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Yield Tables and Stand Structure for Unthinned Longleaf Pine Plantations in Louisiana and Texas

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SUMMARY

A system of equations is developed to forecast number of trees per acre, basal area, and cubic foot yields in eight volume categories by 1-inch diameter classes for several combinations of site index, age from planting, and either number of trees planted, number of trees surviving, or basal area at a given age.

Additional keywords: Pinus palustris, volume predictions, unthinned plantation yields, volume yields of longleaf pine.

Conversion factors: English to metric

<u>Multiply</u>	<u>By</u>	<u>To Obtain</u>
Inches	x 2.540	= centimeters
Feet	x .3048	= meters
Cubic feet	x ..02832	= cubic meters
Number per acre	x 2.471044	= number per hectare

All English units of measure in this report can be converted to metric units by multiplying by the appropriate conversion factor listed above.

Yield Tables and Stand Structure for Unthinned Longleaf Pine Plantations in Louisiana and Texas

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Longleaf pine (*Pinus palustris* Mill.) forests once occupied 60 million acres from Virginia to Texas, but their area was greatly decreased when the original stands were harvested. In Louisiana and Texas there is renewed interest in the species. Landowners need to know what yields can be expected from longleaf pine plantations before large expenditures for planting can be considered.

This paper presents equations that make it possible to forecast:

- a. Number of trees per acre surviving at age 16 years from number of trees planted and site index.
- b. Number of trees per acre surviving at a future age (A_2) from the number at a first inventory (A_1).
- c. Diameter distributions from number of living trees per acre, age, and height of the dominant stand.
- d. Basal area per acre from number of living trees per acre, age, and height of dominant stand.
- e. Total volume yields i.b. or o.b. in all trees and merchantable volume yields i.b. or o.b. in trees > 3.5 inches d.b.h. to any top diameter o.b. of 4 inches or less from site index, age, and one of the following: number of trees planted, number of trees surviving, or basal area at a given age.
- f. Periodic volume growth, in the same units as yields, for a given age interval (A_1 to A_2), site index, and either surviving stems or basal area per acre at age A_1 .

Readers interested only in Stand and Stock Tables and a brief discussion of growth trends should turn directly to page 9.

The Stand and Stock Tables show expected cubic-foot yields, basal area, and number of stems by 1-inch diameter classes for several combinations of:

Density at age 15 years—100 to 700 trees per acre in increments of 100

Site index (base age 25)—40 to 70 feet in intervals of 10

Age from planting—15 to 40 years in intervals of 5.

Similar tables for various combinations of site index, age, and basal area, or for combinations of site index, age, and number of trees per acre planted, can be derived from the equations. Readers with computer facilities can acquire copies of the programs, which are written in FORTRAN, from the Southern Forest Experiment Station, Biometrics Branch, T-10210 U. S. Postal Service Building, 701 Loyola Avenue, New Orleans, Louisiana 70113.

PLANTATION MEASUREMENTS

Diameter, height, and age data were obtained from 260 unthinned plots in longleaf pine plantations in central Louisiana and east Texas, and from 176 remeasurements on these plots. All stands were at least 16 years old from planting, were on unprepared cutover forest sites, showed no evidence of severe insect or disease damage, and most had been burned by prescription. The extent to which hardwood understories were present depended upon the

frequency and effectiveness of prescribed fires.

All plots were rectangular and 0.10 to 0.25 acre in area. The diameter at breast height of each tree on the plot was measured to the nearest 0.1 inch. Total heights of 8 to 15 dominants and codominants per plot were measured to the nearest 1.0 foot. Stand age, determined from planting records, was used with mean total height of dominants and codominants to determine site index (at base age 25 years) for each plot (Farrar 1973).

The distribution of observations by age, site index, and surviving density is shown in table 1. Plantation ages ranged from 16 to 38 years, site indices from 29 to 73 feet, planting densities from 250 to 2,500 trees per acre, and surviving densities from 30 to 1,547 trees per acre. Only 26 plots had more than 750 and 6 plots more than 1,000 surviving pines per acre. Longleaf usually has lower stocking levels than other southern pines, and most plots had densities that were from low to medium for other species.

Heights to succeeding 2-inch diameter taper steps outside bark were measured to the nearest foot on sample trees proportioned among diameter classes, and volumes of these trees were determined by height accumulation (Grosenbaugh 1954). Plot volumes, basal areas, and diameter distributions were computed from diameter data and sample tree volumes (Lohrey and Dell 1969). Height accumulation data from 1,245 trees randomly selected from 73 plots were used to develop relationships between tree basal area and volume.

MODEL DEVELOPMENT AND EVALUATION

Survival

Two procedures were derived for estimating the number of surviving trees per acre. The first predicts living stems per acre at age 16, and the second predicts number of survivors 1 or more years after an inventory made at age 16 or later.

The number of trees planted and site index were screened to estimate trans-

formed survival proportion of the number planted on 166 plots measured at age 16. The arcsine - square root transformation [$Y = \sin^{-1} (\sqrt{x})$, where x = proportion of stems surviving] was used to stabilize the variance and better satisfy normality of error assumptions. The equation for the number of survivors at age 16 is

$$\hat{N}_{16} = N_0 \sin^2 [0.862809 + 0.449040$$

$$S^3 10^{-5} - 0.002801 S \ln(N_0)] \quad (1)$$

where

N_0 = trees per acre planted,

\hat{N}_{16} = predicted trees per acre at age 16 years,

S = site index (25),

\ln = natural (base e) logarithm, and angles are measured in radians.

The equation explained 65.9 percent of the variation in surviving stems per acre at age 16 years.

Data used to estimate survival came from both prescribe burned and unburned stands. Burning at early ages doubled survival at age 16 in one study. In estimating yields, therefore, it is better to use number of survivors or basal area per acre rather than the number of trees planted.

Data from 176 remeasurements on plots that were 16 to 30 years old when first measured were screened to fit an equation that estimates stand density at the second inventory as a proportion of that at the first one. The proportion was related to age and stand density at the first inventory. The arcsine - square root transformation was used again. The equation for surviving trees after an initial inventory is:

$$\begin{aligned} \hat{N}_2 &= N_1 \{ \sin^2 [\pi/2 + (1 - A_1/A_2)(-2.827365 \\ &\quad - 0.032141\sqrt{N_1} + 0.221332A_1 - 0.004125 \\ &\quad (A_1)^2)] \}, \end{aligned} \quad (2)$$

where

A_1 = stand age in years at the first inventory,

A_2 = stand age in years at the second inventory,

N_1 = stems per acre at age A_1 ,

\hat{N}_2 = predicted stems per acre at age A_2 , and angular measurements are in radians.

Table 1.—Distribution of observations in unthinned longleaf pine plantations by age, site index and surviving density

Age Years	Site index (age 25)					Total
	26-35	36-45	46-55	56-65	66-75	
Number of points						
15-19	5	53	62	38	17	175
20-24	...	22	58	33	1	114
25-29	...	14	40	13	...	67
30-34	...	9	31	3	...	43
35-39	...	5	30	2	...	37
Total	5	103	221	89	18	436

Age Years	Surviving density (trees per acre)						Total
	0-150	151-250	251-350	351-450	451-550	551+	
Number of points							
15-19	58	32	27	16	9	33	175
20-24	17	9	15	20	19	34	114
25-29	17	7	11	5	7	20	67
30-34	16	6	7	7	1	6	43
35-39	24	10	2	1	...	...	37
Total	132	64	62	49	36	93	436

Site index (age 25) Feet	Surviving density (trees per acre)						Total
	0-150	151-250	251-350	351-450	451-550	551+	
Number of points							
26-35	4	1	...	...	...	...	5
36-45	81	9	6	3	2	2	103
46-55	45	42	48	28	19	39	221
56-65	2	12	8	18	15	34	89
66-75	...	...	...	...	...	18	18
Total	132	64	62	49	36	93	436

A logical constraint within the equation forces $\hat{N}_2 = N_1$ if $A_2 = A_1$. Equation (2) explains 99.7 percent of the variation about mean N_2 for the 176 remeasurements.

By using equation (1), (2), or both (1) and (2), the number of trees per acre can be determined for any planting density, site index, and age > 16 years. To construct yield tables, survival at age 15 was obtained by extrapolation.

Diameter Distributions

The Weibull probability density function was fitted to the 1-inch-class diameter distributions (Bailey and Dell 1973) by maximum-likelihood estimation (Bailey 1974). Only 1 fitted distribution out of 436 was significantly different from the observed when tested by the Kolmogorov-Smirnov test (Massey 1951) at the 0.10 probability level and none at the 0.05 level. Maximum difference between quadratic means of fitted and observed distributions was -0.643 inch.

The three Weibull parameter estimates (a , b , and c) can be transformed into distribution percentiles by applying equations of the form:

$$\hat{Y}_p = a + b (-\ln(1-p))^{1/c} \quad (3)$$

where \hat{Y}_p is the estimated distribution percentile, p is the probability of a value less than \hat{Y}_p , and $\ln(1-p)$ is the natural (base e) logarithm of the quantity $(1-p)$.

Conversely, Weibull parameters for the two-parameter formulation (b and c only, $a = 0$) can be determined from any two percentiles. An approach was developed along these lines which uses the 24th and 93rd percentiles (Bailey 1973). Various linear and curvilinear functions of stand age, height of dominants and codominants, and number of surviving trees were screened in all possible regressions with the REX program (Grosenbaugh 1967) to find three-variable equations that gave best predictions of the two percentiles. The equations are:

$$\hat{Y}_{.24} = 15.2275 - 1.2961 \ln(N_t) + 0.3362 A^3 10^{-4} - 0.1652 H^{-1} 10^3, \quad (4)$$

$$R^2 = 0.74;$$

$$\hat{Y}_{.93} = 17.8711 - 1.1191 \ln(N_t) + 0.9717 A^3 10^{-4} - 0.1651 H^{-1} 10^3, \quad (5)$$

$$R^2 = 0.89;$$

where

$\hat{Y}_{.24}$ and $\hat{Y}_{.93}$ are predicted values of the percentiles computed from maximum-likelihood estimates of a , b , and c ,

A = stand age,

H = height of dominant stand at age A , and

N_t = number of surviving trees per acre at age A .

Equations (4) and (5) and the expressions:

$$\hat{c} = 2.271082 / \ln(\hat{Y}_{.93}/\hat{Y}_{.24}) \text{ and}$$

$$\hat{b} = \hat{Y}_{.24} / (0.274436)^{1/\hat{c}} \quad (\text{Bailey 1973}) \quad (6)$$

were used to predict b and c of the two-parameter Weibull. Eighty-three percent of the estimated diameter distributions were not significantly different from the observed ones at the 0.05 level and 89 percent of the deviations between observed and predicted mean diameters were within ± 1.0 inch.

Because predicted values with equations (4) and (5) are sometimes negative--especially for early ages, low site indices, or high densities--lower bounds of 2.5 and 1.5 were placed on predictions of b and c to keep predicted volumes from being negative.

Basal Area

Basal area per acre can be determined from the number of trees per acre and the corresponding diameter distribution parameters. The number of trees can be determined by equation (1), (2) or both (1) and (2) and Weibull parameters b and c by equations (4), (5), and (6). Then basal area per acre can be estimated by the equation:

$$\hat{B} = 0.005454 N_t \hat{b}^2 \Gamma(1 + 2/\hat{c}), \quad (7)$$

where

\hat{B} = basal area per acre,

$$\hat{b} \text{ & } \hat{c} = \text{predicted Weibull parameters, and}$$

$$\Gamma(x) = \text{gamma function of } x$$

$$= \int_0^{\infty} e^{-t} t^{x-1} dt.$$

This method explained 79 percent of the variation in basal area for the 176 remeasurements and 74 percent of the variation in basal area for the 166 plots measured at age 16.

When specific levels of basal area are desired, equations (4), (5), (6), and (7) are iteratively solved for the corresponding N_t .

Volume Yields

Stand basal areas from the 436 yield observations were used to develop volume yield prediction equations. A yield model reported by Clutter (1963) was fitted:

$$E[Y_i] = b_0 + b_1 S + b_2 (A_i)^{-1} + b_3 \ln(B_i), \quad (8)$$

where

Y_i = natural logarithm of stand volume in cubic feet at age A_i in years,

S = site index in feet,

$\ln(B_i)$ = natural logarithm of stand basal area in square feet at age A_i , and E indicates expected value.

The mathematical form of the model is desirable because it implies relationships that agree with certain concepts of even-aged stand development. Using $\ln(V)$ in place of V as the dependent variable is compatible with statistical assumptions (linearity, normality, additivity, and homogeneity of variance), and is a convenient way to express mathematically the interaction of the independent variables (Clutter 1963).

From the basic model, equations that predict the following are developed:

<u>Symbol</u>	<u>Description</u>
V_o	Volume in cubic feet per acre of total bole outside bark including all trees with d.b.h. > 0.5 inch.
V_i	Volume in cubic feet per acre of total bole inside bark including all trees with d.b.h. > 0.5 inch.
V_{4o}	Volume in cubic feet per acre outside bark to a 4-inch top o.b.

including all trees with d.b.h. > 3.5 inches.

V_{4i} Volume in cubic feet per acre inside bark to a 4-inch top o.b. including all trees with d.b.h. > 3.5 inches.

Two logical requirements were placed on predicted yields:

$$\begin{aligned} \hat{V}_o &\geq \hat{V}_i \geq \hat{V}_{4i}, \text{ and} \\ \hat{V}_o &\geq V_{4o} \geq V_{4i} \end{aligned} \quad (9)$$

When merchantable yield data were initially fitted to the model these requirements were violated, so differences between total and merchantable yields were predicted as proportions of total yield. The arcsine-square root transformation was used to normalize errors. The equations are:

$$\begin{aligned} \hat{\ln}(V_o) &= 3.291079 + 0.014579S - \\ &16.513309/A + 0.976898\ln(B), \end{aligned} \quad (10)$$

$$\begin{aligned} \hat{\ln}(V_i) &= 3.178362 + 0.015977S - \\ &22.532962/A + 0.967365\ln(B), \end{aligned} \quad (11)$$

$$\begin{aligned} \sin^{-1} \{(1 - \hat{V}_{4o}/V_o)^{1/2}\} &= 1.147626 - \\ &0.035842A + 0.610749A^3 10^{-5} + \\ &0.001449B - 0.983740S^3 10^{-6}, \end{aligned} \quad (12)$$

$$\begin{aligned} \sin^{-1} \{(1 - \hat{V}_{4i}/V_i)^{1/2}\} &= 1.197269 - \\ &0.034380A + 0.554603A^3 10^{-5} + \\ &0.001506B - 0.821871S^2 10^{-4}, \end{aligned} \quad (13)$$

In constructing the Stand and Stock Tables presented in the appendix, these four equations were solved for total and merchantable volume yields inside and outside bark. The tables were derived from observed stems per acre, and the equations explained 92 to 94 percent of the variation in volume (Table 2, section II). Average errors ranged from 0.5 to 4.7 percent.

When stand yields were predicted from observed basal area each equation explained 98 percent of the variation about mean volume (Table 2, section III). The equations explained 73 to 80 percent of the variation in yields when estimated basal area (determined from planting density) was substituted for observed basal area

Table 2.—Evaluation of predicted survival, basal area, and volume yields per acre

Variable ¹	R ²	Average errors	Predicted relative to observed were within:						Predicted minus observed			
			10 percent	25 percent	20 units	50 units	100 units	500 units	Negative	Positive		
- Percent -												
Percent of cases												
<u>I Survival, basal area, and volume yields predicted from planting density²</u>												
S.P.A.	43	-10.6	13	36	20	35	55	98	69	31		
B.A.	67	-10.2	15	49	62	93	100	100	73	27		
V _o	73	- 8.8	16	48	6	15	27	62	73	27		
V _i	74	- 8.8	17	48	8	22	35	72	72	28		
V _{4o}	78	- 3.4	21	50	9	19	32	68	71	29		
V _{4i}	80	- 6.1	20	50	14	27	43	79	70	30		
<u>II Basal area and volume yields predicted from observed stems per acre²</u>												
B.A.	88	- .3	40	84	84	99	100	100	57	43		
V _o	92	.5	38	78	9	22	38	86	57	43		
V _i	93	.5	39	80	14	31	50	92	56	44		
V _{4o}	93	4.7	38	78	10	25	44	88	55	45		
V _{4i}	94	2.2	38	79	14	34	54	94	54	46		
<u>III Survival and volume yields predicted from observed basal area per acre²</u>												
S.P.A.	60	10.9	27	59	27	49	72	98	43	57		
V _o	98	.7	65	95	18	36	57	96	53	47		
V _i	98	.7	63	95	25	45	67	98	49	51		
V _{4o}	98	4.3	60	90	19	37	57	97	50	50		
V _{4i}	98	2.2	58	90	25	48	69	97	48	52		
<u>IV Future survival, basal area, and volume yields predicted from current basal area³</u>												
S.P.A.	94	- 5.6	67	88	61	84	93	100	72	28		
B.A.	93	6.4	57	87	94	100	100	100	34	66		
V _o	94	6.4	43	86	9	19	31	90	39	61		
V _i	95	6.3	44	87	12	26	44	97	40	60		
V _{4o}	94	8.9	38	82	8	19	30	93	32	68		
V _{4i}	96	8.9	40	80	13	28	40	99	34	66		
<u>V Future survival, basal area, and volume yields predicted from current stems per acre³</u>												
S.P.A.	99	1.5	90	99	91	100	100	100	62	38		
B.A.	79	2.9	38	78	81	98	100	100	50	50		
V _o	86	3.0	34	81	5	13	27	81	49	51		
V _i	90	2.8	35	81	7	18	41	90	50	50		
V _{4o}	88	5.6	42	80	7	18	36	84	45	55		
V _{4i}	92	5.5	39	82	14	26	48	94	44	56		

¹ S.P.A. = stems per acre, B.A. = basal area, V_o = total volume outside bark; V_i = total volume inside bark, V_{4o} = merchantable volume outside bark, and V_{4i} = merchantable volume inside bark.

² Based on data from 436 yield observations.

³ Based on data from 176 remeasurements at 3- to 5-year intervals.

(Table 2, section I). Average errors were considerably higher when estimated basal areas were used because equation (7) was not highly efficient in estimating stand basal area. The user may get better results than we did by substituting his own survival estimate into the system to predict yields from planting density. For the 176 remeasurements, yields were forecast with 86 to 96 percent of the variation explained (Table 2, sections IV and V).

