	151.3	81
	50	49.5	67.1	81.2	91.4	97.5					97.9	100.1	81
	60	49.8	67.9	83.3	95.8	105.3	111.6				113.0	115.2	81
	70	50.2	68.5	84.6	98.5	110.0	119.1	125.5			128.1	130.1	81
26	80	50.4	68.9	85.6	100.4	113.2	124.1	132.8	139.3		143.0	145.1	81
	90	50.6	69.3	86.3	101.8	115.5	127.6	138.0	146.5	153.1	157.9	159.9	81
	100	50.8	69.5	86.9	102.8	117.3	130.3	141.8	151.8	160.1	172.8	174.8	81

[a] Includes 1.0-foot stump allowance.

Table 234--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for Nuttall oak (species 828) South-wide[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[b]	0.6	0.7	1.4	1.5	1.6	1.7											
6[b]	1.8	2.0	2.3	2.6	2.9	3.2	3.4	3.7									
7[b]	2.3	2.9	3.4	3.8	4.3	4.7	5.0	5.4	5.8	6.1							
8[b]	3.1	3.9	4.6	5.2	5.8	6.3	6.9	7.4	7.9	8.4	8.8	9.3					
9	4.2	5.1	6.0	6.8	7.6	8.3	9.0	9.7	10.4	11.0	11.6	12.3	12.9	13.5			
10	5.4	6.6	7.8	8.8	9.8	10.7	11.5	12.4	13.2	14.0	14.8	15.6	16.4	17.1	17.9	18.6	
11	6.8	8.3	9.6	10.9	12.1	13.2	14.3	15.3	16.3	17.3	18.3	19.3	20.2	21.2	22.1	23.0	23.9
12	8.3	10.0	11.7	13.2	14.6	16.0	17.3	18.5	19.7	20.9	22.1	23.3	24.4	25.5	26.7	27.8	28.9
13	9.9	12.0	13.9	15.7	17.4	19.0	20.5	22.0	23.4	24.8	26.2	27.6	28.9	30.3	31.6	32.9	34.2
14	11.6	14.0	16.3	18.4	20.3	22.2	24.0	25.7	27.4	29.0	30.7	32.3	33.8	35.4	36.9	38.5	40.0
15	13.4	16.2	18.8	21.2	23.5	25.6	27.7	29.7	31.6	33.5	35.4	37.2	39.1	40.9	42.6	44.4	46.1
16	15.4	18.6	21.5	24.3	26.9	29.3	31.7	33.9	36.2	38.3	40.5	42.6	44.6	46.7	48.7	50.7	52.7

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 235--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 Nuttall oak (species 828) South-wide[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[b]	1.5	1.9	2.2	2.7	3.1	3.6											
6[b]	1.8	2.4	3.0	3.6	4.2	4.7	5.3	5.8									
7[b]	2.3	3.1	3.9	4.7	5.4	6.1	6.7	7.4	8.0	8.7							
8[b]	2.9	4.0	5.0	5.9	6.8	7.6	8.5	9.3	10.0	10.8	11.6	12.3					
9	3.8	5.2	6.4	7.5	8.6	9.6	10.5	11.5	12.4	13.4	14.3	15.2	16.1	17.0			
10	5.0	6.6	8.0	9.3	10.6	11.8	13.0	14.1	15.2	16.3	17.4	18.5	19.6	20.6	21.7	22.8	
11	6.2	8.1	9.8	11.4	12.8	14.3	15.6	17.0	18.3	19.6	20.9	22.1	23.4	24.6	25.9	27.1	28.4
12	7.6	9.8	11.8	13.6	15.3	16.9	18.5	20.1	21.6	23.1	24.6	26.1	27.5	29.0	30.5	31.9	33.3
13	9.0	11.6	13.9	16.0	17.9	19.8	21.7	23.5	25.2	27.0	28.7	30.4	32.1	33.7	35.4	37.1	38.7
14	10.6	13.5	16.1	18.5	20.8	23.0	25.1	27.1	29.1	31.1	33.1	35.0	36.9	38.9	40.8	42.7	44.5
15	12.3	15.6	18.6	21.3	23.9	26.3	28.7	31.0	33.3	35.6	37.8	40.0	42.2	44.4	46.5	48.7	50.8
16	14.1	17.8	21.2	24.2	27.1	29.9	32.6	35.2	37.8	40.3	42.8	45.3	47.8	50.2	52.7	55.1	57.5

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 236--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 willow oak (species 831) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40	7.4									7.9	10.1	63
	50	8.4									10.1	13.1	70
	60	9.0									11.9	15.8	74
12	70	9.4	12.7								13.4	18.2	76
	80	9.6	13.2								14.9	20.6	77
	90	9.8	13.5								16.2	22.8	78
	100	10.0	13.7	17.0							17.5	25.0	79
	40	10.2									12.4	13.9	63
	50	11.5	15.2								15.7	18.0	70
	60	12.3	16.5								18.6	21.7	74
14	70	12.8	17.4	21.0							21.3	25.1	76
	80	13.2	18.0	22.0							23.7	28.4	77
	90	13.5	18.4	22.7							26.1	31.5	78
	100	13.7	18.8	23.3	27.0						28.3	34.5	79
	50	15.1	19.9								21.7	23.7	70
	60	16.2	21.7	25.5							25.9	28.6	74
	70	16.9	22.8	27.5							29.7	33.1	76
16	80	17.3	23.6	28.8	32.6						33.2	37.3	77
	90	17.7	24.2	29.8	34.2						36.7	41.4	78
	100	17.9	24.6	30.5	35.4	39.1					40.0	45.4	79
	110	18.1	24.9	31.0	36.3	40.5					43.2	49.3	80
	50	19.2	25.2								28.4	30.1	70
	60	20.5	27.5	32.4							33.9	36.3	74
	70	21.4	29.0	34.9	38.7						39.0	42.0	76
18	80	22.0	30.0	36.6	41.4						43.8	47.5	77
	90	22.4	30.7	37.8	43.4	47.4					48.5	52.7	78
	100	22.8	31.2	38.7	44.9	49.6					52.9	57.8	79
	110	23.0	31.6	39.4	46.0	51.3	55.4				57.3	62.7	80
	50	23.8	31.2	35.5							35.7	37.3	70
	60	25.4	34.0	40.1							42.8	45.0	74
	70	26.5	35.8	43.1	47.9						49.4	52.1	76
20	80	27.3	37.1	45.2	51.2	55.1					55.5	58.8	77
	90	27.8	38.0	46.7	53.6	58.6					61.5	65.2	78
	100	28.2	38.6	47.8	55.5	61.3	65.6				67.2	71.5	79
	110	28.5	39.1	48.7	56.9	63.5	68.5	72.3			72.8	77.7	80
	60	30.9	41.3	48.5	52.6						52.6	54.6	74
	70	32.2	43.4	52.2	58.0						60.7	63.2	76
	80	33.1	44.9	54.8	62.0	66.8					68.3	71.3	77
22	90	33.7	46.0	56.6	64.9	71.0	75.0				75.7	79.1	78
	100	34.2	46.8	58.0	67.2	74.3	79.4				82.8	86.8	79
	110	34.6	47.4	59.0	68.9	76.9	83.0	87.5			89.8	94.2	80
	60	36.8	49.2	57.8	62.7						63.3	65.1	74
	70	38.3	51.8	62.2	69.1						73.1	75.3	76
	80	39.4	53.6	65.3	73.9	79.5					82.3	85.0	77
24	90	40.2	54.9	67.5	77.4	84.5	89.4				91.2	94.4	78
	100	40.8	55.8	69.1	80.0	88.5	94.6	98.8			99.8	103.5	79
	110	41.2	56.6	70.3	82.1	91.6	98.9	104.3	108.0		108.3	112.4	80
	60	43.3	57.8	68.0	73.6						74.8	76.5	74
	70	45.1	60.8	73.1	81.2	85.9					86.4	88.5	76
	80	46.3	62.9	76.7	86.8	93.4	97.4				97.4	99.9	77
26	90	47.3	64.5	79.3	90.9	99.3	105.0				108.0	110.9	78
	100	47.9	65.6	81.2	94.0	103.9	111.1	116.1			118.2	121.6	79
	110	48.5	66.5	82.6	96.4	107.6	116.1	122.4	126.9		128.3	132.1	80

[a] Includes 1.0-foot stump allowance.

Table 237--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 willow oak (species 831) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.9									8.5	10.7	68
	40	8.9									10.7	14.4	73
	50	9.4									12.6	17.8	76
	60	9.7	13.2								14.3	21.0	78
	70	9.9	13.5								15.9	24.1	78
	80	10.0	13.7	17.0							17.4	27.2	79
	90	10.1	13.9	17.3							18.9	30.1	79
14	40	12.2	16.1								16.8	19.4	73
	50	12.9	17.3								20.3	23.9	76
	60	13.3	18.0	21.8							23.5	28.2	78
	70	13.5	18.4	22.6	26.0						26.5	32.3	78
	80	13.7	18.8	23.1	26.9						29.4	36.3	79
	90	13.9	19.0	23.5	27.5	31.0					32.3	40.2	79
	100	14.0	19.2	23.8	28.0	31.7	34.9				35.1	44.1	80
16	40	16.0	21.0								23.3	25.2	73
	50	16.9	22.6	26.8							28.3	31.0	76
	60	17.4	23.5	28.5	32.2						32.9	36.4	78
	70	17.8	24.1	29.5	33.9	37.3					37.3	41.7	78
	80	18.0	24.6	30.3	35.1	39.1					41.7	46.8	79
	90	18.2	24.9	30.8	36.0	40.4	44.1				45.9	51.8	79
	100	18.3	25.1	31.2	36.6	41.4	45.5	49.0			50.1	56.8	80
18	40	20.3	26.6								30.3	31.8	73
	50	21.4	28.7	34.0							36.9	39.0	76
	60	22.1	29.9	36.0	40.7						43.0	45.8	78
	70	22.5	30.6	37.4	42.9	47.1					49.0	52.3	78
	80	22.9	31.2	38.3	44.4	49.4	53.3				54.7	58.7	79
	90	23.1	31.5	39.0	45.5	51.1	55.6	59.3			60.4	65.0	79
	100	23.3	31.8	39.5	46.4	52.4	57.5	61.8	65.3		66.0	71.2	80
20	40	25.1	32.9	37.6							37.9	39.1	73
	50	26.5	35.5	41.9	46.0						46.2	47.9	76
	60	27.4	36.9	44.5	50.2	54.0					54.0	56.3	78
	70	27.9	37.9	46.2	52.9	58.0					61.5	64.3	78
	80	28.3	38.5	47.4	54.8	60.9	65.6				68.9	72.1	79
	90	28.6	39.0	48.2	56.2	63.0	68.6	73.0			76.0	79.7	79
	100	28.8	39.4	48.9	57.3	64.6	70.9	76.1	80.4		83.1	87.3	80
22	50	32.1	43.0	50.8	55.7						56.4	57.8	76
	60	33.2	44.8	53.9	60.7	65.2					66.0	67.8	78
	70	33.9	45.9	56.0	64.0	70.2	74.4				75.2	77.4	78
	80	34.3	46.7	57.4	66.3	73.6	79.3	83.4			84.2	86.8	79
	90	34.7	47.3	58.4	68.0	76.2	82.9	88.2	92.1		93.0	96.0	79
	100	34.9	47.7	59.2	69.3	78.2	85.7	92.0	97.0	100.8	101.7	105.1	80
24	50	38.3	51.2	60.4	66.2						67.5	68.7	76
	60	39.6	53.3	64.2	72.2	77.5					79.0	80.5	78
	70	40.4	54.7	66.6	76.2	83.5	88.4				90.0	91.9	78
	80	40.9	55.7	68.3	79.0	87.6	94.3	99.0			100.8	103.0	79
	90	41.4	56.4	69.6	81.0	90.7	98.6	104.9	109.5		111.3	113.9	79
	100	41.7	56.9	70.5	82.6	93.0	102.0	109.4	115.3	119.8	121.8	124.7	80
26	50	45.0	60.1	71.0	77.7						79.5	80.5	76
	60	46.5	62.7	75.4	84.8	90.9					93.0	94.3	78
	70	47.5	64.3	78.3	89.5	97.9	103.7				106.0	107.6	78
	80	48.1	65.4	80.3	92.7	102.8	110.6	116.1			118.7	120.6	79
	90	48.6	66.2	81.7	95.1	106.4	115.7	123.0	128.3		131.1	133.3	79
	100	49.0	66.8	82.8	96.9	109.2	119.7	128.3	135.2	140.3	143.4	145.9	80

[a] Includes 1.0-foot stump allowance.

Table 238--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 willow oak (species 831) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.4									9.5	19.9	72
	30	9.3	12.8								14.7	20.3	76
	40	9.8	13.4	16.9							19.6	23.6	78
	50	10.0	13.8	17.3	20.7	23.8					24.2	27.5	79
	60	10.1	13.9	17.6	21.2	24.5	27.7				28.8	31.5	79
	70	10.2	14.1	17.8	21.4	24.9	28.3	31.4			33.3	35.7	79
	80	10.2	14.1	17.9	21.6	25.2	28.7	32.0	35.2		37.8	39.9	79
14	40	13.3	18.2	22.5							25.5	29.1	78
	50	13.6	18.7	23.3	27.4	30.9					31.2	34.2	79
	60	13.8	19.0	23.8	28.2	32.2	35.8				36.9	39.4	79
	70	13.9	19.2	24.1	28.7	33.1	37.0	40.6			42.5	44.7	79
	80	14.0	19.3	24.3	29.1	33.6	37.8	41.7	45.3		48.1	50.0	79
	90	14.1	19.4	24.5	29.3	34.0	38.4	42.6	46.5	50.0	53.6	55.4	79
	100	14.1	19.4	24.6	29.5	34.3	38.8	43.2	47.3	51.2	59.2	60.8	80
16	40	17.5	23.8	28.9							32.3	35.7	78
	50	17.9	24.4	30.2	35.1	39.0					39.4	42.1	79
	60	18.1	24.8	30.9	36.4	41.2	45.1				46.3	48.6	79
	70	18.3	25.0	31.4	37.2	42.4	47.1	51.1			53.2	55.2	79
	80	18.4	25.2	31.7	37.7	43.3	48.4	53.0	57.1		60.0	61.8	79
	90	18.4	25.3	31.9	38.1	43.9	49.3	54.3	58.9	63.0	66.8	68.4	79
	100	18.5	25.4	32.1	38.4	44.4	50.0	55.3	60.2	64.7	73.5	75.0	80
18	40	22.2	30.1	36.3							40.0	43.2	78
	50	22.7	30.9	38.0	43.9	48.2					48.6	51.2	79
	60	23.0	31.4	39.0	45.6	51.3	55.7				57.0	59.2	79
	70	23.2	31.7	39.6	46.7	53.1	58.6	63.1			65.3	67.2	79
	80	23.3	32.0	40.0	47.5	54.3	60.4	65.8	70.4		73.5	75.2	79
	90	23.4	32.1	40.3	48.0	55.1	61.7	67.7	73.0	77.6	81.7	83.2	79
	100	23.5	32.2	40.5	48.4	55.8	62.7	69.1	74.9	80.2	89.8	91.3	80
20	40	27.5	37.1	44.5							48.7	51.8	78
	50	28.1	38.2	46.8	53.7	58.5					58.9	61.4	79
	60	28.5	38.8	48.0	56.0	62.6	67.6				68.9	71.0	79
	70	28.7	39.2	48.8	57.4	65.0	71.4	76.5			78.8	80.6	79
	80	28.9	39.5	49.4	58.4	66.6	73.8	80.1	85.3		88.6	90.2	79
	90	29.0	39.7	49.7	59.1	67.7	75.6	82.6	88.8	94.0	98.4	99.8	79
	100	29.1	39.9	50.0	59.6	68.6	76.8	84.4	91.3	97.4	108.1	109.4	80
22	50	34.1	46.2	56.5	64.5	69.9					70.3	72.7	79
	60	34.5	47.0	58.0	67.5	75.1	80.7				82.1	84.2	79
	70	34.8	47.5	59.0	69.3	78.2	85.6	91.3			93.8	95.6	79
	80	35.0	47.9	59.7	70.5	80.2	88.7	96.0	101.8		105.3	106.9	79
	90	35.2	48.1	60.2	71.4	81.6	90.9	99.1	106.2	112.1	116.8	118.2	79
	100	35.3	48.3	60.6	72.0	82.7	92.5	101.5	109.5	116.5	128.3	129.6	80
24	50	40.6	55.1	67.1	76.4	82.4					82.8	85.2	79
	60	41.2	56.0	69.0	80.0	88.9	95.1				96.6	98.6	79
	70	41.5	56.6	70.2	82.2	92.6	101.1	107.6			110.2	111.9	79
	80	41.8	57.0	71.0	83.7	95.1	105.0	113.3	119.8		123.7	125.2	79
	90	41.9	57.3	71.6	84.8	96.9	107.7	117.2	125.4	131.9	137.0	138.4	79
	100	42.1	57.5	72.1	85.6	98.2	109.7	120.1	129.4	137.4	150.4	151.6	80
26	50	47.7	64.6	78.6	89.3	96.0					96.5	98.7	79
	60	48.4	65.8	80.9	93.7	103.8	110.8				112.4	114.3	79
	70	48.8	66.5	82.4	96.4	108.3	118.0	125.2			128.0	129.7	79
	80	49.1	67.0	83.3	98.2	111.3	122.7	132.1	139.4		143.6	145.0	79
	90	49.3	67.3	84.1	99.5	113.4	126.0	136.9	146.2	153.5	159.0	160.3	79
	100	49.5	67.6	84.6	100.4	115.0	128.4	140.4	151.0	160.1	174.4	175.6	80

[a] Includes 1.0-foot stump allowance.

