

Yield Tables and Stand Structure
For SHORTLEAF PINE Plantations
In Tennessee, Alabama, and
Georgia Highlands

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Southern Forest Experiment Station
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More than 60,000 acres of abandoned fields have been planted with shortleaf pine (*Pinus echinata* Mill.) in the four highland regions (fig. 1) of Tennessee, Alabama, and Georgia. To assist foresters and landowners in making decisions about when to harvest these plantations we present tables showing expected cubic-foot yields, basal area, average height, and number of stems per acre by 1-inch diameter classes for all combinations of:

Planting density-750 to 2,000 trees per
acre in increments of
250

Site index (base age 25) -30 to 60 feet in
steps of 10

Age from seed-10 to 40 years, by intervals
of 5.

Methods of collecting the data and constructing the tables are discussed in the sections immediately following. The tables were derived through a system of equations to predict number of surviving stems per acre, diameter distributions, site index (Smalley and Bower 1971), tree heights, and volume per tree (Smalley and Bower 1968).

Readers interested only in the tables and a discussion of growth trends should turn directly to the section on Stand and Stock Tables, p. 7. Tables for combinations of variables not depicted or for combinations of surviving trees per acre, site, and age can be obtained from the Southern Forest Experiment Station, Biometrics Branch, T-10210 Federal Building, 701

Loyola Avenue, New Orleans, Louisiana 70113. Users with computer facilities may wish to acquire the programs, which are written in F O R T R A N .

A similar publication is available for loblolly pine (Smalley and Bailey 1974).

PLANTATION MEASUREMENTS

Diameter, height, and age data were recorded in 104 shortleaf plantations, approximately one-half of which occurred in the Ridge and Valley region. The remainder were distributed almost evenly in the other three regions.

All plantations sampled were at least 10 years old from seed and had not been thinned, burned, or pruned. Survival and tree distribution were judged reasonably good, and no reinforcement planting had been done. The plantations bore no evidence of severe damage by insects or disease. Most of the stands contained some competing vegetation, but quantity of competition was not a criterion except as it influenced pine survival and distribution.

One plot, usually 0.05 acre in size, was established in each plantation. The diameter at breast height (D_1) of each tree on the plot was measured to the nearest 0.1 inch. The total height of every fourth tree in each 1-inch diameter class was measured to the nearest foot. Average total height of dominants and codominants (H) was calculated for each plot. Age from seed (A) was determined by counting annual rings at ground level on a felled tree. Mortality was estimated from the presence of standing dead trees, rotten stumps, fallen trees, and obvious gaps in the planting rows. This estimate was added to the count of live trees to obtain the number of planted trees.

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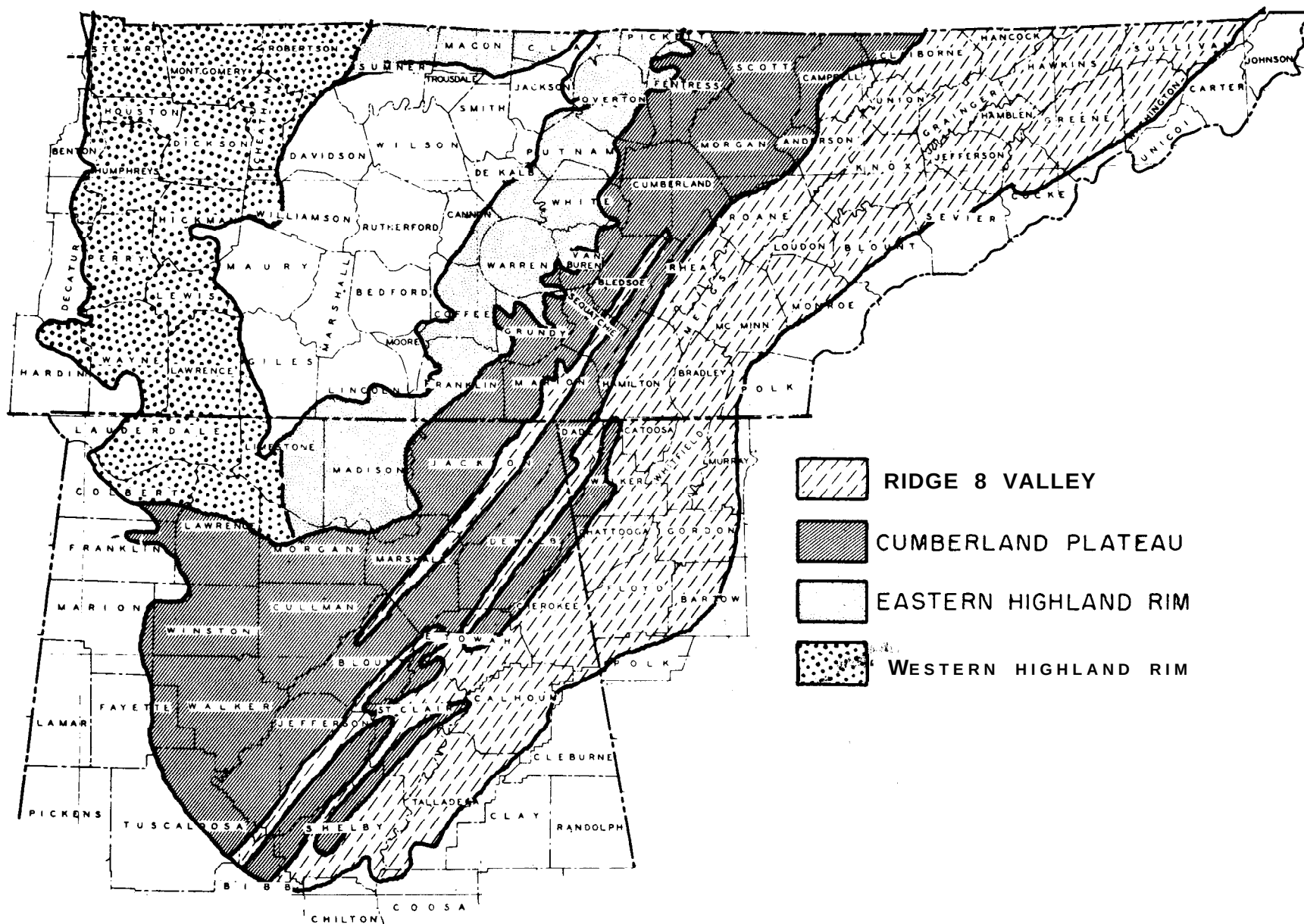


Figure 1.-Highland regions of middle Tennessee, northern Alabama, and northwestern Georgia.

Data from the 104 plots were used to screen, fit, and evaluate mathematical models to estimate survival, heights of individual trees (H_i), and relative diameter distributions as functions of age, number of trees planted per acre (T_p), number of trees surviving per acre (T_s), diameter class midpoints, the midpoint of the largest diameter class with nonzero predicted frequency per acre (DMAX), and site index at base

age 25 years (**S**). No attempt was made to develop separate predictors for each physiographic region, as prior experience (Smalley and Bower 1968, 1971) had indicated that there was little chance of regression coefficients being significantly different.

The distribution of sample plots by site index, age, and planting density is shown in table 1. Ages ranged from 11 to 35 years, average heights

Table L-Distribution of *shortleaf* plantations by age, site index, and planting density

Planting density (trees per acre)	Age from seed						Total
	10-14	15-19	20-24	25-29	30-34	35-39	
----- Number of plots -----							
<500					1		1
501-1000	8	1	2	15	1	1	28
1001-1500	9	2	11	28	8	1	59
1501-2000	2	2	1	3		1	9
2001-2500	1						1
2501-3000	1	1					2
>3000		4					4
Total	21	10	14	46	10	3	104

Age from seed (years)	Site index								Total
	25	30	35	40	45	50	55	60	
----- Number of plots -----									
10-14				2	8	7	4		21
15-19				4	3	2	1		10
20-24	1		1	1	4	6	1		14
25-29		1	1	8	12	15	8	1	46
30-34					5	2	2	1	10
35-39				2		1			3
Total	1	1	2	17	32	33	16	2	104

Planting density (trees per acre)	Site index								Total
	25	30	35	40	45	50	55	60	
----- Number of plots -----									
<500							1		1
501-1000		1		6	4	10	7		28
1001-1500			1	7	22	19	8	2	59
1501-2000	1		1	1	2	4			9
2001-2500					1				1
2501-3000				1	1				2
>3000				2	2				4
Total	1	1	2	17	32	33	16	2	104

of dominant and codominants from 20 to 66 feet, site indexes from 26 to 58, number of trees planted from 400 to 4,500 per acre, and number of surviving trees from 320 to 3,400. A chi-square test showed no relationship between age and site index (all statistical tests were at the 0.05 level).

Height-on-diameter regressions were fitted for each plot with a $\log H_i$ on D_i^{-1} relationship. On 65 percent of the plots $r^2 > 0.70$. These regressions and the tree-volume regressions of Smalley and Bower (1968) gave equations for tree volumes as functions of diameter only. Plot volumes were computed with these equations.

MODEL DEVELOPMENT AND EVALUATION

Survival

The basic structure chosen for a survival model was:

$$\log (T_p/T_s) = Af(A, H, T_p).$$

Merits of this particular form are that when $A = 0$, $\log (T_p/T_s) = 0$. Thus $T_p = T_s$ and the equation predicts 100-percent survival. For any value of the right-hand side a nonnegative (T_p/T_s) ratio results.

The function, $f(A, H, T_p)$, was defined by screening linear, nonlinear, and interaction transformations of A , H , T_p with REX (Grosenbaugh 1967). Graphical evaluation (for example, see fig. 2) was the final step in screening. The model chosen was:

$$\begin{aligned} \log (T_p/T_s) = A \{ & 0.0100 \log (T_p) \\ & + 0.0008 H \\ & - 0.0091 \sqrt{H} \} \end{aligned} \quad (1)$$

$$R^2 = 0.86; S^2_{y,x} = 0.0040; \bar{Y} = 0.1424;$$

$$S^2_y = 0.0075$$

There were no discernible trends in residuals.

Number of surviving trees was calculated for each plot by solving for T_s . Fifty-nine percent of the estimates were within ± 10 percent of the observed values, and the algebraic average error of -1.02 percent corresponded to a difference of 10 trees per acre for the stand of mean stocking.

Diameter Distributions

The three-parameter Weibull function (Bailey 1972, Bailey and Dell 1973) was used to model diameter distributions. Regressions were fitted to predict the maximum-likelihood estimates of

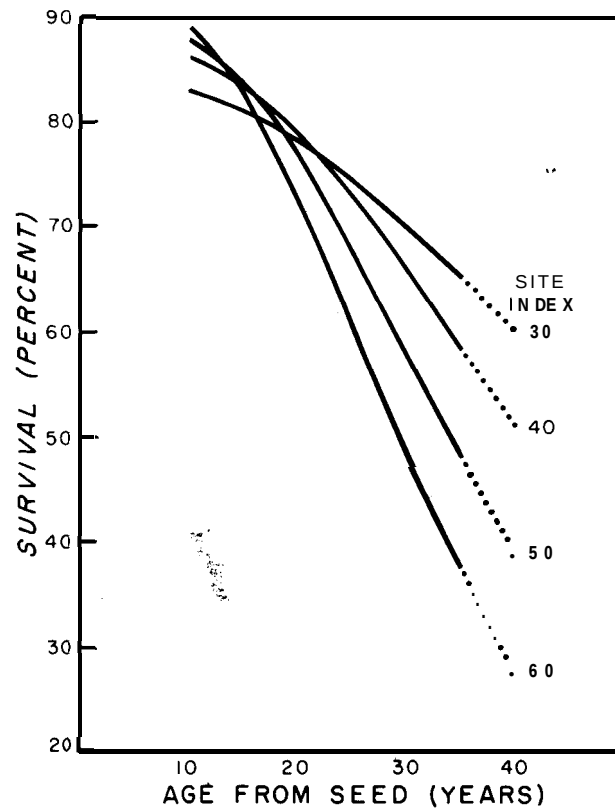


Figure Z.-Survival.

Weibull parameters from stand variables A , H , and T_s :

$$\begin{aligned} \text{Location parameter} \\ a = -1.9492 + 0.0757 H, \quad (2) \\ R^2 = 0.33, S^2_{y,x} = 1.5425, \bar{Y} = 1.3010, \\ S^2_y = 2.2780; \end{aligned}$$

$$\begin{aligned} \text{Scale parameter} \\ a + b = -5.2352 - 0.0003 T_s + 6.2046 \\ \log(H) + 1,195.4687/T_s, \quad (3) \\ R^2 = 0.88, S^2_{y,x} = 0.2198, \bar{Y} = 5.9785, \\ S^2_y = 1.8343; \end{aligned}$$

$$\begin{aligned} \text{Shape parameter} \\ c = 6.0560 - 0.0391 H - 0.0006 T_s, \quad (4) \\ R^2 = 0.11, S^2_{y,x} = 1.3620, \bar{Y} = 3.7564, \\ S^2_y = 1.5089. \end{aligned}$$

Equation 2 will predict negative values for a if $H < 26$ feet. When this situation occurs a should be made zero.

These three equations were used for predicting Weibull parameters. Stand tables were obtained from the resulting relative distributions and projected numbers of surviving stems per acre.

Evaluations against observed distributions indicated very good fits. There were 56 negative and 48 positive differences between predicted and observed mean diameters. Of these, 80 percent were within ± 0.5 inch, and the average difference was 0.001 inch. For 86 percent of the plots the observed and predicted distributions were not significantly different by the Kolmogorov-Smirnov test (Massey 1951).

Heights

From total height and diameter pairs and concomitant stand data, an equation was developed to predict total height of individual trees. The general model was:

$$\log(H/H_i) = b_0 + (1/D_i - 1/D_{MAX}) \\ g(A, H, T_s).$$

Its characteristics are discussed by Lenhart (1968).

The form of the function $g(A, H, T_s)$ and parameter estimates were obtained through the screening process described previously.

$$\log(H/H_i) = -0.0207 + (1/D_i - 1/D_{MAX}) \\ \{ 1.9022 - 0.3861 A T_s (10^{-6}) \\ + 0.0016 (T_s/A) \\ - 0.8970 \log(T_s/A) \\ + 0.9578 \log(H/A) \} \quad (5) \\ R^2 = 0.81, S^2_{y \cdot x} = 0.0012, Y = 0.0423, \\ S^2_{\epsilon} = 0.0060$$

Predicted Yields

Equations 2 through 5 and those for tree volume (Smalley and Bower 1968) made possible a

yield prediction system in which age, average dominant height, and number of surviving trees were the variables.