Volumes by Diameter Classes

To find the proportion of the volumes in each diameter class, volume was assumed to be a linear function of basal area. Requirements of the relationship were that constraints of (9) should not be violated for any diameter class and the relationship should be dependent on stand age, site index, and basal area per acre. The first requirement was satisfied by having one slope coefficient for all outside bark equations and another for all inside bark equations. This presumes that volume per tree above the 4-inch top is constant for all diameter classes on each plot. Although top volumes are sometimes inversely correlated with diameter, use of separate linear regression coefficients for different top diameter limits could cause the regression lines to cross and violate constraints of (9). Constant upper stem volumes were considered less undesirable. The second requirement was satisfied by forcing the equations to go through the average volume per tree for trees of average basal area.

Equations were fitted with data from 1,245 trees randomly selected from 73 plots. Statistical tests revealed no significant difference in slope coefficients for either the inside- or outside-bark regressions at the 0.05 level, which justified the presumption of constant top volume. Coefficients are $\beta_1 = 33.718518$ for outside bark and $\beta_2 = 25.169762$ for inside bark volumes. The fitted equations accounted for 95 percent or more of the pooled variation about mean plot volumes.

After common slopes were computed and tested, intercepts were determined to minimize the sum of squared deviations be-

tween average volume per tree and predicted volumes for trees of average basal area. For given values of stand volumes, basal area, and live trees per acre the resulting estimates are:

$$\hat{\alpha}_1 = \{V_o + V_i - (\hat{\beta}_1 + \hat{\beta}_2) B\} / 2N_t$$

$$\hat{\alpha}_2 = \{V_{4o} + V_{4i} - (\beta_1 + \beta_2) B\} / 2N_t$$

Another constraint required the intercept for merchantable volume on the basal area axis to equal or exceed that for total volume and for both to equal or exceed 0.

Volume to Other Top Limits

To provide further utility in the system, volumes to 2-inch and 3-inch tops were calculated by interpolation under the assumption that boles are conic above the 4-inch diameter. The outside bark diameter of 4 inches, outside bark volumes, and the formula for the volume of a cone were used to determine stem length above the 4-inch diameter. This length, inside bark volumes, and the formula for cone volume were then used to obtain inside bark diameter at the 4-inch outside bark diameter point. All necessary information was then available to determine interpolated outside and inside bark volumes to any intermediate diameter between 0 and 4 inches.

Comparisons

This system has two desirable features not available in other diameter-distribution yield tables. First, volume yields may be predicted accurately from either observed basal area or stems per acre, which makes the system more versatile than those restricted to one measure of stand density. Second, future conditions may be forecast directly from present density without involving initial planting spacing.

Predictions of volume yields per acre from this system are more precise than those in other studies. Coefficients of determination (R^2) were 98 percent when yields were estimated from observed basal area and ranged from 92 to 94 percent when estimated from stems per acre. Values of R^2 were 85 percent for shortleaf and 91 percent for loblolly pine merchant-

able yields estimated from observed stems per acre in similar studies (Smalley and Bailey 1974a and 1974b). Average errors for most yield estimates were less than those for old-field plantations of loblolly (Lenhart and Clutter 1971, Lenhart 1972) or slash pine (Bennett 1972).

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STAND AND STOCK TABLES

The tables that follow are consistent with known growth and yield of longleaf pine plantations that are 15 to 40 years old and 40 to 70 feet in site index. Some trends are:

Survival.—Survival percentages increased directly with site index and decreased with planting density and age (fig. 1). Stands that initiated height growth soon after planting had tall trees, high site indices, and high survival. A prolonged grass stage, unique to longleaf pine, resulted in short trees and poor survival at any age. The relationship of survival to site was opposite that reported for other species (Smalley and Bailey 1974a and 1974b).

Basal area.—Total basal area of all trees increased directly with site and age at all planting densities and with planting density and age on all sites (fig. 2).

Quadratic mean diameter.—Mean diameters increased directly with age and decreased with stand density on all sites (fig. 3). They were more closely related to number of survivors than to number of trees planted. Diameters generally increased with site index but occasionally decreased on the best sites, probably because there were more stems per acre. Diameter distributions may be more useful than mean diameters in many situations.

Yields.—Total and merchantable cubic-foot yields increased with site index, age, and planting density (fig. 4). A 10-foot increase in site index doubled early yields. Volumes per acre were low at age 20 years but doubled or tripled by age 30 and nearly doubled again by age 40. Net yield and mean annual increment had not culminated to age 40 years for any site or planting density.

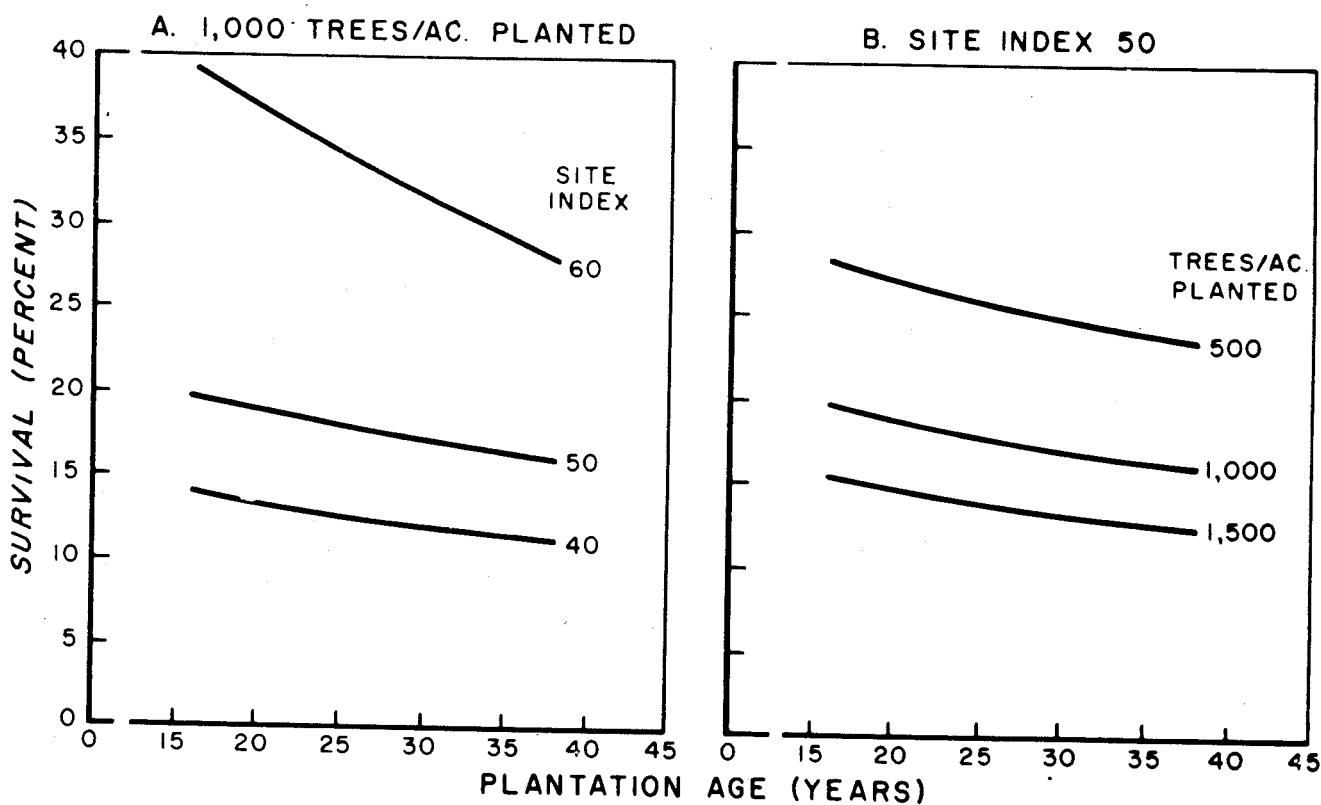


Figure 1.—Survival related to age for different sites (A) and planting densities (B).

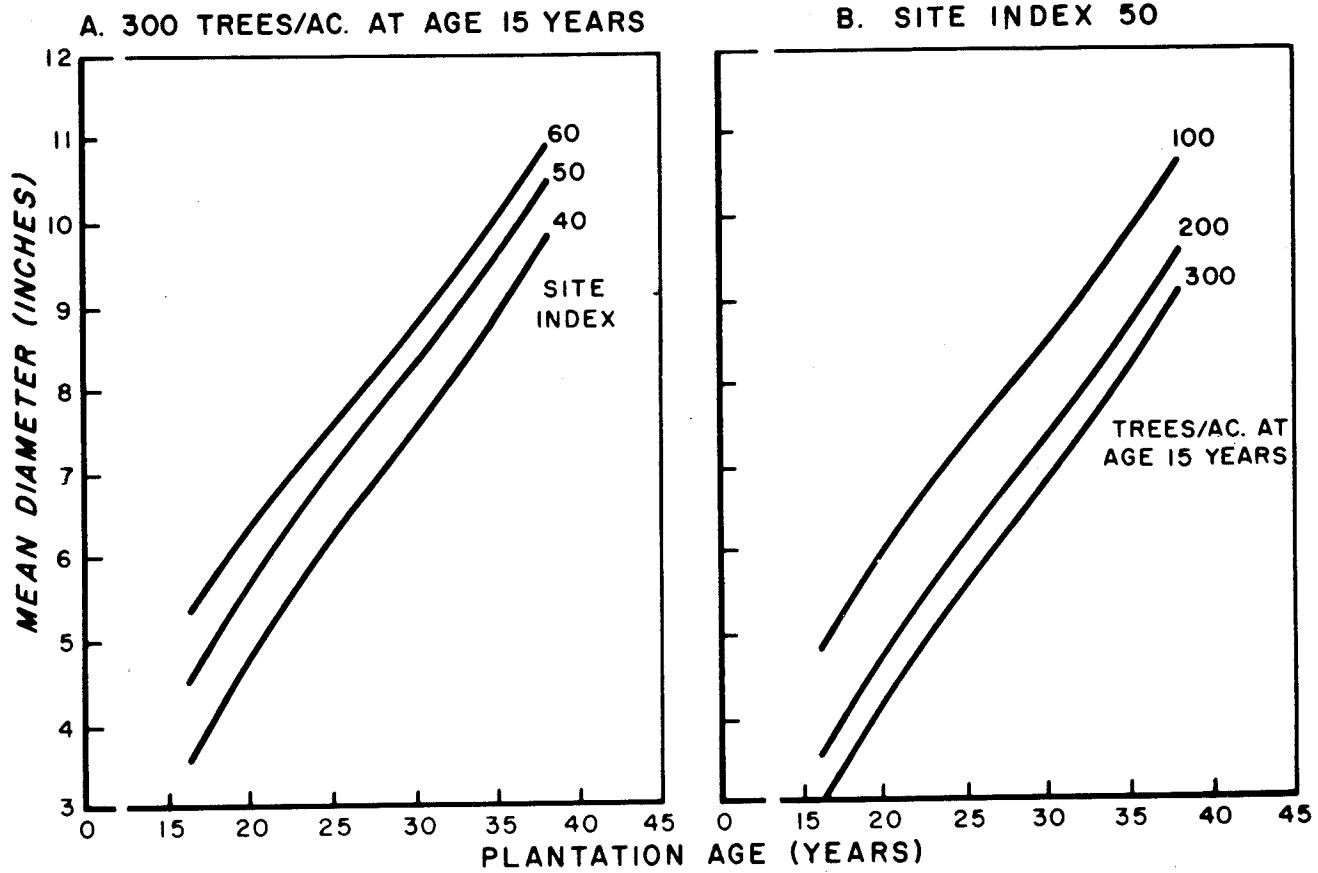


Figure 2.—Total basal area per acre related to age for different sites (A) and planting densities (B).

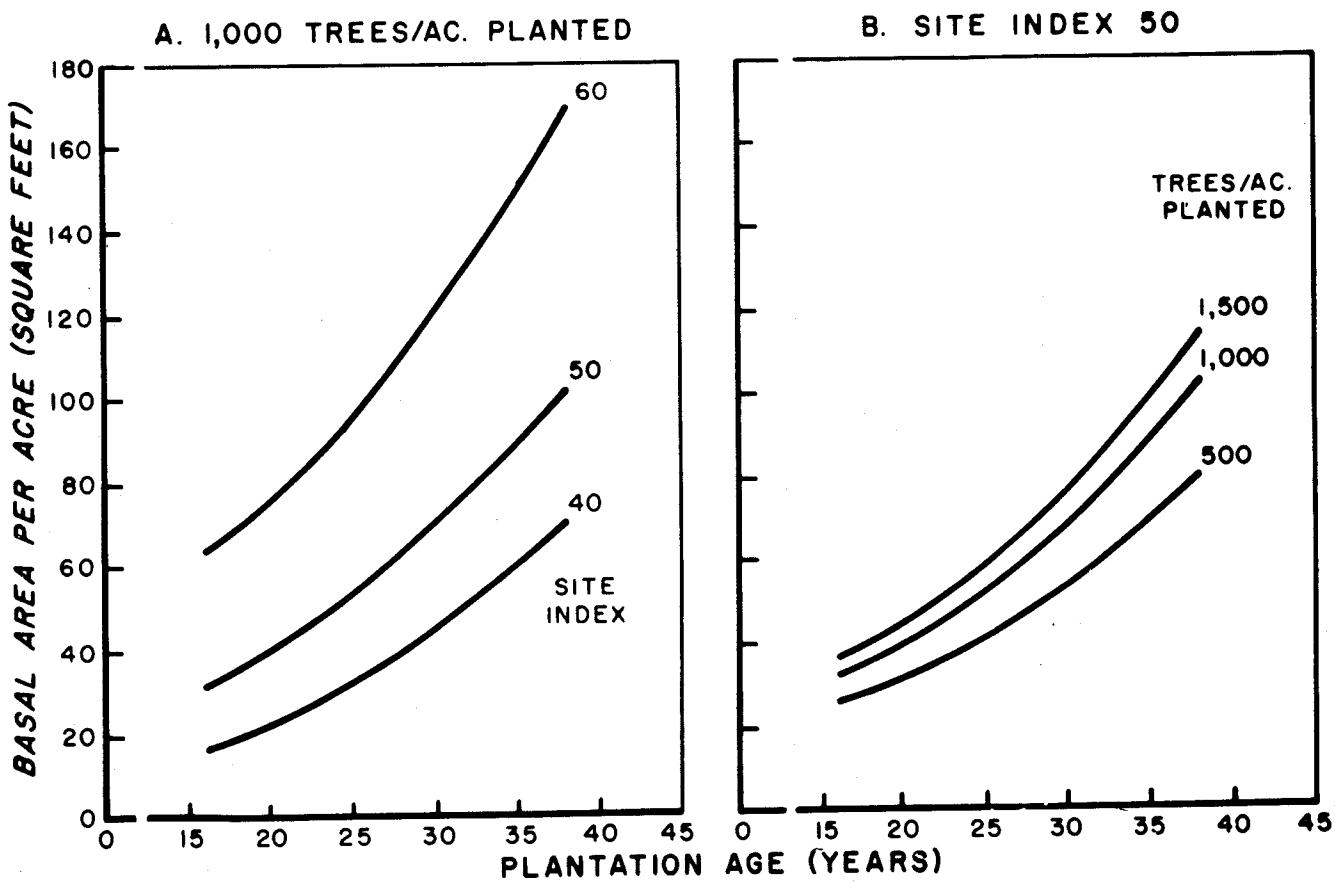


Figure 3.—Quadratic mean diameter related to age for different sites (A) and stand densities at age 15 years (B).

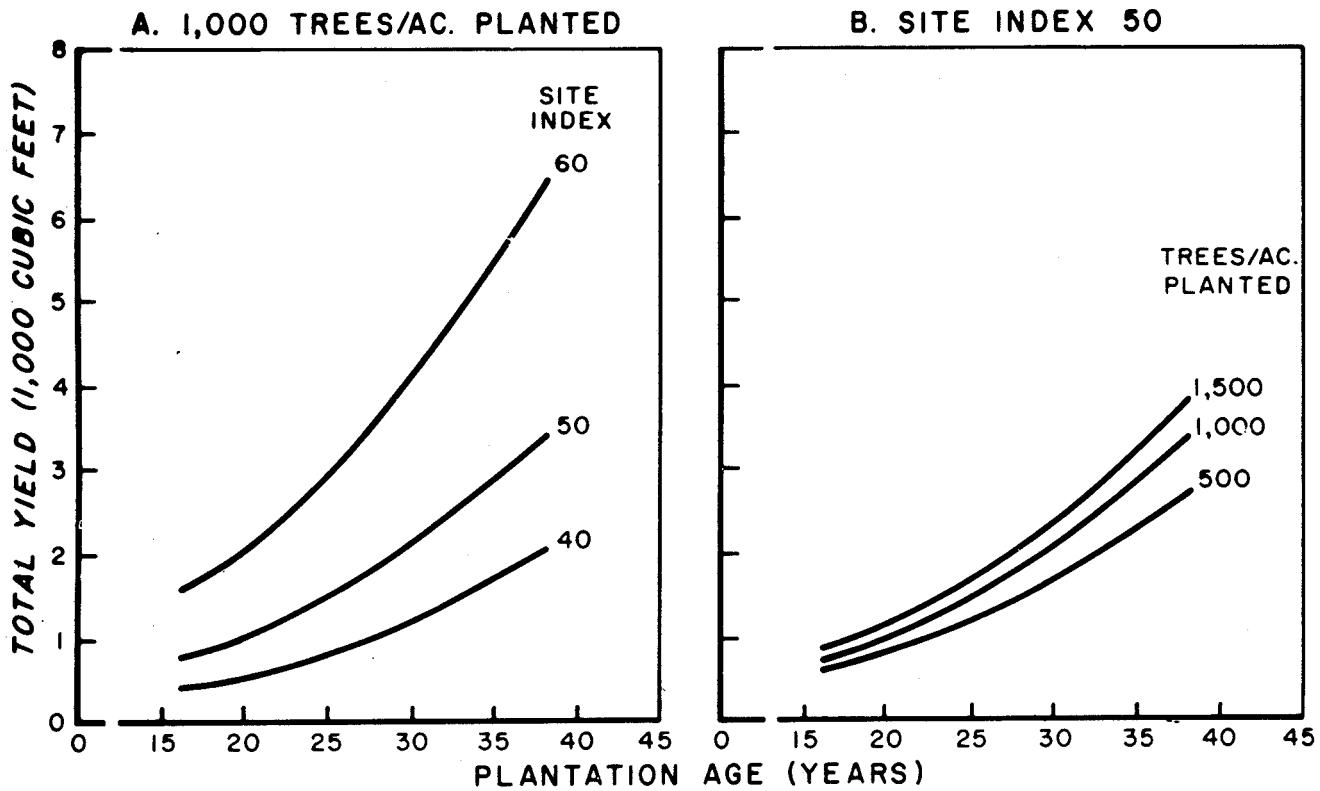


Figure 4.—Total yield per acre of entire stem (outside bark) of all trees related to age for different sites (A) and planting densities (B).