Table 239--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for willow oak (species 831) South-wide[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	0.6	0.8	0.9	1.2	1.5	1.7											
6	1.8	1.9	2.3	2.6	2.9	3.1	3.4	3.6									
7	2.3	2.8	3.3	3.8	4.2	4.6	5.0	5.3	5.7	6.0							
8	3.0	3.8	4.5	5.1	5.7	6.3	6.8	7.3	7.8	8.3	8.8	9.2					
9	3.9	4.9	5.8	6.6	7.4	8.1	8.9	9.5	10.2	10.8	11.4	12.0	12.6	13.2			
10	4.8	6.1	7.2	8.3	9.3	10.2	11.1	12.0	12.8	13.6	14.4	15.2	15.9	16.7	17.4	18.1	
11	5.9	7.4	8.9	10.2	11.4	12.5	13.6	14.7	15.7	16.7	17.6	18.6	19.5	20.4	21.3	22.2	23.1
12	7.1	8.9	10.6	12.2	13.7	15.0	16.4	17.6	18.8	20.0	21.2	22.3	23.5	24.6	25.7	26.7	27.8
13	8.3	10.5	12.5	14.4	16.1	17.8	19.3	20.8	22.3	23.7	25.0	26.4	27.7	29.0	30.3	31.6	32.9
14	9.7	12.3	14.6	16.8	18.8	20.7	22.5	24.3	26.0	27.6	29.2	30.8	32.3	33.9	35.4	36.9	38.3
15	11.2	14.1	16.8	19.3	21.7	23.9	26.0	28.0	29.9	31.8	33.7	35.5	37.3	39.0	40.8	42.5	44.2
16	12.8	16.1	19.2	22.1	24.7	27.2	29.6	31.9	34.1	36.3	38.4	40.5	42.5	44.6	46.5	48.5	50.5

[a] Includes 0.5-foot stump allowance.

Table 240--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 willow oak (species 831) South-wide[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	1.6	2.0	2.3	2.7	3.2	3.7											
6	1.9	2.4	3.1	3.7	4.3	4.8	5.4	5.9									
7	2.3	3.2	4.0	4.8	5.6	6.3	6.9	7.6	8.3	8.9							
8	3.0	4.1	5.2	6.1	7.0	7.9	8.7	9.6	10.4	11.2	11.9	12.7					
9	3.8	5.2	6.5	7.6	8.7	9.8	10.8	11.8	12.8	13.7	14.7	15.6	16.5	17.4			
10	4.6	6.3	7.9	9.3	10.6	11.9	13.1	14.3	15.4	16.6	17.7	18.8	19.9	21.0	22.1	23.2	
11	5.6	7.7	9.5	11.2	12.7	14.2	15.6	17.0	18.4	19.7	21.1	22.4	23.7	25.0	26.2	27.5	28.8
12	6.7	9.1	11.2	13.2	15.0	16.8	18.4	20.1	21.7	23.2	24.8	26.3	27.8	29.3	30.8	32.3	33.7
13	7.9	10.6	13.1	15.4	17.5	19.5	21.5	23.4	25.2	27.0	28.8	30.5	32.3	34.0	35.7	37.4	39.1
14	9.1	12.3	15.2	17.8	20.2	22.5	24.8	26.9	29.0	31.1	33.1	35.1	37.1	39.1	41.1	43.0	45.0
15	10.5	14.1	17.4	20.4	23.1	25.8	28.3	30.7	33.1	35.5	37.8	40.1	42.3	44.6	46.8	49.0	51.2
16	11.9	16.1	19.8	23.1	26.2	29.2	32.1	34.8	37.5	40.2	42.8	45.4	47.9	50.4	53.0	55.4	57.9

[a] Includes 0.5-foot stump allowance.

Table 241--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 northern red oak (species 833) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.8									9.3	11.2	68
	50	8.6									11.5	14.3	74
	60	9.1	12.5								13.3	17.1	77
	70	9.4	13.0								15.0	19.7	78
	80	9.6	13.4								16.6	22.2	79
	90	9.7	13.6	17.1							18.1	24.6	80
	100	9.8	13.8	17.4							19.6	27.0	81
14	40	10.7	14.0								14.1	15.4	68
	50	11.8	16.0								17.6	19.7	74
	60	12.5	17.1	20.6							20.7	23.5	77
	70	12.9	17.8	21.9							23.5	27.1	78
	80	13.2	18.3	22.7	26.2						26.3	30.5	79
	90	13.4	18.6	23.3	27.2						28.9	33.9	80
	100	13.5	18.9	23.8	28.0	31.4					31.5	37.2	81
16	50	15.6	21.0								24.0	25.9	74
	60	16.4	22.4	27.0							28.4	30.9	77
	70	16.9	23.4	28.7	32.4						32.5	35.6	78
	80	17.3	24.0	29.8	34.3						36.4	40.2	79
	90	17.6	24.5	30.6	35.7	39.5					40.2	44.6	80
	100	17.8	24.8	31.1	36.6	41.1					43.9	48.9	81
	110	17.9	25.0	31.6	37.4	42.3	46.2				47.5	53.1	81
18	50	19.8	26.6	31.0							31.3	32.9	74
	60	20.8	28.5	34.3							37.1	39.3	77
	70	21.5	29.7	36.4	41.1						42.6	45.3	78
	80	22.0	30.5	37.8	43.5	47.4					47.8	51.1	79
	90	22.3	31.1	38.8	45.2	50.1					52.8	56.7	80
	100	22.6	31.5	39.5	46.5	52.1	56.3				57.7	62.2	81
	110	22.8	31.8	40.1	47.4	53.7	58.6	62.3			62.6	67.6	81
20	50	24.5	32.9	38.3							39.3	40.7	74
	60	25.8	35.3	42.4	46.6						46.7	48.7	77
	70	26.7	36.7	45.0	50.9						53.6	56.1	78
	80	27.3	37.7	46.8	53.8	58.7					60.3	63.3	79
	90	27.7	38.4	48.0	55.9	62.0	66.1				66.7	70.2	80
	100	28.0	39.0	48.9	57.5	64.5	69.6				73.0	77.0	81
	110	28.2	39.4	49.6	58.7	66.4	72.5	77.0			79.2	83.7	81
22	60	31.3	42.8	51.4	56.5						57.3	59.0	77
	70	32.4	44.6	54.6	61.7	65.8					65.8	68.1	78
	80	33.1	45.8	56.7	65.2	71.1					74.0	76.7	79
	90	33.6	46.6	58.2	67.8	75.1	80.1				82.0	85.1	80
	100	34.0	47.3	59.3	69.7	78.1	84.4	88.7			89.8	93.4	81
	110	34.2	47.8	60.1	71.1	80.4	87.8	93.3	97.1		97.4	101.5	81
24	60	37.4	51.0	61.3	67.3						68.8	70.4	77
	70	38.6	53.1	65.0	73.5	78.4					79.1	81.2	78
	80	39.5	54.6	67.5	77.8	84.7	88.9				89.0	91.5	79
	90	40.1	55.6	69.3	80.8	89.5	95.4				98.6	101.5	80
	100	40.5	56.4	70.7	83.0	93.1	100.5	105.6			108.0	111.3	81
	110	40.9	56.9	71.7	84.7	95.8	104.6	111.1	115.7		117.3	121.0	81
26	60	44.0	59.9	72.0	79.1						81.2	82.7	77
	70	45.4	62.4	76.4	86.3	92.1					93.5	95.4	78
	80	46.4	64.1	79.4	91.3	99.5	104.4				105.2	107.5	79
	90	47.1	65.3	81.5	94.9	105.1	112.0	116.3			116.6	119.3	80
	100	47.7	66.2	83.0	97.5	109.3	118.1	124.1			127.8	130.8	81
	110	48.1	66.9	84.2	99.5	112.5	122.8	130.5	135.8		138.7	142.2	81

[a] Includes 1.0-foot stump allowance.

Table 242--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 northern red oak (species 833) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.4									9.7	11.5	73
	40	9.0									11.8	15.1	77
	50	9.4	12.9								13.6	18.5	79
	60	9.6	13.3								15.3	21.7	80
	70	9.8	13.5	16.8							16.9	24.8	80
	80	9.8	13.7	17.1							18.4	27.9	81
	90	9.9	13.8	17.3							19.9	30.9	81
14	40	12.4	16.7								18.1	20.4	77
	50	12.9	17.6	21.2							21.4	24.8	79
	60	13.2	18.1	22.2							24.6	29.1	80
	70	13.4	18.5	22.9	26.5						27.7	33.2	80
	80	13.5	18.7	23.3	27.3	30.5					30.7	37.2	81
	90	13.6	18.9	23.7	27.8	31.5					33.6	41.3	81
	100	13.7	19.0	23.9	28.3	32.1	35.5				36.5	45.2	81
16	40	16.2	21.8								24.8	26.5	77
	50	16.9	23.1	27.6							29.7	32.2	79
	60	17.3	23.8	29.0	33.0						34.3	37.6	80
	70	17.5	24.2	29.9	34.5	38.2					38.8	42.9	80
	80	17.7	24.5	30.5	35.6	39.8	43.2				43.2	48.1	81
	90	17.8	24.8	30.9	36.4	41.0	44.9				47.6	53.2	81
	100	17.9	24.9	31.3	37.0	41.9	46.3	49.9			51.9	58.3	81
18	40	20.6	27.7	31.9							32.1	33.4	77
	50	21.5	29.3	35.0							38.6	40.5	79
	60	22.0	30.2	36.8	41.7						44.7	47.3	80
	70	22.3	30.7	37.9	43.7	48.2					50.7	53.9	80
	80	22.5	31.1	38.7	45.1	50.3	54.5				56.6	60.4	81
	90	22.7	31.4	39.2	46.0	51.9	56.8	60.7			62.4	66.8	81
	100	22.8	31.7	39.7	46.8	53.1	58.5	63.1	66.8		68.2	73.2	81
20	40	25.6	34.2	39.4							40.1	41.1	77
	50	26.6	36.2	43.2	47.7						48.3	49.8	79
	60	27.2	37.3	45.4	51.5	55.6					56.1	58.1	80
	70	27.6	38.0	46.8	54.0	59.4	63.3				63.7	66.2	80
	80	27.9	38.5	47.8	55.6	62.1	67.2	70.9			71.2	74.1	81
	90	28.1	38.9	48.5	56.9	64.0	70.0	74.8	78.3		78.5	82.0	81
	100	28.2	39.2	49.0	57.8	65.5	72.2	77.7	82.2	85.7	85.8	89.8	81
22	50	32.3	43.9	52.3	57.7						58.9	60.1	79
	60	33.0	45.2	55.0	62.3	67.2					68.5	70.1	80
	70	33.5	46.1	56.7	65.3	71.9	76.5				77.8	79.8	80
	80	33.8	46.7	57.9	67.4	75.1	81.2	85.6			86.9	89.4	81
	90	34.1	47.2	58.8	68.9	77.5	84.6	90.3	94.5		96.0	98.8	81
	100	34.3	47.5	59.4	70.0	79.3	87.3	94.0	99.3	103.4	104.9	108.1	81
24	50	38.5	52.3	62.3	68.7						70.4	71.5	79
	60	39.4	53.9	65.5	74.2	80.0					81.9	83.3	80
	70	39.9	55.0	67.6	77.7	85.5	90.9				93.1	94.8	80
	80	40.3	55.7	69.0	80.2	89.4	96.6	101.7			104.0	106.0	81
	90	40.6	56.2	70.0	82.0	92.2	100.7	107.4	112.3		114.8	117.2	81
	100	40.9	56.6	70.8	83.4	94.4	103.8	111.7	118.1	122.9	125.6	128.3	81
26	50	45.2	61.4	73.2	80.6						82.9	83.8	79
	60	46.3	63.4	76.9	87.1	93.8					96.4	97.6	80
	70	47.0	64.6	79.4	91.3	100.4	106.6				109.6	111.0	80
	80	47.4	65.5	81.0	94.2	104.9	113.3	119.2			122.5	124.2	81
	90	47.8	66.1	82.2	96.3	108.3	118.1	125.9	131.7		135.2	137.2	81
	100	48.1	66.6	83.2	97.9	110.8	121.9	131.1	138.5	144.0	147.9	150.1	81

[a] Includes 1.0-foot stump allowance.