Number of trees and average heights by diameter classes were used to calculate volumes by classes, which were then summed for expected yields per acre. When evaluated against observed yields on the 104 plots, this system explained 85 percent of the variation about mean volume for all categories (table 2). Approximately one-fourth of the predicted values were within ± 10 percent of the observed and two-thirds were within ± 25 percent. Prediction seemed to be better for outside-bark volumes. Precision improved as top diameter decreased. Average differences between predicted, and observed yields ranged from -60 to 7 cubic feet and were almost equally divided between positive and negative. The mean difference across all categories was -1 percent of the average observed. A two-tailed t-test for average difference (tabular value 1.98) was not significant for any category.

Simple correlation coefficients between residuals and observations were not significant for any volume category (table 3). Lowest correlations were with site index and averaged -0.03. Correlations were lower for merchantable than for total volumes and those for inside-bark were lower than for outside-bark categories.

Comparisons

The average error of -1 percent in this study compares favorably with that in other tests of diameter-distribution systems for predicting yield. For old-field loblolly (*P. taeda* L.) planta-

Table 2.—Evaluation of predicted per-acre yields of all trees with d.b.h. > 4.5 inches

Volume category	R ²	Predicted values in relation to observed			Predicted minus observed		T-value for test of zero percent difference
		±10 percent	±25 percent	±500 ft ³	Negative	Positive	
		----- <i>Percent</i> -----			----- <i>Number</i> -----		
Total							
Outside bark	0.85	27	66	54	50	54	1.08
Inside bark	.85	27	64	67	51	53	1.12
To 2-inch top							
Outside bark	.85	27	66	55	50	54	1.08
Inside bark	.85	26	62	67	51	53	1.12
To 3-inch top							
Outside bark	.85	26	65	57	49	55	1.10
Inside bark	.85	24	61	67	52	52	1.14
To 4-inch top							
Outside bark	.85	25	62	59	52	52	1.12
Inside bark	.85	26	65	69	52	52	1.18

Table 3.—*Correlation coefficients between residuals (predicted minus observed per-acre yield) and stand characteristics. Data are for all trees with d.b.h. >4.5 inches*

Volume category	Correlation ¹ with			
	Age	Site index	Surviving stems per acre	Average dominant height
Total				
Outside bark	— 0.20	— 0.04	0.20	— 0.20
Inside bark	— .19	— .03	.18	— .19
To 2-inch top				
Outside bark	— .20	— .04	.20	— .20
Inside bark	— .19	— .03	.18	— .19
To 3-inch top				
Outside bark	— .20	— .04	.19	— .19
Inside bark	— .18	— .03	.17	— .18
To 4-inch top				
Outside bark	— .18	— .03	.17	— .18
Inside bark	— .17	— .03	.15	— .16

¹ Critical value at 0.05 level with 100 degrees of freedom is 0.24.

tions, predicted yields exceeded observed yields by 4-6 percent in three studies (Smalley and Bailey 1974, Lenhart and Clutter 1971, Lenhart 1972). Burkhart (1971) reported an average under-prediction of 1 percent for slash pine (*P. elliottii* Engelm.) plantations in south Georgia and north Florida. For natural stands of yellow-poplar (*Liriodendron tulipifera* L.) in the southern Appalachians, the average over-prediction was 0.5 percent (Beck and Della-Bianca 1970).

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STAND AND STOCK TABLES

The tables that follow are believed to be representative of the natural development of undisturbed shortleaf pine plantations on abandoned fields throughout the Interior Highlands of Tennessee, Alabama, and Georgia. To enhance their utility, the tables have been extended 5 years beyond the oldest sampled stands. We recognize that extrapolation is risky, but all relationships appear biologically valid. Some trends are worthy of comment. For conciseness, graphical examples in figures 2-8 are limited to a planting density of 1,250 trees per acre, or about a 6- by 6-foot spacing. Where discussions relate to changes in planting density, trends can be verified from the tables.

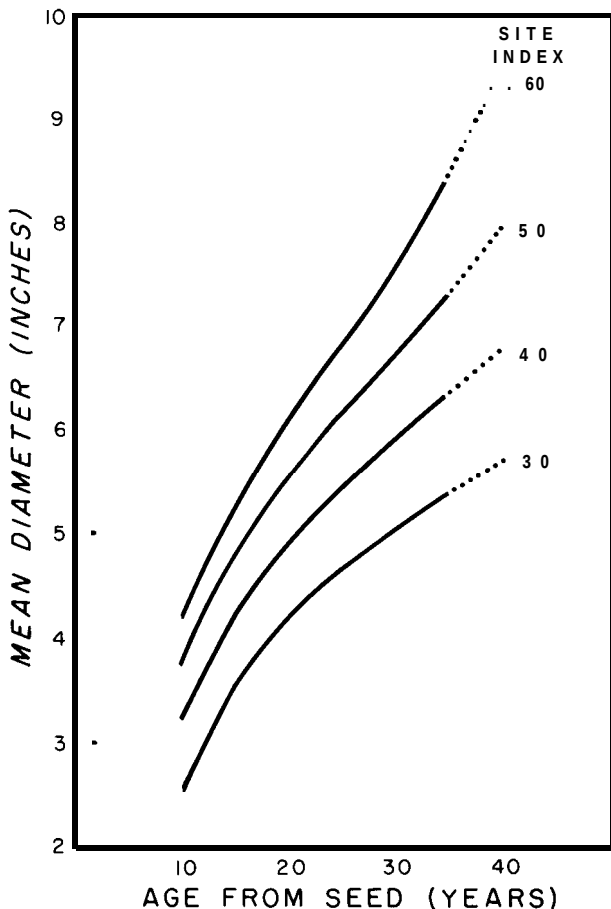


Figure 3.--Quadratic mean diameter.

Survival.—On all sites survival percentage decreased as planting density and age increased. With an increase in site, however, survival was slightly better at early ages and worse at older ages—a consequence of intensified competition on better sites as age increased.

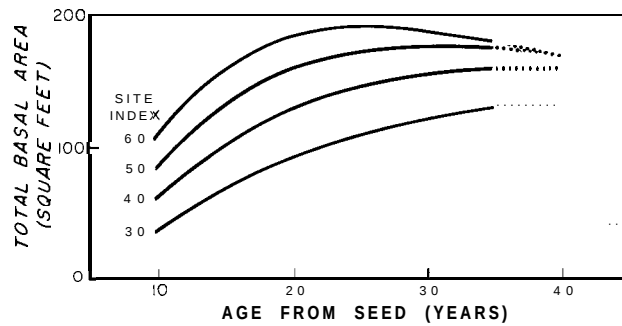


Figure 4.—Total basal area per acre.

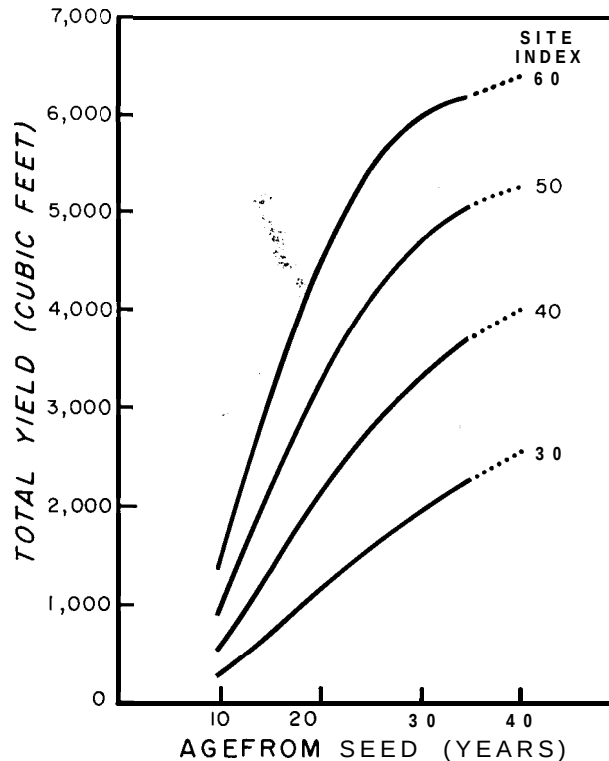


Figure 5.—Total yield per acre of entire stem (outside bark) of all trees.

Quadratic mean diameter.—As planting densities increased, mean diameter declined for all ages and sites, but improvement in site always caused diameter increases. For all sites and densities, diameter growth was essentially linear past age 20.

Basal area.—Total basal area (trees of all sizes) for sites 50 and 60 culminated before age 40 for all planting densities. On site 40, culmination was at densities greater than 1,250 trees per acre. On poor sites culmination will probably occur at about age 50.

Yields.—Total and merchantable cubic-foot yields increased with site and planting density,

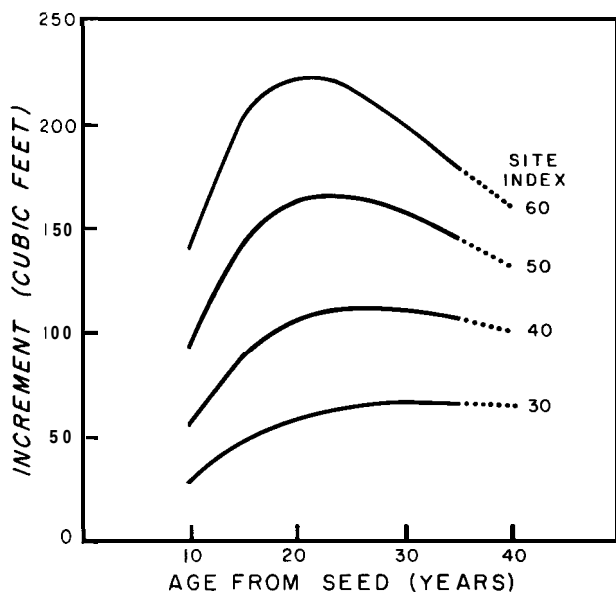


Figure 6.—Mean annual increment in total yield per acre.

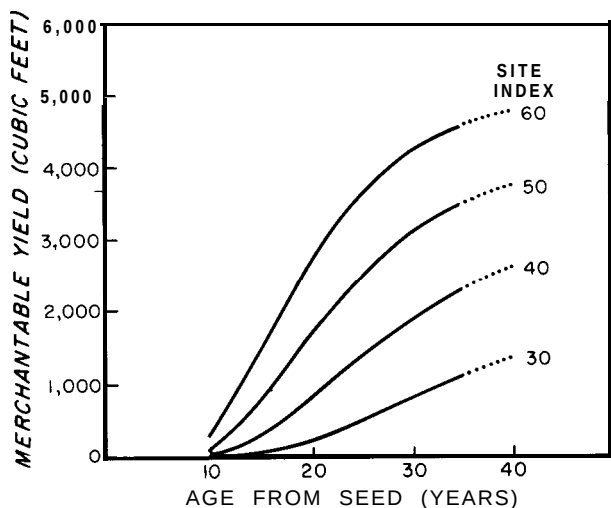


Figure 7.—Merchantable yield (inside bark) per acre to a 4-inch top (outside bark) in stems with > 4.5 inches.

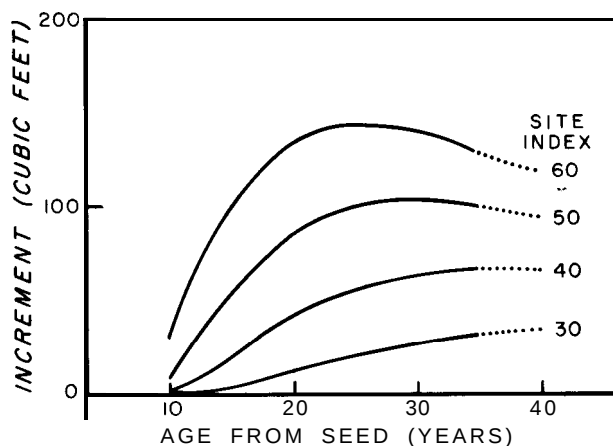


Figure 8.—Mean annual increment in merchantable yield per acre.

but the effect of density was small on poor sites. Yield increased with age for all planting densities on sites 30, 40, and 50. For a planting density of 2,000 trees per acre on site 60, yield culminated at about age 35. In effect, the loss of volume from mortality began to exceed both total and merchantable growth on the remaining trees.

Mean annual increment.—For total volume, mean annual increment culminated for all sites and planting densities. Age at culmination decreased from 30 years on poor sites to about 20 years on the best sites, regardless of planting density. Increment at culmination increased with planting density up to 2,000 trees per acre on all sites.

Merchantable-volume increment culminated on sites 40, 50, and 60 at all planting densities. However, the culmination occurred at older ages than for total-volume, e.g., age 35 to 40 for site 40 and age 25 for site 60.