SI 40

100 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4 -inch class and greater to o.b. tops of—					
						2 inches		3 inches		4 inches	
O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2		Ft 3					
15	23	1	10	.1	0	0					
		2	19	.4	0	0					
		3	25	1.2	6	0					
		4	21	1.8	26	14	25	13	22	11	17
		5	14	1.9	35	23	34	22	31	20	26
		6	7	1.4	29	20	28	19	26	18	22
		7	3	.8	18	13	18	13	16	12	14
		8	1	.3	8	6	8	6	7	5	6
		---	---	---	---	---	---	---	---	---	---
		100	7.9	122	76	113	73	102	66	85	53
		MEAN DIA. 3.8 INCHES. WEIBULL PARAMETERS A= .0. B= 3.91, C= 2.35									
20	33	2	3	.1	0	0					
		3	7	.3	0	0					
		4	13	1.2	4	0	3	0	2	0	0
		5	18	2.5	33	14	32	13	28	9	21
		6	21	4.2	79	50	77	48	72	44	62
		7	17	4.6	102	72	100	71	95	67	85
		8	11	3.9	95	70	93	69	90	67	82
		9	5	2.2	57	43	56	43	54	42	50
		10	1	.6	15	11	15	11	14	11	13
		---	---	---	---	---	---	---	---	---	---
		96	19.5	385	260	376	255	355	240	313	211
		MEAN DIA. 6.1 INCHES. WEIBULL PARAMETERS A= .0. B= 6.48, C= 3.61									
25	40	2	1	.0	0	0					
		3	2	.1	0	0					
		4	5	.4	0	0	0	0	0	0	0
		5	10	1.4	15	5	14	4	12	3	9
		6	14	2.8	49	28	48	27	45	25	39
		7	17	4.6	98	67	96	66	93	62	85
		8	17	5.9	142	104	140	103	137	99	129
		9	13	5.8	148	111	146	110	143	108	136
		10	8	4.4	117	90	116	89	114	88	109
		11	3	2.0	55	43	55	43	54	42	52
		12	1	.8	23	18	23	18	22	18	21
		---	---	---	---	---	---	---	---	---	---
		91	28.1	647	466	638	460	620	445	580	415
		MEAN DIA. 7.5 INCHES. WEIBULL PARAMETERS A= .0. B= 7.99, C= 3.98									
30	46	3	1	.0	0	0					
		4	3	.3	0	0	0	0	0	0	0
		5	5	.7	8	2	8	2	7	1	5
		6	9	1.6	28	16	28	16	26	14	24
		7	11	2.9	63	43	62	42	61	40	58
		8	13	4.5	109	79	108	78	106	76	101
		9	16	7.1	182	136	181	135	178	133	172
		10	12	6.5	177	135	176	134	174	133	170
		11	9	5.9	165	128	164	128	163	126	160
		12	5	3.9	112	88	112	88	111	87	109
		13	2	1.8	54	42	54	42	53	42	52
		14	1	1.1	32	25	32	25	32	25	31
		---	---	---	---	---	---	---	---	---	---
		86	36.3	930	694	925	690	911	677	882	655
		MEAN DIA. 8.8 INCHES. WEIBULL PARAMETERS A= .0. B= 9.35, C= 4.02									

SI 40

200 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—						
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft 3								
15	23	1	56	.3	0	0							
	2	52		1.1	0	0							
	3	42		2.1	25	11							
	4	26		2.3	39	24	38	23	36	21	31	18	
	5	14		1.9	38	24	37	23	35	22	32	19	
	6	6		1.2	25	17	24	17	23	16	21	14	
	7	3		.8	17	12	17	12	16	11	15	10	
	8	1		.3	8	5	8	5	8	5	7	5	
					200	10.0	152	93	124	80	118	75	106
					MEAN DIA. 3.0 INCHES. WEIBULL PARAMETERS A= .0, B= 2.90, C= 1.70								66
20	33	1	4	.0	0	0							
	2	12		.3	0	0							
	3	25		1.2	0	0							
	4	36		3.2	30	7	28	6	22	4	12	0	
	5	40		5.5	93	56	90	53	83	47	69	34	
	6	34		6.7	142	98	139	95	131	89	116	77	
	7	23		6.2	146	106	143	104	136	99	123	90	
	8	11		3.9	97	72	95	71	92	69	84	64	
	9	4		1.8	47	35	46	35	44	34	41	32	
	10	1		.5	14	12	14	12	14	11	13	10	
					190	29.2	569	386	555	376	522	353	458
					MEAN DIA. 5.3 INCHES. WEIBULL PARAMETERS A= .0, B= 5.59, C= 3.02								307
25	40	1	1	.0	0	0							
	2	4		.1	0	0							
	3	10		.5	0	0							
	4	18		1.6	8	0	7	0	5	0	0	0	
	5	26		3.6	53	26	51	24	46	19	37	10	
	6	31		6.1	122	79	119	77	113	71	101	60	
	7	32		8.6	198	141	195	139	188	133	174	121	
	8	26		9.1	228	170	225	168	219	163	207	154	
	9	16		7.1	188	143	186	142	182	138	174	132	
	10	8		4.4	120	93	119	92	117	91	112	88	
	11	3		2.0	56	43	56	43	55	43	53	42	
	12	1		.8	23	18	23	18	22	18	21	17	
					176	43.7	996	713	981	703	947	676	879
					MEAN DIA. 6.7 INCHES. WEIBULL PARAMETERS A= .0, B= 7.15, C= 3.47								624
30	46	2	2	.0	0	0							
	3	5		.2	0	0							
	4	9		.8	3	0	3	0	2	0	0	0	
	5	15		2.0	29	13	28	12	26	9	21	4	
	6	21		4.1	80	51	79	50	75	46	69	40	
	7	25		6.7	153	108	151	106	147	102	139	94	
	8	25		8.7	219	161	217	159	213	156	204	148	
	9	23		10.2	270	205	268	203	264	200	255	192	
	10	18		9.8	272	209	270	208	267	205	259	200	
	11	11		7.3	207	161	206	160	203	158	198	155	
	12	6		4.7	137	108	136	108	135	107	132	105	
	13	2		1.8	55	43	55	43	54	43	53	42	
	14	1		1.1	32	25	32	25	32	25	31	25	
					163	57.6	1457	1084	1445	1074	1418	1051	1361
					MEAN DIA. 8.0 INCHES. WEIBULL PARAMETERS A= .0, B= 8.53, C= 3.58								1005

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—								
					O. b.	I. b.	2 inches		3 inches		4 inches		O. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft 3										
35	51	2	1	.0	0	0									
		3	3	.1	0	0									
		4	5	.4	1	0	1	0	1	0	0	0	0	0	
		5	9	1.2	17	7	16	7	15	5	13	3			
		6	13	2.6	51	32	50	31	48	29	43	26			
		7	16	4.3	99	69	98	68	96	66	91	61			
		8	19	6.7	168	124	167	123	164	120	158	114			
		9	21	9.4	250	189	249	188	245	185	239	179			
		10	20	11.0	306	236	305	235	301	232	295	226			
		11	17	11.3	324	251	323	250	320	248	314	244			
		12	13	10.3	301	237	300	236	298	234	294	230			
		13	8	7.4	221	174	220	174	219	173	216	171			
		14	5	5.4	162	128	162	128	161	128	159	127			
		15	2	2.5	75	59	75	59	74	59	73	60			
		16	1	1.4	43	34	43	34	43	34	43	34			
		----	----	----	----	----	----	----	----	----	----	----			
		153	74.2	2018	1540	2009	1533	1985	1513	1938	1475				
		MEAN DIA. 9.4 INCHES. WEIBULL PARAMETERS A= .0. B= 9.99. C= 3.53													
40	56	2	1	.0	0	0									
		3	2	.1	0	0									
		4	3	.3	1	0	1	0	1	0	0	0			
		5	5	.7	10	4	10	4	9	3	7	1			
		6	8	1.8	31	20	31	19	29	18	27	15			
		7	10	2.7	62	43	61	42	59	40	56	37			
		8	13	4.5	115	84	114	83	112	81	107	77			
		9	15	6.6	177	134	176	133	174	130	169	125			
		10	16	8.7	243	187	242	186	239	183	233	178			
		11	15	9.9	284	220	283	219	280	217	274	212			
		12	15	11.8	345	269	344	268	341	266	335	262			
		13	13	12.0	356	281	355	280	353	278	348	274			
		14	10	10.7	322	255	321	254	319	253	315	250			
		15	7	8.6	261	208	260	207	259	206	256	204			
		16	5	7.0	214	171	213	171	212	170	210	169			
		17	3	4.7	146	116	146	116	145	116	144	115			
		18	2	3.5	110	88	110	88	109	88	108	87			
		19	1	2.0	62	49	62	49	61	49	60	48			
		----	----	----	----	----	----	----	----	----	----	----			
		144	95.4	2739	2129	2729	2119	2702	2098	2649	2054				
		MEAN DIA. 11.0 INCHES. WEIBULL PARAMETERS A= .0. B= 11.67. C= 3.39													

SI 50

100 trees per acre

Age	Av. dom. ht.	D.b.h	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3					
15	29	1	1	.0	0	0				
		2	6	.1	0	0				
		3	13	.8	0	0				
		4	20	1.8	13	0	12	0	9	0
		5	25	3.4	53	26	51	26	46	23
		6	19	3.8	75	49	73	48	68	44
		7	11	3.0	67	47	65	46	62	44
		8	4	1.4	34	25	33	25	31	23
		9	1	.4	12	9	12	9	11	8
					100	14.5	254	158	246	154
							227	142	188	119
					MEAN DIA. 5.2 INCHES. WEIBULL PARAMETERS A= .0. B= 5.46, C= 3.28					
20	41	2	1	.0	0	0				
		3	3	.1	0	0				
		4	7	.6	1	0	1	0	1	0
		5	12	1.7	21	7	20	6	17	4
		6	17	3.4	63	38	61	36	57	32
		7	21	5.7	127	86	125	84	119	79
		8	18	6.4	158	112	155	110	150	107
		9	11	4.9	130	95	128	94	124	92
		10	5	2.8	76	56	75	56	73	55
		11	1	.7	19	15	19	15	19	15
					96	26.3	595	409	584	401
							560	384	507	349
					MEAN DIA. 7.1 INCHES. WEIBULL PARAMETERS A= .0. B= 7.53, C= 4.21					
25	50	3	1	.0	0	0				
		4	3	.3	1	0	1	0	1	0
		5	6	.8	13	6	13	6	11	4
		6	10	2.0	41	26	40	25	38	23
		7	14	3.7	89	61	88	60	85	58
		8	18	6.2	161	116	160	115	156	112
		9	16	7.0	192	141	191	140	187	138
		10	12	6.5	185	138	184	137	181	136
		11	7	4.6	133	101	132	101	131	100
		12	3	2.3	70	53	70	53	69	53
		13	1	.9	28	21	28	21	28	21
					91	34.4	913	663	907	658
							887	645	847	618
					MEAN DIA. 8.3 INCHES. WEIBULL PARAMETERS A= .0. B= 8.85, C= 4.42					
30	59	3	1	.0	0	0				
		4	2	.2	2	1	2	1	2	0
		5	3	.4	9	5	9	5	8	5
		6	6	1.2	28	20	28	20	27	19
		7	9	2.4	64	46	64	46	62	45
		8	12	4.2	117	87	117	87	115	85
		9	14	6.2	180	135	179	134	177	133
		10	13	7.1	211	161	210	161	208	159
		11	11	7.3	220	168	219	168	218	167
		12	8	6.3	194	149	194	149	192	148
		13	4	3.7	115	89	115	89	114	88
		14	2	2.1	68	52	68	52	67	52
		15	1	1.2	39	30	39	30	39	30
					86	42.3	1247	943	1244	942
							1229	932	1209	916
					MEAN DIA. 9.5 INCHES. WEIBULL PARAMETERS A= .0. B= 10.09, C= 4.34					

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—							
							2 inches		3 inches		4 inches			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	----- Ft 3 -----									
35	64	4	1	.1	2	1	2	1	2	1	2	1	2	1
		5	2	.3	8	5	8	5	8	5	7	5		
		6	4	.8	22	17	22	17	22	17	21	16		
		7	6	1.6	48	37	48	37	48	36	47	35		
		8	8	2.8	86	66	86	66	85	65	84	64		
		9	10	4.4	137	106	137	106	136	105	135	104		
		10	11	6.0	188	146	188	146	187	145	186	144		
		11	10	6.6	209	162	209	162	208	162	206	161		
		12	10	7.8	250	195	250	195	249	194	248	193		
		13	8	7.3	236	184	236	184	235	184	234	183		
		14	6	6.4	205	161	205	161	205	161	204	160		
		15	3	3.7	119	92	119	92	119	92	118	93		
		16	2	2.8	91	71	91	71	90	71	89	70		
		17	1	1.6	51	40	51	40	51	40	51	40		
		---	---	---	---	---	---	---	---	---	---	---	---	---
		82	52.1	1652	1283	1652	1283	1645	1278	1632	1269			
		MEAN DIA. 10.8 INCHES. WEIBULL PARAMETERS A= .0, B= 11.46, C= 4.13												
40	70	4	1	.1	3	2	3	2	3	2	3	2		
		5	1	.1	5	3	5	3	5	3	5	3		
		6	2	.4	13	11	13	11	13	11	13	11		
		7	4	1.1	36	29	36	29	36	29	36	29		
		8	5	1.8	59	46	59	46	59	46	58	47		
		9	6	2.7	90	71	90	71	89	71	88	70		
		10	8	4.4	147	116	147	116	146	116	145	115		
		11	9	6.0	200	158	200	158	200	158	199	158		
		12	9	7.1	238	188	238	188	238	188	237	187		
		13	9	8.3	279	221	279	221	278	221	277	220		
		14	8	8.6	288	228	288	228	287	228	286	227		
		15	6	7.4	248	197	248	197	248	197	247	196		
		16	5	7.0	235	186	235	186	235	186	234	185		
		17	3	4.8	159	126	159	126	159	126	158	126		
		18	2	3.6	118	94	118	94	118	94	118	94		
		19	1	2.0	66	53	66	53	66	53	66	52		
		---	---	---	---	---	---	---	---	---	---	---	---	---
		79	65.2	2184	1729	2184	1729	2180	1729	2170	1722			
		MEAN DIA. 12.3 INCHES. WEIBULL PARAMETERS A= .0, B= 13.06, C= 3.86												

SI 50

200 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4-inch class and greater to o.b. tops of—										
						2 inches		3 inches		4 inches						
Yrs	Ft	In	No.	Ft 2		O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	Ft 3		
15	29	1	10	.1		0	0									
		2	27	.6		0	0									
		3	42	2.0		2	0									
		4	45	3.9	51	23	48	21	43	17	31	8				
		5	37	5.0	93	57	90	55	82	50	68	41				
		6	23	4.5	97	64	94	63	88	59	75	52				
		7	11	2.9	69	47	67	46	63	44	54	39				
		8	4	1.4	34	24	33	24	31	22	27	20				
		9	1	.4	11	8	11	8	10	8	9	7				
					200	20.7	357	223	343	217	317	200	264	167		
					MEAN DIA. 4.4 INCHES. WEIBULL PARAMETERS A= .0, B= 4.54, C= 2.64											
20	41	1	1	.0		0	0									
		2	5	.1		0	0									
		3	12	.6		0	0									
		4	23	2.0	14	0	12	0	8	0	0	0				
		5	34	4.6	75	39	72	36	65	30	51	17				
		6	39	7.7	161	105	157	102	148	94	130	79				
		7	35	9.4	225	157	221	154	211	147	192	134				
		8	24	8.4	217	157	214	155	206	150	191	141				
		9	12	5.3	144	107	142	106	138	104	130	93				
		10	4	2.2	61	46	60	46	59	45	56	43				
		11	1	.7	19	14	19	14	18	14	17	14				
					190	40.9	916	625	897	613	853	584	767	527		
					MEAN DIA. 6.3 INCHES. WEIBULL PARAMETERS A= .0, B= 6.66, C= 3.61											
25	50	2	2	.0		0	0									
		3	5	.2		0	0									
		4	11	1.0	9	1	8	1	6	1	2	0				
		5	19	2.6	46	26	44	24	41	21	33	14				
		6	27	5.3	119	78	117	76	111	71	100	62				
		7	31	8.3	208	147	205	145	198	139	185	129				
		8	31	10.1	291	213	288	211	281	205	267	195				
		9	25	11.1	310	232	308	230	302	226	290	218				
		10	15	8.2	237	179	235	178	232	176	224	172				
		11	7	4.6	137	104	136	104	134	103	131	101				
		12	2	1.6	48	36	48	36	47	36	45	35				
		13	1	.9	28	22	28	22	28	22	27	21				
					176	54.6	1433	1038	1417	1027	1380	1000	1304	947		
					MEAN DIA. 7.5 INCHES. WEIBULL PARAMETERS A= .0, B= 8.01, C= 3.89											
30	58	2	1	.0		0	0									
		3	3	.1		0	0									
		4	6	.5	8	3	8	3	7	2	5	1				
		5	10	1.4	29	19	28	18	27	16	24	13				
		6	16	3.1	78	55	77	54	75	52	70	47				
		7	22	5.9	158	115	157	114	153	111	147	106				
		8	25	8.7	248	184	246	183	242	179	234	173				
		9	25	11.0	324	244	322	243	318	239	310	233				
		10	22	12.0	360	274	358	273	355	271	347	266				
		11	16	10.5	322	247	321	246	318	244	312	241				
		12	10	7.8	243	186	242	186	240	185	236	184				
		13	5	4.6	143	111	143	111	142	110	140	109				
		14	2	2.1	67	53	67	53	67	53	66	52				
					163	67.9	1980	1491	1969	1484	1944	1462	1891	1425		
					MEAN DIA. 8.7 INCHES. WEIBULL PARAMETERS A= .0, B= 9.28, C= 3.90											