Table 243--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 northern red oak (species 833) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.6									9.8	14.7	76
	30	9.3	12.9								14.9	19.3	79
	40	9.6	13.5	17.0							19.7	24.0	80
	50	9.8	13.7	17.4	20.9	24.0					24.4	28.6	80
	60	9.9	13.9	17.7	21.3	24.7	27.9				29.0	33.2	80
	70	10.0	14.0	17.9	21.6	25.1	28.5	31.7			33.5	37.8	80
	80	10.1	14.1	18.0	21.8	25.4	28.9	32.3	35.5		38.1	42.3	81
14	40	13.1	18.2	22.5							25.6	29.2	80
	50	13.4	18.6	23.4	27.5	31.0					31.4	35.0	80
	60	13.5	18.9	23.8	28.3	32.4	35.9				37.1	40.7	80
	70	13.6	19.0	24.1	28.8	33.2	37.2	40.8			42.7	46.3	80
	80	13.7	19.2	24.3	29.2	33.8	38.1	42.0	45.6		48.3	51.9	81
	90	13.8	19.2	24.5	29.4	34.2	38.7	42.9	46.8	50.4	53.9	57.5	81
	100	13.8	19.3	24.6	29.6	34.5	39.1	43.5	47.6	51.5	59.5	63.1	81
16	40	17.2	23.7	29.0							32.4	35.6	80
	50	17.5	24.3	30.2	35.2	39.1					39.5	42.7	80
	60	17.7	24.6	30.9	36.5	41.3	45.2				46.4	49.6	80
	70	17.9	24.9	31.3	37.2	42.6	47.3	51.3			53.3	56.5	80
	80	18.0	25.0	31.6	37.8	43.5	48.6	53.3	57.3		60.2	63.4	81
	90	18.0	25.1	31.8	38.2	44.1	49.6	54.6	59.2	63.2	67.0	70.2	81
	100	18.1	25.2	32.0	38.5	44.6	50.3	55.6	60.6	65.1	73.8	77.0	81
18	40	21.8	30.0	36.3							40.1	43.1	80
	50	22.2	30.7	38.0	43.9	48.3					48.6	51.6	80
	60	22.5	31.2	38.9	45.7	51.4	55.8				57.1	60.0	80
	70	22.7	31.5	39.5	46.8	53.2	58.7	63.2			65.4	68.3	80
	80	22.8	31.7	39.9	47.5	54.4	60.6	66.0	70.6		73.7	76.5	81
	90	22.9	31.8	40.2	48.1	55.3	62.0	68.0	73.3	77.8	81.9	84.8	81
	100	23.0	32.0	40.5	48.5	56.0	63.0	69.4	75.3	80.5	90.1	93.0	81
20	40	27.0	37.0	44.6							48.7	51.5	80
	50	27.5	37.9	46.8	53.7	58.5					58.9	61.6	80
	60	27.8	38.5	48.0	56.1	62.7	67.7				69.0	71.6	80
	70	28.0	38.9	48.7	57.5	65.1	71.5	76.6			78.9	81.5	80
	80	28.2	39.1	49.2	58.5	66.7	74.1	80.3	85.4		88.7	91.4	81
	90	28.3	39.3	49.6	59.2	67.9	75.8	82.9	89.1	94.2	98.5	101.2	81
	100	28.4	39.5	49.9	59.7	68.8	77.2	84.8	91.7	97.8	108.3	111.0	81
22	50	33.3	45.9	56.4	64.6	69.9					70.3	72.8	80
	60	33.7	46.6	57.9	67.5	75.2	80.8				82.1	84.6	80
	70	34.0	47.1	58.9	69.3	78.3	85.7	91.4			93.8	96.3	80
	80	34.2	47.4	59.5	70.5	80.4	88.9	96.1	101.9		105.4	107.9	81
	90	34.3	47.7	60.0	71.4	81.8	91.2	99.4	106.5	112.3	116.9	119.4	81
	100	34.5	47.8	60.4	72.1	82.9	92.9	101.9	109.9	116.8	128.4	130.9	81
24	50	39.7	54.7	67.0	76.4	82.4					82.8	85.2	80
	60	40.2	55.5	68.9	80.1	88.9	95.1				96.6	98.9	80
	70	40.5	56.1	70.0	82.3	92.7	101.3	107.6			110.2	112.5	80
	80	40.8	56.5	70.8	83.8	95.3	105.2	113.5	119.9		123.7	126.0	81
	90	41.0	56.8	71.4	84.9	97.1	108.0	117.6	125.6	132.1	137.1	139.4	81
	100	41.1	57.0	71.9	85.7	98.5	110.1	120.6	129.8	137.8	150.5	152.8	81
26	50	46.7	64.2	78.5	89.3	95.9					96.4	98.6	80
	60	47.3	65.2	80.8	93.7	103.8	110.7				112.3	114.5	80
	70	47.7	65.9	82.2	96.4	108.4	118.2	125.2			128.0	130.2	80
	80	47.9	66.4	83.1	98.2	111.5	122.9	132.3	139.5		143.5	145.7	81
	90	48.2	66.7	83.8	99.5	113.7	126.3	137.3	146.5	153.7	159.0	161.2	81
	100	48.3	67.0	84.4	100.5	115.3	128.8	140.9	151.5	160.5	174.5	176.7	81

[a] Includes 1.0-foot stump allowance.

Table 244--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for northern red oak (species 833) South-wide[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	1.4	1.5	1.6	1.8	1.9											
6	1.9	2.2	2.5	2.9	3.2	3.4	3.7	4.0									
7	2.6	3.1	3.7	4.2	4.6	5.0	5.4	5.8	6.2	6.6							
8	3.4	4.2	4.9	5.6	6.2	6.8	7.4	7.9	8.4	9.0	9.5	10.0					
9	4.4	5.4	6.4	7.2	8.0	8.8	9.6	10.3	11.0	11.6	12.3	13.0	13.6	14.2			
10	5.5	6.8	8.0	9.1	10.1	11.1	12.0	12.9	13.7	14.6	15.4	16.3	17.1	17.9	18.7	19.5	
11	6.7	8.3	9.8	11.1	12.3	13.5	14.7	15.8	16.8	17.9	18.9	19.9	20.9	21.9	22.9	23.9	24.9
12	8.1	10.0	11.7	13.3	14.8	16.2	17.6	18.9	20.2	21.5	22.7	23.9	25.1	26.3	27.5	28.7	29.9
13	9.5	11.8	13.8	15.7	17.5	19.1	20.8	22.3	23.9	25.3	26.8	28.3	29.7	31.1	32.5	33.9	35.3
14	11.1	13.7	16.1	18.3	20.3	22.3	24.2	26.0	27.8	29.5	31.3	32.9	34.6	36.3	37.9	39.5	41.1
15	12.8	15.8	18.5	21.1	23.4	25.7	27.9	30.0	32.0	34.0	36.0	38.0	39.9	41.8	43.7	45.5	47.4
16	14.6	18.0	21.1	24.0	26.7	29.3	31.8	34.2	36.6	38.9	41.1	43.3	45.5	47.7	49.8	52.0	54.1

[a] Includes 0.5-foot stump allowance.

Table 245--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 northern red oak (species 833) South-wide[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	1.6	2.0	2.4	2.9	3.4	3.8											
6	2.0	2.7	3.3	3.9	4.5	5.0	5.6	6.1									
7	2.7	3.5	4.3	5.1	5.8	6.5	7.1	7.8	8.5	9.1							
8	3.4	4.5	5.5	6.4	7.3	8.2	9.0	9.8	10.6	11.4	12.2	13.0					
9	4.4	5.7	6.9	8.0	9.1	10.1	11.1	12.1	13.1	14.0	15.0	15.9	16.8	17.8			
10	5.4	7.0	8.4	9.8	11.1	12.3	13.5	14.7	15.8	16.9	18.1	19.2	20.3	21.4	22.5	23.6	
11	6.5	8.4	10.1	11.7	13.2	14.7	16.1	17.5	18.8	20.2	21.5	22.9	24.2	25.5	26.8	28.1	29.4
12	7.8	10.0	12.0	13.9	15.6	17.3	19.0	20.6	22.2	23.8	25.3	26.9	28.4	29.9	31.4	32.9	34.4
13	9.1	11.7	14.0	16.2	18.2	20.2	22.1	24.0	25.8	27.6	29.4	31.2	33.0	34.7	36.5	38.2	40.0
14	10.6	13.6	16.3	18.7	21.1	23.3	25.5	27.7	29.8	31.8	33.9	35.9	38.0	40.0	42.0	44.0	46.0
15	12.2	15.6	18.6	21.4	24.1	26.7	29.2	31.6	34.0	36.3	38.7	41.0	43.3	45.6	47.9	50.1	52.4
16	13.9	17.7	21.2	24.4	27.4	30.3	33.1	35.8	38.5	41.2	43.8	46.4	49.0	51.6	54.2	56.7	59.3

[a] Includes 0.5-foot stump allowance.

Table 246--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 black oak (species 837) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.4									9.0	10.5	66
	50	8.3	11.2								11.2	13.6	72
	60	8.7	12.0								13.1	16.3	75
	70	9.1	12.6								14.7	18.9	77
	80	9.3	13.0	16.1							16.3	21.4	78
	90	9.4	13.2	16.6							17.8	23.7	79
	100	9.5	13.4	16.9							19.2	26.0	80
14	40	10.2	13.3								13.4	14.5	66
	50	11.3	15.3								16.8	18.7	72
	60	12.0	16.5	19.8							19.9	22.5	75
	70	12.4	17.2	21.2							22.7	26.0	77
	80	12.7	17.8	22.1							25.4	29.4	78
	90	12.9	18.1	22.7	26.4						27.9	32.7	79
	100	13.1	18.4	23.2	27.2						30.4	35.9	80
16	50	14.9	20.1								23.0	24.6	72
	60	15.8	21.7	26.0							27.3	29.6	75
	70	16.4	22.6	27.8	31.3						31.3	34.3	77
	80	16.8	23.3	28.9	33.2						35.2	38.7	78
	90	17.0	23.8	29.8	34.7	38.3					38.8	43.0	79
	100	17.2	24.1	30.4	35.7	39.9					42.4	47.2	80
	110	17.4	24.4	30.8	36.5	41.2	44.9				45.9	51.4	80
18	50	19.0	25.5	29.6							29.9	31.3	72
	60	20.1	27.5	33.0							35.6	37.7	75
	70	20.8	28.8	35.3	39.7						41.0	43.6	77
	80	21.3	29.6	36.7	42.2	45.9					46.1	49.2	78
	90	21.7	30.2	37.8	44.0	48.6					51.0	54.7	79
	100	22.0	30.7	38.6	45.3	50.7	54.6				55.8	60.1	80
	110	22.2	31.0	39.2	46.3	52.3	56.9	60.4			60.5	65.3	80
20	50	23.5	31.6	36.6							37.5	38.8	72
	60	24.9	34.1	40.9	44.8						44.9	46.7	75
	70	25.8	35.6	43.6	49.1						51.7	54.0	77
	80	26.5	36.7	45.5	52.2	56.7					58.2	61.0	78
	90	26.9	37.5	46.8	54.5	60.1	63.9				64.5	67.8	79
	100	27.2	38.0	47.7	56.1	62.7	67.6				70.6	74.4	80
	110	27.5	38.4	48.5	57.3	64.7	70.4	74.7			76.6	81.0	80
22	60	30.3	41.4	49.6	54.3						55.0	56.7	75
	70	31.4	43.3	52.9	59.6	63.4					63.4	65.5	77
	80	32.1	44.5	55.2	63.3	68.8					71.5	74.0	78
	90	32.7	45.4	56.7	66.0	72.9	77.5				79.2	82.3	79
	100	33.1	46.1	57.9	68.0	76.0	81.9	85.9			86.8	90.3	80
	110	33.4	46.6	58.8	69.5	78.4	85.4	90.5	94.1		94.3	98.2	80
24	60	36.2	49.3	59.1	64.7						66.1	67.6	75
	70	37.5	51.6	63.1	71.0	75.6					76.2	78.2	77
	80	38.4	53.1	65.8	75.5	82.0	85.9				85.9	88.3	78
	90	39.0	54.2	67.7	78.7	86.8	92.4				95.3	98.1	79
	100	39.5	55.0	69.0	81.1	90.6	97.6	102.4			104.5	107.7	80
	110	39.9	55.6	70.1	82.8	93.5	101.7	107.8	112.1		113.5	117.1	80
26	60	42.6	58.0	69.5	76.1						78.1	79.5	75
	70	44.1	60.7	74.2	83.5	88.8					90.1	91.9	77
	80	45.2	62.5	77.3	88.7	96.3	100.9				101.6	103.8	78
	90	45.9	63.8	79.5	92.5	102.1	108.5	112.5			112.8	115.3	79
	100	46.5	64.7	81.2	95.3	106.4	114.6	120.3			123.6	126.6	80
	110	46.9	65.4	82.4	97.4	109.8	119.5	126.7	131.7		134.3	137.7	80

[a] Includes 1.0-foot stump allowance.

Table 247--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 black oak (species 837) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.7									8.9	10.7	70
	40	8.5									11.2	14.3	75
	50	9.0	12.3								13.2	17.7	77
	60	9.2	12.8								15.0	20.9	78
	70	9.4	13.1	16.2							16.7	24.0	79
	80	9.5	13.3	16.6							18.3	27.1	80
	90	9.6	13.4	16.8	19.9						20.0	30.1	80
14	40	11.7	15.8								17.2	19.4	75
	50	12.3	16.9	20.3							20.7	23.8	77
	60	12.7	17.5	21.4							24.0	28.1	78
	70	12.9	17.9	22.2	25.7						27.2	32.2	79
	80	13.0	18.2	22.7	26.5	29.7					30.3	36.3	80
	90	13.2	18.4	23.0	27.1	30.7					33.3	40.3	80
	100	13.2	18.5	23.3	27.6	31.4	34.7				36.3	44.2	80
16	40	15.4	20.7								23.6	25.2	75
	50	16.2	22.1	26.6							28.7	30.9	77
	60	16.7	23.0	28.0	31.9						33.4	36.4	78
	70	17.0	23.5	29.0	33.5	37.1					38.0	41.7	79
	80	17.2	23.8	29.7	34.7	38.8	42.1				42.5	46.9	80
	90	17.3	24.1	30.2	35.5	40.0	43.9				46.9	52.0	80
	100	17.4	24.3	30.5	36.1	41.0	45.3	48.9			51.3	57.1	80
18	40	19.6	26.3	30.4							30.6	31.8	75
	50	20.6	28.1	33.7	37.2						37.2	39.0	77
	60	21.2	29.2	35.6	40.4						43.5	45.8	78
	70	21.6	29.8	36.8	42.5	46.9					49.6	52.5	79
	80	21.9	30.3	37.7	43.9	49.1	53.2				55.6	58.9	80
	90	22.0	30.6	38.3	45.0	50.7	55.5	59.3			61.4	65.4	80
	100	22.2	30.9	38.8	45.8	51.9	57.3	61.8	65.4		67.2	71.7	80
20	40	24.4	32.6	37.5							38.2	39.2	75
	50	25.6	34.8	41.6	46.0						46.6	48.0	77
	60	26.3	36.1	44.0	49.9	54.0					54.6	56.4	78
	70	26.8	37.0	45.5	52.5	57.9	61.7				62.3	64.5	79
	80	27.1	37.5	46.6	54.3	60.6	65.6	69.2			69.8	72.4	80
	90	27.4	38.0	47.4	55.6	62.6	68.5	73.2	76.7		77.2	80.3	80
	100	27.5	38.3	48.0	56.6	64.2	70.7	76.2	80.6	84.0	84.5	88.0	80
22	50	31.1	42.2	50.4	55.6						56.9	58.0	77
	60	32.0	43.8	53.3	60.5	65.2					66.6	68.1	78
	70	32.5	44.8	55.2	63.6	70.0	74.6				76.0	77.8	79
	80	32.9	45.6	56.5	65.8	73.4	79.3	83.6			85.2	87.4	80
	90	33.2	46.1	57.4	67.4	75.8	82.9	88.4	92.6		94.3	96.8	80
	100	33.5	46.5	58.2	68.6	77.7	85.5	92.1	97.4	101.5	103.3	106.1	80
24	50	37.1	50.4	60.1	66.2						68.0	68.9	77
	60	38.1	52.3	63.5	72.0	77.6					79.7	80.9	78
	70	38.8	53.5	65.8	75.7	83.4	88.7				90.9	92.4	79
	80	39.3	54.3	67.3	78.3	87.4	94.4	99.5			102.0	103.7	80
	90	39.7	55.0	68.5	80.2	90.3	98.6	105.2	110.1		112.8	114.9	80
	100	40.0	55.4	69.3	81.7	92.5	101.8	109.6	115.9	120.6	123.6	125.9	80
26	50	43.6	59.2	70.6	77.7						80.1	80.8	77
	60	44.9	61.5	74.7	84.5	91.1					93.8	94.8	78
	70	45.7	62.9	77.3	89.0	97.9	104.0				107.1	108.3	79
	80	46.3	63.9	79.1	92.0	102.6	110.8	116.7			120.0	121.5	80
	90	46.7	64.6	80.5	94.3	106.0	115.7	123.4	129.1	132.8	132.8	134.6	80
	100	47.0	65.2	81.5	96.0	108.7	119.5	128.6	135.9	141.4	145.5	147.4	80

[a] Includes 1.0-foot stump allowance.