STAND AND STOCK TABLES

SI 30

750 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—								
								2 inches			3 inches			4 inches		
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.			
Yrs	Ft	In	No.	Ft	2	Ft	-	-	-	-	-	-	-	-	-	-
10	14	1	9	.0	5	0	0									
		2	103	2.2	10	15	9									
		3	313	15.4	12	105	70									
		4	215	18.8	13	132	91									
		5	15	2.0	14	15	11	13	6	10	4	3	0			
		655		38.5	267		181	13	6	10	4	3	0			
		MEAN DIA. 3.3 INCHES, WEIBULL PARAMETERS A= .0, E= 3.47, C= 5.12														
15	20	1	3	.0	6	0	0									
		2	33	.7	12	6	3									
		3	129	6.3	16	56	38									
		4	245	21.4	18	205	143									
		5	197	26.9	19	267	189	236	135	197	105	108	39			
		6	46	9.0	20	94	67	87	56	77	49	56	34			
		7	2	.5	21	6	4	5	4	5	3	4	3			
		655		64.9	634		444	330	195	279	157	168	76			
		MEAN DIA. 4.3 INCHES, WEIBULL PARAMETERS A= .0, E= 4.51, C= 4.67														
		20	26	1	2	.0	6	0	0							
2	20			.4	14	4	2									
3	76			3.7	19	39	27									
4	169			14.7	21	164	115									
5	213			29.0	23	348	247	316	193	272	160	176	89			
6	134			26.3	25	340	242	318	216	292	196	231	152			
7	32			8.6	26	111	62	109	78	103	73	88	62			
8	2			.7	26	9	7	9	7	9	6	8	6			
648				83.5	1018		722	752	494	676	435	503	309			
MEAN DIA. 4.9 INCHES, WEIBULL PARAMETERS A= .0, E= 5.16, C= 4.66																
25	30	1	1	.8	6	0	0									
		2	11	.2	16	2	2									
		3	49	2.4	21	27	19									
		4	123	10.7	24	136	95									
		5	191	26.0	26	352	250	323	204	284	175	197	111			
		6	172	33.8	28	488	348	459	318	425	293	349	235			
		7	74	19.8	29	295	211	281	203	267	193	235	168			
		8	12	4.2	30	64	46	62	46	60	44	55	40			
		9	1	.4	31	7	5	7	5	7	5	6	5			
		634		97.6	1371		976	1132	776	1043	710	842	559			
MEAN DIA. 5.3 INCHES, WEIBULL PARAMETERS A= .3, E= 5.30, C= 4.50																

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	5-inch class and greater to o.b. tops of—								
						All trees, total stem		2 inches		3 inches		4 inches		
								0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3								
30	34	2	6	.1	17	1	1							
		3	33	1.6	23	20	14							
		4	92	6.0	27	114	60							
		5	162	22.1	29	332	236	307	199	274	175	201	121	
		6	179	35.1	31	561	401	531	373	496	347	416	287	
		7	106	28.9	33	489	350	469	343	449	326	401	292	
		8	30	10.5	34	182	131	176	131	171	126	158	118	
		9	3	1.3	35	24	17	23	17	23	17	21	16	
		10	613	107.7		1723	1230	1506	1063	1413	995	1197	834	
		MEAN DIA. 5.7 INCHES, WEIBULL PARAMETERS A= .6, B= 4.41, C= 4.37												
35	37	2	3	.1	17	1	0							
		3	22	1.1	24	14	10							
		4	69	6.0	26	66	62							
		5	133	16.1	31	291	207	270	178	243	158	163	114	
		6	169	33.2	33	564	403	535	376	502	354	427	296	
		7	129	34.5	35	619	443	594	437	571	419	515	377	
		8	52	16.2	36	335	240	323	240	315	236	292	219	
		9	9	4.0	37	75	54	73	54	72	54	69	52	
		10	1	.5	38	11	8	10	6	10	8	10	6	
		11												
		12												
		13												
		14												
		15												
		MEAN DIA. 6.0 INCHES, WEIBULL PARAMTERS A= .8, B= 5.50, C= 4.26												
40	40	2	2	.0	18	0	0							
		3	15	.7	25	10	7							
		4	51	4.5	30	70	49							
		5	107	14.6	33	249	177	232	155	211	139	162	103	
		6	152	29.6	36	552	395	526	376	497	355	430	304	
		7	137	36.6	36	713	511	666	508	662	490	602	444	
		8	72	25.1	39	502	360	466	360	474	357	443	334	
		9	19	0.4	40	172	123	167	123	164	123	156	119	
		10	2	1.1	41	23	16	22	16	22	16	21	16	
		11												
		12												
		13												
		14												
		15												
		MEAN DIA. 6.3 INCHES, WEIBULL PARAMETERS A= 1.1, E= 5.61, C= 4.17												

SI 30

1,000 stems per acre

Age	Av. dom. ht.	D. b.	Stems n. per acre	Basal area	Av. ht.	All trees, total stem		B-inch class and greater to o.b. tops of—							
								2 inches		3 inches		4 inches			
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.		
Yrs	Ft	In	No.	Ft ²	Ft	Ft ³									
10	14	1	26	.1	6	1	1								
		2	256	5.6	11	40	25								
		3	470	23.1	13	169	114								
		4	96	a.4	14	63	44								
			848	37.2		273	164	0	0	0	0	0	0	0	0
KAN DIA. 2.8 INCHES, WEIBULL PARAMETERS A= .0, B= 3.00, C= 5.01															
15	20	1	7	.0	7	0	0								
		2	72	1.6	14	14	9								
		3	246	12.1	17	113	77								
		4	347	30.3	19	305	214								
		5	152	20.7	20	216	153	194	113	163	89	94	38		
		6	12	2.4	21	26	18	24	16	21	14	16	10		
		836	67.0		674	471	218	129	184	103	110	48			
KAN DIA. 3.8 INCHES, WEIBULL PARAMETERS A= .0, B= 4.06, C= 4.76															
20	26	1	4	.0	7	0	0								
		2	39	.9	16	8	5								
		3	140	6.9	20	75	52								
		4	267	23.3	23	282	199								
		5	256	34.9	24	436	309	397	245	345	207	229	121		
		6	99	19.4	25	251	179	235	160	215	145	171	112		
		7	11	2.9	26	39	28	37	27	35	25	30	21		
		816	e.a.3		1091	772	669	432	595	377	430	254			
MEAN DIA. 4.5 INCHES, WEIBULL PARAMETERS A= .0, B= 4.73, C= 4.56															
25	30	1	1	.0	8	0	0								
		2	20	.4	17	4	3								
		3	87	4.3	22	51	35								
		4	200	17.5	25	229	162								
		5	262	35.7	27	500	356	461	294	407	255	289	167		
		6	170	33.4	29	499	356	471	327	437	303	361	246		
		7	44	11.8	30	181	130	173	126	165	119	146	105		
		8	3	1.0	31	17	12	16	12	16	12	14	11		
		787	104.1		1481	1054	1121	759	1025	689	810				
KAN DIA. 4.9 INCHES, WEIBULL PARAMETERS A= .3, B= 4.89, C= 4.41															

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—						
								2 inches		3 inches		4 inches		
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3								
30	34	2	11	.2	18	3	2							
		3	57	2.8	24	36	25							
		4	148	12.9	27	183	129							
		5	231	31.5	30	469	348	454	297	407	263	303	185	
		6	202	39.7	32	653	467	619	437	580	408	490	340	
		7	86	23.0	33	389	279	373	273	357	261	320	233	
		8	14	4.9	34	85	61	82	61	80	60	74	55	
		9	1	.4	35	8	6	8	6	8	6	7	5	
				750	115.4		1846	1317	1536	1074	1432	998	1194	818
		KAN CIA. 5.3 INCHES, WEIBULL PARAMETERS A= .6, E= 5.01, C= 4.29												
35	37	2	6	.1	19	1	1							
		3	38	1.9	26	26	16							
		4	110	9.6	30	151	106							
		5	193	26.3	33	449	320	419	280	380	251	293	186	
		6	206	40.4	35	728	520	692	494	653	464	562	396	
		7	120	32.1	36	592	424	569	419	547	403	495	363	
		8	32	11.2	37	212	152	205	152	199	150	186	139	
		9	3	1.3	38	26	18	25	18	25	18	23	18	
				708	122.9		2185	1559	1910	1363	1804	1286	1559	1102
		MEAN DIA. 5.6 INCHES, WEIBULL PARAMETERS A= .8, E= 5.12, C= 4.19												
40	40	2	3	.1	19	1	0							
		3	25	1.2	26	17	12							
		4	80	7.0	31	113	80							
		5	156	21.3	34	374	266	349	235	316	211	248	159	
		6	193	37.9	36	701	501	668	478	631	450	545	386	
		7	141	37.7	38	734	526	706	523	681	504	620	457	
		8	54	18.8	39	376	270	364	270	355	266	333	250	
		9	9	4.0	40	81	56	79	58	76	58	74	56	
		10	1	.5	41	11	8	11	8	11	8	11	8	
				662	128.5		2408	1721	2177	1572	2074	1499	1831	1316
MEAN DIA. 6.0 INCHES, WEIBULL PARAMETERS A= 1.1, E= 5.24, C= 4.11														

SI 30

1.250 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—							
								2 inches		3 inches		4 inches			
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.		
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3									
10	14	1	59	.3	7	3	1								
		2	466	10.2	11	74	45								
		3	464	23.6	13	174	117								
		4	26	2.3	14	17	12								
		1037		36.6	266	175	0	0	0	0	0	0			
		KAN DIA. 2.5 INCHES, WEIBULL PARAMTWS A= .0, B= 2.66, C= 4.69													
15	20	1	14	.1	6	1	0								
		2	126	2.7	14	24	15								
		3	376	18.5	17	173	116								
		4	393	34.3	19	346	242								
		5	99	13.5	20	141	100	127	73	106	56	61	25		
		6	3	.6	21	6	5	6	4	5	3	4	2		
1011		69.7	691	480	133	77	111	61	65	27					
MEAN DIA. 3.6 INCHES, WEIBULL PARAMETERS A= .0, B= 3.76, C= 4.65															
20	26	1	8	.0	8	0	0								
		2	65	1.4	16	14	9								
		3	213	10.5	21	119	02								
		4	353	30.6	23	373	263								
		5	265	36.1	24	451	320	411	254	357	214	237	125		
		6	68	13.4	26	179	128	166	115	155	105	124	62		
		7	4	1.1	26	14	10	14	10	13	9	11	6		
		976		93.3	1150	612	593	379	525	326	372	215			
		MEAN DIA. 4.2 INCHES, WEIBULL PARAMETERS A= .0, B= 4.44, C= 4.47													
		25	30	1	3	.0	9	0	0						
2	33			.7	16	6	5								
3	133			6.5	23	61	56								
4	277			24.2	26	330	233								
5	306			41.7	26	606	431	559	360	497	314	356	212		
6	152			29.8	29	446	318	421	293	391	271	323	220		
7	26			6.9	30	107	77	102	74	97	71	66	62		
8	1			.3	31	6	4	5	4	5	4	5	4		
931				110.3	1584	1124	1087	731	990	660	772	496			
MEAN DIA. 4.7 INCHES, WEIBULL PARAMETERS A= .3, B= 4.61, C= 4.32															

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3							
30	34	1	1	.0	9	0	0						
		2	16	.4	19	4	3						
		3	65	4.2	25	56	39						
		4	208	16.2	29	275	195						
		5	287	39.1	31	628	447	583	385	525	342	396	246
		6	207	40.6	33	690	493	655	464	615	434	523	365
		7	64	17.1	34	298	214	286	210	275	201	247	180
		6	7	2.4	35	44	31	42	31	41	31	38	29

15 JULY 2004

1,500 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. h t	All trees, total stem		5-inch class and greater to o.b. tops of—								
								2 inches			3 inches			4 inches		
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft			Ft 3								
10	14	1	111	.6	7	6	3									
		2	703	15.3	11	111	66									
		3	403	19.6	13	145	96									
		4	5	.4	14	3	2									
		-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		1222	36.2	265	171	0	0	0	0	0	0	0	0			
MEAN CIA. 2.3 INCHES, WEIBULL PARAMETERS A= .0, B= 2.45, C= 4.76																
15	20	1	23	.1	9	1	1									
		2	195	4.3	15	39	25									
		3	504	24.7	17	232	159									
		4	396	34.7	19	350	245									
		5	60	6.2	20	65	60	77	44	64	35	37	15			
		6	1	.2	21	2	2	2	1	2	1	1	1			
-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
1181	72.2	709	492	79	45	66	36	36	16							
MEAN DIA. 3.3 INCHES, WEIBULL PARAMETERS A= .0, B= 3.54, C= 4.55																
20	26	1	12	.1	9	1	0									
		2	96	2.1	17	22	14									
		3	293	14.4	21	164	113									
		4	425	37.1	23	449	316									
		5	255	34.8	25	452	321	413	250	361	220	246	134			
		6	46	9.0	26	121	66	114	78	105	71	64	56			
7	2	.5	26	7	5	7	5	6	5	6	4					
-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
1129	96.0	1216	655	534	341	472	296	336	194							
MEAN CIA. 4.0 INCHES, WEIBULL PARAMETERS A= .0, B= 4.23, C= 4.36																
25	30	1	4	.0	10	0	0									
		2	46	1.0	19	12	8									
		3	163	9.0	24	116	81									
		4	351	30.6	27	433	306									
		5	334	45.5	29	664	487	633	411	565	361	414	249			
		6	131	25.7	30	396	264	376	263	350	244	292	200			
7	16	4.3	31	66	49	65	47	62	45	55	40					
-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----			
1067	116.2	1711	1215	1074	721	977	650	761	489							
MEAN DIA. 4.5 INCHES, WEIBULL PARAMETERS A= .3, B= 4.41, C= 4.24																

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3										
30	34	1	1	.0	9	0	0									
		2	25	.5	20	6	4									
		3	117	5.7	26	80	56									
		4	267	23.3	29	353	250									
		5	333	45.4	31	720	518	677	446		610	397		459	285	
		6	202	39.7	33	674	481	639	452		600	423		510	356	
		7	49	13.1	34	228	164	219	161		210	154		189	138	
		8	3	1.0	35	19	13	18	13		18	13		16	12	
			997	128.8		2088	1486	1553	1072		1438	987		1174	791	
				MEAN DIA.		4.9	INCHES,	WEIBULL PARAMETERS A= .6, E= 4.54, C= 4.14								
35	37	2	13	.3	21	3	2									
		3	76	3.7	27	54	38									
		4	198	17.3	31	280	198									
		5	293	40.0	33	682	485	635	425		577	381		445	283	
		6	238	46.7	35	841	601	800	570		754	536		649	457	
		7	90	24.1	36	444	318	427	314		410	302		371	273	
		8	13	4.5	37	86	62	83	62		81	61		75	57	
		9	1	.4	38	9	6	8	6		8	6		a	6	
			922	137.0		2399	1710	1953	1377		1830	1286		1546	1076	
				MEAN DIA.		5.2	INCHES,	WEIBULL PARAMETERS A= .8, E= 4.66, C= 4.06								
40	40	2	7	.2	21	2	1									
		3	49	2.4	28	36	25									
		4	143	12.5	32	208	148									
		5	245	33.4	35	604	430	565	382		516	346		406	264	
		6	243	47.7	37	907	649	865	620		818	586		711	505	
		7	127	33.9	39	678	486	653	484		631	467		576	426	
		8	29	10.1	40	207	149	201	149		196	148		184	139	
		9	2	.9	41	19	13	18	13		18	13		17	13	
			845	141.1		2661	1901	2332	1648		2179	1560		1894	1347	
				MEAN DIA.		5.5	INCHES,	WEIBULL PARAMETERS A= 1.1, B= 4.79, C= 4.00								