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—							
							2 inches		3 inches		4 inches			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2			Ft 3							
35	64	2	1	.0	0	0								
		3	.2	.1	2	1								
		4	4	.3	8	5	8	5	8	5	7	4		
		5	6	.8	22	15	22	15	21	14	20	13		
		6	10	2.0	56	41	56	41	55	40	53	38		
		7	14	3.8	112	85	111	84	109	83	106	80		
		8	17	5.9	181	138	180	137	178	136	175	133		
		9	20	8.9	274	211	273	210	271	208	266	204		
		10	19	10.4	325	252	324	251	322	249	317	246		
		11	19	12.6	398	309	397	308	394	306	389	303		
		12	16	12.6	401	312	400	311	398	310	394	307		
		13	11	10.2	325	253	324	253	323	252	320	250		
		14	7	7.5	241	188	241	188	240	188	238	187		
		15	4	4.9	159	124	159	124	158	124	156	123		
		16	2	2.8	90	70	90	70	90	70	90	70		
		17	1	1.6	51	40	51	40	51	40	51	39		
		153	84.3	2645	2044	2636	2037	2618	2025	2582	1997			
		MEAN DIA. 10.1 INCHES. WEIBULL PARAMETERS A= .0, B= 10.67, C= 3.77												
40	70	3	1	.0	2	1								
		4	2	.2	6	4	6	4	6	4	5	4		
		5	4	.5	18	14	18	14	18	13	17	12		
		6	6	1.2	39	31	39	31	38	30	37	28		
		7	9	2.4	79	63	79	63	78	61	76	59		
		8	11	3.8	127	100	127	100	125	99	123	97		
		9	13	5.7	190	150	189	149	188	148	185	145		
		10	15	8.2	270	213	269	212	267	211	264	209		
		11	18	11.9	393	309	392	308	390	307	385	304		
		12	16	12.6	415	328	414	327	412	326	409	323		
		13	14	12.9	426	336	425	336	423	334	420	332		
		14	12	12.8	424	334	423	334	421	333	418	331		
		15	9	11.0	365	288	365	288	363	287	361	285		
		16	6	8.4	277	218	277	218	276	218	274	217		
		17	4	6.3	209	164	209	164	208	164	206	163		
		18	2	3.5	117	92	117	92	116	92	115	91		
		19	1	2.0	65	52	65	52	65	52	65	51		
		20	1	2.2	72	57	72	57	72	57	71	57		
		144	105.6	3494	2754	3486	2749	3466	2736	3431	2708			
		MEAN DIA. 11.6 INCHES. WEIBULL PARAMETERS A= .0, B= 12.29, C= 3.58												

SI 50

300 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3					
15	29	1	31	.2	0	0				
		2	57	1.2	0	0				
		3	70	3.4	21	0				
		4	62	5.4	85	47	82	45	74	39
		5	43	5.9	118	77	115	74	107	68
		6	23	4.5	101	69	98	67	93	63
		7	10	2.7	64	45	63	44	59	41
		8	3	1.0	26	19	26	19	24	18
		9	1	.4	12	8	12	8	11	8
			300	24.8	427	265	396	257	368	237
										314
										197
					MEAN DIA. 3.9 INCHES. WEIBULL PARAMETERS A= .0, B= 3.98, C= 2.27					
20	41	1	3	.0	0	0				
		2	12	.3	0	0				
		3	27	1.3	0	0				
		4	44	3.8	40	10	37	9	29	6
		5	56	7.6	139	80	134	76	123	66
		6	55	10.8	241	162	235	158	222	147
		7	43	11.5	285	202	280	198	268	190
		8	26	9.1	241	176	237	174	228	168
		9	11	4.9	134	100	132	99	128	97
		10	4	2.2	62	47	61	47	59	46
		11	1	.7	19	15	19	15	19	15
			282	52.1	1161	792	1135	776	1076	735
										958
										656
					MEAN DIA. 5.8 INCHES. WEIBULL PARAMETERS A= .0, B= 6.15, C= 3.27					
25	50	1	1	.0	0	0				
		2	4	.1	0	0				
		3	11	.5	0	0				
		4	21	1.8	20	6	18	5	15	3
		5	33	4.5	86	51	83	48	77	42
		6	43	8.5	197	134	193	131	184	123
		7	47	12.6	325	233	320	229	309	221
		8	41	14.4	394	289	390	286	380	279
		9	29	12.9	367	275	364	273	356	268
		10	16	8.8	258	194	256	193	251	191
		11	7	4.6	139	106	138	105	136	104
		12	2	1.6	48	37	48	37	47	36
					255	70.3	1834	1325	1810	1307
										1646
										1190
					MEAN DIA. 7.1 INCHES. WEIBULL PARAMETERS A= .0, B= 7.54, C= 3.61					
30	58	2	2	.0	0	0				
		3	5	.2	1	0				
		4	11	1.0	15	7	14	6	12	4
		5	19	2.6	57	37	56	36	52	32
		6	27	5.3	134	95	132	93	127	89
		7	34	9.1	248	181	246	179	240	174
		8	37	12.9	370	276	367	274	360	268
		9	34	15.0	444	336	441	334	434	329
		10	28	15.3	462	351	460	350	454	346
		11	19	12.5	384	295	382	294	379	292
		12	10	7.9	244	188	243	188	241	186
		13	4	3.7	113	90	115	90	114	89
		14	2	2.1	67	53	67	53	67	53
					232	87.7	2541	1909	2523	1897
										2396
										1797
					MEAN DIA. 8.3 INCHES. WEIBULL PARAMETERS A= .0, B= 8.83, C= 3.67					

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—					
					O. b.	I. b.	2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2	Ft 3							
35	64	2	1	.0	0	0						
		3	3	.1	2	1						
		4	6	.5	12	8	12	8	11	7	9	5
		5	11	1.5	39	29	38	28	37	26	34	23
		6	16	3.1	88	65	87	64	85	62	80	58
		7	22	5.8	173	131	172	130	168	126	161	120
		8	26	9.0	274	209	272	207	268	204	260	197
		9	28	12.3	380	292	378	290	373	287	364	279
		10	28	15.2	475	366	473	365	468	361	459	354
		11	25	16.4	518	401	516	400	512	397	503	391
		12	19	14.8	472	366	470	365	467	363	460	358
		13	13	11.9	381	297	380	296	377	294	372	291
		14	8	8.5	273	213	272	213	271	212	268	210
		15	4	4.9	157	123	157	123	156	123	155	122
		16	2	2.8	89	70	89	70	89	70	88	69
		17	1	1.6	51	40	51	40	51	40	50	39
					213	108.5	3384	2611	3367	2599	3333	2572
											3263	2516

MEAN DIA. 9.7 INCHES, WEIBULL PARAMETERS A= .0, B= 10.25, C= 3.58

40	70	2	1	.0	1	1						
		3	2	.1	3	2						
		4	4	.4	12	9	12	9	11	8	9	6
		5	7	1.0	31	25	30	24	29	23	26	20
		6	10	2.0	65	51	64	50	62	48	58	45
		7	14	3.8	124	97	123	96	120	94	115	89
		8	17	6.0	196	154	195	153	191	150	185	144
		9	20	8.9	292	230	290	229	286	225	278	218
		10	22	12.1	397	312	395	310	391	307	382	299
		11	21	13.9	459	361	457	360	453	356	444	349
		12	21	16.6	546	429	544	428	540	424	531	418
		13	18	16.7	549	432	547	431	544	428	536	423
		14	15	16.1	531	418	530	417	526	415	520	411
		15	11	13.6	447	351	446	350	444	349	439	346
		16	7	9.8	323	255	322	255	321	253	318	251
		17	5	7.9	261	205	260	205	259	204	257	203
		18	2	3.6	117	92	117	92	117	92	116	92
		19	1	2.0	65	52	65	52	65	52	65	51
		20	1	2.2	73	57	73	57	72	57	71	56
					199	136.5	4492	3533	4470	3518	4431	3485
											4350	3421

MEAN DIA. 11.2 INCHES, WEIBULL PARAMETERS A= .0, B= 11.88, C= 3.43

SI 50

400 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4-inch class and greater to o.b. tops of—								
						O. b.	I. b.	2 inches		3 inches		4 inches		
Yrs	Ft	In	No.	Ft 2	Ft 3									
15	29		1	64	.3	0	0							
			2	90	2.0	0	0							
			3	92	4.5	42	11							
			4	72	6.2	107	63	104	60	95	54	79	42	
			5	45	6.1	126	83	123	80	115	75	101	63	
			6	23	4.5	101	70	93	68	94	64	84	56	
			7	10.	2.7	63	44	62	43	59	41	53	36	
			8	3	1.0	26	18	25	18	24	17	21	15	
			9	1	.4	11	8	11	8	11	8	10	7	
			---	---	---	---	---	---	---	---	---	---	---	
			400	27.8	476	297	424	277	398	259	348	219		
			MEAN DIA. 3.6 INCHES. WEIBULL PARAMETERS A= .0, B= 3.57, C= 2.02											
20	41		1	6	.0	0	0							
			2	22	.5	0	0							
			3	45	2.2	0	0							
			4	66	5.8	73	28	68	24	57	16	34	0	
			5	76	10.4	202	124	195	118	180	105	149	80	
			6	68	13.4	310	211	303	206	286	195	253	172	
			7	48	12.8	327	234	321	230	307	221	279	204	
			8	26	9.1	245	179	241	177	231	172	213	162	
			9	11	4.9	136	101	134	100	129	98	120	94	
			10	3	1.6	47	35	46	35	45	34	42	33	
			11	1	.7	19	15	19	15	18	15	17	14	
			---	---	---	---	---	---	---	---	---	---	---	
			372	61.3	1359	927	1327	905	1253	856	1107	759		
			MEAN DIA. 5.5 INCHES. WEIBULL PARAMETERS A= .0, B= 5.79, C= 3.04											
25	50		1	2	.0	0	0							
			2	7	.2	0	0							
			3	18	.9	0	0							
			4	33	2.9	37	13	34	11	28	8	16	0	
			5	48	6.5	131	81	127	77	117	68	98	49	
			6	58	11.4	271	187	266	182	253	171	228	150	
			7	59	15.8	413	297	407	292	393	282	365	261	
			8	48	16.7	464	343	459	339	446	331	421	314	
			9	32	14.1	406	305	402	303	393	297	375	286	
			10	16	8.7	258	195	256	194	250	191	240	186	
			11	7	4.6	139	106	138	105	136	104	131	102	
			12	2	1.8	47	37	47	37	46	37	45	36	
			---	---	---	---	---	---	---	---	---	---	---	
			330	83.4	2166	1564	2136	1540	2062	1489	1919	1384		
			MEAN DIA. 6.8 INCHES. WEIBULL PARAMETERS A= .0, B= 7.21, C= 3.41											
30	58		1	1	.0	0	0							
			2	3	.1	0	0							
			3	9	.4	2	0							
			4	17	1.5	25	12	24	11	20	8	14	2	
			5	27	3.7	83	55	81	53	76	48	66	38	
			6	37	7.3	187	133	184	130	177	123	163	110	
			7	45	12.1	334	245	330	242	321	234	303	218	
			8	48	16.9	466	364	482	361	472	353	452	337	
			9	41	18.2	542	410	538	407	529	401	511	389	
			10	31	17.0	516	394	513	392	505	388	491	379	
			11	20	13.3	409	314	407	313	402	310	392	305	
			12	11	8.7	271	209	270	208	267	207	261	204	
			13	4	3.7	116	90	116	90	115	89	113	88	
			14	1	1.1	34	26	34	26	34	26	33	26	
			---	---	---	---	---	---	---	---	---	---	---	
			295	104.1	3005	2252	2979	2233	2918	2187	2799	2096		
			MEAN DIA. 8.0 INCHES. WEIBULL PARAMETERS A= .0, B= 8.52, C= 3.51											

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2	Ft 3							
35	64	2	2	.0	0	0						
		3	5	.2	4	1						
		4	9	.8	18	11	17	10	15	9	12	6
		5	16	2.2	58	41	57	40	54	37	48	31
		6	22	4.3	122	91	120	89	116	85	108	77
		7	29	7.7	229	173	227	171	221	165	210	155
		8	34	11.9	360	275	357	273	350	267	337	255
		9	35	15.5	477	366	474	364	467	358	453	347
		10	34	18.5	579	448	576	446	569	440	555	429
		11	29	19.1	604	467	601	465	595	461	582	452
		12	22	17.3	549	426	547	425	542	422	532	416
		13	14	12.9	412	321	411	320	407	318	401	314
		14	8	8.5	275	214	274	214	272	212	268	210
		15	4	4.9	158	124	158	124	156	123	154	121
		16	2	2.8	90	70	90	70	89	70	88	69
		17	1	1.6	51	40	51	40	51	40	50	39
		266	128.3	3986	3068	3960	3051	3904	3007	3798	2921	
		MEAN DIA. 9.4 INCHES. WEIBULL PARAMETERS A= .0, B= 9.96, C= 3.46										
40	70	2	1	.0	1	0						
		3	3	.1	5	3						
		4	6	.5	17	12	16	11	15	10	12	7
		5	9	1.2	39	31	38	30	36	28	32	23
		6	13	2.5	83	65	82	64	78	60	71	53
		7	18	4.8	156	122	154	120	149	116	140	107
		8	22	7.6	249	196	247	194	241	188	229	178
		9	25	11.0	359	282	356	280	350	274	337	262
		10	27	14.7	480	377	477	374	469	368	455	356
		11	27	17.8	582	457	579	454	571	449	555	437
		12	25	19.6	642	504	639	502	631	496	616	486
		13	21	19.3	633	498	630	496	624	492	612	483
		14	17	18.1	595	467	593	466	587	462	577	456
		15	12	14.7	482	379	480	378	477	376	469	372
		16	8	11.1	366	287	365	287	362	285	357	283
		17	5	7.9	258	203	257	203	256	202	253	200
		18	3	5.3	173	137	173	137	172	136	170	135
		19	1	2.0	64	50	64	50	64	50	63	51
		20	1	2.2	71	56	71	56	71	56	71	56
		244	160.3	5255	4126	5221	4102	5153	4048	5019	3945	
		MEAN DIA. 11.0 INCHES. WEIBULL PARAMETERS A= .0, B= 11.61, C= 3.34										

SI 50

500 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2	Ft 3							
15	29		1	109 .6	0	0						
			2	123 2.7	0	0						
			3	110 5.4	62	25						
			4	77 6.7	122	73	119	70	111	65	95	53
			5	45 6.1	130	85	127	83	120	77	107	67
			6	22 4.3	98	66	96	65	92	61	83	55
			7	9 2.4	57	39	56	38	54	36	49	33
			8	4 1.4	34	23	33	23	32	22	29	20
			9	1 .4	11	8	11	8	11	8	10	7
			—	—	—	—	—	—	—	—	—	—
			500	30.0	514	319	442	287	420	269	373	235
			MEAN DIA. 3.3 INCHES. WEIBULL PARAMETERS A= .0, B= 3.24, C= 1.82									
20	41		1	11 .1	0	0						
			2	34 .7	0	0						
			3	64 3.1	2	0						
			4	88 7.7	108	49	102	43	87	29	58	2
			5	94 12.8	262	165	254	159	234	143	195	113
			6	78 15.3	365	251	357	246	336	232	297	207
			7	51 13.6	353	253	346	249	330	240	299	223
			8	26 9.1	248	181	244	179	234	174	214	165
			9	10 4.4	125	93	123	92	118	90	109	85
			10	3 1.6	47	35	46	35	45	35	42	34
			11	1 .7	20	15	20	15	19	14	17	13
			—	—	—	—	—	—	—	—	—	—
			460	69.2	1530	1042	1492	1018	1403	957	1231	842
			MEAN DIA. 5.3 INCHES. WEIBULL PARAMETERS A= .0, B= 5.51, C= 2.87									
25	50		1	3 .0	0	8						
			2	11 .2	0	0						
			3	26 1.3	0	0						
			4	46 4.0	57	24	53	21	43	14	25	0
			5	63 8.6	178	113	172	108	159	95	134	70
			6	74 14.6	356	247	349	241	332	227	298	199
			7	68 18.3	486	352	479	347	461	334	427	309
			8	53 18.6	521	386	515	382	500	372	471	353
			9	33 14.6	425	319	421	317	410	311	390	301
			10	16 8.8	260	198	258	197	252	194	242	189
			11	6 4.0	120	92	119	92	117	91	112	89
			12	2 1.6	49	37	49	37	47	37	45	36
			—	—	—	—	—	—	—	—	—	—
			401	94.6	2452	1768	2415	1742	2321	1675	2144	1546
			MEAN DIA. 6.6 INCHES. WEIBULL PARAMETERS A= .0, B= 6.95, C= 3.27									
30	58		1	1 .0	0	0						
			2	5 .1	0	0						
			3	12 .6	3	0						
			4	23 2.0	34	19	32	17	27	12	18	2
			5	36 4.9	112	75	109	72	101	64	87	50
			6	47 9.3	240	171	236	167	225	157	205	139
			7	55 14.8	410	301	405	297	392	286	368	266
			8	54 19.0	548	411	543	407	530	397	506	378
			9	47 20.9	622	471	617	468	605	460	582	444
			10	34 18.7	566	433	562	431	554	425	537	414
			11	21 13.9	429	330	427	329	421	326	410	320
			12	11 8.7	271	209	270	208	266	206	260	203
			13	4 3.7	117	90	116	90	115	89	112	88
			14	1 1.1	34	26	34	26	34	26	33	26
			—	—	—	—	—	—	—	—	—	—
			351	117.7	3386	2536	3351	2512	3270	2448	3118	2330
			MEAN DIA. 7.8 INCHES. WEIBULL PARAMETERS A= .0, B= 8.30, C= 3.40									