Table 248--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 black oak (species 837) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.0									9.1	15.7	73
	30	8.8	12.3								14.1	17.9	77
	40	9.2	12.9	16.2							18.8	21.6	78
	50	9.4	13.2	16.7	20.0	23.0					23.3	25.5	79
	60	9.5	13.4	17.0	20.5	23.8	26.7				27.8	29.6	79
	70	9.6	13.5	17.2	20.8	24.2	27.4	30.5			32.2	33.8	80
	80	9.6	13.6	17.4	21.0	24.5	27.9	31.1	34.1		36.6	38.0	80
14	40	12.6	17.5	21.7							24.5	27.4	78
	50	12.8	17.9	22.5	26.5	29.8					30.2	32.5	79
	60	13.0	18.2	23.0	27.4	31.3	34.7				35.7	37.6	79
	70	13.1	18.4	23.3	27.9	32.2	36.0	39.4			41.2	42.9	80
	80	13.2	18.5	23.6	28.3	32.8	36.9	40.7	44.1		46.7	48.2	80
	90	13.3	18.6	23.7	28.6	33.2	37.5	41.6	45.3	48.8	52.1	53.4	80
	100	13.3	18.7	23.8	28.8	33.5	38.0	42.2	46.2	50.0	57.6	58.7	80
16	40	16.5	22.8	27.9							31.2	34.1	78
	50	16.9	23.5	29.2	34.1	37.8					38.1	40.5	79
	60	17.1	23.9	30.0	35.4	40.0	43.8				45.0	46.9	79
	70	17.3	24.1	30.4	36.2	41.4	45.9	49.8			51.7	53.4	80
	80	17.4	24.3	30.7	36.7	42.3	47.3	51.8	55.7		58.4	59.9	80
	90	17.5	24.4	31.0	37.1	42.9	48.3	53.2	57.6	61.5	65.1	66.4	80
	100	17.5	24.5	31.1	37.4	43.4	49.0	54.2	59.0	63.4	71.7	73.0	80
18	40	21.0	28.9	35.1							38.7	41.8	78
	50	21.5	29.8	36.9	42.6	46.8					47.1	49.6	79
	60	21.8	30.3	37.8	44.4	50.0	54.2				55.4	57.5	79
	70	22.0	30.6	38.5	45.6	51.8	57.2	61.5			63.6	65.4	80
	80	22.1	30.8	38.9	46.3	53.1	59.1	64.4	68.8		71.7	73.3	80
	90	22.2	31.0	39.2	46.9	54.0	60.5	66.3	71.5	75.9	79.8	81.2	80
	100	22.3	31.1	39.4	47.3	54.6	61.5	67.8	73.5	78.6	87.8	89.1	80
20	40	26.1	35.8	43.1							47.1	50.4	78
	50	26.6	36.8	45.4	52.2	56.9					57.2	59.8	79
	60	27.0	37.4	46.7	54.6	61.1	65.9				67.1	69.3	79
	70	27.3	37.9	47.5	56.0	63.5	69.8	74.7			76.9	78.7	80
	80	27.4	38.1	48.0	57.0	65.2	72.3	78.5	83.4		86.6	88.2	80
	90	27.6	38.4	48.4	57.8	66.3	74.1	81.0	87.1	92.1	96.2	97.7	80
	100	27.7	38.5	48.7	58.3	67.2	75.4	82.9	89.7	95.6	105.8	107.1	80
22	50	32.4	44.6	54.8	62.8	68.0					68.4	71.1	79
	60	32.8	45.4	56.4	65.8	73.4	78.8				80.1	82.3	79
	70	33.1	45.9	57.4	67.7	76.5	83.8	89.3			91.6	93.5	80
	80	33.3	46.3	58.1	68.9	78.5	87.0	94.1	99.7		103.1	104.7	80
	90	33.5	46.5	58.6	69.8	80.0	89.2	97.3	104.3	110.0	114.4	115.9	80
	100	33.6	46.7	59.0	70.5	81.1	90.9	99.8	107.6	114.5	125.8	127.1	80
24	50	38.6	53.2	65.2	74.4	80.2					80.7	83.5	79
	60	39.2	54.1	67.2	78.1	86.8	92.9				94.3	96.6	79
	70	39.5	54.7	68.4	80.4	90.7	99.0	105.3			107.8	109.7	80
	80	39.8	55.2	69.2	81.9	93.2	103.0	111.1	117.5		121.1	122.8	80
	90	40.0	55.5	69.8	83.0	95.0	105.8	115.2	123.2	129.5	134.4	135.9	80
	100	40.2	55.7	70.3	83.9	96.4	107.9	118.2	127.3	135.1	147.6	149.0	80
26	50	45.5	62.5	76.5	87.1	93.6					94.0	96.9	79
	60	46.1	63.6	78.8	91.5	101.5	108.3				109.8	112.2	79
	70	46.5	64.3	80.3	94.2	106.1	115.7	122.6			125.3	127.4	80
	80	46.9	64.9	81.3	96.1	109.2	120.4	129.7	136.8		140.7	142.5	80
	90	47.1	65.2	82.0	97.4	111.4	123.8	134.6	143.7	150.8	156.1	157.7	80
	100	47.3	65.5	82.6	98.4	113.0	126.3	138.2	148.7	157.6	171.3	172.8	80

[a] Includes 1.0-foot stump allowance.

Table 249--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for black oak (species 837) South-wide[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	1.3	1.4	1.5	1.7	1.8	2.0											
6	1.8	2.1	2.4	2.8	3.1	3.3	3.6	3.9									
7	2.4	2.9	3.5	4.0	4.4	4.8	5.2	5.6	6.0	6.4							
8	3.2	3.9	4.7	5.3	5.9	6.5	7.1	7.6	8.1	8.6	9.1	9.6					
9	4.1	5.1	6.0	6.9	7.7	8.4	9.2	9.9	10.5	11.2	11.8	12.5	13.1	13.7			
10	5.1	6.3	7.5	8.6	9.6	10.6	11.5	12.4	13.2	14.1	14.9	15.7	16.5	17.3	18.1	18.8	
11	6.2	7.8	9.2	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	7.4	9.3	11.0	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	8.8	11.0	13.0	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	10.2	12.8	15.2	17.3	19.4	21.3	23.2	25.0	26.7	28.4	30.1	31.8	33.4	35.0	36.6	38.2	39.7
15	11.8	14.7	17.5	20.0	22.3	24.6	26.7	28.8	30.8	32.8	34.7	36.6	38.5	40.3	42.2	44.0	45.8
16	13.5	16.8	19.9	22.8	25.5	28.1	30.5	32.9	35.2	37.4	39.6	41.8	43.9	46.1	48.2	50.2	52.3

[a] Includes 0.5-foot stump allowance.

Table 250--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 black oak (species 837) South-wide[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	1.4	1.8	2.2	2.7	3.1	3.5											
6	1.7	2.4	3.0	3.6	4.2	4.7	5.2	5.8									
7	2.3	3.1	4.0	4.7	5.4	6.1	6.8	7.4	8.1	8.7							
8	3.0	4.1	5.1	6.0	6.9	7.7	8.6	9.4	10.2	10.9	11.7	12.5					
9	3.8	5.1	6.3	7.5	8.6	9.6	10.6	11.6	12.5	13.5	14.4	15.4	16.3	17.2			
10	4.7	6.3	7.8	9.1	10.4	11.7	12.9	14.1	15.2	16.3	17.5	18.6	19.7	20.8	21.9	23.0	
11	5.7	7.6	9.4	11.0	12.5	14.0	15.4	16.8	18.2	19.5	20.8	22.2	23.5	24.8	26.0	27.3	28.6
12	6.8	9.0	11.1	13.0	14.8	16.5	18.2	19.8	21.4	23.0	24.5	26.1	27.6	29.1	30.6	32.1	33.6
13	7.9	10.6	13.0	15.2	17.3	19.3	21.2	23.1	25.0	26.8	28.6	30.3	32.1	33.8	35.6	37.3	39.0
14	9.2	12.3	15.1	17.6	20.0	22.3	24.5	26.7	28.8	30.9	32.9	35.0	37.0	39.0	41.0	43.0	44.9
15	10.6	14.1	17.3	20.2	22.9	25.5	28.0	30.5	32.9	35.3	37.6	39.9	42.2	44.5	46.8	49.0	51.3
16	12.1	16.1	19.7	23.0	26.0	29.0	31.8	34.6	37.3	40.0	42.6	45.2	47.8	50.4	52.9	55.5	58.0

[a] Includes 0.5-foot stump allowance.

Table 251--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.6									8.8	10.6	66
	50	8.5									10.9	13.6	72
	60	9.1	12.3								12.7	16.3	76
	70	9.4	12.9								14.3	18.9	78
	80	9.6	13.3								15.8	21.2	79
	90	9.7	13.6	16.9							17.2	23.6	80
	100	9.8	13.8	17.2							18.5	25.8	81
14	40	10.5									13.3	14.6	66
	50	11.8	15.7								16.7	18.8	72
	60	12.5	16.9								19.6	22.6	76
	70	12.9	17.7	21.5							22.3	26.0	78
	80	13.2	18.3	22.5							24.9	29.3	79
	90	13.4	18.6	23.1	26.7						27.3	32.5	80
	100	13.6	18.9	23.6	27.6						29.7	35.7	81
16	50	15.5	20.6								22.9	24.8	72
	60	16.4	22.3	26.4							27.2	29.7	76
	70	17.0	23.3	28.3							31.1	34.3	78
	80	17.4	24.0	29.5	33.6						34.8	38.7	79
	90	17.7	24.5	30.4	35.1						38.3	42.9	80
	100	17.9	24.9	31.0	36.2	40.2					41.8	47.0	81
	110	18.0	25.1	31.5	37.1	41.6	45.0				45.1	51.0	81
18	50	19.7	26.2								29.9	31.6	72
	60	20.9	28.3	33.6							35.6	37.8	76
	70	21.7	29.6	35.9	40.1						40.8	43.7	78
	80	22.2	30.5	37.5	42.7						45.7	49.2	79
	90	22.5	31.1	38.6	44.6	48.9					50.5	54.6	80
	100	22.8	31.6	39.4	46.0	51.0	54.7				55.2	59.8	81
	110	23.0	32.0	40.1	47.1	52.7	57.1				59.7	64.9	81
20	50	24.5	32.4	37.1							37.7	39.2	72
	60	25.9	35.1	41.5							44.9	46.9	76
	70	26.9	36.7	44.4	49.6						51.5	54.1	78
	80	27.5	37.8	46.4	52.8	57.0					57.9	61.0	79
	90	28.0	38.6	47.8	55.1	60.5					64.0	67.6	80
	100	28.3	39.2	48.8	56.9	63.1	67.7				69.9	74.1	81
	110	28.5	39.6	49.6	58.3	65.3	70.7	74.6			75.8	80.5	81
22	60	31.5	42.5	50.4	54.8						55.1	56.9	76
	70	32.7	44.5	53.9	60.1						63.4	65.7	78
	80	33.4	45.9	56.3	64.0	69.1					71.2	74.0	79
	90	34.0	46.8	58.0	66.9	73.3	77.7				78.8	82.1	80
	100	34.4	47.5	59.2	69.0	76.5	82.1	85.9			86.1	89.9	81
	110	34.7	48.1	60.2	70.6	79.1	85.6	90.5			93.4	97.7	81
24	60	37.6	50.7	60.1	65.3						66.2	67.9	76
	70	39.0	53.1	64.3	71.7	76.0					76.2	78.4	78
	80	39.9	54.7	67.1	76.3	82.4					85.7	88.3	79
	90	40.6	55.9	69.1	79.7	87.4	92.5				94.9	97.9	80
	100	41.0	56.7	70.6	82.3	91.2	97.8	102.3			103.8	107.3	81
	110	41.4	57.3	71.7	84.2	94.3	102.1	107.8	111.8		112.6	116.5	81
26	60	44.3	59.7	70.6	76.8						78.3	79.9	76
	70	45.9	62.5	75.6	84.3	89.3					90.2	92.1	78
	80	47.0	64.4	78.9	89.7	96.8	101.1				101.4	103.8	79
	90	47.7	65.7	81.3	93.7	102.7	108.7				112.3	115.1	80
	100	48.3	66.7	83.0	96.7	107.2	114.9	120.2			122.9	126.1	81
	110	48.7	67.4	84.3	98.9	110.8	119.9	126.6	131.4		133.3	136.9	81

[a] Includes 1.0-foot stump allowance.

Table 252--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.1									9.0	11.0	71
	40	8.9									11.2	14.6	76
	50	9.3	12.7								13.0	17.9	78
	60	9.6	13.2								14.6	21.0	79
	70	9.7	13.4								16.2	24.1	80
	80	9.8	13.6	16.9							17.7	27.1	80
	90	9.9	13.8	17.2							19.1	30.0	81
14	40	12.3	16.3								17.3	19.7	76
	50	12.8	17.4								20.6	24.1	78
	60	13.2	18.0	21.9							23.7	28.2	79
	70	13.4	18.4	22.7	26.1						26.6	32.3	80
	80	13.5	18.7	23.2	27.0						29.5	36.2	80
	90	13.6	18.9	23.6	27.6	31.1					32.3	40.1	81
	100	13.7	19.1	23.8	28.1	31.8	35.0				35.1	43.9	81
16	40	16.1	21.4								23.8	25.6	76
	50	16.9	22.9	27.2							28.6	31.3	78
	60	17.4	23.7	28.7	32.4						33.1	36.6	79
	70	17.6	24.2	29.7	34.1						37.5	41.7	80
	80	17.8	24.6	30.4	35.3	39.3					41.7	46.8	80
	90	18.0	24.9	30.9	36.1	40.6	44.2				45.9	51.7	81
	100	18.1	25.1	31.3	36.8	41.6	45.7	49.1			50.0	56.6	81
18	40	20.5	27.2								30.9	32.4	76
	50	21.5	29.1	34.4							37.3	39.4	78
	60	22.1	30.1	36.4	41.1						43.3	46.0	79
	70	22.5	30.8	37.7	43.2	47.4					49.1	52.4	80
	80	22.7	31.3	38.6	44.7	49.7	53.5				54.8	58.7	80
	90	22.9	31.6	39.2	45.8	51.4	55.9	59.5			60.3	64.9	81
	100	23.1	31.9	39.7	46.6	52.7	57.8	62.0	65.4		65.8	71.1	81
20	40	25.5	33.7	38.4							38.7	39.9	76
	50	26.7	36.0	42.6	46.7						46.8	48.5	78
	60	27.4	37.3	45.1	50.7						54.4	56.6	79
	70	27.9	38.2	46.7	53.4	58.5					61.7	64.4	80
	80	28.2	38.7	47.8	55.3	61.3	66.0				68.9	72.1	80
	90	28.4	39.2	48.6	56.6	63.4	69.0	73.3			76.0	79.7	81
	100	28.6	39.5	49.2	57.7	65.1	71.3	76.5	80.6		83.0	87.2	81
22	50	32.4	43.6	51.6	56.4						57.1	58.5	78
	60	33.3	45.3	54.6	61.4	65.8					66.5	68.3	79
	70	33.9	46.3	56.5	64.7	70.7	74.9				75.5	77.7	80
	80	34.3	47.0	57.9	66.9	74.2	79.8	83.7			84.3	86.9	80
	90	34.6	47.5	58.9	68.6	76.8	83.5	88.6	92.4		93.0	96.0	81
	100	34.8	47.9	59.6	69.9	78.8	86.3	92.5	97.4	101.0	101.5	105.0	81
24	50	38.7	52.1	61.5	67.2						68.4	69.6	78
	60	39.8	54.0	65.1	73.1	78.3					79.6	81.1	79
	70	40.4	55.2	67.4	77.0	84.2	89.0				90.4	92.3	80
	80	40.9	56.1	69.0	79.7	88.4	94.9	99.5			101.0	103.2	80
	90	41.3	56.7	70.2	81.7	91.4	99.3	105.4	109.8		111.4	113.9	81
	100	41.5	57.2	71.1	83.3	93.8	102.7	110.0	115.8	120.0	121.6	124.6	81
26	50	45.5	61.2	72.2	78.8						80.5	81.5	78
	60	46.8	63.5	76.5	85.9	91.8					93.7	95.1	79
	70	47.6	64.9	79.2	90.5	98.8	104.4				106.5	108.1	80
	80	48.2	65.9	81.1	93.7	103.7	111.4	116.7			118.9	120.9	80
	90	48.6	66.7	82.5	96.0	107.4	116.6	123.6	128.7		131.2	133.4	81
	100	48.9	67.2	83.5	97.8	110.2	120.6	129.1	135.8	140.7	143.3	145.9	81

[a] Includes 1.0-foot stump allowance.