SI 30

1,750 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, . total stem		5-inch class and greater to o.b. tops of—									
								2 inches			3 inches			4 inches			
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.		
Yrs	Ft	In	No.	Ft	2	Ft	Ft 3										
10	14	1	188	1.0	8	11	5										
		2	923	20.1	11	145	89										
		3	292	14.3	13	105	71										
		4	1	.1	14	1	0										
			1404	35.6		262	165	0	0	0	0	0	0	0	0	0	
KAN CIA. 2.2 INCHES, WEIBULL PARAMETERS A= .0, B= 2.27, C= 4.67																	
15	20	1	36	.2	9	2	1										
		2	277	6.0	16	59	38										
		3	623	30.6	18	302	207										
		4	375	32.7	20	346	243										
		5	35	4.4	21	52	37	47	28	40	23	24	11				
		1346	74.3		761	526	47	28	40	23	24	11					
MEAN CIA. 3.2 INCHES, WEIBULL PARAMETERS A= .0, E= 3.37, C= 4.45																	
20	26	1	18	.1	10	1	1										
		2	133	2.9	18	31	20										
		3	375	18.4	21	210	145										
		4	483	42.1	23	511	359										
		5	237	32.3	25	420	298	384	240	336	204	228	125				
		6	31	6.1	26	82	58	77	52	71	48	57	38				
		7	1	.3	26	4	3	3	2	3	2	3	2				
			1278	102.2		1259	884	464	294	410	254	288	165				
KAN DIA. 3.6 INCHES, WEIBULL PARAMETERS A= .0, B= 4.06, C= 4.29																	
25	30	1	6	.0	10	0	0										
		2	66	1.4	20	17	11										
		3	236	11.7	24	151	105										
		4	416	36.5	27	516	364										
		5	348	47.5	29	713	507	659	426	589	376	432	260				
		6	112	22.0	30	340	243	321	224	299	206	249	171				
		7	10	2.7	31	43	30	41	30	39	28	34	25				
			1198	121.7		1780	1260	1021	682	927	612	715	456				
MEAN CIA. 4.3 INCHES, WEIBULL PARAMETERS A= .3, E= 4.25, C= 4.16																	

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3									
30	34	1	2	.0	10	0	0								
		2	34	.7	21	9	6								
		3	152	7.5	26	104	72								
		4	325	28.4	29		304								
		5	367	50.0	31	803	571	746	492	672	437	506	314		
		6	192	37.7	33	640	457	607	430	570	403	485	339		
		7	37	9.9	34	172	123	165	121	159	116	143	104		
		6	2	.7	35	13	9	12	9	12	9	11	8		
		-----						-----		-----		-----			
			1111	134.9		2171	1542	1530	1052	1413	965	1145	765		
		MEAN DIA. 4.7 INCHES, WEIBULL PARAMTERS A= .6, B= 4.38, C= 4.07													
		35	37	2	18	.4	22	5	3						
3	97			4.8	28	71	50								
4	242			21.1	32	353	250								
5	335			45.7	34	803	572	750	504	683	454	532	342		
6	241			47.3	36	876	626	634	596	788	562	681	482		
7	77			20.6	37	390	280	375	277	362	267	328	242		
8	9			3.1	38	61	44	59	44	58	43	54	40		

	1019			143.0		2559	1825	2018	1421	1891	1326	1595	1106		
MEAN CIA. 5.1 INCHES, WEIBULL PARAMTERS A= .8, E= 4.51, C= 4.00															
40	4"			2	9	.2	22	3	2						
				3	62	3.0	29	47	33						
		4	175	15.3	33	263	186								
		5	284	38.7	36	720	513	674	458	618	416	490	321		
		6	257	50.5	38	985	705	940	676	891	640	778	555		
		7	117	31.3	39	625	448	602	446	581	431	530	392		
		8	22	7.7	40	157	113	152	113	149	112	139	105		
		9	1	.4	41	9	7	9	7	9	7	8	6		

			927	147.1		2809	2007	2377	1700	2248	1606	1945	1379		
		MEAN CIA. 5.4 INCHES, WEIBULL PARAMETERS A= 1.1, B= 4.64, C= 3.95													

SI 30

2,000 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—							
								2 inches		3 inches		4 inches			
						0. b. I. b.		0. b. I. b.		0. b. I. b.		0. b. I. b.			
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----									
10	14	1	295	1.6	8	17	7								
		2	1099	24.0	12	185	115								
		3	190	9.3	14	73	50								
			1564	34.9		275	172	0	0	0	0	0	0	0	0
KAN CIA. 2.0 INCHES, WEIBULL PARAMETERS A= .0, E= 2.12, C= 4.57															
15	20	1	53	.3	10	3	2								
		2	371	6.1	16	79	51								
		3	723	35.5	16	351	240								
		4	340	29.7	20	314	220								
		5	21	2.9	21	31	22	28	17	24	14	14	6		
			1508	76.4		776	535	28	17	24	14	14	6		
MEAN CIA. 3.0 INCHES, WEIBULL PARAMETERS A= .0, B= 3.22, C= 4.36															
20	26	1	25	.1	11	2	1								
		2	175	3.6	19	43	28								
		3	459	22.5	22	269	186								
		4	525	45.6	24	578	407								
		5	216	29.5	25	383	272	350	219	306	186	208	114		
		6	22	4.3	26	58	41	54	37	50	34	40	27		
			1422	106.1		1333	935	404	256	356	220	248	141		
MEAN CIA. 3.7 INCHES, WEIBULL PARAMETERS A= .0, B= 3.92, C= 4.20															
25	30	1	6	.0	11	1	0								
		2	67	1.9	20	22	15								
		3	295	14.5	25	195	135								
		4	479	41.6	27	592	418								
		5	354	46.3	29	725	516	671	436	599	383	439	264		
		6	95	10.7	30	260	206	272	190	254	177	212	145		
		7	7	1.9	31	30	21	26	21	27	20	24	17		
			1325	127.0		1653	1311	971	647	860	580	675			
MEAN CIA. 4.2 INCHES, WEIBULL PARAMETERS A= .3, E= 4.11, C= 4.09															

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3									
30	34	1	2	.0	11	0	0								
		2	45	1.0	21	12	8								
		3	189	9.3	27	134	93								
		4	381	33.2	30	521	369								
		5	393	53.6	32	887	632	825	548	746	490	569	358		
		6	180	35.3	33	600	429	569	403	535	377	455	317		
		7	29	7.8	34	135	97	130	95	124	91	112	a2		
		8	1	.3	35	6	4	6	4	6	4	5	4		
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		1220	140.5		2295	1632	1530	1050	15*1	962	1141	761			
		MEAN CIA. 4.6 INCHES, WEIBULL PARAMETERS A= .6, B= 4.26, C= 4.01													
		35	37	1	1	.0	11	0	0						
				2	23	.5	22	6	4						
				3	120	5.9	28	88	61						
				4	286	25.0	32	417	295						
5	370			50.5	34	886	632	828	556	754	502	587	378		
6	240			47.1	36	672	623	830	594	784	560	678	480		
7	66			17.6	37	335	240	322	238	310	229	281	207		
a	6			2.1	38	41	29	39	29	38	29	36	27		
-----	-----			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
1112	14a.7				2645	1884	2019	1417	1886	1320	1582	1092			
MEAN CIA. 5.0 INCHES, WEIBULL PARAMETERS A= .a, B= 4.38, C= 3.95															
40	40			2	12	.3	22	3	2						
				3	76	3.7	29	58	40						
				4	207	18.1	33	311	220						
				5	317	43.2	36	804	573	753	511	690	464	547	359
		6	266	52.2	38	1020	729	973	700	922	663	805	574		
		7	108	2a.9	39	577	413	556	412	536	396	490	362		
		8	17	5.9	40	121	a7	118	a7	115	a7	108	81		
		9	1	.4	41	9	7	9	7	9	7	a	6		
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		1004	152.7		2903	2071	2409	1717	2272	1619	1958	1382			
		MEAN CIA. 5.3 INCHES, WEIBULL PARAMETERS A= 1.1, B= 4.52, C= 3.90													

SI 40

750 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—							
								2 inches		3 inches		4 inches			
						0. b.	I. b.	0. b.	I. b.	O. b.	I. b.	O. b.	I. b.		
Yrs	Ft	In	No.	Ft 2	Ft	-----		-----		-----		-----			
10	18	1	4	.0	5	0	cl								
		2	48	1.0	11	8	5								
		3	180	8.8	15	74	50								
		4	286	25.0	17	226	158								
		5	146	19.9	18	188	133	167	92	136	70	70	21		
		6	14	2.7	19	27	19	25	16	22	14	16	9		
			678	57.5		523	365	192	108	158	84	86	30		
MEAN CIA. 3.9 INCHES, WEIBULL PARAMETERS A= .0, E= 4.18, C= 4.93															
15	27	1	2	.0	6	0	cl								
		2	19	.4	15	4	2								
		3	75	3.7	20	40	28								
		4	169	14.7	23	179	126								
		5	221	30.1	25	391	278	358	224	313	191	213	116		
		6	147	28.9	26	387	276	364	249	334	227	269	178		
		7	39	10.4	27	145	103	130	99	130	93	113	80		
		8	3	1.0	28	15	11	14	11	14	10	13	9		
					675	09.3		1161	824	874	583	791	521	608	383
		MEAN CIA. 4.9 INCHES, WEIBULL PARAMETERS A= .1, B= 5.12, C= 4.59													
20	34	2	7	.2	17	2	1								
		3	38	1.9	23	23	16								
		4	105	9.2	27	130	92								
		5	181	24.7	30	383	273	355	233	319	206	237	145		
		6	190	37.3	32	615	439	582	411	545	383	461	320		
		7	106	26.3	33	480	343	460	336	440	322	394	287		
		8	26	9.1	34	158	113	153	113	148	111	137	102		
		9	2	.9	35	16	11	15	11	15	11	14	11		
					655	111.5		1807	1288	1565	1104	1467	1033	1243	865
		MEAN DIA. 5.6 INCHES, WEIBULL PARAMETERS A= .6, E= 5.27, C= 4.33													
25	40	2	3	.1	18	1	0								
		3	20	1.0	26	14	10								
		4	67	5.8	30	92	65								
		5	135	18.4	34	323	230	302	203	275	183	214	138		
		6	178	35.0	36	647	462	616	441	582	415	503	356		
		7	142	37.9	38	739	529	711	526	686	507	624	461		
		8	62	21.6	39	432	310	418	310	408	308	382	287		
		9	13	5.7	41	120	86	117	86	115	86	110	84		
		10	1	.5	41	11	8	11	8	11	8	11	8		
					621	126.1		2379	1700	2175	1574	2077	1507	1844	1334
MEAN DIA. 6.1 INCHES, WEIBULL PARAMETERS A= 1.1, B= 5.36, C= 4.12															

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	-----		-----		-----		-----	
30	45	2	1	.0	19	0	0						
		3	11	.5	28	6	6						
		4	43	3.8	34	66	47						
		5	97	13.2	37	253	180	237	162	218	147	174	115
		6	147	28.9	40	593	424	566	410	539	389	474	341
		7	149	39.8	42	857	614	826	614	800	596	736	548
		6	92	32.1	44	723	518	701	518	687	518	648	491
		9	32	14.1	45	325	233	317	233	312	233	299	229
		10	5	2.7	47	65	47	64	47	63	47	61	47
			577	135.2		2890	2069	2711	1984	2619	1930	2392	1771
						MEAN CIA. 6.6 INCHES, WEIBULL PARAMETERS A= 1.5, E= 5.47, C= 3.95							
35	49	3	6	.3	29	5	3						
		4	27	2.4	35	43	30						
		5	67	9.1	40	188	134	177	123	164	113	134	90
		6	114	22.4	43	494	354	473	345	452	329	402	291
		7	135	36.1	45	831	596	803	596	780	584	722	540
		8	107	37.4	47	898	644	872	644	855	644	811	616
		9	53	23.4	49	586	421	571	421	564	421		417
		10	15	8.2	50	209	150	204	150	202	150	197	150
		11	2	1.3	51	34	25	34	25	33	25	33	25
			326	140.5		3288	2357	3134	2304	3050	2266	2842	2129
						MEAN CIA. 7.0 INCHES, WEIBULL PARAMETERS A= 1.8, E= 5.60, C= 3.82							
40	53	3	3	.1	29	2	2						
		4	16	1.4	36	26	19						
		5	45	6.1	41	130	93	122	85	113	78	93	63
		6	83	16.3	45	376	269	361	264	345	253	309	225
		7	112	29.9	47	720	516	696	516	677	508	630	472
		8	106	37.0	50	946	679	920	679	903	679	860	655
		9	70	30.9	51	806	578	786	578	776	578	749	576
		10	29	15.6	53	428	307	418	307	415	307	404	307
		11	7	4.6	54	127	91	125	91	124	91	122	91
		12	1	.8	55	22	16	22	16	22	16	21	16
			472	143.1		3583	2570	3450	2536	3375	2510	3188	2405
						MEAN CIA. 7.5 INCHES, WEIBULL PARAMETERS A= 2.1, B= 5.80, C= 3.70							

SI 40

1,000 stems per acre

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft ²	Ft	Ft ³							
10	18	1	11	.1	6	1	0						
		2	111	2.4	12	19	12						
		3		16.6	15	141	96						
		4	343	29.9	17	271	189						
		5	70	9.5	18	90	64	80	44	65	34	33	10
		6	1	.2	19	2	1	2	1	2	1	1	1
			679	59.0		524	362	62	45	67	35	34	11
MEAN CIA. 3.5 INCHES, WEIBULL PARAMETERS A= .0, E= 3.71, C= 4.61													
15	27	1	4	.0	7	0	0						
		2	38	.8	16	8	5						
		3	140	6.9	21	78	54						
		4	274	23.9	24	302	213						
		5	275	37.5	26	506	360	465	294	408	252	284	160
		6	116	22.6	27	317	226	296	205	275	166	223	150
		7	15	4.0	28	56	41	55	40	52	37	46	33
			862	95.9		1269	699	818	539	735	477	553	343
MEAN CIA. 4.5 INCHES, WEIBULL PARAMETERS A= .1, E= 4.66, C= 4.46													
20	34	1	1	.0	8	0	0						
		2	14	.3	18	3	2						
		3	70	3.4	25	46	32						
		4	179	15.6	26	229	162						
		5	263	35.9	31	575	410	534	352	461	313	363	225
		6	211	41.4	33	704	503	667	473	627	442	533	372
		7	77	20.6	34	359	257	344	253	330	242	297	217
		8	10	3.5	35	63	45	60	45	59	44	54	41
			825	120.7		1979	1411	1605	1123	1497	1041	1247	655
MEAN CIA. 5.2 INCHES, WEIBULL PARAMETERS A= .6, B= 4.64, C= 4.22													
25	4"	2	5	.1	20	1	1						
		3	37	1.6	27	26	18						
		4	114	9.9	32	166	118						
		5	207	26.2	35	510	364	477	322	436	292	343	223
		6	226	44.6	37	851	609	811	562	766	550	667	474
		7	137	36.6	39	732	524	705	523	680	504	621	459
		8	39	13.6	40	279	200	270	200	264	199	247	186
		9	4	1.6	41	37	27	36	27	35	27	34	26
			771	136.9		2602	1661	2299	1654	2183	1572	1912	1366
KAN DIA. 5.7 INCHES, WEIBULL PARAMETERS A= 1.1, E= 4.94, C= 4.03													