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4-inch class and greater to o.b. tops of—							
						2 inches		3 inches		4 inches			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	
Yrs	Ft	In	No.	Ft 2									Ft 3
35	64	1	1	.0	0	0							
		2	3	.1	0	0							
		3	7	.3	5	2							
		4	12	1.0	23	15	22	14	20	11	15	6	
		5	20	2.7	71	51	69	49	65	45	56	36	
		6	28	5.5	155	115	152	112	146	107	134	95	
		7	35	9.4	276	208	273	205	265	198	249	184	
		8	40	14.0	423	323	419	319	410	311	392	295	
		9	41	18.1	559	429	555	426	545	418	526	402	
		10	38	20.7	648	500	644	497	634	490	616	476	
		11	32	21.1	667	516	663	514	655	508	638	497	
		12	24	18.8	599	465	596	463	590	459	577	451	
		13	15	13.8	442	344	440	343	436	341	428	336	
		14	9	9.6	309	241	308	240	305	239	300	236	
		15	4	4.9	158	124	158	124	156	123	154	122	
		16	2	2.8	90	70	90	70	89	70	88	-- 70	
		17	1	1.6	51	40	51	40	50	40	49	39	
		---	---	---	---	---	---	---	---	---	---	---	---
		312	144.5	4476	3443	4440	3416	4366	3360	4222	3245		
		MEAN DIA. 9.2 INCHES. WEIBULL PARAMETERS A= .0. B= 9.75. C= 3.37											
40	70	2	2	.0	1	1							
		3	4	.2	6	4							
		4	7	.6	19	14	18	13	16	11	12	7	
		5	12	1.6	52	40	50	38	47	35	39	27	
		6	17	3.3	108	83	106	81	100	76	88	66	
		7	22	5.9	190	148	187	145	180	139	166	126	
		8	26	9.1	295	231	291	228	283	220	266	204	
		9	30	13.3	432	338	428	334	418	325	398	308	
		10	29	15.8	516	405	512	401	502	393	482	377	
		11	31	20.5	669	526	664	522	653	513	632	496	
		12	28	22.0	721	566	717	563	706	555	686	541	
		13	24	22.1	726	570	722	567	713	561	695	549	
		14	18	19.3	632	496	629	494	622	490	608	481	
		15	13	16.0	524	411	522	410	517	407	507	401	
		16	9	12.6	413	325	412	324	408	322	401	318	
		17	5	7.9	259	204	258	203	256	202	252	200	
		18	3	5.3	174	137	174	137	172	136	170	135	
		19	1	2.0	65	51	65	51	64	51	63	50	
		20	1	2.2	71	57	71	57	71	57	70	56	
		---	---	---	---	---	---	---	---	---	---	---	---
		282	179.6	5873	4607	5826	4568	5728	4493	5535	4342		
		MEAN DIA. 10.8 INCHES. WEIBULL PARAMETERS A= .0. B= 11.42. C= 3.27											

SI 60

100 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—								
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft 3										
15	35	2	2	.0	0	0							0	0	
		3	6	.3	0	0									
		4	13	1.1	4	0	3	0	2	0			0	0	
		5	20	2.7	37	16	35	15	32	11	24	4			
		6	24	4.7	90	53	68	51	82	48	71	40			
		7	19	5.1	115	76	113	75	107	71	96	65			
		8	11	3.8	95	66	94	65	90	63	83	60			
		9	4	1.8	47	33	46	33	44	32	41	30			
		10	'1	.5	15	11	15	11	14	11	13	10			
					100	20.2	403	255	394	250	371	236	328	209	
					MEAN DIA. 6.1 INCHES, WEIBULL PARAMETERS A= .0, B= 6.46, C= 3.88										
20	49	3	1	.0	0	0							0	0	
		4	4	.3	2	0	2	0	1	0			0	0	
		5	8	1.1	18	8	17	7	15	6	11	3			
		6	14	2.7	58	36	57	35	54	32	48	27			
		7	19	5.0	123	82	121	80	117	77	108	70			
		8	20	6.9	182	128	180	126	175	123	166	116			
		9	16	7.0	195	139	193	138	189	136	180	132			
		10	9	4.9	140	102	139	102	137	100	132	98			
		11	4	2.6	77	57	77	57	76	56	74	55			
		12	1	.8	23	17	23	17	23	17	22	17			
					96	31.4	818	569	809	562	787	547	741	518	
					MEAN DIA. 7.7 INCHES, WEIBULL PARAMETERS A= .0, B= 8.23, C= 4.60										
25	60	3	1	.0	0	0									
		4	2	.2	3	2	3	2	3	2	3	1			
		5	4	.5	13	9	13	9	13	8	12	7			
		6	8	1.6	43	31	43	31	42	29	40	27			
		7	12	3.2	93	67	92	67	91	65	88	63			
		8	16	5.6	169	123	168	122	166	120	161	117			
		9	16	7.1	219	161	218	160	215	159	210	156			
		10	15	8.2	257	190	256	189	254	188	249	186			
		11	10	6.6	210	157	209	157	208	156	205	154			
		12	5	4.0	126	95	126	95	125	95	123	94			
		13	2	1.9	60	45	60	45	60	45	59	44			
					91	39.0	1193	860	1188	877	1177	867	1150	849	
					MEAN DIA. 8.9 INCHES, WEIBULL PARAMETERS A= .0, B= 9.41, C= 4.71										
30	69	4	1	.1	3	2	3	2	3	2	3	2			
		5	3	.4	14	10	14	10	14	10	14	10			
		6	5	1.0	33	26	33	26	33	26	33	25			
		7	7	1.9	63	49	63	49	63	49	62	48			
		8	10	3.5	119	91	119	91	118	91	117	90			
		9	13	5.7	195	150	195	150	195	149	194	148			
		10	14	7.6	260	199	260	199	259	198	257	197			
		11	13	8.6	292	224	292	224	291	223	289	222			
		12	10	7.8	267	204	267	204	266	204	265	204			
		13	6	5.5	188	143	188	143	188	143	187	144			
		14	3	3.2	109	84	109	84	109	84	108	83			
		15	1	1.2	41	32	41	32	41	32	41	32			
					86	46.6	1584	1214	1584	1214	1580	1211	1570	1205	
					MEAN DIA. 10.0 INCHES, WEIBULL PARAMETERS A= .0, B= 10.59, C= 4.56										

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2	Ft 3							
35	77	4	1	.1	3	2	3	2	3	2	3	2
		5	2	.3	10	8	10	8	10	8	10	8
		6	3	.6	22	17	22	17	22	17	22	17
		7	5	1.4	50	40	50	40	50	40	50	40
		8	7	2.5	92	72	92	72	92	72	92	72
		9	9	4.1	149	118	149	118	149	117	148	116
		10	10	5.6	203	161	203	161	203	161	203	161
		11	11	7.4	271	213	271	213	271	213	271	213
		12	11	8.8	323	254	323	254	323	254	323	254
		13	9	8.5	309	243	309	243	309	243	309	243
		14	7	7.6	280	220	280	220	280	220	280	220
		15	4	5.0	183	144	183	144	183	144	183	144
		16	2	2.8	104	81	104	81	104	81	104	81
		17	1	1.6	59	47	59	47	59	47	59	47
		82		56.2	2058	1620	2058	1620	2058	1619	2057	1618
		MEAN DIA. 11.2 INCHES. WEIBULL PARAMETERS A= .0, B= 11.91, C= 4.29										
40	84	4	1	.1	3	2	3	2	3	2	3	2
		5	1	.1	6	4	6	4	6	4	6	4
		6	2	.4	15	12	15	12	15	12	15	12
		7	3	.8	31	25	31	25	31	25	31	25
		8	4	1.4	54	43	54	43	54	43	54	43
		9	6	2.7	104	83	104	83	104	83	104	83
		10	7	3.8	148	119	148	119	148	119	148	119
		11	8	5.3	205	165	205	165	205	165	205	165
		12	9	7.1	275	220	275	220	275	220	275	220
		13	10	9.3	358	287	358	287	358	287	358	287
		14	8	8.6	333	267	333	267	333	267	333	267
		15	7	8.6	334	269	334	269	334	269	334	269
		16	5	7.0	272	218	272	218	272	218	272	218
		17	4	6.3	245	197	245	197	245	197	245	197
		18	2	3.6	137	110	137	110	137	110	137	110
		19	1	2.0	76	62	76	62	76	62	76	62
		20	1	2.2	85	68	85	68	85	68	85	68
		79		69.3	2681	2151	2681	2151	2681	2151	2681	2151
		MEAN DIA. 12.7 INCHES. WEIBULL PARAMETERS A= .0, B= 13.47, C= 3.98										

SI 60

200 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3							
15	35	1	3	.0	0	0						
		2	12	.3	0	0						
		3	26	1.3	0	0						
		4	39	3.4	33	7	31	6	25	4	15	0
		5	43	5.8	102	57	99	54	91	49	76	37
		6	38	7.4	161	103	157	100	148	95	130	83
		7	24	6.4	154	105	151	103	144	99	130	91
		8	11	3.8	98	70	96	69	93	67	85	62
		9	3	1.3	36	25	35	25	34	24	31	23
		10	1	.5	15	11	15	11	14	11	13	10
			200	30.2	599	378	584	368	549	349	480	306
			MEAN DIA. 5.3 INCHES. WEIBULL PARAMETERS A= .0, B= 5.56, C= 3.23									
20	49	2	2	.0	0	0						
		3	7	.3	0	0						
		4	15	1.3	14	3	13	3	10	2	5	0
		5	26	3.5	67	37	65	35	59	30	49	21
		6	36	7.0	163	107	160	104	152	98	137	85
		7	39	10.4	268	185	264	182	255	176	238	163
		8	33	11.5	316	225	313	223	304	217	288	207
		9	20	8.8	253	183	251	182	245	179	234	174
		10	9	4.9	145	107	144	105	141	105	136	102
		11	3	2.0	60	44	60	44	58	44	56	43
			190	49.8	1286	891	1270	879	1224	851	1143	795
			MEAN DIA. 6.9 INCHES. WEIBULL PARAMETERS A= .0, B= 7.37, C= 3.99									
25	60	2	1	.0	0	0						
		3	3	.1	2	0						
		4	7	.6	13	7	12	7	11	6	9	4
		5	14	1.9	48	33	47	32	45	30	42	27
		6	22	4.4	121	86	120	85	116	81	103	75
		7	29	7.8	228	165	226	164	222	160	213	153
		8	34	12.0	361	265	359	263	353	259	343	251
		9	29	12.9	399	295	397	294	392	290	382	284
		10	21	11.5	362	269	360	268	357	266	349	262
		11	11	7.3	232	173	231	173	229	172	225	170
		12	4	3.2	101	76	101	76	100	76	99	75
		13	1	.9	30	22	30	22	30	22	29	23
			176	62.7	1897	1391	1883	1384	1855	1362	1800	1324
			MEAN DIA. 8.1 INCHES. WEIBULL PARAMETERS A= .0, B= 8.58, C= 4.17									
30	69	2	1	.0	1	1						
		3	2	.1	3	2						
		4	4	.3	12	9	12	9	12	9	11	8
		5	8	1.1	37	28	37	28	36	28	35	27
		6	13	2.6	86	65	86	65	85	64	83	62
		7	19	5.1	170	130	170	129	168	128	166	126
		8	24	8.4	282	215	281	214	279	213	276	210
		9	25	11.0	372	283	371	282	369	281	365	278
		10	24	13.1	441	336	440	336	438	334	434	332
		11	19	12.5	422	322	421	322	419	320	416	318
		12	13	10.2	343	262	343	262	342	261	340	260
		13	7	6.5	217	165	217	165	216	165	215	165
		14	3	3.2	108	83	108	83	108	83	107	82
		15	1	1.2	41	32	41	32	41	32	41	32
			163	75.3	2535	1933	2527	1927	2513	1918	2489	1900
			MEAN DIA. 9.2 INCHES. WEIBULL PARAMETERS A= .0, B= 9.78, C= 4.11									

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3							
35	77	3	1	.0	2	1						
		4	3	.3	10	8	10	8	10	8	10	7
		5	5	.7	25	19	25	19	25	19	25	19
		6	8	1.6	58	46	58	46	57	46	56	45
		7	12	3.2	117	92	117	92	117	92	116	91
		8	16	5.6	205	161	205	161	204	160	203	159
		9	19	8.5	307	241	307	241	306	241	305	240
		10	22	12.1	440	344	440	344	439	343	438	342
		11	20	13.4	483	379	483	379	482	379	481	378
		12	17	13.5	490	383	490	383	489	383	487	382
		13	13	12.1	439	344	439	344	439	343	438	342
		14	9	9.7	353	276	353	276	353	276	352	275
		15	5	6.2	225	177	225	177	225	177	224	176
		16	2	2.8	102	80	102	80	102	80	102	80
		17	1	1.6	58	46	58	46	58	46	58	46
		153	91.5	3314	2597	3312	2596	3306	2593	3295	2582	
		MEAN DIA. 10.5 INCHES. WEIBULL PARAMETERS A= .0, B= 11.12, C= 3.93										
40	84	3	1	.0	2	1						
		4	2	.2	7	5	7	5	7	5	7	5
		5	3	.4	16	12	16	12	16	12	16	12
		6	5	1.0	37	30	37	30	37	30	37	29
		7	8	2.1	81	65	81	65	81	65	81	64
		8	10	3.5	133	107	133	107	133	107	132	106
		9	12	5.3	202	162	202	162	202	162	201	161
		10	15	8.2	312	249	312	249	312	249	311	249
		11	16	10.5	402	322	402	322	402	322	401	321
		12	16	12.5	479	384	479	384	479	383	478	382
		13	15	13.8	528	421	528	421	527	421	526	421
		14	13	13.9	530	424	530	424	530	424	529	423
		15	10	12.2	468	374	468	374	468	374	467	374
		16	7	9.8	373	298	373	298	373	298	372	298
		17	5	7.9	301	240	301	240	301	240	300	240
		18	3	5.3	202	162	202	162	202	162	202	161
		19	2	3.9	150	120	150	120	150	120	150	120
		20	1	2.2	84	67	84	67	84	67	84	67
		144	112.7	4307	3443	4305	3442	4304	3441	4294	3433	
		MEAN DIA. 12.0 INCHES. WEIBULL PARAMETERS A= .0, B= 12.71, C= 3.70										

SI 60

300 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2	Ft 3							
15	35	1	9	.0	0	0						
		2	29	.6	0	0						
		3	52	2.5	0	0						
		4	64	5.5	73	29	69	26	61	19	44	6
		5	63	8.5	166	98	161	95	149	87	126	73
		6	45	8.7	200	131	195	128	184	122	163	109
		7	24	6.3	159	108	156	106	148	103	133	95
		8	10	3.5	91	63	89	62	86	60	78	57
		9	3	1.3	36	25	35	25	33	24	30	23
		10	1	.5	15	11	15	11	14	11	13	10
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		300	37.6	740	465	720	453	675	426	587	373	
		MEAN DIA. 4.8 INCHES. WEIBULL PARAMETERS A= .0, B= 5.03, C= 2.87										
20	49	1	1	.0	0	0						
		2	6	.1	0	0						
		3	16	.8	0	0						
		4	31	2.7	35	13	33	11	27	8	16	0
		5	47	6.4	131	79	127	75	118	67	99	50
		6	58	11.4	277	185	272	181	259	171	235	152
		7	53	14.2	379	265	373	261	360	253	335	236
		8	39	13.7	384	275	380	273	369	267	349	256
		9	21	9.3	272	197	269	196	263	193	251	187
		10	8	4.4	131	97	130	97	127	95	122	93
		11	2	1.3	40	30	40	30	39	30	38	29
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		282	64.4	1649	1141	1624	1124	1562	1084	1445	1003	
		MEAN DIA. 6.5 INCHES. WEIBULL PARAMETERS A= .0, B= 6.86, C= 3.65										
25	60	2	2	.0	0	0						
		3	7	.3	4	1						
		4	15	1.3	28	17	27	16	25	14	20	9
		5	26	3.5	90	62	88	60	84	57	76	49
		6	37	7.3	203	144	200	142	194	136	182	126
		7	45	12.0	353	256	350	253	342	248	327	236
		8	46	16.0	487	357	484	355	475	349	459	337
		9	37	16.3	506	374	503	372	496	368	482	359
		10	24	13.1	411	307	409	306	404	303	395	297
		11	11	7.2	231	172	230	172	227	170	222	168
		12	4	3.1	101	76	101	76	100	75	98	74
		13	1	.9	30	22	30	22	29	22	28	22
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		255	81.2	2444	J788	2422	1774	2376	1742	2289	1677	
		MEAN DIA. 7.6 INCHES. WEIBULL PARAMETERS A= .0, B= 8.11, C= 3.89										
30	69	2	1	.0	1	1						
		3	4	.2	7	5						
		4	8	.7	24	18	24	18	23	17	21	15
		5	15	2.0	68	51	67	51	66	49	63	47
		6	23	4.5	150	115	149	114	147	112	142	107
		7	30	8.0	267	203	266	202	262	199	256	194
		8	35	12.2	407	309	405	308	402	305	394	299
		9	36	15.8	529	403	528	402	524	399	517	393
		10	32	17.4	581	442	580	441	576	439	569	434
		11	23	15.1	506	385	505	384	502	382	497	379
		12	14	11.0	366	279	365	279	364	278	361	276
		13	7	6.4	215	163	215	163	214	163	212	162
		14	3	3.2	107	82	107	82	107	82	106	81
		15	1	1.2	40	31	40	31	40	31	40	31
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		232	97.7	3268	2487	3251	2475	3227	2456	3178	2418	
		MEAN DIA. 8.8 INCHES. WEIBULL PARAMETERS A= .0, B= 9.33, C= 3.88										

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2	Ft 3							
35	77	2	1	.0	1	1						
		3	2	.1	3	2						
		4	5	.4	16	12	16	12	16	12	15	11
		5	9	1.2	44	35	44	35	43	34	42	32
		6	14	2.7	99	77	99	77	98	76	96	74
		7	19	5.1	182	143	182	143	180	141	178	139
		8	24	8.4	302	236	301	235	299	234	295	231
		9	27	11.9	429	335	428	334	426	332	422	329
		10	28	15.2	549	430	548	429	546	427	542	424
		11	26	17.1	617	482	616	481	614	480	611	477
		12	22	17.3	622	486	621	485	619	484	616	482
		13	16	14.7	530	414	530	414	528	413	526	412
		14	10	10.7	385	300	385	300	384	300	382	299
		15	6	7.4	264	207	264	207	264	207	263	206
		16	3	4.2	150	117	150	117	150	117	150	118
		17	1	1.6	57	45	57	45	57	45	56	44
		213	118.0	4250	3322	4241	3314	4224	3302	4194	3278	
MEAN DIA. 10.1 INCHES. WEIBULL PARAMETERS A= .0, B= 10.70, C= 3.74												
40	84	2	1	.0	1	1						
		3	2	.1	3	2						
		4	3	.3	10	8	10	8	10	8	9	7
		5	6	.8	32	25	32	25	31	24	29	23
		6	9	1.8	68	54	68	54	66	53	64	51
		7	12	3.2	122	97	122	97	120	96	118	94
		8	15	5.2	199	159	199	158	197	157	195	155
		9	19	8.4	319	254	318	253	316	252	313	249
		10	21	11.4	435	346	434	345	433	344	430	342
		11	19	12.5	476	380	475	380	474	378	471	376
		12	22	17.3	656	523	655	522	654	521	651	518
		13	20	18.4	700	558	699	558	697	557	694	555
		14	16	17.1	650	518	650	518	648	517	646	515
		15	13	15.9	606	483	606	483	605	482	603	481
		16	9	12.6	477	380	477	380	476	380	475	379
		17	6	9.5	359	286	359	286	358	286	357	286
		18	3	5.3	202	160	202	160	202	160	201	161
		19	2	3.9	150	119	150	119	150	119	149	120
		20	1	2.2	83	66	83	66	83	66	82	66
		199	146.0	5548	4419	5539	4412	5520	4400	5487	4378	
MEAN DIA. 11.6 INCHES. WEIBULL PARAMETERS A= .0, B= 12.29, C= 3.55												