Table 253--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.2									9.3	15.7	72
	30	9.0	12.5								14.4	18.9	77
	40	9.4	13.1	16.5							19.2	23.0	79
	50	9.6	13.4	17.0	20.4	23.4					23.8	27.2	80
	60	9.7	13.6	17.3	20.9	24.2	27.2				28.3	31.5	80
	70	9.7	13.7	17.5	21.2	24.7	27.9	31.0			32.8	35.8	80
	80	9.8	13.8	17.7	21.4	25.0	28.4	31.7	34.8		37.3	40.1	81
14	40	13.0	18.0	22.1							25.0	28.5	79
	50	13.3	18.5	23.1	27.1	30.4					30.7	33.9	80
	60	13.4	18.7	23.6	28.0	31.9	35.3				36.4	39.2	80
	70	13.5	18.9	23.9	28.5	32.8	36.6	40.0			41.9	44.6	80
	80	13.6	19.0	24.1	28.9	33.4	37.6	41.4	44.8		47.4	50.0	81
	90	13.7	19.1	24.3	29.2	33.9	38.2	42.3	46.0	49.5	52.9	55.3	81
	100	13.7	19.2	24.4	29.4	34.2	38.7	43.0	47.0	50.7	58.4	60.7	81
16	40	17.2	23.6	28.6							31.8	35.1	79
	50	17.6	24.2	30.0	34.8	38.4					38.8	41.7	80
	60	17.8	24.6	30.8	36.2	40.8	44.5				45.6	48.3	80
	70	17.9	24.9	31.2	37.0	42.2	46.7	50.5			52.4	54.9	80
	80	18.0	25.0	31.6	37.6	43.1	48.1	52.5	56.3		59.1	61.5	81
	90	18.1	25.2	31.8	38.0	43.8	49.1	54.0	58.4	62.2	65.8	68.1	81
	100	18.1	25.3	32.0	38.4	44.3	49.9	55.1	59.9	64.2	72.5	74.7	81
18	40	22.0	29.9	36.0							39.5	42.6	79
	50	22.4	30.8	37.9	43.5	47.5					47.9	50.7	80
	60	22.7	31.3	38.9	45.4	50.8	55.0				56.2	58.7	80
	70	22.9	31.6	39.6	46.6	52.8	58.0	62.3			64.3	66.7	80
	80	23.0	31.9	40.0	47.5	54.2	60.1	65.2	69.5		72.4	74.6	81
	90	23.1	32.0	40.4	48.1	55.1	61.5	67.3	72.3	76.6	80.4	82.6	81
	100	23.2	32.2	40.6	48.5	55.9	62.6	68.8	74.4	79.4	88.4	90.5	81
20	40	27.3	37.0	44.2							48.1	51.1	79
	50	27.9	38.2	46.7	53.3	57.7					58.1	60.8	80
	60	28.2	38.8	48.0	55.8	62.1	66.7				67.9	70.4	80
	70	28.4	39.2	48.9	57.4	64.7	70.8	75.5			77.6	79.9	80
	80	28.6	39.5	49.5	58.5	66.5	73.5	79.4	84.1		87.2	89.4	81
	90	28.7	39.7	49.9	59.3	67.8	75.4	82.1	87.9	92.7	96.8	98.8	81
	100	28.8	39.9	50.2	59.9	68.7	76.9	84.2	90.8	96.5	106.3	108.3	81
22	50	33.9	46.3	56.4	64.1	69.0					69.4	72.0	80
	60	34.3	47.1	58.1	67.3	74.5	79.6				80.9	83.3	80
	70	34.6	47.6	59.2	69.3	77.9	84.8	90.1			92.3	94.5	80
	80	34.8	48.0	59.9	70.7	80.1	88.3	95.1	100.4		103.6	105.7	81
	90	34.9	48.2	60.5	71.7	81.8	90.7	98.6	105.2	110.6	114.8	116.8	81
	100	35.1	48.4	60.9	72.4	83.0	92.6	101.2	108.8	115.3	126.0	127.9	81
24	50	40.5	55.2	67.1	75.9	81.3					81.7	84.3	80
	60	41.0	56.2	69.2	79.9	88.2	93.8				95.2	97.5	80
	70	41.4	56.8	70.5	82.3	92.3	100.3	106.1			108.4	110.6	80
	80	41.6	57.2	71.4	84.0	95.1	104.5	112.2	118.1		121.6	123.6	81
	90	41.8	57.5	72.0	85.2	97.1	107.5	116.6	124.1	130.1	134.6	136.6	81
	100	41.9	57.8	72.5	86.1	98.6	109.8	119.8	128.6	136.0	147.7	149.5	81
26	50	47.7	64.9	78.6	88.7	94.8					95.2	97.7	80
	60	48.3	66.0	81.2	93.5	103.0	109.3				110.7	113.0	80
	70	48.7	66.8	82.8	96.5	108.0	117.0	123.5			126.0	128.1	80
	80	49.0	67.3	83.8	98.5	111.3	122.1	130.9	137.4		141.1	143.1	81
	90	49.2	67.7	84.6	100.0	113.7	125.8	136.1	144.7	151.3	156.2	158.1	81
	100	49.3	68.0	85.2	101.1	115.5	128.5	140.1	150.0	158.4	171.2	173.0	81

[a] Includes 1.0-foot stump allowance.

Table 254--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) South-wide[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[b]	0.6	0.7	1.3	1.4	1.6	1.7											
6[b]	1.7	1.9	2.2	2.5	2.8	3.1	3.3	3.6									
7	2.2	2.8	3.3	3.8	4.2	4.6	5.0	5.3	5.7	6.0							
8	3.1	3.9	4.6	5.2	5.8	6.4	6.9	7.4	7.9	8.4	8.9	9.3					
9	4.0	5.0	6.0	6.8	7.6	8.3	9.0	9.7	10.4	11.0	11.6	12.3	12.9	13.5			
10	5.1	6.4	7.5	8.6	9.6	10.5	11.4	12.3	13.1	13.9	14.7	15.5	16.3	17.0	17.8	18.5	
11	6.3	7.8	9.2	10.5	11.8	12.9	14.0	15.1	16.1	17.1	18.1	19.1	20.0	21.0	21.9	22.8	23.7
12	7.5	9.4	11.1	12.7	14.1	15.5	16.9	18.1	19.4	20.6	21.8	22.9	24.1	25.2	26.3	27.5	28.6
13	8.9	11.1	13.1	15.0	16.7	18.4	20.0	21.5	22.9	24.4	25.8	27.1	28.5	29.9	31.2	32.5	33.8
14	10.4	13.0	15.4	17.5	19.5	21.5	23.3	25.1	26.8	28.4	30.1	31.7	33.3	34.8	36.4	37.9	39.5
15	12.0	15.0	17.7	20.2	22.6	24.8	26.9	28.9	30.9	32.8	34.7	36.6	38.4	40.2	42.0	43.8	45.5
16	13.8	17.1	20.2	23.1	25.8	28.3	30.7	33.0	35.3	37.5	39.6	41.8	43.9	45.9	48.0	50.0	52.0

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 255--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) South-wide[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[b]	1.5	1.8	2.2	2.6	3.1	3.5											
6[b]	1.7	2.3	3.0	3.5	4.1	4.6	5.2	5.7									
7	2.3	3.2	4.0	4.7	5.4	6.1	6.7	7.4	8.0	8.6							
8	3.1	4.2	5.1	6.1	6.9	7.8	8.6	9.4	10.1	10.9	11.7	12.4					
9	3.9	5.3	6.5	7.6	8.7	9.7	10.7	11.6	12.6	13.5	14.4	15.3	16.3	17.2			
10	4.9	6.5	8.0	9.3	10.6	11.8	13.0	14.2	15.3	16.4	17.5	18.6	19.7	20.8	21.8	22.9	
11	6.0	7.9	9.7	11.3	12.8	14.2	15.6	16.9	18.3	19.6	20.9	22.2	23.4	24.7	26.0	27.2	28.5
12	7.1	9.4	11.5	13.4	15.1	16.8	18.4	20.0	21.6	23.1	24.6	26.1	27.6	29.1	30.5	32.0	33.5
13	8.4	11.1	13.5	15.6	17.7	19.6	21.5	23.3	25.1	26.9	28.6	30.4	32.1	33.8	35.5	37.2	38.8
14	9.8	12.9	15.6	18.1	20.4	22.7	24.8	26.9	29.0	31.0	33.0	35.0	36.9	38.9	40.8	42.8	44.7
15	11.3	14.8	17.9	20.8	23.4	26.0	28.4	30.8	33.1	35.4	37.7	39.9	42.2	44.4	46.6	48.8	50.9
16	12.9	16.9	20.4	23.6	26.6	29.5	32.2	34.9	37.6	40.2	42.7	45.2	47.8	50.2	52.7	55.2	57.7

[a] Includes 0.5-foot stump allowance.
[b] Cylindrical volume assumed below breast height.

Table 256--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.8									9.2	11.0	68
	50	8.6									11.2	13.9	73
	60	9.1	12.4								12.8	16.5	76
	70	9.4	12.9								14.4	18.9	78
	80	9.6	13.3								15.8	21.3	79
	90	9.7	13.5	16.8							17.1	23.5	80
	100	9.8	13.7	17.2							18.4	25.7	80
14	40	10.7									13.7	15.1	68
	50	11.8	15.8								17.0	19.1	73
	60	12.5	17.0								19.8	22.7	76
	70	12.9	17.7	21.5							22.4	26.1	78
	80	13.2	18.2	22.4							24.9	29.3	79
	90	13.4	18.5	23.0	26.6						27.2	32.4	80
	100	13.5	18.8	23.5	27.4						29.5	35.4	80
16	50	15.6	20.8								23.3	25.1	73
	60	16.4	22.3	26.5							27.3	29.9	76
	70	16.9	23.2	28.2							31.1	34.3	78
	80	17.3	23.9	29.4	33.4						34.7	38.5	79
	90	17.5	24.3	30.2	34.9						38.1	42.6	80
	100	17.7	24.6	30.8	35.9	39.9					41.5	46.7	80
	110	17.9	24.9	31.2	36.7	41.2	44.6				44.8	50.6	81
18	50	19.8	26.4								30.3	31.9	73
	60	20.8	28.3	33.6							35.7	38.0	76
	70	21.5	29.5	35.8	40.0						40.8	43.6	78
	80	22.0	30.3	37.3	42.4						45.6	49.0	79
	90	22.3	30.9	38.3	44.2	48.5					50.2	54.2	80
	100	22.5	31.3	39.1	45.6	50.6	54.3				54.7	59.3	80
	110	22.7	31.6	39.6	46.6	52.2	56.6				59.2	64.4	81
20	50	24.5	32.7	37.5							38.1	39.6	73
	60	25.8	35.0	41.6							45.0	47.0	76
	70	26.7	36.5	44.3	49.5						51.5	54.0	78
	80	27.2	37.5	46.1	52.5	56.7					57.6	60.7	79
	90	27.6	38.2	47.4	54.7	60.0					63.6	67.2	80
	100	27.9	38.7	48.3	56.3	62.6	67.1				69.4	73.5	80
	110	28.2	39.1	49.0	57.6	64.6	69.9	73.9			75.1	79.7	81
22	60	31.3	42.5	50.4	54.9						55.2	57.1	76
	70	32.4	44.3	53.7	59.9						63.2	65.5	78
	80	33.1	45.5	55.9	63.6	68.7					70.8	73.6	79
	90	33.5	46.3	57.4	66.3	72.7	77.1				78.2	81.5	80
	100	33.9	47.0	58.6	68.3	75.8	81.3	85.1			85.4	89.2	80
	110	34.2	47.5	59.4	69.8	78.2	84.7	89.6			92.5	96.7	81
24	60	37.4	50.6	60.1	65.4						66.4	68.1	76
	70	38.6	52.8	64.0	71.4	75.7					76.0	78.2	78
	80	39.4	54.2	66.6	75.8	81.9					85.2	87.8	79
	90	40.0	55.3	68.4	79.0	86.6	91.8				94.1	97.2	80
	100	40.5	56.0	69.8	81.4	90.3	96.9	101.4			102.9	106.3	80
	110	40.8	56.6	70.8	83.2	93.2	101.0	106.7	110.7		111.4	115.3	81
26	60	43.9	59.5	70.6	76.8						78.4	80.0	76
	70	45.4	62.0	75.2	83.9	89.0					89.9	91.9	78
	80	46.4	63.7	78.2	89.0	96.2	100.5				100.8	103.2	79
	90	47.1	64.9	80.4	92.8	101.8	107.8				111.4	114.2	80
	100	47.6	65.8	82.0	95.6	106.1	113.8	119.1			121.8	125.0	80
	110	48.0	66.5	83.3	97.7	109.5	118.6	125.3	130.0		131.9	135.5	81

[a] Includes 1.0-foot stump allowance.