Age	Av. dom. ht.	D.b. In	Stems h. per acre	Basal area	Av. ht	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3							
30	45	2	2	.0	21	1	0						
		3	19	.9	29	14	10						
		4	72	6.3	34	111	79						
		5	151	20.6	38	404	288	379	260	349	238	282	187
		6	201	39.5	41	831	594	794	576	757	548	669	482
		7	166	44.4	43	977	700	943	700	914	682	643	628
		8	76	26.5	44	597	428	579	428	567	428	536	406
		9	17	7.5	46	177	127	172	127	170	127	163	125
		10	2	1.1	47	26	19	26	19	25	19	25	19
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				146.8		3138	2245	2693	2110	2782	2042	2518	1847
MEAN CIA. 6.2 INCHES, WEIBULL PARAMETERS A= 1.5, B= 5.05, C= 3.88													
35	49	3	10	.5	30	8	5						
		4	44	3.8	36	72	51						
		5	105	14.3	40	295	211	278	192	257	177	210	142
		6	162	31.8	43	702	502	672	490	642	467	571	414
		7	164	43.8	46	1032	740	998	740	970	727	900	673
		8	104	36.3	47	072	626	848	626	831	626	788	599
		9	37	16.3	49	409	294	399	294	394	294	379	291
		10	7	3.0	50	97	70	95	70	94	70	92	70
		11	1	.7	51	17	12	17	12	17	12	16	12
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				634	151.4	3504	2511	3307	2424	3205	2373	2956	2201
MEAN CIA. 6.6 INCHES, WEIBULL PARAMETERS A= 1.8, E= 5.18, C= 3.75													
40	53	3	5	.2	31	4	3						
		4	26	2.3	38	45	32						
		5	70	9.5	43	211	151	200	140	186	129	155	106
		6	121	23.8	46	561	401	538	394	516	378	463	338
		7	143	38.2	49	959	687	928	687	903	680	643	633
		8	116	40.5	51	1056	757	1027	757	1009	757	962	734
		9	59	26.1	52	692	497	675	497	668	497	644	496
		10	18	9.8	54	271	194	265	194	263	194	256	194
		11	3	2.0	55	56	40	54	40	54	40	53	40
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
				561	152.4	3855	2762	3687	2709	3599	2675	3376	2541
MEAN DIA. 7.1 INCHES, WEIBULL PARAMETERS A= 2.1, E= 5.37, C= X65													

SI 40

1,250 stems per acre

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—								
								2 inches			3 inches			4 i n c h e s		
						0. b.	I. b.	0. b.	I. b.		0. b.	I. b.		0. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3										
10	18	1	23	.1	7	1	1									
		2	202	4.4	13	36	23									
		3	504	24.7	16	219	149									
		4	318	27.8	18	266	186									
		5	27	3.7	19	37	26	33	19	27	14	15	5			
			-----	-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1074	60.7		559	385	33	19	27	14	15	5			
				MEAN C.I.A.	3.2	INCHES,	WEIBULL PARAMETERS A=	.0, B=	3.41, C=	4.69						
15	27	1	7	.0	8	0	0									
		2	64	1.4	17	14	9									
		3	219	10.0	21	123	a5									
		4	372	32.5	24	410	289									
		5	292	39.8	26	537	382	493	312	434	268	301	170			
		6	83	16.3	27	227	162	213	147	197	135	160	107			
		7	6	1.6	28	23	16	22	16	21	15	18	13			
			-----	-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1043	102.4		1334	943	728	475	652	418	479	290			
				MEAN C.I.A.	4.2	INCHES,	WEIBULL PARAMETERS A=	.1, B=	4.39, C=	4.37						
20	34	1	1	.0	9	0	0									
		2	23	.5	19	6	4									
		3	110	5.4	25	73	50									
		4	257	22.4	29	340	240									
		5	329	44.9	31	720	512	668	441	602	392	454	282			
		6	209	41.0	33	697	498	661	468	621	438	528	369			
		7	54	14.4	34	252	180	242	177	232	170	208	152			
		8	4	1.4	35	25	18	24	18	23	18	22	16			
			-----	-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			987	130.1		2113	1502	1595	1104	1478	1018	1212	819			
25	40	2	8	.2	21	2	1									
		3	50	2.8	28	43	30									
		4	167	14.6	33	251	178									
		5	273	37.2	36	692	493	648	440	594	400	471	309			
		6	257	50.5	38	985	705	940	676	891	640	778	555			
		7	122	32.6	39	652	467	628	465	606	449	553	409			
		8	25	8.7	40	179	128	173	128	169	128	158	119			
		9	2	.9	41	19	13	18	13	18	13	17	13			
			-----	-----		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			912	147.5		2023	2015	2407	1722	2278	1630	1977	1455			
				MEAN DIA.	5.4	INCHES,	WEIBULL PARAMETERS A=	1.1, B=	4.66, C=	3.94						

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av ht.	All trees, total stem		B-inch class and greater to o.b. tops of---					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3							
30	45	2	3	.1	22	1	1						
		3	30	1.5	30	24	16						
		4	105	9.2	35	167	116						
		5	205	26.0	39	562	401	529	364	488	334	397	266
		6	244	47.9	41	1009	722	964	700	919	666	612	585
		7	168	44.9	43	989	709	954	709	925	691	653	635
		8	60	20.9	44	471	336	457	338	448	336	423	320
		9	9	4.0	46	93	67	91	67	90	67	66	66
		10	1	.5	47	13	9	13	9	13	9	12	9
			825	156.9		3329	2361	3008	2167	2883	2105	2563	1881
MEAN CIA. 5.9 INCHES, WEIBULL PARAMETERS A= 1.5, B= 4.77, C= 3.60													
35	49	2	1	.0	22	0	0						
		3	15	.7	32	13	9						
		4	64	5.6	36	110	76						
		5	144	19.6	42	425	303	401	279	373	256	309	210
		6	205	40.3	45	930	665	691	652	853	624	764	556
		7	162	46.6	47	1170	639	1132	839	1101	626	1023	767
		8	94	32.6	49	622	590	799	590	785	590	746	566
		9	26	11.5	50	293	211	266	211	263	211	272	209
		10	3	1.6	51	43	31	42	31	41	31	40	31
			734	160.6		3606	2726	3551	2602	3436	2540	3154	2341
MEAN DIA. 6.3 INCHES, WEIBULL PARAMETERS A= 1.6, E= 4.90, C= 3.69													
40	53	3	7	.3	32	6	4						
		4	36	3.3	39	67	46						
		5	96	13.1	43	290	207	274	191	255	177	212	145
		6	156	30.6	46	723	517	693	506	665	467	597	436
		7	166	44.9	49	1126	607	1090	607	1061	799	990	744
		8	117	40.6	51	1065	764	1036	764	1016	764	970	740
		9	48	21.2	53	574	412	560	412	554	412	535	412
		10	11	6.0	54	165	119	162	119	161	119	156	119
		11	1	.7	55	19	13	18	13	18	13	18	13
			642	161.0		4035	2691	3833	2614	3732	2771	3476	2609
MEAN DIA. 6.6 INCHES, WEIBULL PARAMETERS A= 2.1, E= 5.07, C= 3.60													

100%

1,500 stems per acre

2

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—											
								2 inches		3 inches		4 inches							
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.						
Yrs	Ft	In	NO.	Ft 2	Ft	Ft 3													
30	45	2	4	.1	23	1	1												
		3	42	2.1	31	34	24												
		4	141	12.3	36	231	163												
		5	257	35.0	40	723	516	681	470	630	433	515	347						
		6	277	54.4	42	1173	839	1122	816	1070	777	949	686						
		7	164	43.8	44	988	708	954	708	925	692	855	638						
		8	47	16.4	45	378	271	367	271	359	271	340	258						
		9	6	2.7	47	64	46	62	46	61	46	59	45						
		938	166.8	3592	2568	3186	2311	3045	2219	2718	1974								
		MEAN DIA. 5.7 INCHES, WEIBULL PARAMETERS A= 1.5, B= 4.56, C= 3.74																	
		35	49	2	1	.0	23	0	0										
				3	21	1.0	32	18	12										
				4	86	7.5	38	148	105										
5	183			25.0	42	540	385	510	355	474	328	392	267						
6	240			47.1	45	1068	779	1043	763	999	730	894	651						
7	191			51.0	47	1228	880	1188	880	1155	867	1074	805						
8	84			29.3	49	735	527	714	527	701	527	667	508						
9	18			8.0	50	203	146	198	146	196	146	189	145						
10	2			1.1	51	28	20	28	20	28	20	27	20						
626	170.0			3988	2854	3681	2691	3553	2618	3243	2396								
MEAN DIA. 6.1 INCHES, WEIBULL PARAMETERS A= 1.8, E= 4.69, C= 3.64																			
40	53			3	9	.4	33	8	5										
				4	50	4.4	39	88	63										
		5	123	16.8	44	380	271	359	252	335	234	281	193						
		6	188	36.9	47	890	637	854	627	820	602	738	540						
		7	166	49.7	49	1247	894	1206	894	1175	884	1096	824						
		8	113	39.4	51	1028	738	1000	738	983	738	937	715						
		9	39	17.2	53	466	335	455	335	450	335	435	335						
		10	7	3.8	54	105	76	103	76	102	76	100	76						
		11	1	.7	55	19	13	18	13	18	13	18	13						
		716	169.4	4231	3032	3995	2935	3883	2882	3605	2696								
		MEAN DIA. 6.6 INCHES, WEIBULL PARAMETERS A= 2.1, E= 4.86, C= 3.56																	

SI 40

1,750 stems per acre

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	5-inch class and greater to o.b. tops of—											
						A 1 1		1 1 1		2 inches		3 inches		4 inches			
						total	stem	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.		
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3											
10	16	1	64	.3	6	4	2										
		2	455	9.9	14	67	55										
		3	735	36.1	16	320	216										
		4	197	17.2	16	165	115										
		3	3	.4	19	4	3	4	2	3	2	2	1				
		-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
			1454	64.0		560	393	4	2	3	2	2	1				
				MEAN DIA.	2.6 INCHES,	WEIBULL PARAMETERS	A= .0, B= 3.00, C= 4.46										
		15	27	1	17	.1	10	1	0								
				2	136	3.0	16	32	21								
3	396			19.4	22	232	160										
4	521			45.5	24	574	404										
5	273			37.2	26	502	357	461	291	406	250	282	159				
6	42			6.2	27	115	62	106	74	100	66	81	54				
7	1			.3	26	4	3	4	3	3	2	3	2				
-----						-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
	1368			113.7		1460	1027	573	366	509	320	366	215				
				MEAN DIA.	3.9 INCHES,	WEIBULL PARAMETERS	A= .1, B= 4.00, C= 4.16										
20	34	1	3	.0	10	0	0										
		2	50	1.1	21	13	9										
		3	208	10.2	26	143	99										
		4	410	35.6	30	561	397										
		5	411	56.0	32	926	660	863	573	761	512	596	375				
		6	161	35.5	33	604	431	573	405	536	379	457	319				
		7	26	7.5	34	131	93	125	92	120	88	106	79				
		6	1	.3	35	6	4	6	4	6	4	5	4				
		-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
			1292	146.5		2366	1693	1567	1074	1445	963	1166	777				
		MEAN DIA.	4.6 INCHES,	WEIBULL PARAMETERS	A= .6, B= 4.16, C= 3.94												
25	40	2	16	.4	23	5	3										
		3	109	5.4	30	86	60										
		4	279	24.3	34	431	306										
		5	366	52.6	37	1005	717	943	643	866	587	693	458				
		6	279	54.8	39	1036	765	1046	756	995	717	872	624				
		7	92	24.6	40	504	361	466	361	469	349	430	318				
		6	11	3.6	41	61	56	78	56	76	58	72	54				
		-----				-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
			1174	165.9		3210	2290	2555	1818	2406	1711	2067	1454				
				MEAN DIA.	5.1 INCHES,	WEIBULL PARAMETERS	A= 1.1, B= 4.29, C= 3.79										

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		B-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	Ft 3							
30	45	2	5	.1	24	2	1						
		3	56	2.7	32	47	33						
		4	178	15.5	37	299	212						
		5	306	41.7	4"	861	614	810	560	750	515	613	413
		6	301	59.1	42	1275	912	1219	887	1163	845	1031	745
		7	157	42.0	44	946	678	913	678	886	662	819	611
		8	38	13.3	46	312	224	303	224	297	224	281	214
		9	4	1.8	47	42	30	41	30	41	30	39	30
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1045	176.2		3784	2704	3286	2379	3137	2276	2783	2013
				MEAN CIA.		5.6 INCHES,	WEIBULL PARAMETERS A= 1.5, B= 4.40, C= 3.67						
35	49	2	1	.0	24	0	0						
		3	27	1.3	33	23	16						
		4	109	9.5	39	193	137						
		5	222	30.3	42	655	468	618	430	575	398	476	324
		6	272	53.4	45	1233	883	1182	865	1132	828	1013	738
		7	194	51.8	47	1248	894	1206	894	1173	881	1091	817
		8	74	25.8	49	647	464	629	464	618	464	387	447
		9	13	5.7	50	147	105	143	105	141	105	136	105
		10	1	.5	51	14	10	14	10	14	10	13	10
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			913	178.5		4160	2977	3792	2766	3653	2686	3316	2441
				MEAN DIA.		6.0 INCHES,	WEIBULL PARAMETERS A= 1.8, B= 4.52, C= 3.59						
40	53	3	12	.6	34	11	7						
		4	63	5.5	40	114	81						
		5	150	20.5	45	474	338	449	315	419	294	353	244
		6	217	42.6	48	1049	751	1007	741	968	712	874	640
		7	198	52.9	50	1354	971	1311	971	1278	963	1194	898
		8	108	37.7	52	1002	719	975	719	959	719	915	698
		9	32	14.1	54	390	280	381	280	376	280	364	280
		10	5	2.7	55	77	55	75	55	74	55	72	55
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			785	176.6		4471	3202	4198	3001	4074	3023	3772	2815
				MEAN DIA.		6.4 INCHES,	WEIBULL PARAMETERS A= 2.1, B= 4.69, C= 3.52						