SI 60

400 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4 -inch class and greater to o.b. tops of—										
						2 inches		3 inches		4 inches						
Yrs	Ft	In	No.	Ft 2	Ft 3											
15	35	1	20	.1	0	0										
		2	52	1.1	0	0										
		3	80	3.9	14	0										
		4	88	7.6	115	57	110	53	99	44	77	27				
		5	75	10.1	209	129	203	125	190	116	163	97				
		6	48	9.3	220	146	215	143	204	136	181	122				
		7	24	6.3	161	110	158	108	150	104	135	96				
		8	9	3.1	83	58	81	57	78	55	70	51				
		9	3	1.3	36	25	35	25	34	24	31	23				
		10	1	.5	15	10	15	10	14	10	13	10				
					400	43.4	853	535	817	521	769	489	670	426		
					MEAN DIA. 4.5 INCHES, WEIBULL PARAMETERS A= .0, B= 4.64, C= 2.61											
20	49	1	2	.0	0	0										
		2	11	.2	0	0										
		3	28	1.4	1	0										
		4	50	4.4	65	29	61	25	52	17	34	0				
		5	68	9.3	199	123	193	118	180	106	153	83				
		6	77	15.1	378	256	371	251	354	238	320	213				
		7	64	17.1	465	327	458	323	442	312	410	292				
		8	42	14.7	419	301	414	298	402	292	378	280				
		9	21	9.3	274	199	271	198	264	195	251	190				
		10	7	3.8	115	85	114	85	112	84	107	82				
		11	2	1.3	40	30	40	30	39	30	38	29				
					372	76.6	1956	1350	1922	1328	1845	1274	1691	1169		
					MEAN DIA. 6.1 INCHES, WEIBULL PARAMETERS A= .0, B= 6.51, C= 3.42											
25	60	1	1	.0	0	0										
		2	4	.1	0	0										
		3	12	.6	7	2										
		4	24	2.1	46	28	44	26	40	22	31	14				
		5	39	5.3	138	95	135	92	128	86	114	74				
		6	53	10.4	293	209	289	206	279	197	260	181				
		7	59	15.8	466	339	461	335	450	326	429	309				
		8	55	19.2	585	430	580	427	569	419	548	404				
		9	42	18.5	576	428	572	426	564	420	547	409				
		10	25	13.6	430	320	428	319	422	315	411	309				
		11	11	7.3	231	173	230	172	227	171	222	169				
		12	4	3.1	101	76	101	76	100	76	98	75				
		13	1	.9	30	22	30	22	29	22	28	22				
					330	96.9	2903	2122	2870	2101	2808	2054	2688	1966		
					MEAN DIA. 7.3 INCHES, WEIBULL PARAMETERS A= .0, B= 7.78, C= 3.69											

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—						
					O. b.	I. b.	2 inches		3 inches		4 inches		
Yrs	Ft	In	No.	Ft 2	Ft 3								
30	69	2	2	.0	1	1							
		3	6	.3	10	7							
		4	13	1.1	36	28	35	27	34	25	31	22	
		5	22	3.0	98	74	97	73	94	71	88	66	
		6	32	6.2	207	156	205	155	201	151	192	145	
		7	41	10.9	361	274	359	272	353	268	343	259	
		8	45	15.6	519	394	517	392	511	387	499	377	
		9	45	19.7	658	499	655	497	649	492	636	483	
		10	37	20.0	668	507	666	506	660	502	650	495	
		11	26	17.0	568	431	566	430	563	428	556	424	
		12	15	11.7	390	297	389	296	387	295	383	292	
		13	7	6.4	214	162	214	162	212	162	210	161	
		14	3	3.2	106	81	106	81	106	81	105	80	
		15	1	1.2	40	31	40	31	40	31	40	30	
			295	116.4	3876	2942	3849	2922	3810	2893	3733	2834	
			MEAN DIA. 8.5 INCHES, WEIBULL PARAMETERS A= .0, B= 9.03, C= 3.72										
35	77	2	1	.0	1	1							
		3	4	.2	7	6							
		4	7	.6	22	17	22	17	21	16	19	15	
		5	13	1.8	64	50	63	49	61	48	58	45	
		6	19	3.7	134	104	133	103	131	101	126	97	
		7	26	6.9	248	194	247	193	244	190	239	185	
		8	31	10.8	387	303	386	302	382	299	376	293	
		9	35	15.4	553	431	551	430	548	427	540	421	
		10	35	19.0	683	533	681	532	677	529	669	523	
		11	31	20.4	731	571	730	570	726	568	720	563	
		12	25	19.6	702	548	701	547	698	545	693	541	
		13	18	16.5	594	463	593	462	591	461	587	459	
		14	11	11.7	421	328	420	328	419	327	417	326	
		15	6	7.3	263	205	263	205	262	205	261	204	
		16	3	4.2	149	116	149	116	149	116	149	116	
		17	1	1.6	56	44	56	44	56	44	56	44	
					266	139.8	5015	3914	4995	3898	4965	3876	
											4910	3832	
			MEAN DIA. 9.8 INCHES, WEIBULL PARAMETERS A= .0, B= 10.41, C= 3.62										
40	84	2	1	.0	1	1							
		3	2	.1	3	2							
		4	5	.4	17	13	17	13	16	12	14	11	
		5	8	1.1	42	32	41	32	40	31	37	29	
		6	12	2.4	90	71	89	70	87	68	83	65	
		7	18	4.3	162	130	161	129	159	126	154	121	
		8	20	7.0	266	211	265	210	261	207	255	201	
		9	24	10.6	403	321	401	320	398	316	390	310	
		10	26	14.2	538	429	536	428	533	424	525	417	
		11	26	17.2	652	519	650	518	647	514	639	508	
		12	26	20.5	776	617	774	616	770	613	762	607	
		13	23	21.3	805	641	804	640	800	638	793	633	
		14	19	20.4	771	614	770	613	767	611	762	607	
		15	14	17.2	652	520	651	519	649	518	646	515	
		16	10	14.0	530	421	529	421	528	421	525	420	
		17	6	9.5	359	286	359	286	358	285	356	284	
		18	3	5.3	201	160	201	160	200	160	199	160	
		19	2	3.9	150	119	150	119	150	119	149	119	
		20	1	2.2	83	66	83	66	83	66	82	65	
					244	171.7	6501	5173	6481	5160	6446	5129	
											6371	5072	
			MEAN DIA. 11.4 INCHES, WEIBULL PARAMETERS A= .0, B= 12.03, C= 3.46										

SI 60

500 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3							
15	35	1	37	.2	0	0						
		2	79	1.7	0	0						
		3	108	5.3	34	0						
		4	108	9.4	156	84	150	80	137	69	110	49
		5	83	11.2	242	154	236	150	221	139	193	119
		6	50	9.8	235	159	230	155	218	147	195	131
		7	23	6.1	156	109	153	107	146	102	133	93
		8	9	3.1	83	58	82	57	78	55	71	51
		9	2	.9	24	17	24	17	23	16	21	15
		10	1	.5	15	10	15	10	14	10	13	10
			500	48.2	945	591	890	576	837	538	736	468
			MEAN DIA. 4.2 INCHES, WEIBULL PARAMETERS A= .0, B= 4.34, C= 2.42									
20	49	1	5	.0	0	0						
		2	19	.4	0	0						
		3	42	2.1	6	0						
		4	70	6.1	99	48	93	43	80	31	55	7
		5	89	12.1	269	170	261	164	243	148	207	118
		6	89	17.5	445	304	436	298	415	283	375	254
		7	72	19.2	528	374	520	369	501	357	465	334
		8	44	15.4	442	318	436	315	423	308	397	295
		9	21	9.3	275	201	272	200	265	196	251	190
		10	7	3.8	115	85	114	84	111	83	106	81
		11	2	1.3	40	30	40	30	39	30	37	29
			460	87.2	2219	1530	2172	1503	2077	1436	1893	1308
			MEAN DIA. 5.9 INCHES, WEIBULL PARAMETERS A= .0, B= 6.23, C= 3.24									
25	60	1	1	.0	0	0						
		2	7	.2	0	0						
		3	18	.9	12	4						
		4	34	3.0	65	41	62	38	57	32	45	20
		5	52	7.1	185	128	181	124	171	115	152	97
		6	67	13.1	372	265	366	260	353	249	328	228
		7	72	19.2	570	415	564	410	548	399	519	376
		8	63	21.9	670	494	664	490	651	480	624	462
		9	45	19.8	618	459	614	456	603	450	583	437
		10	26	14.1	446	333	443	332	437	328	425	321
		11	11	7.2	231	173	230	172	227	171	221	168
		12	4	3.1	101	75	101	75	99	75	97	74
		13	1	.9	30	22	30	22	29	22	28	22
			401	110.5	3300	2409	3255	2379	3175	2321	3022	2205
			MEAN DIA. 7.1 INCHES, WEIBULL PARAMETERS A= .0, B= 7.53, C= 3.54									

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
							2 inches		3 inches		4 inches	
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	-----	-----	Ft 3 -----					
30	69	1	1	.0	0	0	-----	-----	-----	-----	-----	-----
		2	3	.1	2	1						
		3	9	.4	14	10						
		4	17	1.5	48	36	47	35	45	33	40	28
		5	29	4.0	130	98	128	96	124	92	115	84
		6	41	8.1	266	201	263	199	257	193	244	182
		7	51	13.6	452	342	449	339	441	332	425	319
		8	55	19.2	637	484	633	481	625	474	608	460
		9	51	22.6	750	569	746	566	738	560	721	548
		10	41	22.4	745	566	742	564	735	559	721	550
		11	28	18.5	616	468	614	467	609	464	600	458
		12	15	11.8	393	298	392	297	389	296	384	293
		13	7	6.5	215	164	214	164	213	163	211	161
		14	2	2.1	71	55	71	55	71	55	70	54
		15	1	1.2	41	31	41	31	41	31	41	31
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		351	131.9	4380	3323	4340	3294	4288	3252	4180	3168	
		MEAN DIA. 8.3 INCHES, WEIBULL PARAMETERS A= .0, B= 8.80, C= 3.60										
35	77	2	2	.0	1	1	-----	-----	-----	-----	-----	-----
		3	5	.2	8	7						
		4	10	.9	31	24	31	23	29	22	27	19
		5	16	2.2	79	61	78	60	75	58	70	53
		6	24	4.7	169	132	168	131	164	127	157	120
		7	32	8.6	307	238	305	236	300	232	290	224
		8	38	13.3	474	370	472	368	466	363	456	353
		9	42	18.6	664	517	661	515	655	510	643	500
		10	40	21.8	781	608	779	606	773	602	761	593
		11	33	23.1	826	645	824	643	818	640	808	632
		12	28	22.0	787	614	785	613	781	610	772	604
		13	19	17.5	627	489	626	488	623	486	617	483
		14	11	11.8	421	328	420	328	418	327	415	325
		15	6	7.4	263	205	263	205	262	205	260	205
		16	3	4.2	150	116	150	116	150	116	149	116
		17	1	1.6	56	44	56	44	56	44	56	44
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		312	157.8	5644	4399	5618	4376	5570	4342	5481	4271	
		MEAN DIA. 9.6 INCHES, WEIBULL PARAMETERS A= .0, B= 10.21, C= 3.53										
40	84	2	1	.0	1	1	-----	-----	-----	-----	-----	-----
		3	3	.1	6	5						
		4	6	.5	20	15	20	15	18	13	16	11
		5	10	1.4	51	40	50	39	48	37	44	34
		6	14	2.7	104	82	103	81	99	78	93	72
		7	19	5.1	191	152	189	150	186	146	178	138
		8	24	8.4	316	251	314	249	308	244	297	235
		9	28	12.3	466	371	463	369	457	363	445	352
		10	31	16.9	637	507	634	504	627	499	614	487
		11	32	21.1	796	633	793	631	786	625	773	614
		12	29	22.7	858	682	856	680	850	675	838	666
		13	26	23.9	903	718	901	716	895	713	885	705
		14	21	22.4	846	673	844	672	840	669	831	663
		15	15	18.4	694	551	693	550	689	548	683	545
		16	10	13.9	526	418	525	418	523	417	519	415
		17	6	9.4	357	283	356	283	355	283	352	282
		18	4	7.1	266	212	266	212	265	212	264	211
		19	2	3.9	149	118	149	118	148	118	147	118
		20	1	2.2	83	65	83	65	83	65	82	65
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		282	192.5	7270	5777	7239	5752	7177	5705	7061	5613	
		MEAN DIA. 11.2 INCHES, WEIBULL PARAMETERS A= .0, B= 11.84, C= 3.39										

SI 60

600 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—					
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	—	—	—	—	Ft 3	—	—	—
15	35	1	59,	.3	0	0						
		2	109	2.4	0	0						
		3	136	6.7	57	7						
		4	124	10.8	192	109	186	104	171	92	142	69
		5	88	12.0	264	171	258	166	243	155	215	134
		6	50	9.8	239	162	234	159	223	151	202	135
		7	23	6.1	158	110	155	108	149	104	136	95
		8	8	2.8	75	53	74	52	70	50	64	45
		9	2	.9	24	17	24	17	23	16	21	15
		10	1	.5	15	11	15	11	14	10	13	9
		---	---	---	---	---	---	---	---	---	---	---
			600	52.3	1024	640	946	617	893	578	793	502
			MEAN DIA. 4.0 INCHES. WEIBULL PARAMETERS A= .0, B= 4.09, C= 2.26									
120	49	1	7	.0	0	0						
		2	27	.6	0	0						
		3	58	2.8	14	0						
		4	90	7.8	133	69	126	63	109	47	77	17
		5	108	14.6	334	215	324	207	302	188	258	152
		6	103	20.1	520	358	510	351	485	333	437	298
		7	78	20.7	574	408	565	403	544	389	503	364
		8	46	16.0	462	334	456	331	441	323	413	308
		9	20	8.8	262	191	259	190	252	186	238	160
		10	7	3.8	115	85	114	84	111	83	106	81
		11	2	1.3	41	30	41	30	39	30	37	29
		---	---	---	---	---	---	---	---	---	---	---
			546	96.6	2455	1690	2395	1659	2283	1579	2069	1429
			MEAN DIA. 5.7 INCHES. WEIBULL PARAMETERS A= .0, B= 6.01, C= 3.11									
25	60	1	2	.0	0	0						
		2	10	.2	0	0						
		3	24	1.2	17	?						
		4	44	3.8	86	55	83	52	74	43	58	27
		5	66	9.0	238	165	232	160	219	148	193	124
		6	81	15.9	454	325	447	319	430	305	397	277
		7	82	21.9	654	478	646	472	628	458	593	430
		8	70	24.4	749	553	742	548	726	537	694	515
		9	48	21.2	663	492	658	489	646	482	622	468
		10	26	14.2	449	335	446	333	439	330	426	322
		11	11	7.3	232	174	231	173	227	172	221	169
		12	3	2.4	75	57	76	57	75	57	73	56
		13	1	.9	30	22	30	22	29	22	28	23
		---	---	---	---	---	---	---	---	---	---	---
			468	122.5	3648	2663	3591	2625	3493	2554	3305	2411
			MEAN DIA. 6.9 INCHES. WEIBULL PARAMETERS A= .0, B= 7.34, C= 3.43									

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—									
							2 inches		3 inches		4 inches					
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.		
Yrs	Ft	In	No.	Ft 2									Ft 3			
30	69	1	1	.0	0	0										
		2	4	.1	2	2										
		3	11	.5	17	12										
		4	22	1.9	61	46	59	44	56	41	48	34				
		5	36	4.9	159	120	156	118	150	112	138	100				
		6	50	9.8	322	243	318	240	309	232	292	216				
		7	60	16.0	529	400	524	396	513	387	492	369				
		8	62	21.8	715	542	710	538	699	529	677	512				
		9	57	25.1	834	632	829	629	818	621	797	605				
		10	44	23.9	796	604	792	601	784	596	767	584				
		11	29	19.1	636	482	634	481	628	477	616	471				
		12	16	12.5	418	317	417	316	413	314	407	311				
		13	7	6.4	215	163	214	163	213	162	210	161				
		14	2	2.1	71	54	71	54	71	54	70	53				
		15	1	1.2	41	31	41	31	41	31	40	31				
					402	145.3	4816	3648	4765	3611	4695	3556	4554	3447		
					MEAN DIA. 8.1 INCHES. WEIBULL PARAMETERS A= .0, B= 8.63, C= 3.52											
35	77	2	2	.0	1	1										
		3	6	.3	11	8										
		4	12	1.0	37	29	36	28	34	26	29	21				
		5	20	2.7	97	76	95	74	92	71	84	63				
		6	29	5.7	202	157	200	155	194	150	184	141				
		7	37	9.8	352	274	349	271	342	265	328	253				
		8	44	15.3	546	425	543	422	535	415	519	401				
		9	46	20.2	722	563	719	560	710	552	694	538				
		10	45	24.4	872	679	868	676	860	670	844	657				
		11	39	25.6	915	712	912	710	904	704	889	694				
		12	30	23.5	838	652	835	650	830	647	818	640				
		13	20	18.4	655	510	653	509	650	507	642	502				
		14	12	12.8	456	355	455	355	453	353	448	351				
		15	6	7.3	261	203	261	203	260	203	258	202				
		16	3	4.2	149	115	149	115	148	115	147	115				
		17	1	1.6	56	44	56	44	56	44	56	43				
					352	172.8	6170	4803	6131	4772	6068	4722	5940	4621		
					MEAN DIA. 9.5 INCHES. WEIBULL PARAMETERS A= .0, B= 10.05, C= 3.47											
40	84	2	1	.0	1	1										
		3	4	.2	8	6										
		4	7	.6	23	18	22	17	20	15	17	11				
		5	12	1.6	61	49	60	48	56	44	50	37				
		6	17	3.3	126	100	124	90	119	93	109	84				
		7	22	5.9	221	176	219	173	213	167	201	155				
		8	28	9.7	368	292	365	289	357	281	341	267				
		9	32	14.1	532	422	528	419	519	411	502	396				
		10	34	18.5	697	554	693	551	684	543	665	527				
		11	33	21.7	819	650	815	647	806	639	787	625				
		12	32	25.1	945	751	941	748	932	741	914	727				
		13	28	25.7	970	771	967	769	959	763	945	753				
		14	22	23.5	884	702	881	700	875	697	863	689				
		15	16	19.6	738	586	736	585	732	583	724	578				
		16	11	15.3	577	459	576	458	573	456	568	453				
		17	7	11.0	415	330	414	330	412	329	408	327				
		18	4	7.0	265	211	265	211	264	211	262	210				
		19	2	3.9	148	117	148	117	147	117	146	117				
		20	1	2.2	82	65	82	65	82	65	81	65				
					313	209.0	7880	6260	7836	6225	7750	6155	7583	6021		
					MEAN DIA. 11.1 INCHES. WEIBULL PARAMETERS A= .0, B= 11.71, C= 3.35											