Table 257--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.2									9.3	11.2	72
	40	9.0									11.3	14.7	76
	50	9.3	12.7								13.1	18.0	78
	60	9.6	13.2								14.7	21.0	79
	70	9.7	13.4								16.2	24.0	80
	80	9.8	13.6	16.9							17.7	27.0	80
	90	9.9	13.7	17.2							19.1	29.9	80
14	40	12.3	16.4								17.4	19.8	76
	50	12.8	17.4								20.6	24.1	78
	60	13.1	18.0	21.9							23.6	28.2	79
	70	13.3	18.4	22.6	26.0						26.5	32.1	80
	80	13.5	18.6	23.1	26.8						29.3	36.0	80
	90	13.6	18.8	23.4	27.5	30.9					32.1	39.9	80
	100	13.6	18.9	23.7	27.9	31.6	34.8				34.9	43.7	81
16	40	16.1	21.5								23.9	25.7	76
	50	16.8	22.8	27.1							28.6	31.2	78
	60	17.2	23.6	28.6	32.3						33.0	36.4	79
	70	17.5	24.1	29.5	33.9						37.3	41.5	80
	80	17.7	24.4	30.2	35.1	39.0					41.4	46.5	80
	90	17.8	24.7	30.7	35.9	40.3	43.9				45.5	51.4	80
	100	17.9	24.8	31.0	36.5	41.3	45.3	48.7			49.6	56.2	81
18	40	20.5	27.3								31.0	32.4	76
	50	21.4	28.9	34.4							37.2	39.3	78
	60	21.9	29.9	36.2	40.9						43.1	45.8	79
	70	22.3	30.6	37.4	42.9	47.1					48.8	52.1	80
	80	22.5	31.0	38.3	44.4	49.3	53.1				54.4	58.3	80
	90	22.7	31.3	38.9	45.4	51.0	55.5	59.0			59.8	64.5	80
	100	22.8	31.5	39.4	46.2	52.2	57.3	61.5	64.9		65.3	70.5	81
20	40	25.4	33.7	38.4							38.8	39.9	76
	50	26.5	35.8	42.4	46.5						46.6	48.3	78
	60	27.1	37.0	44.8	50.4						54.1	56.3	79
	70	27.6	37.8	46.3	53.0	58.1					61.3	64.0	80
	80	27.9	38.4	47.3	54.8	60.8	65.5				68.4	71.6	80
	90	28.1	38.7	48.1	56.1	62.9	68.4	72.7			75.3	79.1	80
	100	28.3	39.0	48.7	57.1	64.5	70.7	75.8	79.9		82.2	86.5	81
22	50	32.1	43.4	51.4	56.2						56.9	58.3	78
	60	32.9	44.9	54.2	61.0	65.4					66.1	67.9	79
	70	33.5	45.8	56.1	64.2	70.2	74.3				74.9	77.2	80
	80	33.8	46.5	57.3	66.4	73.6	79.1	83.0			83.6	86.3	80
	90	34.1	47.0	58.3	68.0	76.1	82.7	87.9	91.6		92.1	95.2	80
	100	34.3	47.3	59.0	69.2	78.0	85.5	91.6	96.5	100.1	100.6	104.1	81
24	50	38.3	51.7	61.2	66.9						68.1	69.3	78
	60	39.3	53.5	64.6	72.6	77.8					79.1	80.6	79
	70	39.9	54.6	66.8	76.4	83.5	88.3				89.7	91.6	80
	80	40.4	55.4	68.3	79.0	87.6	94.1	98.6			100.1	102.3	80
	90	40.7	56.0	69.4	80.9	90.6	98.4	104.5	108.8		110.3	112.9	80
	100	40.9	56.4	70.3	82.4	92.9	101.7	109.0	114.7	118.9	120.5	123.5	81
26	50	45.1	60.8	71.8	78.5						80.2	81.2	78
	60	46.2	62.9	75.8	85.2	91.2					93.1	94.4	79
	70	46.9	64.2	78.4	89.7	98.0	103.6				105.6	107.3	80
	80	47.5	65.2	80.2	92.8	102.8	110.4	115.6			117.9	119.8	80
	90	47.8	65.8	81.5	95.0	106.3	115.4	122.5	127.5		130.0	132.2	80
	100	48.1	66.3	82.5	96.7	109.0	119.3	127.8	134.4	139.3	141.9	144.5	81

[a] Includes 1.0-foot stump allowance.

Table 258--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.5									9.7	15.0	75
	30	9.2	12.7								14.6	19.0	78
	40	9.5	13.3	16.7							19.3	23.3	79
	50	9.6	13.5	17.1	20.5	23.5					23.9	27.6	80
	60	9.7	13.7	17.4	20.9	24.2	27.3				28.3	32.0	80
	70	9.8	13.8	17.6	21.2	24.6	27.9	31.0			32.8	36.3	80
	80	9.9	13.8	17.7	21.4	24.9	28.3	31.6	34.7		37.2	40.7	80
14	40	13.0	18.0	22.2							25.1	28.5	79
	50	13.3	18.4	23.0	27.0	30.4					30.7	34.0	80
	60	13.4	18.7	23.5	27.9	31.8	35.2				36.3	39.4	80
	70	13.5	18.8	23.8	28.4	32.6	36.5	39.9			41.7	44.8	80
	80	13.6	18.9	24.0	28.8	33.2	37.3	41.1	44.6		47.2	50.2	80
	90	13.6	19.0	24.2	29.0	33.6	38.0	42.0	45.8	49.2	52.6	55.6	80
	100	13.7	19.1	24.3	29.2	34.0	38.4	42.7	46.7	50.4	58.1	60.9	80
16	40	17.1	23.5	28.6							31.8	34.9	79
	50	17.5	24.1	29.9	34.6	38.3					38.7	41.6	80
	60	17.6	24.5	30.6	35.9	40.5	44.3				45.4	48.2	80
	70	17.8	24.7	31.0	36.8	41.9	46.4	50.1			52.1	54.8	80
	80	17.9	24.8	31.3	37.3	42.8	47.7	52.1	56.0		58.7	61.4	80
	90	17.9	24.9	31.5	37.7	43.4	48.7	53.6	57.9	61.7	65.3	67.9	80
	100	18.0	25.0	31.7	38.0	43.9	49.5	54.6	59.3	63.6	71.9	74.5	80
18	40	21.8	29.8	35.9							39.4	42.2	79
	50	22.2	30.6	37.6	43.3	47.3					47.7	50.3	80
	60	22.5	31.0	38.6	45.1	50.5	54.6				55.8	58.4	80
	70	22.6	31.3	39.2	46.2	52.4	57.6	61.8			63.8	66.3	80
	80	22.7	31.5	39.6	47.0	53.6	59.5	64.6	68.9		71.8	74.2	80
	90	22.8	31.7	39.9	47.6	54.6	60.9	66.7	71.7	75.9	79.8	82.1	80
	100	22.9	31.8	40.1	48.0	55.3	62.0	68.2	73.7	78.7	87.7	90.0	80
20	40	27.0	36.8	44.0							47.9	50.5	79
	50	27.5	37.8	46.3	52.9	57.4					57.7	60.2	80
	60	27.8	38.4	47.5	55.3	61.6	66.2				67.4	69.8	80
	70	28.1	38.7	48.3	56.8	64.1	70.1	74.8			77.0	79.3	80
	80	28.2	39.0	48.9	57.8	65.8	72.7	78.6	83.4		86.4	88.7	80
	90	28.3	39.2	49.3	58.6	67.0	74.6	81.3	87.1	91.8	95.9	98.1	80
	100	28.4	39.3	49.6	59.1	67.9	76.0	83.3	89.8	95.5	105.3	107.4	80
22	50	33.4	45.8	55.9	63.6	68.5					68.9	71.2	80
	60	33.8	46.5	57.5	66.6	73.8	79.0				80.2	82.5	80
	70	34.1	47.0	58.5	68.5	77.1	84.0	89.2			91.5	93.6	80
	80	34.2	47.3	59.2	69.8	79.2	87.3	94.1	99.4		102.6	104.7	80
	90	34.4	47.5	59.7	70.7	80.8	89.7	97.5	104.1	109.4	113.7	115.8	80
	100	34.5	47.7	60.0	71.4	81.9	91.5	100.0	107.6	114.1	124.8	126.8	80
24	50	39.9	54.6	66.4	75.2	80.7					81.1	83.3	80
	60	40.3	55.4	68.3	79.0	87.3	93.0				94.3	96.4	80
	70	40.6	56.0	69.6	81.3	91.3	99.2	105.0			107.4	109.4	80
	80	40.9	56.4	70.4	82.9	93.9	103.3	111.0	116.9		120.3	122.3	80
	90	41.0	56.7	71.0	84.1	95.8	106.2	115.2	122.7	128.7	133.2	135.2	80
	100	41.2	56.9	71.5	85.0	97.3	108.4	118.4	127.0	134.4	146.1	148.0	80
26	50	46.9	64.1	77.8	87.9	94.0					94.4	96.5	80
	60	47.5	65.1	80.2	92.5	101.9	108.2				109.6	111.6	80
	70	47.8	65.8	81.6	95.3	106.7	115.7	122.2			124.7	126.6	80
	80	48.1	66.2	82.6	97.2	109.9	120.7	129.4	135.9		139.6	141.5	80
	90	48.3	66.6	83.4	98.6	112.2	124.2	134.5	143.0	149.6	154.5	156.3	80
	100	48.4	66.8	83.9	99.6	114.0	126.9	138.3	148.2	156.5	169.3	171.1	80

[a] Includes 1.0-foot stump allowance.

Table 259--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) South-wide[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	1.4	1.5	1.6	1.7	1.8											
6	1.8	2.1	2.5	2.8	3.0	3.3	3.5	3.8									
7	2.5	3.1	3.6	4.0	4.4	4.8	5.2	5.5	5.9	6.2							
8	3.4	4.1	4.8	5.4	6.0	6.6	7.1	7.6	8.1	8.5	9.0	9.5					
9	4.4	5.4	6.2	7.0	7.8	8.5	9.2	9.9	10.5	11.1	11.7	12.4	12.9	13.5			
10	5.5	6.7	7.8	8.8	9.8	10.7	11.6	12.4	13.2	14.0	14.8	15.6	16.3	17.1	17.8	18.5	
11	6.7	8.2	9.6	10.8	12.0	13.1	14.2	15.2	16.2	17.2	18.1	19.1	20.0	20.9	21.8	22.7	23.6
12	8.0	9.8	11.5	13.0	14.4	15.7	17.0	18.2	19.4	20.6	21.8	22.9	24.0	25.1	26.2	27.3	28.4
13	9.5	11.6	13.5	15.3	17.0	18.6	20.1	21.6	23.0	24.4	25.7	27.1	28.4	29.7	31.0	32.3	33.6
14	11.0	13.5	15.8	17.9	19.8	21.6	23.4	25.1	26.8	28.4	30.0	31.6	33.1	34.7	36.2	37.7	39.2
15	12.7	15.6	18.2	20.6	22.8	25.0	27.0	29.0	30.9	32.8	34.6	36.4	38.2	40.0	41.7	43.5	45.2
16	14.5	17.8	20.7	23.5	26.1	28.5	30.8	33.1	35.3	37.4	39.5	41.6	43.6	45.6	47.6	49.6	51.6

[a] Includes 0.5-foot stump allowance.

Table 260--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) South-wide[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	2.3	2.7	3.2	3.6											
6	1.8	2.5	3.1	3.7	4.3	4.8	5.3	5.9									
7	2.5	3.4	4.2	4.9	5.6	6.3	6.9	7.6	8.2	8.8							
8	3.3	4.4	5.3	6.2	7.1	7.9	8.7	9.5	10.3	11.1	11.8	12.6					
9	4.2	5.5	6.7	7.8	8.8	9.8	10.8	11.7	12.7	13.6	14.5	15.4	16.3	17.2			
10	5.2	6.8	8.2	9.5	10.8	11.9	13.1	14.2	15.4	16.5	17.5	18.6	19.7	20.8	21.8	22.9	
11	6.3	8.2	9.9	11.4	12.9	14.3	15.7	17.0	18.3	19.6	20.9	22.2	23.4	24.7	25.9	27.2	28.4
12	7.5	9.7	11.7	13.5	15.2	16.9	18.5	20.0	21.6	23.1	24.6	26.0	27.5	29.0	30.4	31.9	33.3
13	8.8	11.4	13.7	15.8	17.8	19.7	21.5	23.3	25.1	26.8	28.6	30.3	32.0	33.6	35.3	37.0	38.6
14	10.2	13.2	15.8	18.3	20.5	22.7	24.8	26.9	28.9	30.9	32.9	34.8	36.8	38.7	40.6	42.5	44.4
15	11.7	15.1	18.1	20.9	23.5	26.0	28.4	30.7	33.0	35.3	37.5	39.7	41.9	44.1	46.3	48.4	50.6
16	13.4	17.2	20.6	23.7	26.7	29.5	32.2	34.8	37.4	40.0	42.5	45.0	47.5	49.9	52.4	54.8	57.2

[a] Includes 0.5-foot stump allowance.

Table 261--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 black locust (species 901) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
	40										5.7	9.0	59
	50	7.6									8.6	11.8	67
	60	8.0									10.5	14.2	71
12	70	8.3	11.4								12.1	16.5	73
	80	8.5	11.8								13.6	18.7	75
	90	8.6	12.1	15.0							15.0	20.8	76
	100	8.7	12.3	15.3							16.3	22.8	77
	40	9.2									10.6	12.4	59
	50	10.4	13.6								13.9	16.2	67
	60	11.0	14.8								16.8	19.6	71
14	70	11.4	15.6	18.9							19.3	22.7	73
	80	11.7	16.1	19.8							21.7	25.7	75
	90	11.8	16.5	20.4	23.6						24.0	28.6	76
	100	12.0	16.8	20.9	24.4						26.2	31.5	77
	50	13.6	17.9								19.4	21.3	67
	60	14.4	19.5	23.0							23.3	25.8	71
	70	15.0	20.5	24.7							26.9	29.9	73
16	80	15.3	21.1	25.9	29.5						30.4	33.9	75
	90	15.5	21.6	26.8	30.9						33.6	37.7	76
	100	15.7	22.0	27.4	31.9	35.4					36.8	41.4	77
	110	15.8	22.2	27.9	32.7	36.7	39.7				39.9	45.0	78
	50	17.3	22.7								25.4	27.1	67
	60	18.3	24.7	29.2							30.6	32.8	71
	70	19.0	26.0	31.4	35.0						35.4	38.0	73
18	80	19.4	26.8	32.9	37.4						39.9	43.1	75
	90	19.7	27.4	33.9	39.1	42.9					44.3	47.9	76
	100	19.9	27.9	34.8	40.5	44.9	48.2				48.6	52.6	77
	110	20.1	28.2	35.4	41.5	46.5	50.4				52.7	57.3	78
	50	21.4	28.1	32.0							32.1	33.6	67
	60	22.7	30.6	36.1							38.7	40.6	71
	70	23.5	32.1	38.8	43.2						44.7	47.1	73
20	80	24.1	33.2	40.6	46.2	49.9					50.5	53.3	75
	90	24.4	33.9	42.0	48.4	53.0					56.1	59.3	76
	100	24.7	34.5	43.0	50.0	55.5	59.5				61.5	65.2	77
	110	24.9	34.9	43.7	51.3	57.5	62.2	65.8			66.9	70.9	78
	60	27.6	37.0	43.7	47.4						47.5	49.3	71
	70	28.5	39.0	47.0	52.4						55.0	57.2	73
	80	29.2	40.2	49.2	56.0	60.4					62.1	64.7	75
22	90	29.6	41.1	50.9	58.6	64.3	68.1				69.0	72.0	76
	100	30.0	41.8	52.1	60.6	67.3	72.1	75.5			75.7	79.1	77
	110	30.2	42.3	53.0	62.2	69.6	75.4	79.7			82.3	86.0	78
	60	32.9	44.2	52.1	56.5						57.1	58.7	71
	70	34.0	46.4	56.0	62.4	66.1					66.2	68.2	73
	80	34.8	48.0	58.7	66.7	72.0					74.8	77.1	75
24	90	35.3	49.0	60.6	69.8	76.5	81.1				83.1	85.8	76
	100	35.7	49.8	62.1	72.2	80.1	85.9	89.9			91.2	94.2	77
	110	36.0	50.4	63.2	74.0	82.9	89.8	94.9	98.4		99.1	102.6	78
	60	38.6	51.9	61.2	66.4						67.5	69.1	71
	70	40.0	54.6	65.8	73.3	77.6					78.3	80.1	73
	80	40.9	56.4	68.9	78.3	84.5	88.3				88.5	90.6	75
26	90	41.6	57.6	71.2	82.0	89.9	95.2				98.3	100.8	76
	100	42.0	58.6	72.9	84.8	94.1	100.9	105.5			107.9	110.8	77
	110	42.4	59.3	74.2	87.0	97.4	105.5	111.4	115.6		117.4	120.5	78

[a] Includes 1.0-foot stump allowance.