SI 40

2,000 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—								
								2 inches			3 inches			4 inches		
						0. b.	I. b.	0. b.	I. b.		0. b.	I. b.		0. b.	I. b.	
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----										
10	18	1	97	.5	8	6	2									
		2	609	13.3	14	116	74									
		3	790	36.6	16	344	234									
		4	143	12.5	16	119	84									
		5	1	.1	19	1	1	1	1		1	1		1		0
			1640	65.2		566	395	1	1		1	1		1		0
				MEAN CIA.	2.7 INCHES,	WEIBULL	PARAMETERS	A=	.0,	B=	2.65,	C=	4.35			
15	27	1	25	4.1	18	43	28									
		2	164													
		3	469	24.0	22	266	196									
		4	573	50.0	25	657	463									
		5	253	34.5	26	466	331	427	270		376	232		261		147
		6	30	5.9	27	62	59	77	53		71	49		58		39
		7	1	.3	26	4	3	4	3		3	2		3		2
			1555	116.8		1540	1083	508	326		4511	263				188
				MEAN CIA.	3.7 INCHES,	WEIBULL	PARAMETERS	A=	.1,	B=	3.86,	C=	4.06			
20	34	1	4	.0	11	0	0									
		2	67	1.5	21	16	12									
		3	263	12.9	27	167	130									
		4	462	42.1	30	660	466									
		5	434	59.2	32	980	697	912	605		624	541		629		
		6	166	32.6	33	554	395	525	372		493	348		419		293
		7	21	5.6	35	101	72	97	71		93	68		64		61
		6	1	.3	35	6	4	6	4		6	4		5		4
			1436	154.2		2506	1776	1540	1052		1416	961		1137		754
				MEAN CIA.	4.4 INCHES,	WEIBULL	PARAMETERS	A=	.6,	B=	4.04,	C=	3.86			
25	40	2	24	.5	24	7	5									
		3	139	6.6	30	109	76									
		4	336	29.3	34	519	366									
		5		56.6	37	1120	796	1050	717		965	654		772		510
		6	280	55.0	39	1102	788	1051	759		999	720		675		627
		7	61	21.6	40	444	316	420	318		413	307		376		260
		6	6	2.8	41	59	42	57	42		55	42		52		39
			1296	174.7		3360	2395	2566	1036		2432	1723		2077		1456
				MEAN DIA.	5.0 INCHES,	WEIBULL	PARAMETERS	A=	1.1,	B=	4.16,	C=	3.71			

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—									
								2 inches		3 inches		4 inches					
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.				
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----											
30	45	2	7	.2	25	2	1										
		3	71	3.5	32	59	41										
		4	217	18.9	37	364	259										
		5	352	48.0	40	990	706	932	644	863	593	706	475				
		6	319	62.6	43	1383	989	1324	965	1264	920	1125	a15				
		7	149	39.8	44	a97	643	866	643	a41	62a	777	5a0				
		a	31	10.8	46	255	183	247	1a3	242	183	229	174				
		9	2	.9	47	21	15	21	15	20	15	20	15				
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----				
		1148	184.7		3971	2837	3390	2450	3230	2339	2857	2059					
		MEAN CIA. 5.4 INCHES, WEIBULL PARAMETERS A= 1.5, B= 4.26, C= 3.61															
		35	49	2	2	.0	25	1	0								
				3	34	1.7	34	30	21								
4	133			11.6	39	235	167										
5	259			35.3	43	782	558	739	516	689	479	573	393				
6	296			58.1	45	1342	961	1287	941	1232	901	1103	803				
7	195			52.1	47	1254	a99	1213	a99	1179	885	1096	a22				
a	66			23.0	49	577	414	561	414	551	414	524	399				
9	10			-4.4	50	113	a1	110	a1	109	a1	105	81				
10	1			.5	51	14	10	14	10	14	10	13	10				
-----	-----			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----				
996	186.9				4348	3111	3924	2861	3774	2770	3414	2508					
MEAN CIA. 5.9 INCHES, WEIBULL PARAMETERS A= 1.8, B= 4.39, C= 3.54																	
40	53			3	15	.7	35	14	10								
		4	77	6.7	41	143	102										
		5	176	24.0	45	556	397	526	370	492	345	414	286				
		6	245	48.1	48	1184	848	1137	a37	1093	804	986	723				
		7	207	55.3	51	1444	1035	1398	1035	1364	1029	1276	961				
		a	102	35.6	52	946	679	921	679	905	679	a64	659				
		9	26	11.5	54	317	227	309	227	306	227	296	227				
		10	3	1.6	55	46	33	45	33	45	33	43	33				
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----				
		851	183.6		4650	3331	4336	3181	4205	3117	3879	2669					
		MEAN CIA. 6.3 INCHES, WEIBULL PARAMETERS A= 2.1, E= 4.55, C= 3.48															

SI 50

750 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. height	All trees, total stem		5-inch class and greater to o.b. tops of—								
								2 inches			3 inches			4 inches		
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	
Yrs	Ft	In	No.	Ft	2 Ft	Ft 3										
10	23	1	3	.0	5	0	0									
		2	30	.7	13	5	3									
		3	114	5.6	17	52	36									
		4	229	20.0	20	212	148									
		5	225	30.7	22	352	249	318	191	272	157	170	62			
		6	63	16.3	23	194	138	181	121	164	109	127	61			
		7	6	2.1	24	26	19	25	18	23	17	20	14			
			692	75.4		841	593	524	330	459	283	317	177			
		MEAN DIA. 4.5 INCHES, WEIBULL PARAMETERS A= .0, B= 4.74, C= 4.74														
15	34	2	8	.2	16	2	1									
		3	42	2.1	23	26	18									
		4	116	10.1	27	143	101									
		5	195	26.6	30	413	294	363	251	343	222	255	156			
		6	193	37.9	32	624	446	591	417	554	369	466	325			
		7	100	26.7	33	453	324	434	317	415	304	372	271			
		8	22	7.7	34	134	96	129	96	125	94	116	07			
		9	2	.9	35	16	11	15	11	15	11	14	11			
			678	112.1		1811	1291	1552	1092	1452	1020	1225	850			
KAN DIA. 5.5 INCHES, WEIBULL PARAMETERS A= .6, E= 5.20, C= 4.32																
20	43	2	2	.0	19	0	0									
		3	18	.9	27	13	9									
		4	62	5.4	32	90	64									
		5	131	17.9	36	332	237	311	211	265	192	226	148			
		6	177	34.0	38	679	485	647	466	614	441	536	362			
		7	153	40.9	40	838	600	808	600	780	580	714	529			
		8	74	25.6	42	555	396	538	396	526	396	495	374			
		9	18	8.0	43	175	125	170	125	167	125	160	122			
		10	2	1.1	44	25	16	24	18	24	18	23	18			
	637	134.7		2707	1936	2498	1818	2396	1754	2154	1573					
MEAN DIA. 6.2 INCHES, WEIBULL PARAMETERS A= 1.3, B= 5.28, C= 4.00																
25	50	3	7	.3	30	5	4									
		4	33	2.9	36	54	38									
		5	82	11.2	40	231	165	217	150	201	138	164	111			
		6	135	26.5	44	599	428	574	419	549	400	489	356			
		7	152	40.6	46	957	6.96	925	686	899	674	834	624			
		8	109	38.0	48	934	670	907	670	891	670	846	643			
		9	48	21.2	50	542	389	528	389	522	389	503	366			
		10	11	6.0	51	156	112	153	112	151	112	147	112			
		11	1	.7	52	18	13	17	13	17	13	17	13			
	578	147.4		3496	2505	3321	2439	3230	2396	3000	2245					
MEAN DIA. 6.8 INCHES, WEIBULL PARAMETERS A= 1.8, B= 5.37, C= 3.75																

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	O. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----							
30	56	3	2	.1	31	2	1						
		4	17	1.5	38	29	21						
		5	49	6.7	44	151	108	143	100	134	93	112	77
		6	92	16.1	47	436	312	418	307	401	294	361	264
		7	121	32.3	50	828	593	801	593	781	588	730	549
		8	114	39.8	53	1078	773	1049	773	1032	773	986	753
		9	73	32.3	54	889	639	868	639	859	639	830	639
		10	30	16.4	56	4 %	336	458	336	454	336	443	336
		11	8	5.3	57	154	110	150	110	150	110	147	110
		12	1	.8	58	23	17	23	17	23	17	22	17
			507	153.1		4058	2910	3910	2875	3834	2850	3631	2745
MEAN DIA. 7.4 INCHES, WEIBULL PARAMETERS A= 2.3, B= 5.52, C= 3.56													
35	61	3	1	.0	32	1	1						
		4	6	.7	40	15	10						
		5	27	3.7	46	87	62	83	58	77	54	65	45
		6	57	11.2	50	287	205	276	204	266	1 %	241	177
		7	86	23.0	53	623	447	604	447	590	446	554	418
		8	97	33.9	56	969	695	944	695	930	695	890	682
		9	81	35.8	58	1060	761	1035	761	1025	761	994	761
		10	49	26.7	60	818	588	801	588	796	588	778	588
		11	21	13.9	62	438	315	430	315	428	315	421	315
		12	6	4.7	63	151	109	149	109	148	109	146	109
		13	1	.9	64	30	22	30	22	30	22	29	22
			434	154.5		4479	3215	4352	3199	4290	3186	4118	3117
MEAN DIA. 6.1 INCHES, WEIBULL PARAMETERS A= 2.7, E= 5.78, C= 3.39													
40	66	4	3	.3	41	6	4						
		5	14	1.9	47	46	33	44	31	41	29	35	24
		6	33	6.5	52	173	124	166	123	160	119	146	108
		7	55	14.7	56	421	302	408	302	400	302	377	285
		8	70	24.4	59	737	529	718	529	708	529	680	521
		9	74	32.7	61	1018	731	995	731	986	731	958	731
		10	57	31.1	63	999	718	979	718	973	718	953	718
		11	35	23.1	65	766	550	751	550	749	550	737	550
		12	16	12.6	66	423	304	415	304	415	304	410	304
		13	5	4.6	68	160	115	157	115	157	115	156	115
		14	1	1.1	69	38	27	37	27	37	27	37	27
			363	152.9		4787	3437	4670	3430	4626	3424	4489	3383
MEAN DIA. 8.8 INCHES, WEIBULL PARAMETERS A= 3.1, B= 6.19, C= 3.25													

1,000 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		B-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	Ft 3									
10	23	1	7	.0	6	0	0								
		2	65	1.4	14	12	8								
		3	221	10.8	18	107	73								
		4	350	30.5	20	323	227								
		5	217	29.6	22	339	240	307	184	262	152	164	79		
		6	36	7.1	23	84	60	78	52	71	47	55	35		
		7	1	.3	24	3	2	3	2	3	2	2	2		

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—							
								2 inches		3 inches		4 inches			
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	O. b.	I. b.		
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3									
30	56	3	4	.2	33	3	2								
		4	29	2.5	40	53	37								
		5	81	11.0	45	256	183	242	170	227	159	190	132		
		6	139	27.3	49	686	491	659	486	634	467	573	421		
		7	162	43.3	52	1152	826	1116	626	1089	622	1021	770		
		8	125	43.6	54	1204	864	1172	864	1154	864	1103	843		
		9	61	26.9	56	771	553	752	553	745	553	721	553		
		10	17	9.3	57	270	194	264	194	262	194	256	194		
		11	3	2.0	58	59	42	57	42	57	42	56	42		

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1,250 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. h t	5-inch class and greater to o.b. tops of—							
						All trees, total stem		2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3'							
10	23	1	14	.1	7	1	0						
		2	114	2.5	15	23	15						
		3	344	16.9	15	176	121						
		4	433	37.8	21	419	294						
		5	177	24.1	23	289	205	263	160	226	133	146	74
		6	15	2.9	24	37	26	34	23	31	21	24	16
								</					

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3							
30	56	3	6	.3	34	5	4						
			4	44	3.8	82	58						
			5	115	15.7	371	265	352	248	330	232	278	193
			6	184	36.1	908	650	872	643	839	618	759	557
			7	192	51.3	1365	979	1323	979	1291	975	1215	912
			8	125	43.6	1204	864	1172	864	1154	864	1103	843
			9	49	21.6	619	444	604	444	598	444	579	444
			10	10	5.5	159	114	155	114	154	114	151	114
			II	1	.7	20	14	19	14	19	14	19	14
			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			726	178.7		4733	3392	4497	3306	4385	3261	4099	3077
			MEAN CIA. 6.7 INCHES, WEIBULL PARAMETERS A= 2.3, B= 4.75, C= 3.42										
35	61	3	1	.0	35	1	1						
			4	20	1.7	39	28						
			5	65	8.9	219	156	208	147	195	138	166	116
			6	121	23.8	633	454	610	451	588	435	535	395
			7	152	40.6	1143	820	1108	820	1084	820	1020	771
			8	133	46.4	1376	987	1340	987	1322	987	1268	972
			9	77	34.11	1042	748	1018	748	1018	748	980	748
			10	29	15.8	492	354	482	354	479	354	469	354
			11	6	4.0	127	91	125	91	124	91	122	91
			12	1	.8	26	18	25	18	25	18	25	18
			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			605	176.0		5098	3657	4916	3616	4826	3591	4585	3465
			MAN CIA. 7.3 INCHES, WEIBULL PARAMETERS A= 2.7, E= 4.95, C= 3.29										
40	66	4	8	.7	43	16	11						
			5	33	4.5	116	83	110	78	104	74	89	63
			6	71	13.9	386	276	372	276	359	266	328	243
			7	105	28.1	832	597	808	597	791	597	747	567
			8	112	39.1	1218	874	1188	874	1172	874	1128	866
			9	89	39.3	1264	908	1236	908	1226	908	1192	908
			10	50	27.3	904	651.7	886	650	882	650	864	650
			11	19	12.5	422	303	414	303	413	303	407	303
			12	5	3.9	136	98	134	98	134	98	132	98
			13	1	.9	32	23	32	23	32	23	32	23
			-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			493	170.3		5326	3823	5180	3807	5113	3793	4919	3721
			MEAN DIA. 8.0 INCHES, WEIBULL PARAMETERS A= 3.1, E= 5.28, C= 3.17										

SI 50

1,500 stems per acre

Age	Av. dom. ht.	D.b.h	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----							
10	23	1	23	.1	8	1	1						
			2	177	3.9	15	36	23					
			3	473	23.2	19	241	166					
			4	478	41.7	21	463	325					
			5	135	16.4	23	220	156	200	122	173	102	111
			6	6	1.2	24	15	10	14	9	12	8	10
													6
			1292	RR.5		976	681	214	131	185	110	121	62
MEAN CIA. 3.5 INCHES, WEIBULL PARAMETERS A= .0, E= 3.75, C= 4.38													
15	34	1	2	.0	9	0	0						
			2	44	1.0	20	11	7					
			3	187	9.2	26	128	89					
			4	379	33.1	29	502	355					
			5	396	54.0	31	866	617	805	531	725	472	546
													339
			6	184	36.1	33	614	438	502	412	547	386	465
			7	30	8.0	34	140	100	134	98	129	94	116
			8	1	.3	35	6	4	6	4	6	4	5
													4
			1223	141.7		2267	1610	1527	1045	1407	956	1132	752
MEAN CIA. 4.6 INCHES, WEIBULL PARAMETERS A= .6, B= 4.25, C= 4.00													
20	43	2	10	.2	23	3	2						
			3	78	3.8	30	61	43					
			4	223	19.5	35	355	251					
			5	346	47.2	38	925	660	869	595	800	545	645
			6	300	58.9	40	1210	666	1156	837	1100	795	968
													429
			7	129	34.5	42	742	531	716	531	693	516	637
			8	23	8.0	43	177	127	171	127	168	127	158
			9	1	.4	44	10	7	10	7	10	7	9
													7
			1110	172.5		3483	2487	2922	2097	2771	1990	2417	1725
MEAN CIA. 5.3 INCHES, WEIBULL PARAMETERS A= 1.3, B= 4.34, C= 3.72													
25	50	2	1	.0	24	0	0						
			3	30	1.5	33	26	18					
			4	121	10.6	39	214	152					
			5	243	33.1	43	734	524	693	484	646	449	538
			6	290	56.9	46	1344	962	1289	945	1236	905	1109
													368
			7	200	53.5	48	1313	941	1271.7	941	1237	929	1152
			8	73	25.5	50	651	467	633	467	622	467	592
			9	13	5.7	51	150	107	146	107	144	107	139
			10	1	.5	52	14	10	14	10	14	10	10
			972	187.4		4446	3181	4045	2954	3899	2867	3544	2610
MEAN CIA. 5.9 INCHES, WEIBULL PARAMETERS A= 1.8, B= 4.41, C= 3.52													