SI 70

100 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—							
					O. b.	I. b.	2 inches		3 inches		4 inches			
Yrs	Ft	In	No.	Ft 2	Ft 3									
15	41	2	1	.0	0	0								
		3	3	.1	0	0								
		4	8	.7	3	0	3	0	2	0	0	0		
		5	15	2.0	30	12	29	11	26	9	21	5		
		6	21	4.1	83	48	81	47	78	44	71	38		
		7	23	6.2	145	93	143	92	139	89	131	83		
		8	17	5.9	154	103	152	102	149	100	141	96		
		9	9	4.0	109	76	108	76	106	74	102	72		
		10	3	1.6	46	32	46	32	45	32	44	32		
		100	24.8	570	364	562	360	545	348	510	326			
		MEAN DIA. 6.7 INCHES, WEIBULL PARAMETERS A= .0, B= 7.16, C= 4.31												
20	57	3	1	.0	0	0								
		4	3	.3	5	2	5	2	5	2	4	1		
		5	6	.8	19	12	19	12	18	11	17	10		
		6	11	2.2	58	39	57	39	56	37	53	35		
		7	16	4.3	123	85	122	84	120	82	117	79		
		8	19	6.7	199	140	198	139	196	137	191	133		
		9	19	8.4	259	184	258	183	256	181	251	178		
		10	13	7.1	223	160	222	159	220	158	217	155		
		11	6	4.0	126	91	126	91	125	90	124	89		
		12	2	1.6	50	37	50	37	50	37	49	36		
		96	35.3	1062	750	1057	746	1046	735	1023	716			
		MEAN DIA. 8.2 INCHES, WEIBULL PARAMETERS A= .0, B= 8.72, C= 4.89												
25	70	4	1	.1	3	2	3	2	3	2	3	2		
		5	3	.4	14	10	14	10	14	10	14	10		
		6	6	1.2	41	31	41	31	41	31	40	30		
		7	10	2.6	93	70	93	70	93	70	92	89		
		8	14	4.8	169	127	169	127	169	126	168	125		
		9	18	7.8	276	206	276	206	275	206	274	205		
		10	16	8.6	303	226	303	226	303	226	302	225		
		11	12	7.8	275	205	275	205	275	205	274	205		
		12	7	5.4	191	143	191	143	191	143	190	142		
		13	3	2.7	95	72	95	72	95	72	96	71		
		14	1	1.1	37	28	37	28	37	28	37	28		
		91	42.4	1497	1120	1497	1120	1496	1119	1490	1112			
		MEAN DIA. 9.2 INCHES, WEIBULL PARAMETERS A= .0, B= 9.82, C= 4.91												
30	81	4	1	.1	4	2	4	2	4	2	4	2		
		5	2	.3	11	9	11	9	11	9	11	9		
		6	4	.8	32	24	32	24	32	24	32	24		
		7	6	1.6	64	50	64	50	64	50	64	50		
		8	9	3.2	125	98	125	98	125	98	125	97		
		9	12	5.4	211	164	211	164	211	164	211	164		
		10	16	8.8	348	269	348	269	348	269	347	269		
		11	13	8.7	342	265	342	265	342	265	342	265		
		12	11	8.8	344	267	344	267	344	267	344	267		
		13	7	6.5	257	199	257	199	257	199	257	200		
		14	4	4.3	170	132	170	132	170	132	170	132		
		15	1	1.2	48	38	48	38	48	38	48	38		
		86	49.7	1956	1517	1956	1517	1956	1517	1955	1517			
		MEAN DIA. 10.3 INCHES, WEIBULL PARAMETERS A= .0, B= 10.94, C= 4.71												

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of -							
							2 inches		3 inches		4 inches			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2					Ft 3					
35	90	4	1	.1	4	3	4	3	4	3	4	3	4	3
		5	1	.1	6	4	6	4	6	4	5	4		
		6	3	.6	25	20	25	20	25	20	24	19		
		7	4	1.1	46	37	46	37	45	36	44	35		
		8	6	2.1	90	72	90	72	90	72	89	71		
		9	8	3.6	152	120	152	120	151	120	150	120		
		10	10	5.5	233	187	233	187	232	186	231	185		
		11	11	7.3	311	248	311	248	310	247	308	246		
		12	11	8.7	370	295	369	295	368	295	366	294		
		13	10	9.3	394	314	394	314	393	314	392	313		
		14	8	8.7	366	292	366	292	365	292	364	291		
		15	5	6.2	262	210	262	210	262	210	261	210		
		16	3	4.2	179	144	179	144	179	144	179	143		
		17	1	1.6	67	54	67	54	67	54	67	53		
		82	59.2		2505	2000	2504	2000	2497	1997	2484	1987		
		MEAN DIA. 11.5 INCHES. WEIBULL PARAMETERS A= .0, B= 12.23, C= 4.41												
40	97	4	1	.1	4	3	4	3	4	3	3	3		
		5	1	.1	7	4	7	4	6	4	5	4		
		6	2	.4	17	15	17	15	17	14	16	13		
		7	3	.8	36	29	36	29	36	29	35	28		
		8	4	1.4	63	51	63	51	62	50	60	48		
		9	5	2.2	100	81	100	81	98	80	96	78		
		10	7	3.8	172	140	171	140	170	138	167	136		
		11	8	5.3	237	193	237	193	235	191	233	189		
		12	9	7.1	319	259	318	258	316	257	313	254		
		13	8	7.4	332	270	331	270	330	269	327	267		
		14	8	8.6	385	314	384	314	383	312	380	310		
		15	7	8.7	387	316	386	316	385	315	382	313		
		16	6	8.4	377	307	377	307	375	306	373	305		
		17	4	6.4	284	231	284	231	283	231	282	230		
		18	3	5.3	239	195	239	195	238	195	237	194		
		19	2	4.0	177	144	177	144	177	144	176	144		
		20	1	2.2	99	80	99	80	99	80	98	79		
		79	72.4		3235	2632	3230	2631	3214	2618	3183	2595		
		MEAN DIA. 13.0 INCHES. WEIBULL PARAMETERS A= .0, B= 13.77, C= 4.07												

SI 70

200 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—							
					O. b.	I. b.	2 inches		3 inches		4 inches			
Yrs	Ft	In	No.	Ft 2	Ft 3									
15	41	1	1	.0	0	0								
		2	6	.1	0	0								
		3	16	.8	0	0								
		4	29	2.5	25	4	23	4	20	2	12	0		
		5	41	5.6	101	54	99	52	93	47	82	37		
		6	42	8.2	187	117	184	115	177	109	163	99		
		7	35	9.3	237	158	234	156	228	152	215	143		
		8	20	7.0	189	131	187	130	183	127	175	121		
		9	8	3.5	100	70	99	70	97	68	93	66		
		10	2	1.1	32	22	32	22	31	22	30	21		
			200	38.2	871	556	858	549	829	527	770	487		
			MEAN DIA. 5.9 INCHES. WEIBULL PARAMETERS A= .0, B= 6.28, C= 3.65											
20	57	2	1	.0	0	0								
		3	4	.2	2	0								
		4	11	1.0	19	11	18	10	17	9	14	6		
		5	20	2.7	67	43	66	42	64	40	59	36		
		6	31	6.1	167	113	165	112	162	108	154	102		
		7	39	10.4	303	211	301	209	296	206	287	198		
		8	37	12.9	390	275	388	274	383	270	373	263		
		9	27	11.9	359	263	368	262	364	259	357	254		
		10	14	7.6	240	173	239	172	237	171	234	168		
		11	5	3.3	105	76	105	76	104	76	103	75		
		12	1	.8	25	19	25	19	25	19	25	18		
			190	56.8	1687	1184	1675	1176	1652	1158	1606	1120		
			MEAN DIA. 7.4 INCHES. WEIBULL PARAMETERS A= .0, B= 7.87, C= 4.27											
25	70	2	1	.0	1	1								
		3	2	.1	3	2								
		4	5	.4	16	11	16	11	16	11	15	10		
		5	11	1.5	53	39	53	39	52	38	51	37		
		6	18	3.5	123	92	123	92	122	91	121	89		
		7	26	7.0	243	181	242	181	241	179	239	177		
		8	33	11.5	403	300	402	299	401	298	398	295		
		9	31	13.7	479	357	478	356	477	355	475	352		
		10	25	13.7	477	355	477	354	476	353	474	351		
		11	15	9.9	346	257	346	257	345	257	344	256		
		12	7	5.5	192	143	192	143	192	143	191	142		
		13	2	1.8	64	48	64	48	64	48	64	48		
			176	68.7	2400	1786	2393	1780	2386	1773	2372	1757		
			MEAN DIA. 8.5 INCHES. WEIBULL PARAMETERS A= .0, B= 8.99, C= 4.38											
30	81	3	1	.0	2	1								
		4	3	.3	10	8	10	8	10	8	10	8		
		5	7	1.0	37	29	37	29	37	29	37	29		
		6	11	2.2	84	65	84	65	84	65	84	64		
		7	17	4.5	177	137	177	137	177	137	176	137		
		8	22	7.7	298	231	298	231	298	231	298	231		
		9	25	11.0	429	332	429	332	429	332	429	331		
		10	26	14.2	550	424	550	424	550	424	550	425		
		11	22	14.5	563	435	563	435	563	435	564	435		
		12	15	11.8	457	353	457	353	457	353	457	353		
		13	9	8.3	322	248	322	248	322	248	322	248		
		14	4	4.3	165	128	165	128	165	128	166	128		
		15	1	1.2	47	37	47	37	47	37	47	37		
			163	80.9	3141	2428	3139	2427	3139	2427	3140	2427		
			MEAN DIA. 9.5 INCHES. WEIBULL PARAMETERS A= .0, B= 10.14, C= 4.27											

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
							2 inches		3 inches		4 inches	
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	-----	-----	Ft 3	-----	-----	-----	-----	-----
35	90	3	1	.0	3	1	8	5	8	5	8	5
		4	2	.2	8	5	23	19	23	19	23	19
		5	4	.6	23	19	58	47	58	47	58	47
		6	7	1.4	58	47	124	98	124	98	124	99
		7	11	3.0	124	98	124	98	124	98	124	99
		8	14	4.9	206	164	206	164	206	164	206	164
		9	18	8.0	336	268	336	268	336	268	335	267
		10	20	11.0	460	366	460	366	460	366	460	365
		11	22	14.6	613	487	613	487	613	487	612	486
		12	19	15.0	630	500	630	500	630	500	629	500
		13	15	13.9	584	463	584	463	584	463	583	464
		14	10	10.8	452	358	452	358	451	358	450	359
		15	6	7.4	310	246	310	246	310	246	310	247
		16	3	4.2	176	140	176	140	176	140	176	140
		17	1	1.6	66	53	66	53	66	53	66	53
		153	96.7	4049	3215	4046	3214	4045	3214	4040	3215	

MEAN DIA. 10.8 INCHES. WEIBULL PARAMETERS A= .0, B= 11.44, C= 4.04

40	97	3	1	.0	3	1	8	6	8	6	8	6
		4	2	.2	8	6	8	6	8	6	8	6
		5	3	.4	19	14	19	14	19	14	19	14
		6	5	1.0	44	36	44	36	44	36	44	35
		7	7	1.9	84	68	84	68	84	68	84	68
		8	9	3.2	141	114	141	114	140	114	139	113
		9	12	5.4	237	193	237	193	237	192	236	191
		10	14	7.7	342	276	342	276	341	276	340	276
		11	15	10.0	443	359	443	359	443	359	442	358
		12	16	12.7	562	456	562	456	561	456	560	455
		13	15	14.0	619	501	619	501	618	501	617	501
		14	14	15.2	670	543	670	543	670	543	669	543
		15	11	13.7	603	490	603	490	603	490	602	489
		16	8	11.3	500	405	500	405	500	405	499	404
		17	6	9.6	423	343	423	343	423	343	422	344
		18	3	5.4	237	193	237	193	237	193	237	192
		19	2	4.0	176	143	176	143	176	143	176	143
		20	1	2.2	98	79	98	79	98	79	97	79
		144	117.9	5209	4220	5206	4219	5202	4218	5191	4211	

MEAN DIA. 12.3 INCHES. WEIBULL PARAMETERS A= .0, B= 13.00, C= 3.79

SI 70

300 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4-inch class and greater to o.b. tops of—					
						2 inches		3 inches		4 inches	
Yrs	Ft	In	No.	Ft 2		O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
15	41	1	4	.0		0	0				
		2	15	.3		0	0				
		3	34	1.7		0	0				
		4	55	4.8	63	23		60	21	54	15
		5	66	9.0	182	105		178	102	169	95
		6	59	11.6	280	179		276	176	265	170
		7	40	10.7	283	190		280	188	272	183
		8	19	6.6	185	127		183	126	179	124
		9	7	3.1	90	63		89	63	87	62
		10	1	.5	17	11		17	11	16	11
			300	48.5	1100	698		1083	687	1042	660
					MEAN DIA. 5.4 INCHES. WEIBULL PARAMETERS A= .0. B= 5.75. C= 3.28						
20	57	1	1	.0		0	0				
		2	3	.1		0	0				
		3	11	.5		6	1				
		4	23	2.0	42	24		41	23	38	20
		5	39	5.3	135	89		133	87	128	82
		6	52	10.2	285	196		282	193	275	187
		7	56	14.9	442	309		439	306	431	300
		8	48	16.7	512	362		509	360	501	355
		9	30	13.2	414	296		412	295	407	291
		10	14	7.6	242	174		241	173	239	172
		11	4	2.6	84	61		84	61	83	61
		12	1	.8	25	19		25	19	25	19
			282	74.0	2187	1531		2166	1517	2127	1487
					MEAN DIA. 6.9 INCHES. WEIBULL PARAMETERS A= .0. B= 7.37. C= 3.92						
25	70	2	1	.0		1	1				
		3	5	.2		8	6				
		4	11	1.0	33	25		33	25	32	24
		5	21	2.9	100	74		99	73	98	72
		6	33	6.5	225	167		224	166	222	164
		7	42	11.2	390	289		389	288	386	285
		8	48	16.7	581	431		580	430	577	427
		9	41	18.1	628	466		627	465	625	463
		10	29	15.8	548	407		547	406	546	405
		11	16	10.6	366	272		366	272	365	271
		12	6	4.7	164	122		164	122	164	121
		13	2	1.8	64	47		64	47	64	47
			255	89.5	3108	2307		3093	2294	3079	2279
					MEAN DIA. 8.0 INCHES. WEIBULL PARAMETERS A= .0. B= 8.52. C= 4.08						
30	81	2	1	.0		1	1				
		3	3	.1		8	5				
		4	7	.6	24	18		24	18	24	18
		5	12	1.6	63	49		63	49	63	49
		6	20	3.9	153	117		153	117	152	117
		7	27	7.2	279	216		279	216	279	215
		8	34	11.9	460	355		460	355	460	354
		9	36	16.0	616	476		616	476	616	475
		10	34	18.6	719	554		719	554	719	554
		11	27	17.9	691	533		691	533	691	532
		12	17	13.4	517	399		517	399	518	398
		13	9	8.3	322	248		322	248	322	247
		14	4	4.3	166	128		166	128	166	127
		15	1	1.2	47	37		47	37	47	37
			232	105.2	4064	3136		4057	3130	4056	3127
					MEAN DIA. 9.1 INCHES. WEIBULL PARAMETERS A= .0. B= 9.69. C= 4.03						

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3							
35	90	2	1	.0	1	1						
		3	2	.1	4	3						
		4	4	.4	15	12	15	12	15	12	15	12
		5	7	1.0	40	32	40	32	40	32	40	32
		6	12	2.4	99	78	99	78	99	78	98	78
		7	17	4.6	190	150	190	150	190	150	190	150
		8	22	7.7	321	254	321	254	321	254	322	255
		9	26	11.6	480	381	480	381	480	381	481	381
		10	30	16.5	685	543	685	543	685	543	686	543
		11	27	17.9	746	592	746	592	746	592	747	592
		12	24	19.0	789	626	789	626	789	626	790	625
		13	18	16.7	695	551	695	551	695	551	695	551
		14	12	12.9	537	426	537	426	537	426	538	426
		15	7	8.6	360	285	360	285	360	285	360	285
		16	3	4.2	175	138	175	138	175	138	175	138
		17	1	1.6	66	53	66	53	66	53	66	53
		213	125.1	5203	4125	5198	4121	5198	4121	5203	4121	
MEAN DIA. 10.4 INCHES, WEIBULL PARAMETERS A= .0, B= 11.02, C= 3.86												
40	97	3	1	.0	3	1						
		4	3	.3	12	10	12	10	12	10	12	10
		5	5	.7	39	24	30	24	30	24	30	24
		6	8	1.6	69	57	69	57	69	57	69	57
		7	11	3.0	129	105	129	105	129	105	129	105
		8	14	4.9	216	174	216	174	216	174	216	174
		9	19	8.0	352	284	352	284	352	284	351	284
		10	20	11.0	481	389	481	389	481	389	481	389
		11	22	14.6	641	518	641	518	641	518	641	518
		12	23	18.1	797	644	797	644	797	644	798	644
		13	20	18.5	813	656	813	656	813	656	814	657
		14	17	18.3	801	648	801	648	801	648	802	648
		15	14	17.3	758	613	758	613	758	613	759	613
		16	10	14.0	616	498	616	498	616	498	616	498
		17	6	9.5	417	337	417	337	417	337	417	337
		18	4	7.1	311	252	311	252	311	252	311	252
		19	2	4.0	174	140	174	140	174	140	174	140
		20	1	2.2	97	78	97	78	97	78	97	78
		199	152.9	6717	5428	6714	5427	6714	5427	6717	5428	
MEAN DIA. 11.9 INCHES, WEIBULL PARAMETERS A= .0, B= 12.59, C= 3.64												