Table 262--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 black locust (species 901) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	7.5									8.2	10.2	68
	40	8.1									10.0	13.3	73
	50	8.4	11.5								11.7	16.1	75
	60	8.5	11.8								13.2	18.8	76
	70	8.6	12.0								14.6	21.5	76
	80	8.7	12.2	15.2							16.0	24.1	77
	90	8.8	12.3	15.4							17.4	26.7	77
14	40	11.1	14.8								15.5	17.8	73
	50	11.5	15.6								18.3	21.6	75
	60	11.7	16.1	19.6							21.0	25.2	76
	70	11.8	16.4	20.2	23.3						23.6	28.7	76
	80	11.9	16.6	20.6	24.0						26.2	32.1	77
	90	12.0	16.8	21.0	24.6	27.6					28.7	35.5	77
	100	12.0	16.9	21.2	25.0	28.3	31.1				31.2	38.9	77
16	40	14.5	19.4								21.3	23.1	73
	50	15.0	20.5	24.3							25.4	27.9	75
	60	15.3	21.1	25.6	28.9						29.3	32.5	76
	70	15.5	21.5	26.4	30.3						33.1	37.0	76
	80	15.6	21.8	27.0	31.3	34.9					36.8	41.4	77
	90	15.7	22.0	27.4	32.1	36.0	39.2				40.4	45.7	77
	100	15.8	22.1	27.7	32.7	36.9	40.5	43.5			44.1	50.1	77
18	40	18.4	24.6								27.7	29.1	73
	50	19.1	26.0	30.8							33.1	35.1	75
	60	19.5	26.8	32.4	36.5						38.3	40.8	76
	70	19.7	27.3	33.5	38.4	42.0					43.3	46.4	76
	80	19.9	27.6	34.2	39.7	44.0	47.4				48.2	51.9	77
	90	20.0	27.9	34.7	40.6	45.5	49.5	52.6			53.1	57.3	77
	100	20.1	28.1	35.1	41.3	46.7	51.2	54.9	57.8		57.9	62.7	77
20	40	22.8	30.4	34.5							34.6	35.8	73
	50	23.6	32.1	38.0							41.5	43.1	75
	60	24.1	33.1	40.0	45.1						48.0	50.1	76
	70	24.4	33.7	41.4	47.4	51.8					54.4	56.9	76
	80	24.6	34.2	42.3	49.0	54.3	58.3				60.6	63.6	77
	90	24.8	34.5	42.9	50.1	56.2	61.0	64.8			66.7	70.2	77
	100	24.9	34.7	43.4	51.1	57.6	63.1	67.6	71.1		72.8	76.8	77
22	50	28.7	38.9	46.0	50.2						50.6	52.0	75
	60	29.2	40.1	48.5	54.5	58.3					58.6	60.4	76
	70	29.6	40.9	50.1	57.3	62.6	66.1				66.4	68.6	76
	80	29.9	41.4	51.2	59.3	65.7	70.5	73.8			74.0	76.6	77
	90	30.0	41.8	52.0	60.7	67.9	73.8	78.2	81.4		81.6	84.5	77
	100	30.2	42.1	52.6	61.8	69.7	76.3	81.7	85.9	89.0	89.1	92.4	77
24	50	34.2	46.3	54.8	59.7						60.6	61.7	75
	60	34.9	47.8	57.7	64.8	69.3					70.2	71.7	76
	70	35.3	48.7	59.6	68.2	74.4	78.6				79.5	81.3	76
	80	35.6	49.3	61.0	70.5	78.1	83.8	87.7			88.6	90.8	77
	90	35.8	49.8	61.9	72.3	80.8	87.7	93.0	96.7		97.7	100.2	77
	100	36.0	50.1	62.7	73.6	82.9	90.7	97.1	102.0	105.6	106.7	109.5	77
26	50	40.2	54.4	64.3	70.0						71.3	72.3	75
	60	41.0	56.2	67.8	76.1	81.2					82.6	83.9	76
	70	41.5	57.2	70.0	80.0	87.3	92.1				93.6	95.2	76
	80	41.9	58.0	71.6	82.8	91.6	98.2	102.7			104.4	106.3	77
	90	42.1	58.5	72.7	84.8	94.8	102.9	109.0	113.3		115.1	117.2	77
	100	42.3	58.9	73.6	86.4	97.3	106.4	113.8	119.6	123.7	125.6	128.1	77

[a] Includes 1.0-foot stump allowance.

Table 263--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 black locust (species 901) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.3									9.5	16.3	77
	30	8.5	11.9								13.7	19.1	76
	40	8.6	12.1	15.3							17.7	22.4	76
	50	8.7	12.2	15.5	18.6	21.4					21.7	26.0	76
	60	8.8	12.3	15.7	18.9	21.9	24.7				25.7	29.7	76
	70	8.8	12.4	15.8	19.1	22.2	25.2	28.0			29.6	33.5	76
	80	8.8	12.4	15.9	19.2	22.4	25.5	28.4	31.2		33.6	37.2	76
14	40	11.8	16.4	20.2							22.9	27.5	76
	50	11.9	16.6	20.8	24.4	27.4					27.7	31.9	76
	60	11.9	16.7	21.1	25.0	28.5	31.6				32.6	36.5	76
	70	12.0	16.8	21.3	25.4	29.2	32.7	35.7			37.4	41.1	76
	80	12.0	16.9	21.4	25.7	29.7	33.4	36.8	39.8		42.2	45.8	76
	90	12.1	16.9	21.5	25.9	30.0	33.9	37.5	40.8	43.9	47.1	50.5	76
	100	12.1	16.9	21.6	26.0	30.3	34.3	38.0	41.6	44.9	51.9	55.2	76
16	40	15.4	21.3	26.0							28.8	33.4	76
	50	15.6	21.6	26.8	31.1	34.4					34.7	38.9	76
	60	15.6	21.8	27.3	32.1	36.2	39.6				40.6	44.5	76
	70	15.7	21.9	27.6	32.8	37.3	41.3	44.7			46.4	50.1	76
	80	15.8	22.0	27.8	33.2	38.1	42.5	46.4	49.8		52.3	55.7	76
	90	15.8	22.1	28.0	33.5	38.6	43.3	47.6	51.4	54.8	58.1	61.4	76
	100	15.8	22.1	28.1	33.7	39.0	43.9	48.5	52.7	56.5	63.9	67.1	76
18	40	19.6	27.0	32.5							35.6	40.2	76
	50	19.7	27.4	33.7	38.7	42.4					42.7	46.8	76
	60	19.9	27.6	34.4	40.2	45.0	48.6				49.7	53.5	76
	70	19.9	27.8	34.8	41.1	46.5	51.1	54.8			56.7	60.3	76
	80	20.0	27.9	35.1	41.7	47.6	52.8	57.3	61.0		63.6	67.1	76
	90	20.0	28.0	35.3	42.1	48.4	54.0	59.0	63.4	67.2	70.6	73.9	76
	100	20.1	28.0	35.5	42.5	48.9	54.9	60.3	65.2	69.5	77.5	80.7	76
20	40	24.2	33.3	39.8							43.2	47.8	76
	50	24.4	33.8	41.4	47.3	51.2					51.6	55.7	76
	60	24.6	34.1	42.3	49.2	54.7	58.8				59.9	63.7	76
	70	24.7	34.3	42.9	50.4	56.8	62.1	66.2			68.1	71.8	76
	80	24.7	34.5	43.3	51.2	58.2	64.3	69.5	73.6		76.4	79.8	76
	90	24.8	34.6	43.6	51.8	59.3	65.9	71.8	76.8	81.0	84.6	87.9	76
	100	24.8	34.6	43.8	52.3	60.0	67.1	73.5	79.2	84.2	92.8	96.0	76
22	50	29.6	40.9	50.0	56.7	61.1					61.4	65.6	76
	60	29.8	41.3	51.1	59.2	65.5	70.0				71.1	75.0	76
	70	29.9	41.5	51.8	60.7	68.2	74.3	78.8			80.8	84.5	76
	80	30.0	41.7	52.3	61.8	70.0	77.1	83.0	87.6		90.4	93.9	76
	90	30.1	41.9	52.7	62.5	71.3	79.2	85.9	91.7	96.3	100.1	103.4	76
	100	30.1	42.0	52.9	63.1	72.3	80.7	88.2	94.7	100.3	109.7	112.9	76
24	50	35.3	48.7	59.3	67.1	71.8					72.2	76.4	76
	60	35.5	49.1	60.7	70.1	77.4	82.3				83.5	87.4	76
	70	35.6	49.5	61.6	72.0	80.7	87.6	92.6			94.7	98.4	76
	80	35.8	49.7	62.2	73.3	83.0	91.1	97.8	102.8		105.9	109.4	76
	90	35.8	49.8	62.6	74.2	84.6	93.7	101.5	107.9	113.0	117.0	120.4	76
	100	35.9	50.0	63.0	74.9	85.8	95.6	104.2	111.7	118.1	128.1	131.4	76
26	50	41.5	57.1	69.5	78.3	83.6					83.9	88.2	76
	60	41.7	57.7	71.2	82.0	90.2	95.6				96.9	100.9	76
	70	41.9	58.1	72.2	84.3	94.3	102.1	107.6			109.8	113.5	76
	80	42.0	58.3	73.0	85.9	97.0	106.4	113.9	119.4		122.6	126.2	76
	90	42.1	58.5	73.5	87.0	99.0	109.4	118.3	125.6	131.2	135.4	138.9	76
	100	42.2	58.7	73.9	87.8	100.4	111.7	121.6	130.2	137.3	148.2	151.5	76

[a] Includes 1.0-foot stump allowance.

Table 264--Predicted stemwood volume to a 4-inch d.o.b. top in pulpwood trees based on d.b.h. and total-tree height for black locust (species 901) South-wide[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	0.6	0.7	0.8	1.0	1.2	1.4											
6	1.0	1.4	1.9	2.2	2.5	2.7	3.0	3.2									
7	1.7	2.4	2.8	3.3	3.7	4.1	4.4	4.8	5.1	5.4							
8	2.5	3.3	3.9	4.5	5.0	5.6	6.1	6.5	7.0	7.5	7.9	8.3					
9	3.3	4.2	5.1	5.8	6.6	7.2	7.9	8.5	9.1	9.7	10.3	10.9	11.4	12.0			
10	4.2	5.3	6.4	7.3	8.2	9.1	9.9	10.7	11.5	12.2	13.0	13.7	14.4	15.1	15.8	16.5	
11	5.1	6.5	7.8	9.0	10.1	11.2	12.2	13.1	14.1	15.0	15.9	16.8	17.6	18.5	19.3	20.2	21.0
12	6.2	7.8	9.4	10.8	12.1	13.4	14.6	15.8	16.9	18.0	19.1	20.1	21.2	22.2	23.2	24.2	25.2
13	7.3	9.3	11.1	12.8	14.3	15.8	17.3	18.6	20.0	21.3	22.5	23.8	25.0	26.2	27.4	28.6	29.8
14	8.5	10.8	12.9	14.9	16.7	18.5	20.1	21.7	23.3	24.8	26.3	27.7	29.2	30.6	32.0	33.4	34.8
15	9.8	12.5	14.9	17.2	19.3	21.3	23.2	25.0	26.8	28.6	30.3	32.0	33.6	35.3	36.9	38.5	40.1
16	11.2	14.2	17.0	19.6	22.0	24.3	26.5	28.6	30.6	32.6	34.6	36.5	38.4	40.2	42.1	43.9	45.8

[a] Includes 0.5-foot stump allowance.

Table 265--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 black locust (species 901) South-wide[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	1.4	1.8	2.1	2.5	2.9	3.3											
6	1.7	2.3	2.9	3.4	3.9	4.4	4.9	5.3									
7	2.3	3.1	3.8	4.4	5.1	5.7	6.3	6.8	7.4	8.0							
8	3.0	4.0	4.8	5.6	6.4	7.1	7.9	8.6	9.3	10.0	10.6	11.3					
9	3.8	5.0	6.0	7.0	7.9	8.8	9.7	10.5	11.4	12.2	13.0	13.8	14.6	15.5			
10	4.7	6.1	7.4	8.6	9.6	10.7	11.7	12.7	13.7	14.7	15.7	16.7	17.6	18.6	19.5	20.5	
11	5.7	7.4	8.9	10.2	11.5	12.8	14.0	15.2	16.3	17.5	18.6	19.8	20.9	22.0	23.1	24.3	25.4
12	6.8	8.8	10.5	12.1	13.6	15.1	16.5	17.9	19.2	20.6	21.9	23.2	24.5	25.8	27.1	28.4	29.7
13	8.0	10.3	12.3	14.1	15.9	17.6	19.2	20.8	22.3	23.9	25.4	26.9	28.4	29.9	31.4	32.9	34.4
14	9.3	11.9	14.2	16.3	18.3	20.2	22.1	23.9	25.7	27.5	29.2	30.9	32.7	34.4	36.1	37.8	39.5
15	10.6	13.6	16.3	18.7	21.0	23.1	25.2	27.3	29.3	31.3	33.3	35.3	37.2	39.2	41.1	43.0	44.9
16	12.1	15.5	18.5	21.2	23.8	26.2	28.6	30.9	33.2	35.4	37.7	39.9	42.1	44.3	46.4	48.6	50.8

[a] Includes 0.5-foot stump allowance.

Table 266--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) South-wide[a]

D.b.h. class	Total tree height	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	40	7.7									8.1	10.6	64
	50	8.6									10.2	13.5	71
	60	9.1									12.0	16.1	74
	70	9.4	12.8								13.6	18.5	76
	80	9.6	13.2								15.0	20.8	78
	90	9.7	13.4								16.4	23.1	79
	100	9.8	13.6	16.9							17.7	25.3	79
14	40	10.6									12.9	14.5	64
	50	11.8	15.5								16.2	18.5	71
	60	12.4	16.7								19.1	22.1	74
	70	12.9	17.5	21.1							21.8	25.5	76
	80	13.1	18.0	22.0							24.2	28.7	78
	90	13.3	18.3	22.7	26.1						26.6	31.8	79
	100	13.5	18.6	23.1	26.9						28.9	34.8	79
16	50	15.4	20.3								22.4	24.4	71
	60	16.3	21.9	25.9							26.5	29.1	74
	70	16.9	22.9	27.6							30.3	33.5	76
	80	17.2	23.6	28.8	32.8						33.8	37.7	78
	90	17.5	24.0	29.7	34.2						37.3	41.8	79
	100	17.7	24.4	30.3	35.3	39.2					40.6	45.8	79
	110	17.8	24.6	30.8	36.1	40.4	43.8				43.9	49.7	80
18	50	19.6	25.8								29.2	31.0	71
	60	20.7	27.8	32.8							34.7	37.0	74
	70	21.4	29.0	35.1	39.1						39.7	42.6	76
	80	21.9	29.9	36.6	41.6						44.5	48.0	78
	90	22.2	30.5	37.6	43.4	47.6					49.1	53.1	79
	100	22.4	30.9	38.4	44.7	49.6	53.2				53.6	58.2	79
	110	22.6	31.3	39.0	45.7	51.2	55.5				58.0	63.1	80
20	50	24.2	31.9	36.4							36.8	38.4	71
	60	25.6	34.3	40.6							43.7	45.8	74
	70	26.5	35.9	43.3	48.4						50.2	52.8	76
	80	27.1	37.0	45.2	51.4	55.5					56.3	59.4	78
	90	27.5	37.7	46.5	53.6	58.8					62.2	65.8	79
	100	27.8	38.2	47.5	55.3	61.3	65.8				67.9	72.0	79
	110	28.0	38.7	48.2	56.5	63.3	68.6	72.5			73.6	78.2	80
22	60	31.1	41.6	49.2	53.5						53.7	55.6	74
	70	32.1	43.5	52.5	58.6						61.6	64.0	76
	80	32.8	44.8	54.8	62.3	67.2					69.2	72.0	78
	90	33.3	45.7	56.4	64.9	71.2	75.5				76.5	79.8	79
	100	33.7	46.3	57.5	66.9	74.3	79.7	83.4			83.6	87.4	79
	110	33.9	46.8	58.4	68.5	76.7	83.1	87.8			90.6	94.8	80
24	60	37.0	49.6	58.6	63.7						64.5	66.2	74
	70	38.3	51.8	62.6	69.8	73.9					74.1	76.3	76
	80	39.1	53.4	65.2	74.2	80.1					83.2	85.8	78
	90	39.7	54.4	67.1	77.3	84.8	89.9				92.1	95.1	79
	100	40.1	55.2	68.5	79.7	88.5	94.9	99.3			100.7	104.1	79
	110	40.5	55.8	69.6	81.5	91.4	98.9	104.5	108.5		109.2	113.0	80
26	60	43.5	58.3	68.8	74.8						76.2	77.8	74
	70	45.0	60.9	73.5	82.0	86.8					87.6	89.6	76
	80	46.0	62.7	76.6	87.1	94.1	98.2				98.5	100.9	78
	90	46.7	64.0	78.9	90.8	99.6	105.5				109.0	111.7	79
	100	47.2	64.9	80.5	93.6	103.9	111.4	116.6			119.2	122.4	79
	110	47.6	65.6	81.8	95.8	107.3	116.2	122.8	127.4		129.2	132.8	80

[a] Includes 1.0-foot stump allowance.