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-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	----- Ft 3 -----							
30	56	3	9	.4	36	8	6						
			4	60	5.2	43	117	a3					
			5	152	20.7	47	501	358	475	336	446	314	379 264
			6	226	44.4	51	1160	831	1116	825	11175	795	978 720
				212	56.7	53	1535	1102	1489	1102	1454	1099	1365 1030
			8	121	42.2	55	1187	852	1156	852	1130	852	1089 833
			9	39	17.2	57	501	360	490	3617	485	360	470 360
			10	6	3.3	58	97	70	95	70	94	70	92 70
				825	190.2		5107	3662	4821	3545	4692	3490	4373 3277
MEAN CIA. 6.5 INCHES, WEIBULL PARAMETERS A= 2.3, E= 4.52, C= 3.37													
35	61	3	2	.1	36	2	1						
			4	27	2.4	44	54	38					
			5	86	11.7	50	302	216	287	204	270	192	232 163
			6	152	29.8	54	826	592	796	591	769	570	703 520
			7	180	48.1	57	1403	1006	1361	1006	1332	1006	1257 952
			8	140	48.9	59	1473	1057	1435	1057	1416	1057	1360 1043
			9	70	31.9	61	963	692	941	692	933	692	906 692
			10	21	11.5	63	368	264	361	2 M	359	264	351
			11	4	2.6	64	86	62	84	62	84	62	a3 62
			682	186.0		5477	3928	5265	3876	5163	3843	4892 3696	
MAN CIA. 7.1 INCHES, WEIBULL PARAMETERS A= 2.7, E= 4.71, C= 3.24													
40	66	4	11	1.0	45	22	16						
			5	44	6.0	51	157	112	150	107	141	101	122 86
			6	91	17.9	56	513	367	494	367	478	356	439 326
			7	126	33.7	59	1016	729	986	729	966	729	914 694
			8	127	44.3	62	1404	1008	1369	1008	1352	1008	1301 1000
			9	90	39.8	64	1299	933	1270	933	1260	933	1226 933
			10	44	24.0	66	808	581	792	581	788	581	772 581
			11	14	9.2	68	3211	2311	314	230	314	230	309 230
			12	3	2.4	69	83	60	81	60	81	60	80 60
			550	178.2		5622	4036	5456	4015	5380	3998	5163 3910	
WAN CIA. 7.7 INCHES, WEIBULL PARAMETERS A= 3.1, E= 5.01, C= 3.14													

SI 50

1,750 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal. area	Av. h t	All trees, total stem		5-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	Ft ³							
10	23	1	36	.2	6	2	1						
		2	254	5.5	16	54	35						
		3		29.4	19	305	210						
		4	493	43.0	21	477	335						
		5	101	13.6	23	165	117	150	91	129	76	83	42
		6	3	.6	24	7	5	7	5	6	4	5	3
			1465	92.5		1010	703	157	96	135	80	88	45
MEAN CIA. 3.4 INCHES, WEIBULL PARAMETERS A= .0, E= 3.56, C= 4.26													
15	34	1	4	.0	10	0	0						
		2	63	1.4	20	16	11						
		3	250	12.3	26	171	119						
		4	465	40.6	29	616	435						
		5	425	58.0	31	930	662	664	569	778	506	586	364
		6	165	32.4	33	550	393	522	370	490	346	417	291
		7	21	5.6	34	98	70	94	69	90	66	61	59
		8	1	.3	35	6	4	6	4	6	4	5	4
					1394	1511.6		2387	1694	1466	1012	1364	922
MEAN CIA. 4.4 INCHES, WEIBULL PARAMETERS A= .6, B= 4.08, C= 3.89													
20	43	2	14	.3	23	4	3						
		3	106	5.2	31	66	60						
		4	264	24.6	35	452	320						
		5	407	55.5	38	1088	776	1022	700	942	641	759	505
		6	312	61.3	40	1259	900	1202	870	1144	626	1006	723
		7	115	30.7	42	661	474	636	474	618	460	568	423
		8	17	5.9	43	131	94	127	94	124	94	117	66
		9	1	.4	44	10	7	10	7	10	7	9	7
					1256	1644.2		3691	2634	2999	2145	2638	2028
MEAN CIA. 5.2 INCHES, WEIBULL PARAMETERS A= 1.3, E= 4.17, C= 3.63													
25	50	2	2	.0	26	1	0						
		3	41	2.0	35	37	26						
		4	157	13.7	40	265	202						
		5	296	40.4	44	915	653	665	606	807	563	675	465
		6	325	63.6	47	1539	1101	1477	1085	1417	1040	1276	933
		7	199	53.2	49	1334	956	1291	956	1257	946	1173	881
		8	63	22.0	51	573	411	556	411	548	411	522	396
		9	9	4.0	52	106	76	103	76	102	76	98	76
					1092	199.1		4790	3425	4294	3134	4131	3036
MEAN CIA. 5.6 INCHES, WEIBULL PARAMETERS A= 1.6, E= 4.24, C= 3.45													

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----							
30	56	3	13	.6	36	12	9						
		4	79	6.9	43	154	109						
		5	188	25.6	48	633	452	601	426	565	399	481	337
		6	264	51.8	51	1355	971	1304	964	1256	928	1142	841
		7	226	60.4	54	1669	1197	1618	1197	1581	1196	1486	1122
		8	114	39.8	56	1139	817	11119	817	1092	817	1046	801
		9	31	13.7	57	399	286	389	286	385	286	373	286
		10	4	2.2	58	65	46	63	46	63	46	61	46
			919	201.1		5426	3867	5084	3736	4942	3672	4589	3433
KAN CIA. 6.3 INCHES, WEIBULL PARAMETERS A= 2.3, E= 4.34, C= 3.31													
35	61	3	3	.1	37	3	2						
		4	35	3.1	45	71	51						
		5	108	14.7	50	379	271	360	256	339	241	291	205
		6	183	35.9	54	994	712	958	711	925	687	846	627
		7	201	53.7	57	1566	1123	1520	1123	1487	1123	1403	11163
		8	143	49.9	59	1505	1080	1466	1080	1446	1080	1389	1065
		9	63	27.8	61	867	622	2.47	622	840	622	816	622
		10	16	8.7	63	280	202	275	202	273	202	268	202
		11	2	1.3	64	43	31	42	31	42	31	41	31
	754	195.4		5708	4094	5468	4025	5352	3986	5054	3815		
MEAN CIA. 6.9 INCHES, WEIBULL PARAMETERS A= 2.7, B= 4.52, C= 3.20													
40	66	4	14	1.2	46	29	21						
		5	55	7.5	52	201	143	191	137	180	129	156	111
		6	111	21.8	56	625	448	603	448	583	434	536	398
		7	149	39.8	59	1202	862	1167	862	1143	862	1081	820
		8	137	47.6	62	1515	1087	1477	1087	1458	1087	1404	1078
		9	88	38.9	64	1270	912	1242	912	1232	912	1199	912
		10	38	217.7	66	698	501	684	501	680	501	667	501
		11	10	6.6	68	229	164	225	164	224	164	221	164
		12	2	1.6	69	55	40	54	40	54	40	54	40
	604	185.9		5824	4178	5643	4151	5554	4129	5318	4024		
MEAN CIA. 7.5 INCHES, WEIBULL PARAMETERS A= 3.1, B= 4.80, C= 3.11													

SI 50

2,000 stems per acre

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-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	----- Ft 3 -----							
10	23	1	53	.3	8	3	1						
		2	342	7.5	16	73	47						
		3	716	35.1	19	365	251						
		4	488	42.6	21	473	332						
		5	75	10.2	23	122	87	111	68	96	56	62	31
		6	1	.2	24	2	2	2	2	2	1	2	1
			1675	95.9		1038	720	113	70	98	57	64	32
						MEAN CIA. 3.2 INCHES, WEIBULL PARAMETERS A= .0, B= 3.43, C= 4.15							
15	34	1	5	.0	11	0	0						
		2	87	1.9	21	23	15						
		3	319	15.7	27	227	158						
		4	545	47.6	30	746	527						
		5	443	60.4	32	1000	712	930	618	841	552	642	404
		6	147	28.9	34	505	361	480	341	451	320	386	271
		7	16	4.3	35	77	55	74	54	71	52	64	47
			1562	158.7		2578	1828	1484	1013	1363	924	1092	722
						MEAN CIA. 4.3 INCHES, WEIBULL PARAMETERS A= .6, B= 3.94, C= 3.79							
20	43	2	20	.4	24	6	4						
		3	138	6.8	31	112	78						
		4	347	30.3	36	567	402						
		5	459	62.6	39	1259	898	1184	815	1094	748	888	595
		6	318	62.4	41	1315	940	1257	912	1197	867	1058	762
		7	102	27.3	42	587	420	566	420	548	408	504	375
		8	13	4.5	43	100	72	97	72	95	72	89	68
		9	1	.4	44	10	7	10	7	10	7	9	7
			1398	194.8		3956	2821	3114	2226	2944	2102	2548	1807
						MEAN CIA. 5.1 INCHES, WEIBULL PARAMETERS A= 1.3, B= 4.03, C= 3.55							
25	50	2	3	.1	26	1	1						
		3	54	2.7	35	49	34						
		4	195	17.0	41	362	257						
		5	347	47.3	45	1096	783	1038	729	970	680	816	564
		6	351	68.9	47	1662	1190	1595	1171	1531	1123	1378	1008
		7	196	52.4	49	1314	942	1271	942	1238	932	1155	868
		8	54	18.8	51	491	353	478	353	470	353	448	341
		9	7	3.1	52	82	59	80	59	79	59	76	59
			1207	210.3		5057	3619	4462	3254	4288	3147	3873	2840
						MEAN CIA. 5.7 INCHES, WEIBULL PARAMETERS A= 1.8, B= 4.10, C= 3.38							

Age	Av. dom. ht.	D.b.h	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft	Ft	Ft 3							
30	56	3	17	.8	37	16	11						
		4	99	0.6	44	197	140						
		5	225	31.7	48	758	541	719	510	676	478	576	403
		6	297	5A.3	51	1525	1092	1467	1084	1413	1044	1285	
		7	235	62.S	54	1735	1244	1682	1244	1644	1243	1545	1167
		8	107	37.4	56	1069	767	1041	767	1025	767	982	752
		9	26	11.5	57	334	240	326	240	323	241	313	240
		10	3	1.6	58	48	35	47	35	47	35	46	35
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		1009	211.7		5682	4070	5282	3880	5128	3807	4747	3544	
		MEAN CIA. 6.2 INCHES, WEIBULL PARAMETERS A= 2.3, B= 4.20, C= 3.25											
35	61	3	4	.2	38	4	3						
		4	44	3.8	45	90	64						
		5	130	17.7	50	456	326	433	309	408	290	351	247
		6	211	41.4	54	1147	821	1104	820	1067	792	976	723
		7	218	58.3	57	1699	1218	1648	1218	1613	1218	1522	1153
		8	143	49.9	59	1505	1080	1466	1080	1446	1080	1389	1065
		9	57	25.2	61	784	563	766	563	760	563	738	563
		10	13	7.1	63	228	164	223	164	222	164	217	164
		11	2	1.3	64	43	31	42	31	42	31	41	31
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		A22	205.0		5956	4270	5682	4185	5558	4138	5234	3946	
KAN CIA. 6.8 INCHES, WEIBULL PARAMETERS A= 2.7, B= 4.37, C= 3.16													
40	66	4	17	1.5	46	35	25						
		5	67	9.1	52	244	175	233	166	221	157	190	135
		6	131	25.7	56	738	529	712	529	688	512	632	469
		7	167	44.6	60	1369	982	1331	982	1304	982	1234	937
		8	145	50.6	62	1603	1151	1563	1151	1543	1151	1486	1141
		9	85	37.6	64	1227	881	1199	881	1190	881	1158	881
		10	33	18.0	66	606	435	594	435	591	435	579	435
		11	8	5.3	68	183	132	180	132	179	132	177	132
		12	1	.8	69	28	20	27	20	27	20	27	20
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
		654	193.2		6033	4330	5838	4296	5742	4270	5483	4150	
MEAN CIA. 7.4 INCHES, WEIBULL PARAMETERS A= 3.1, B= 4.63, C= 3.08													