SI 70

400 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—					
							2 inches		3 inches		4 inches	
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2			Ft 3					
35	90	2	1	.0	1	1						
		3	3	.1	6	5						
		4	6	.5	22	17	22	17	22	17	21	17
		5	11	1.5	63	50	63	50	63	50	62	49
		6	17	3.4	140	110	140	110	140	110	139	109
		7	23	6.2	257	204	257	204	257	204	257	203
		8	30	10.6	438	347	438	347	438	347	438	346
		9	34	15.2	629	497	629	497	629	497	628	496
		10	37	20.4	844	668	844	668	844	668	844	667
		11	33	22.0	911	720	911	720	911	720	911	720
		12	27	21.4	886	702	886	702	886	702	888	701
		13	20	18.6	771	610	771	610	771	610	772	609
		14	13	14.0	581	460	581	460	581	460	582	459
		15	7	8.7	360	284	360	284	360	284	359	284
		16	3	4.2	175	138	175	138	175	138	175	138
		17	1	1.6	66	53	66	53	66	53	66	53
		266	148.4	6150	4866	6143	4860	6143	4860	6142	4851	
		MEAN DIA. 10.1 INCHES. WEIBULL PARAMETERS A= .0, B= 10.73, C= 3.73										
40	97	2	1	.0	1	1						
		3	2	.1	4	3						
		4	4	.4	16	13	16	13	16	13	16	13
		5	7	1.0	42	34	42	34	42	34	42	34
		6	10	2.0	86	69	86	69	86	69	86	69
		7	15	4.0	176	143	176	143	176	142	177	141
		8	19	6.7	293	236	293	236	293	236	292	235
		9	23	10.2	448	362	448	362	448	362	448	361
		10	26	14.3	625	504	625	504	625	504	624	503
		11	26	17.3	757	610	757	610	757	610	756	609
		12	26	20.6	901	726	901	726	901	726	900	725
		13	24	22.3	975	787	975	787	975	787	975	786
		14	20	21.5	942	760	942	760	942	760	942	759
		15	16	19.8	865	698	865	698	865	698	866	698
		16	11	15.5	677	547	677	547	677	547	678	546
		17	7	11.1	486	393	486	393	486	393	487	392
		18	4	7.1	311	251	311	251	311	251	311	252
		19	2	4.0	174	140	174	140	174	140	174	140
		20	1	2.2	97	78	97	78	97	78	97	78
		244	180.0	7876	6355	7871	6351	7871	6350	7871	6341	
		MEAN DIA. 11.6 INCHES. WEIBULL PARAMETERS A= .0, B= 12.33, C= 3.54										

SI 70

500 trees per acre

Age	Av. dom ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem	4-inch class and greater to o.b. tops of—										
						2 inches		3 inches		4 inches						
Yrs	Ft	In	No.	Ft 2	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.	O. b.	I. b.				
15	41	1	16	.1	0	0										
		2	47	1.0	0	0										
		3	84	4.1	19	0										
		4	107	9.3	156	78	151	74	139	63	115	43				
		5	103	14.1	315	194	309	189	294	178	266	157				
		6	76	14.9	380	250	375	246	361	237	336	219				
		7	43	11.5	314	213	310	211	301	205	283	194				
		8	18	6.3	179	124	177	123	172	120	163	115				
		9	5	2.2	64	46	64	46	62	45	60	43				
		10	1	.5	16	11	16	11	16	11	15	11				
					500	64.1	1443	916	1402	900	1345	859	1238	782		
					MEAN DIA. 4.8 INCHES, WEIBULL PARAMETERS A= .0, B= 5.08, C= 2.83											
20	57	1	2	.0	0	0										
		2	12	.3	0	0										
		3	30	1.5	20	7										
		4	55	4.8	107	65	104	62	96	54	80	40				
		5	79	10.8	265	190	280	185	268	175	245	154				
		6	92	18.0	518	358	512	353	498	341	470	318				
		7	83	22.1	666	469	660	465	647	454	621	434				
		8	59	20.6	636	453	632	450	622	443	603	429				
		9	32	14.1	446	320	444	318	438	315	427	307				
		10	12	6.5	209	151	208	150	206	149	201	146				
		11	3	2.0	64	46	64	46	63	46	62	45				
		12	1	.8	25	19	25	19	25	19	25	18				
					460	101.5	2976	2078	2929	2048	2863	1996	2734	1891		
					MEAN DIA. 6.4 INCHES, WEIBULL PARAMETERS A= .0, B= 6.74, C= 3.51											
25	70	1	1	.3	0	0										
		2	4	.1	3	2										
		3	13	.6	22	16										
		4	27	2.4	81	60	80	59	77	56	72	51				
		5	44	6.0	207	153	205	151	201	147	192	139				
		6	81	12.0	413	305	411	303	405	297	393	286				
		7	72	19.2	664	491	661	488	654	481	640	468				
		8	68	23.7	818	605	815	603	809	597	797	586				
		9	54	23.9	822	608	820	606	815	602	806	594				
		10	34	18.5	639	473	638	472	635	469	629	464				
		11	16	10.6	364	270	363	269	362	268	359	265				
		12	6	4.7	163	121	163	121	162	120	161	119				
		13	1	.9	32	23	32	23	32	23	32	23				
					401	122.6	4228	3127	4188	3095	4152	3060	4081	2995		
					MEAN DIA. 7.5 INCHES, WEIBULL PARAMETERS A= .0, B= 7.95, C= 3.74											
30	81	2	2	.0	1	1										
		3	7	.3	14	11										
		4	14	1.2	47	36	47	36	46	35	45	33				
		5	25	3.4	131	101	130	100	129	98	126	95				
		6	37	7.3	279	214	278	213	276	211	272	207				
		7	47	12.6	482	370	481	369	479	367	475	362				
		8	55	19.2	737	567	736	566	733	563	728	557				
		9	53	23.4	899	691	898	690	896	688	892	683				
		10	45	24.6	942	724	941	723	940	721	937	718				
		11	33	21.8	836	642	836	642	835	640	833	638				
		12	19	14.9	572	440	572	440	572	439	572	438				
		13	9	8.3	319	245	319	245	319	245	318	244				
		14	4	4.3	164	127	164	127	164	127	164	126				
		15	1	1.2	47	36	47	36	47	36	47	36				
					351	142.6	5470	4205	5449	4187	5436	4170	5409	4137		
					MEAN DIA. 8.6 INCHES, WEIBULL PARAMETERS A= .0, B= 9.16, C= 3.75											

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—						
					O. b.	I. b.	2 inches		3 inches		4 inches		
Yrs	Ft	In	No.	Ft 2	Ft 3								
35	90	2	1	.0	1	1							
		3	4	.2	9	7							
		4	8	.7	30	23	30	23	29	23	28	22	
		5	14	1.9	79	62	79	62	79	62	78	61	
		6	21	4.1	171	135	171	135	170	134	169	133	
		7	29	7.8	321	254	321	253	320	252	319	250	
		8	36	12.6	521	411	521	411	520	410	518	408	
		9	40	17.7	733	579	733	578	732	577	730	575	
		10	45	24.6	1018	804	1018	803	1017	802	1015	800	
		11	37	24.5	1013	800	1013	800	1012	799	1011	797	
		12	30	23.6	977	772	977	772	977	771	977	769	
		13	22	20.4	841	665	841	665	841	664	841	662	
		14	14	15.0	621	491	621	491	621	490	620	489	
		15	7	8.6	357	281	357	281	357	281	356	282	
		16	3	4.2	173	137	173	137	173	137	174	137	
		17	1	1.6	65	52	65	52	65	52	65	52	
			312	167.7	6930	5474	6920	5463	6913	5454	6901	5437	
			MEAN DIA. 9.9 INCHES. WEIBULL PARAMETERS A= .0, B= 10.53, C= 3.64										
40	97	2	1	.0	1	1							
		3	3	.1	7	6							
		4	5	.4	20	16	20	16	19	15	18	14	
		5	9	1.2	54	44	54	44	53	43	52	42	
		6	13	2.6	113	90	113	90	112	90	110	89	
		7	18	4.9	212	171	212	171	211	170	210	168	
		8	23	8.1	355	285	355	285	354	284	352	282	
		9	27	12.1	526	424	526	424	525	422	524	420	
		10	30	16.5	722	582	722	581	721	580	719	577	
		11	31	20.7	903	727	903	727	902	725	900	723	
		12	30	23.8	1040	838	1040	838	1039	836	1038	834	
		13	27	25.2	1098	886	1098	885	1098	884	1097	882	
		14	22	23.8	1038	836	1038	836	1038	835	1037	834	
		15	17	21.1	921	741	921	741	921	741	920	740	
		16	12	16.9	739	596	739	596	739	595	739	594	
		17	7	11.2	487	393	487	393	487	393	487	392	
		18	4	7.1	311	251	311	251	311	251	312	250	
		19	2	4.0	174	140	174	140	174	140	175	140	
		20	1	2.2	97	78	97	78	97	78	96	78	
			282	202.0	8818	7105	8810	7096	8801	7082	8786	7059	
			MEAN DIA. 11.5 INCHES. WEIBULL PARAMETERS A= .0, B= 12.14, C= 3.48										

SI 70

600 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—			
					O. b.	I. b.	O. b.	I. b.	O. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft 3					
15	41	1	26	.1	0	0				
		2	69	1.5	0	0				
		3	112	5.5	38	0				
		4	130	11.4	203	108	197	103	182	90
		5	117	16.0	368	232	361	226	345	213
		6	80	15.7	406	271	400	267	387	256
		7	43	11.5	316	217	312	214	304	208
		8	17	5.9	170	118	168	117	164	114
		9	5	2.2	65	46	64	46	63	44
		10	1	.5	16	11	16	11	16	11
			600	70.4	1582	1003	1518	984	1461	936
									1346	847
					MEAN DIA. 4.6 INCHES, WEIBULL PARAMETERS A= .0, B= 4.84, C= 2.67					
20	57	1	4	.0	0	0				
		2	17	.4	0	0				
		3	42	2.1	30	12				
		4	73	6.3	145	89	140	85	129	74
		5	99	13.4	360	242	354	236	338	222
		6	108	21.1	611	423	604	417	586	402
		7	93	24.7	748	527	741	522	725	510
		8	62	21.5	669	477	664	474	653	466
		9	32	14.1	445	319	443	317	437	314
		10	12	6.5	209	150	208	149	205	148
		11	3	2.0	64	46	64	46	63	46
		12	1	.8	26	19	26	19	26	19
			546	112.9	3307	2304	3244	2265	3162	2201
									3006	2073
					MEAN DIA. 6.2 INCHES, WEIBULL PARAMETERS A= .0, B= 6.52, C= 3.37					
25	70	1	1	.0	0	0				
		2	6	.1	4	3				
		3	18	.9	31	22				
		4	35	3.0	105	77	103	75	99	72
		5	56	7.6	261	193	258	191	252	185
		6	75	14.7	505	373	501	370	493	362
		7	84	22.4	770	569	766	565	756	557
		8	77	26.8	921	681	918	678	910	670
		9	58	25.5	878	649	876	647	870	641
		10	35	19.0	655	483	654	482	650	479
		11	16	10.5	362	268	361	267	360	266
		12	6	4.7	162	120	162	120	161	119
		13	1	.9	32	23	32	23	32	23
			468	136.3	4686	3461	4631	3418	4583	3374
									4489	3288
					MEAN DIA. 7.3 INCHES, WEIBULL PARAMETERS A= .0, B= 7.75, C= 3.62					
30	81	1	1	.0	0	0				
		2	3	.1	2	2				
		3	9	.4	17	13				
		4	18	1.6	60	47	59	46	58	44
		5	31	4.2	163	124	162	123	160	121
		6	44	8.7	332	254	331	253	327	249
		7	56	15.0	575	442	574	440	570	436
		8	63	22.1	845	650	843	648	840	643
		9	60	26.6	1019	782	1017	780	1014	777
		10	49	26.8	1027	789	1026	788	1024	784
		11	35	23.2	888	681	887	680	885	679
		12	20	15.8	604	463	604	463	603	462
		13	9	8.3	319	245	319	245	318	245
		14	3	3.2	123	95	123	95	123	95
		15	1	1.2	47	36	47	36	47	36
			402	157.4	6021	4623	5992	4597	5969	4571
									5923	4521
					MEAN DIA. 8.5 INCHES, WEIBULL PARAMETERS A= .0, B= 8.99, C= 3.66					

SI 70

700 trees per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4 -inch class and greater to o.b. tops of—									
					O. b.	I. b.	2 inches		3 inches		4 inches		O. b.	I. b.		
Yrs	Ft	In	No.	Ft 2	Ft 3											
15	41	1	39	.2	0	0										
		2	93	2.0	0	0										
		3	140	6.9	60	4										
		4	153	13.3	251	139	244	133	228	119	196	91				
		5	127	17.3	408	260	401	254	384	240	351	213				
		6	83	16.3	425	285	419	280	406	270	381	249				
		7	42	11.2	310	213	307	210	299	204	283	192				
		8	17	5.9	170	119	168	118	164	115	156	109				
		9	5	2.2	64	46	64	46	62	44	60	42				
		10	1	.5	16	12	16	12	16	12	15	11				
					700	76.0	1704	1078	1619	1053	1559	1004	1442	907		
					MEAN DIA. 4.5 INCHES. WEIBULL PARAMETERS A= .0, B= 4.63, C= 2.54											
20	57	1	6	.0	0	0										
		2	24	.5	0	0										
		3	55	2.7	41	18										
		4	91	7.9	184	115	178	109	164	96	137	70				
		5	119	16.1	438	294	430	287	411	270	373	237				
		6	122	23.8	694	482	685	475	664	458	624	424				
		7	101	26.9	815	575	807	569	789	556	754	529				
		8	65	22.6	704	502	699	498	686	489	662	472				
		9	32	14.1	446	321	443	319	437	315	424	307				
		10	11	6.0	191	138	190	137	188	136	184	133				
		11	3	2.0	64	46	64	46	63	46	62	45				
		12	1	.8	26	19	26	19	26	19	25	18				
					630	123.3	3603	2510	3522	2459	3428	2385	3245	2235		
					MEAN DIA. 6.0 INCHES. WEIBULL PARAMETERS A= .0, B= 6.33, C= 3.26											
25	70	1	2	.0	0	0										
		2	9	.2	7	5										
		3	23	1.1	39	28										
		4	44	3.9	132	98	130	96	124	90	113	79				
		5	68	9.3	320	235	316	231	307	223	289	207				
		6	88	17.3	595	440	590	436	579	425	557	404				
		7	95	25.5	874	646	869	641	858	630	835	609				
		8	84	29.4	1010	746	1006	742	995	733	975	715				
		9	61	27.0	928	685	925	682	918	676	904	664				
		10	35	19.2	658	485	656	484	652	480	644	474				
		11	16	10.6	364	269	363	268	361	267	358	264				
		12	5	3.9	135	100	135	100	134	100	133	99				
		13	1	.9	32	23	32	23	32	23	32	23				
					531	148.4	5094	3760	5022	3703	4960	3647	4840	3538		
					MEAN DIA. 7.2 INCHES. WEIBULL PARAMETERS A= .0, B= 7.59, C= 3.53											

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	All trees, total stem		4-inch class and greater to o.b. tops of—						
					O. b.	I. b.	2 inches		3 inches		4 inches		
Yrs	Ft	In	No.	Ft 2	Ft 3								
30	81	1	1	.0	0	0							
		2	4	.1	3	2							
		3	11	.5	20	16							
		4	22	1.9	74	56	73	55	71	53	66	48	
		5	36	4.9	189	145	187	143	184	140	176	132	
		6	52	10.3	391	301	389	299	384	294	375	284	
		7	64	17.2	656	504	654	502	648	496	638	484	
		8	71	24.9	951	730	949	727	943	721	932	709	
		9	65	28.8	1101	845	1099	843	1094	838	1085	828	
		10	53	29.0	1109	851	1107	849	1104	845	1097	837	
		11	36	23.9	911	699	910	698	908	696	904	691	
		12	20	15.8	603	462	603	462	601	460	599	458	
		13	9	8.3	318	244	318	244	318	244	317	243	
		14	3	3.2	123	95	123	95	123	95	122	94	
		15	1	1.2	47	36	47	36	47	36	47	37	
			448	170.1	6496	4986	6459	4953	6425	4918	6358	4845	
			MEAN DIA. 8.3 INCHES. WEIBULL PARAMETERS A= .0, B= 8.85, C= 3.59										
35	90	2	2	.0	1	1							
		3	6	.3	12	9							
		4	12	1.0	43	34	42	34	41	33	39	31	
		5	20	2.7	113	89	112	88	110	86	107	83	
		6	29	5.7	235	185	234	184	232	182	227	178	
		7	39	10.4	431	340	430	339	426	335	420	328	
		8	46	16.1	663	522	662	520	659	517	653	510	
		9	51	22.6	930	733	929	731	925	728	919	720	
		10	50	27.3	1125	888	1124	887	1121	883	1116	876	
		11	44	29.1	1197	945	1196	944	1194	941	1191	936	
		12	35	27.5	1134	894	1133	893	1132	891	1129	888	
		13	24	22.2	912	720	912	719	911	718	909	715	
		14	15	16.1	662	522	662	522	661	521	660	519	
		15	8	9.8	405	319	405	319	405	319	404	318	
		16	3	4.2	172	136	172	136	172	136	173	136	
		17	1	1.6	65	52	65	52	65	52	65	51	
			385	196.7	8100	6389	8078	6368	8054	6342	8012	6289	
			MEAN DIA. 9.7 INCHES. WEIBULL PARAMETERS A= .0, B= 10.26, C= 3.53										
40	97	2	1	.0	1	1							
		3	4	.2	9	7							
		4	7	.6	27	21	26	21	25	20	23	18	
		5	11	1.5	66	53	65	52	64	51	61	48	
		6	17	3.4	147	118	146	117	144	115	140	113	
		7	23	6.2	269	217	268	216	265	213	260	207	
		8	29	10.2	442	357	441	356	438	352	432	345	
		9	33	14.7	638	513	636	512	633	508	626	501	
		10	36	19.8	859	691	858	689	854	686	848	678	
		11	38	25.2	1098	883	1096	881	1093	877	1085	869	
		12	35	27.7	1203	968	1202	966	1199	963	1193	956	
		13	31	28.7	1251	1006	1250	1005	1248	1002	1243	997	
		14	25	26.9	1169	942	1169	941	1167	939	1165	934	
		15	19	23.5	1020	821	1020	820	1019	819	1017	816	
		16	13	18.3	794	639	794	639	794	638	793	636	
		17	8	12.7	551	443	551	443	551	443	550	443	
		18	4	7.1	309	249	309	249	309	249	309	249	
		19	2	4.0	173	139	173	139	173	139	172	138	
		20	1	2.2	96	77	96	77	96	77	95	77	
			337	232.7	10122	8145	10100	8123	10072	8091	10012	8022	
			MEAN DIA. 11.3 INCHES. WEIBULL PARAMETERS A= .0, B= 11.91, C= 3.40										