Table 267--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) South-wide[a]

D.b.h. class	Height to 4-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	30	8.4									9.2	11.3	71
	40	9.0									11.1	14.7	75
	50	9.4	12.7								12.8	17.8	77
	60	9.6	13.1								14.3	20.8	78
	70	9.7	13.4								15.8	23.8	79
	80	9.8	13.5	16.8							17.2	26.7	79
	90	9.9	13.7	17.0							18.5	29.5	79
14	40	12.4	16.4								17.2	19.8	75
	50	12.9	17.4								20.3	23.9	77
	60	13.1	17.9	21.7							23.2	27.9	78
	70	13.3	18.3	22.4	25.7						26.0	31.8	79
	80	13.5	18.5	22.8	26.5						28.8	35.5	79
	90	13.5	18.7	23.2	27.1	30.5					31.5	39.3	79
	100	13.6	18.8	23.4	27.6	31.2					34.1	43.0	80
16	40	16.2	21.5								23.7	25.6	75
	50	16.8	22.7	26.9							28.2	31.0	77
	60	17.2	23.4	28.3	32.0						32.5	36.0	78
	70	17.5	23.9	29.2	33.5						36.6	41.0	79
	80	17.6	24.2	29.9	34.6	38.5					40.7	45.8	79
	90	17.8	24.4	30.3	35.4	39.7	43.3				44.7	50.6	79
	100	17.9	24.6	30.7	36.0	40.7	44.6	48.0			48.6	55.3	80
18	40	20.6	27.2								30.8	32.3	75
	50	21.4	28.8	34.1							36.8	38.9	77
	60	21.9	29.7	35.9	40.4						42.5	45.3	78
	70	22.2	30.3	37.0	42.4	46.5					48.0	51.4	79
	80	22.4	30.7	37.8	43.8	48.6	52.3				53.4	57.5	79
	90	22.6	31.0	38.4	44.8	50.2	54.6	58.1			58.8	63.4	79
	100	22.7	31.2	38.8	45.6	51.4	56.4	60.5	63.8		64.1	69.3	80
20	40	25.4	33.6	38.2							38.5	39.7	75
	50	26.5	35.6	42.1	46.1						46.1	47.8	77
	60	27.1	36.7	44.3	49.8						53.4	55.6	78
	70	27.4	37.5	45.7	52.3	57.3					60.4	63.1	79
	80	27.7	38.0	46.7	54.0	59.9	64.5				67.2	70.5	79
	90	27.9	38.3	47.4	55.3	61.9	67.3	71.5			74.0	77.8	79
	100	28.1	38.6	48.0	56.3	63.4	69.5	74.5	78.5		80.7	85.0	80
22	50	32.1	43.1	50.9	55.6						56.3	57.7	77
	60	32.8	44.5	53.6	60.3	64.6					65.2	67.0	78
	70	33.3	45.4	55.4	63.3	69.2	73.2				73.8	76.0	79
	80	33.6	46.0	56.6	65.4	72.5	77.9	81.7			82.2	84.9	79
	90	33.8	46.4	57.5	66.9	74.9	81.3	86.4	90.0		90.5	93.6	79
	100	34.0	46.8	58.1	68.1	76.7	84.0	90.0	94.8	98.3	98.7	102.3	80
24	50	38.2	51.3	60.6	66.2						67.3	68.5	77
	60	39.1	53.0	63.8	71.7	76.7					78.0	79.5	78
	70	39.7	54.1	65.9	75.3	82.3	87.0				88.3	90.2	79
	80	40.1	54.8	67.4	77.8	86.2	92.6	97.0			98.4	100.6	79
	90	40.3	55.3	68.4	79.7	89.1	96.7	102.7	106.9		108.4	111.0	79
	100	40.6	55.7	69.2	81.1	91.3	99.9	107.0	112.6	116.7	118.3	121.2	80
26	50	44.9	60.3	71.1	77.6						79.2	80.3	77
	60	45.9	62.2	74.9	84.1	90.0					91.8	93.1	78
	70	46.6	63.5	77.4	88.4	96.5	102.0				103.9	105.6	79
	80	47.1	64.4	79.1	91.3	101.1	108.5	113.7			115.9	117.8	79
	90	47.4	65.0	80.3	93.5	104.5	113.4	120.3	125.3		127.6	129.9	79
	100	47.7	65.5	81.3	95.2	107.1	117.2	125.5	132.0	136.8	139.3	141.8	80

[a] Includes 1.0-foot stump allowance.

Table 268--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) South-wide[a]

D.b.h. class	Height to 9-inch d.o.b. top	Volume to: 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	Girard Form Class
Inches	Feet	Cubic feet											Percent
12	20	8.7									9.9	16.0	74
	30	9.3	12.8								14.6	19.5	77
	40	9.5	13.2	16.6							19.2	23.6	78
	50	9.7	13.5	17.0	20.3	23.3					23.7	27.8	79
	60	9.8	13.6	17.3	20.7	24.0	27.0				28.1	32.1	79
	70	9.8	13.7	17.4	21.0	24.4	27.6	30.6			32.4	36.3	79
	80	9.9	13.8	17.5	21.2	24.6	28.0	31.2	34.3		36.8	40.6	79
14	40	13.1	18.0	22.1							24.9	28.9	78
	50	13.3	18.3	22.8	26.8	30.1					30.4	34.1	79
	60	13.4	18.6	23.3	27.6	31.4	34.7				35.8	39.4	79
	70	13.5	18.7	23.6	28.1	32.2	36.0	39.3			41.2	44.6	79
	80	13.6	18.8	23.7	28.4	32.8	36.8	40.5	43.9		46.6	49.9	79
	90	13.6	18.9	23.9	28.7	33.2	37.4	41.4	45.1	48.5	51.9	55.2	79
	100	13.6	18.9	24.0	28.8	33.5	37.9	42.0	45.9	49.6	57.2	60.4	79
16	40	17.2	23.4	28.4							31.5	35.2	78
	50	17.4	24.0	29.6	34.2	37.9					38.2	41.6	79
	60	17.6	24.3	30.2	35.5	40.0	43.7				44.8	48.1	79
	70	17.7	24.5	30.7	36.3	41.3	45.7	49.4			51.3	54.5	79
	80	17.8	24.6	30.9	36.8	42.1	47.0	51.3	55.1		57.8	60.9	79
	90	17.9	24.7	31.1	37.2	42.8	47.9	52.7	56.9	60.7	64.3	67.3	79
	100	17.9	24.8	31.3	37.5	43.2	48.7	53.7	58.3	62.5	70.7	73.7	79
18	40	21.8	29.6	35.6							39.0	42.5	78
	50	22.2	30.3	37.2	42.7	46.7					47.1	50.3	79
	60	22.4	30.7	38.1	44.5	49.7	53.8				55.0	58.0	79
	70	22.5	31.0	38.7	45.6	51.6	56.7	60.8			62.8	65.8	79
	80	22.6	31.2	39.1	46.3	52.8	58.5	63.5	67.7		70.6	73.5	79
	90	22.7	31.3	39.4	46.8	53.7	59.9	65.5	70.4	74.6	78.4	81.2	79
	100	22.8	31.4	39.6	47.2	54.3	60.9	66.9	72.4	77.2	86.1	88.8	79
20	40	27.0	36.6	43.6							47.4	50.7	78
	50	27.4	37.5	45.8	52.2	56.6					57.0	60.0	79
	60	27.7	38.0	46.9	54.5	60.6	65.1				66.4	69.3	79
	70	27.9	38.3	47.7	55.9	63.0	68.9	73.5			75.7	78.5	79
	80	28.0	38.6	48.2	56.9	64.7	71.5	77.2	81.8		84.9	87.6	79
	90	28.1	38.7	48.6	57.6	65.9	73.3	79.8	85.4	90.1	94.1	96.7	79
	100	28.2	38.9	48.9	58.2	66.7	74.6	81.7	88.1	93.6	103.3	105.9	79
22	50	33.3	45.4	55.2	62.7	67.5					67.9	70.8	79
	60	33.6	46.0	56.7	65.6	72.7	77.7				78.9	81.7	79
	70	33.8	46.4	57.6	67.4	75.8	82.5	87.6			89.8	92.5	79
	80	34.0	46.7	58.3	68.7	77.8	85.7	92.3	97.5		100.7	103.3	79
	90	34.1	46.9	58.8	69.6	79.3	88.0	95.6	102.0	107.3	111.5	114.0	79
	100	34.2	47.1	59.1	70.2	80.5	89.7	98.1	105.4	111.8	122.2	124.7	79
24	50	39.7	54.0	65.5	74.2	79.5					79.9	82.7	79
	60	40.1	54.8	67.4	77.8	85.9	91.4				92.7	95.4	79
	70	40.3	55.3	68.5	80.0	89.7	97.4	103.1			105.4	108.0	79
	80	40.5	55.7	69.3	81.5	92.2	101.4	108.9	114.6		118.0	120.5	79
	90	40.7	55.9	69.9	82.6	94.1	104.2	112.9	120.3	126.1	130.5	133.0	79
	100	40.8	56.1	70.3	83.5	95.5	106.3	116.0	124.4	131.6	143.0	145.4	79
26	50	46.6	63.4	76.8	86.6	92.5					92.9	95.7	79
	60	47.1	64.3	79.0	91.0	100.2	106.3				107.7	110.3	79
	70	47.4	64.9	80.4	93.7	104.8	113.6	119.8			122.3	124.8	79
	80	47.7	65.4	81.3	95.5	107.9	118.4	126.9	133.2		136.8	139.2	79
	90	47.8	65.7	82.0	96.9	110.1	121.8	131.8	140.1	146.5	151.3	153.6	79
	100	48.0	65.9	82.6	97.9	111.8	124.4	135.5	145.1	153.2	165.7	168.0	79

[a] Includes 1.0-foot stump allowance.

Table 269--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) South-wide[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	0.6	0.7	0.9	1.1	1.5	1.6											
6	1.8	2.0	2.3	2.6	2.9	3.2	3.4	3.7									
7	2.4	2.9	3.4	3.9	4.3	4.7	5.1	5.4	5.8	6.1							
8	3.2	4.0	4.6	5.3	5.9	6.4	6.9	7.4	7.9	8.4	8.9	9.3					
9	4.2	5.1	6.0	6.8	7.6	8.3	9.0	9.7	10.3	10.9	11.5	12.1	12.7	13.3			
10	5.2	6.4	7.5	8.6	9.5	10.4	11.3	12.1	13.0	13.7	14.5	15.3	16.0	16.8	17.5	18.2	
11	6.4	7.9	9.2	10.5	11.7	12.8	13.8	14.9	15.9	16.8	17.8	18.7	19.6	20.6	21.5	22.4	23.2
12	7.6	9.4	11.1	12.6	14.0	15.3	16.6	17.8	19.0	20.2	21.4	22.5	23.6	24.7	25.8	26.9	27.9
13	9.0	11.1	13.1	14.9	16.5	18.1	19.6	21.1	22.5	23.9	25.2	26.6	27.9	29.2	30.5	31.7	33.0
14	10.5	13.0	15.2	17.3	19.3	21.1	22.9	24.6	26.2	27.8	29.4	31.0	32.5	34.0	35.5	37.0	38.5
15	12.1	14.9	17.5	19.9	22.2	24.3	26.3	28.3	30.2	32.1	33.9	35.7	37.5	39.2	40.9	42.6	44.3
16	13.8	17.1	20.0	22.8	25.3	27.7	30.1	32.3	34.5	36.6	38.7	40.7	42.7	44.7	46.7	48.7	50.6

[a] Includes 0.5-foot stump allowance.

Table 270--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) South-wide[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	1.6	2.0	2.3	2.8	3.2	3.6											
6	1.9	2.6	3.2	3.8	4.3	4.9	5.4	5.9									
7	2.6	3.5	4.2	5.0	5.6	6.3	6.9	7.6	8.2	8.8							
8	3.4	4.5	5.4	6.3	7.1	7.9	8.7	9.5	10.3	11.0	11.8	12.5					
9	4.4	5.6	6.8	7.8	8.9	9.8	10.8	11.7	12.6	13.5	14.4	15.3	16.2	17.1			
10	5.4	6.9	8.3	9.6	10.8	11.9	13.1	14.2	15.3	16.3	17.4	18.5	19.5	20.5	21.6	22.6	
11	6.5	8.3	10.0	11.5	12.9	14.3	15.6	16.9	18.2	19.4	20.7	21.9	23.2	24.4	25.6	26.8	28.0
12	7.7	9.9	11.8	13.6	15.2	16.8	18.4	19.9	21.4	22.8	24.3	25.7	27.2	28.6	30.0	31.4	32.9
13	9.1	11.6	13.8	15.8	17.8	19.6	21.4	23.1	24.9	26.6	28.2	29.9	31.6	33.2	34.8	36.5	38.1
14	10.6	13.4	16.0	18.3	20.5	22.6	24.6	26.7	28.6	30.6	32.5	34.4	36.3	38.1	40.0	41.9	43.7
15	12.1	15.4	18.3	20.9	23.4	25.8	28.2	30.4	32.7	34.9	37.0	39.2	41.3	43.5	45.6	47.7	49.8
16	13.8	17.5	20.8	23.7	26.6	29.3	31.9	34.5	37.0	39.5	41.9	44.4	46.8	49.2	51.6	53.9	56.3

[a] Includes 0.5-foot stump allowance.

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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) South-wide. 4

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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.

Stemwood cubic-foot volume tables are presented for 44 species and 10 species groups based on equations used to estimate timber sale volumes on national forests in the South. Tables are based on taper data for 13,469 trees sampled from Virginia to Texas. A series of tables are 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-feet height intervals.

KEYWORDS: Saw-log volume, pulpwood volume, form class

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