SI 60

750 stems per acre

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No	Ft	2 Ft	-----		----- Ft 3 -----					
10	28	1	2	.0	6	0	0						
		2	19	.4	14	4	2						
		3	79	3.9	19	40	28						
		4	177	15.4	23	187	132						
		5	231	31.5	25	409	290	374	234	327	199	222	122
		6	150	29.5	26	395	282	371	254	341	232	274	1a2
		7	39	10.4	28	150	107	143	103	136	97	118	a5
		8	3	1.0	28	15	11	14	11	14	10	13	9
			700	92.2		1200	a52	902	602	818	538	627	398
MEAN CIA. 4.9 INCHES, WEIBULL PARAMETERS A= .1, B= 5.06, C= 4.56													
15	41	2	3	.1	18	1	0						
		3	24	1.2	26	16	11						
		4	78	6.8	31	110	78						
		5	154	21.0	34	369	263	345	232	314	209	245	157
		6	195	38.3	37	728	521	694	498	657	470	571	406
		7	146	39.0	39	780	559	751	557	725	537	662	489
		8	58	20.2	40	414	297	401	297	392	296	367	277
		9	1"	4.4	41	93	66	90	66	as	66	84	64
		10	1	.5	42	12	8	11	a	11	a	11	a
	669	131.6		2523	1803	2292	1658	2188	1586	1940	14(11		
MEAN CIA. 6.0 INCHES, WEIBULL PARAMETERS A= 1.1, E= 5.21, C= 4.06													
20	51	3	7	.3	30	5	4						
		4	35	3.1	37	59	42						
		5	88	12.0	41	254	181	239	166	222	153	1a2	124
		6	143	28.1	45	648	464	622	455	595	435	533	388
		7	158	42.2	47	1016	728	982	728	956	717	888	666
		a	112	39.1	49	979	703	952	703	935	703	889	677
		9	48	21.2	51	552	397	539	397	532	397	513	395
		10	11	6.0	52	159	114	156	114	154	114	150	114
		11	1	.7	53	1a	13	17	13	17	13	17	13
	603	152.7		3690	2646	3507	2576	3411	2532	3172	2377		
MEAN CIA. 6.a INCHES, WEIBULL PARAMETERS A= 1.9, E= 5.24, C= 3.69													
25	60	3	1	.0	33	1	1						
		4	14	1.2	41	26	1a						
		5	46	6.3	46	149	106	141	99	132	93	111	77
		6	89	17.5	50	44a	321	431	318	415	306	376	277
		7	121	32.3	54	as3	641	a66	641	a46	640	796	601
		a	118	41.2	56	1179	846	1148	a46	1131	846	1083	a29
		9	80	35.3	58	11147	752	1022	752	1013	752	SHE	752
		10	36	19.6	60	601	432	588	432	585	432	572	432
		11	10	6.6	61	205	148	201	148	201	148	197	148
		12	2	1.6	62	50	36	49	36	49	36	48	36
	517	161.7		4599	3301	4446	3272	4372	3253	4165	3152		
WAN DIA. 7.6 INCHES, WEIBULL PARAMETERS A= 2.6, B= 5.36, C= 3.40													

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----							
30	67	4	4	.3	43	8	6						
		5	21	2.9	49	72	52	69	49	65	46	55	39
		6	49	9.6	54	266	191	256	190	246	164	227	166
		7	77	20.6	56	611	436	592	436	580	436	546	416
		6	92	32.1	61	1001	718	976	718	963	718	926	711
		9	63	36.7	64	1198	860	1171	860	1162	860	1131	860
		10	57	31.1	66	1047	752	1025	752	1021	752	1001	752
		11	29	19.1	67	654	470	641	470	640	470	630	470
		12	10	7.9	69	276	199	271	199	271	199	266	199
		13	3	2.6	70	99	71	97	71	97	71	96	71
			425	163.0		5231	3757	5098	3747	5047	3738	4682	3666
MEAN CIA. 6.4 INCHES, WEIBULL PARAMETERS A= 3.2, B= 5.64, C= 3.17													
35	74	4	1	.1	43	2	1						
		5	9	1.2	51	32	23	31	22	29	21	25	16
		6	24	4.7	56	135	97	130	97	126	94	116	86
		7	42	11.2	61	350	251	340	251	334	251	316	241
		6	57	19.9	64	651	467	634	467	627	467	604	465
		9	64	26.3	67	967	694	946	694	939	694	915	694
		10	57	31.1	69	1094	766	1172	766	1068	766	1048	766
		11	42	27.7	71	1004	721	965	721	963	721	969	721
		12	25	19.6	73	731	525	718	525	718	525	710	525
		13	12	11.1	74	417	300	410	300	410	300	407	300
			336	160.4		5596	4019	5476	4017	5444	4013	5319	3989
MAN CIA. 9.3 INCHES, WEIBULL PARAMETERS A= 3.6, E= 6.16, C= 2.97													
40	79	5	3	.4	51	11	6	10	7	10	7	6	6
		6	10	2.0	57	57	41	55	41	54	40	49	37
		7	20	5.3	62	169	122	165	122	162	122	153	117
		6	31	10.5	66	353	253	344	253	340	253	329	253
		9	36	16.6	69	591	425	576	425	574	425	560	425
		11	43	23.5	72	661	619	644	619	641	619	626	619
		11	36	25.1	74	946	680	929	680	927	680	915	680
		12	31	24.3	76	943	676	927	676	927	676	918	676
		13	22	20.3	76	806	580	792	580	792	580	788	580
		14	14	15.0	79	603	433	593	433	593	433	591	433
			260	157.5		5937	4266	5624	4267	5807	4266	5724	4257
MEAN CIA. 10.5 INCHES, WEIBULL PARAMETERS A= 4.1, E= 7.01, C= 2.80													

SI 60

1,000 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—								
								2 inches		3 inches		4 inches				
						0. b. I. b.	0. b. I. b.	0. b. I. b.	0. b. I. b.	0. b. I. b.	0. b. I. b.					
Yrs	Ft	In	No.	Ft 2	Ft t	Ft 3										
10	28	1	4	.0	7	0	0									
		2	41	.9	16	9	6									
		3	152	7.5	21	a5	59									
		4	293	25.6	24	323	227									
		5	267	39.1	26	528	375	465	306	426	263	296	167			
		6	116	22.0	27	317	226	296	205	275	188	223	150			
		7	14	3.7	28	54	38	51	37	49	35	43	311			
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		907	99.6		1316	931	834	546	750	486	562	347				
		KAN CIA. 4.5 INCHES, WEIBULL PARAMETERS A= .1, B= 4.61, C= 4.43														
15	41	2	6	.1	20	2	1									
		3	46	2.3	27	33	23									
		4	139	12.1	32	203	143									
		5	242	33.0	36	613	437	575	390	526	355	416	274			
		6	250	49.1	38	959	665	914	656	867	623	757	5411			
		7	135	36.1	40	740	530	713	529	669	511	630				
		8	33	11.5	41	242	173	234	173	229	173	215	162			
		9	3	1.3	42	28	20	28	20	27	20	26	20			
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		854	145.5		2820	2012	2464	1770	2338	1682	2046	1463				
MEAN CIA. 5.6 INCHES, WEIBULL PARAMETERS A= 1.1, E= 4.76, C= 3.95																
20	51	3	13	.6	32	11	8									
		4	63	5.5	38	109	77									
		5	146	19.9	43	441	315	417	291	388	270	323	221			
		6	212	41.6	46	962	703	942	691	904	662	811	592			
		7	190	50.8	49	1274	913	1232	913	1200	903	1120	841			
		8	102	35.6	50	910	653	885	653	669	653	827	631			
		9	29	12.8	52	340	244	332	244	328	244	317	244			
		10	4	2.2	53	59	42	56	42	57	42	56	42			
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
		759	169.0		4126	2955	3866	2834	3746	2774	3454	2571				
MEAN CIA. 6.4 INCHES, WEIBULL PARAMETERS A= 1.9, E= 4.79, C= 3.60																
25	60	3	2	.1	35	2	1									
		4	25	2.2	43	49	35									
		5	78	10.6	48	263	188	249	177	234	166	200	140			
		6	139	27.3	52	726	521	700	518	675	500	615	454			
		7	166	44.9	55	1263	906	1225	906	1198	906	1127	652			
		8	134	46.6	58	1366	995	1350	995	1331	995	1278	979			
		9	70	30.9	59	932	669	910	669	902	669	875				
		10	22	12.11	61	373	266	366	268	364	260	356	266			
		11	4	2.6	62	63	60	82	60	82	60	80	60			
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----		
642	177.4		5079	3643	4882	3593	4766	3564	4531	3422						
MEAN CIA. 7.1 INCHES, WEIBULL PARAMETERS A= 2.6, B= 4.87, C= 3.32																

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3							
30	67	4	8	.7	44	16	11						
		5	36	4.9	51	129	92	122	87	116	82	100	70
		6	79	15.5	55	437	313	421	313	4117	303	373	277
		7	114	30.5	59	919	659	892	659	874	659	827	628
		8	121	42.2	62	1330	960	131-w	960	1288	960	1241	952
		9	91	40.2	64	1313	943	1284	943	1274	943	12411	943
		10	49	26.7	66	900	646	882	646	877	646	860	646
		11	18	11.9	68	412	296	404	296	403	296	397	296
		12	4	3.1	69	111	79	109	79	108	79	107	79
		13	1	.9	711	33	24	32	24	32	24	32	24

		521	176.7		5608	4023	5450	4007	5379	3992	5176	3915	
		MAN CIA. 7.9 INCHES, WEIBULL PARAMETERS A= 3.2, B= 5.10, C= 3.11											
35	74	4	2	.2	45	4	3						
		5	15	2.0	53	56	40	53	38	50	36	44	31
		6	39	7.7	58	228	163	220	163	213	159	196	146
		7	65	17.4	62	551	395	535	395	525	395	498	379
		8	83	29.0	66	977	7111	953	711	942	7111	909	700
		9	81	35.8	68	1242	892	1215	892	1206	892	1176	892
		10	62	33.8	71	1225	880	1200	880	1196	880	1174	880
		11	37	24.4	73	9119	653	692	653	891	653	879	653
		12	17	13.4	74	504	362	495	362	495	362	490	362
		13	6	5.5	76	214	154	211	154	211	154	209	154
		14	1	1.1	77	42	30	41	311	41	30	41	311

		170.2			5952	4273	5815	4266	5771.1	4262	5616	4227	
MEAN CIA. 6.7 INCHES, WEIBULL PARAMTERS A= 3.6, E= 5.53, C= 2.93													
40	79	5	5	.2	53	19	13	16	13	17	12	15	10
		6	17	3.3	59	1111	72	97	72	94	71	87	65
		7	32	8.6	64	280	201	272	201	267	201	234	193
		8	45	15.7	68	545	392	532	392	527	392	509	392
		9	53	23.4	71	848	609	830	609	825	609	805	609
		10	52	28.4	73	1056	759	1035	759	11132	759	1014	759
		11	43	20.4	75	11185	780	1065	780	1064	780	1050	7611
		12	311	23.6	77	925	665	909	665	909	665	91111	665
		13	18	16.6	79	666	480	657	480	657	480	653	480
		14	9	9.6	811	392	262	386	262	366	282	385	282
		15	4	4.9	82	205	147	202	147	202	147	202	147
		16	1	1.4	a3	59	42	56	42	58	42	58	42

319	164.3			6163	4442	6061	4442	6038	4441.1	5932	4424		
MEAN CIA. 9.9 INCHES, WEIBULL PARAMETERS A= 4.1, E= 6.26, C= 2.77													

1,250 stems per acre

50

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-inch class and greater to o.b. tops of—									
								2 inches		3 inches		4 inches					
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	O. b.	I. b.				
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3											
30	67	4	13	1.1	46	27	19										
		5	54	7.4	52	197	141	187	134	177	126	153	109				
		6	111	21.P	57	636	456	614	456	594	443	547	406				
		7	149	39.8	60	1222	876	1187	P76	1163	876	1101	836				
		8	139	4R.5	63	1561	1121	1523	1121	1504	1121	1449	1113				
		9	90	39.R	65	1319	947	1290	947	1280	947	1246	947				
		10	40	21.P	67	746	536	731	536	727	536	713	536				
		11	11	7.3	69	255	184	251	1P4	250	164	246	184				
		12	2	1.6	70	56	40	55	40	55	40	54	40				
								6019	4320	5838	4294	5750	4273	5509	4171		
								MEAN CIA. 7.5 INCHES, WEIBULL PARAMETERS A= 3.2, B= 4.74, C= 3.06									
		35	74	4	3	.3	46	6	4								
				5	22	3.0	53	82	58	78	56	74	53	64	45		
6	56			11.0	59	332	238	321	238	311	232	287	214				
7	89			23.P	63	766	550	745	550	731	550	694	528				
8	102			35.6	66	1200	P62	1171	P62	1158	862	1117	860				
9	92			411.6	69	1431	1028	1400	1028	1391	1028	1357	1028				
10	61			33.3	71	1205	P66	1181	P66	1176	P66	1155	P66				
11	31			20.5	73	762	547	747	547	746	547	736	547				
12	11			P.6	74	326	234	320	234	320	234	317	234				
13	3			2.8	76	107	77	1115	77	105	77	105	77				
14	1			1.1	77	42	30	41	30	41	30	41	30				
						471	1811.5	6259	4494	6109	4488	6053	4479	5873	4429		
						MEAN DIA. P.4 INCHES, WEIBULL PARAMETERS A= 3.6, B= 5.11, C= 2.89											
40	79	5	8	1.1	55	31	22	29	21	28	20	24	17				
		6	24	4.7	61	147	105	142	105	138	103	128	95				
		7	44	11.8	65	391	280	380	280	373	280	355	271				
		8	61	21.3	69	750	539	732	539	725	539	701	539				
		9	67	29.6	72	1088	781	1064	781	1058	781	1033	781				
		10	59	32.2	75	1231	884	1207	884	1203	884	1183	884				
		11	44	29.0	77	1140	819	1119	819	1118	819	1104	819				
		12	27	21.2	79	P54	614	P39	614	P39	614	832	614				
		13	13	12.0	80	489	351	480	351	480	351	47P	351				
		14	5	5.3	81	221	159	217	159	217	159	217	159				
		15	2	2.5	83	104	75	102	75	1112	75	102	75				
								354	170.7	6446	4629	6311	4628	6281	4625	6157	4605
								MEAN CIA. 9.4 INCHES, WEIBULL PARAMETERS A= 4.1, B= 5.77, C= 2.74									

SI 60

1,500 stems per acre

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		B-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					Ft 3						
10	28	1	13	.1	8	1	0									
		2	111	2.4	17	25	16									
		3	339	16.6	21	190	131									
		4	469	42.7	24	539	379									
		5	296	40.4	26	545	367	500	316	440	272		306	172		
		6	56	11.0	27	153	109	144	99	133	91		108	72		
		7	2	.5	28	8	5	7	5	7	5		6	4		
			1306	113.7		1461	1027	651	420	580	366		420	248		
MEAN CIA. 4.0 INCHES, WEIBULL PARAMETERS A= .1, B= 4.09, c= 4.19																
15	41	2	17	.4	22	5	3									
		3	111	5.4	30	47	61									
		4	285	24.9	34	441	312									
		5	396	54.0	37	1031	735	967	660	669	602		711	470		
		6	266	56.5	39	1133	810	1081	780	1027	740		900	645		
		7	97	25.9	41	545	391	525	390	508	378		466	346		
		8	12	4.2	42	90	65	67	65	85	65		80	61		
			1206	171.3		3332	2376	2660	1895	2509	1765		2157	1522		
MEAN CIA. 5.1 INCHES, WEIBULL PARAMETERS A= 1.1, B= 4.25, C= 3.74																
20	51	2	1	.0	25	0	0									
		3	33	1.6	34	29	20									
		4	136	11.9	40	247	175									
		5	270	36.8	44	634	596	789	553	736	514		616	424		
		6	314	61.7	47	1487	1064	1427	1048	1369	1005		1233	901		
		7	209	55.9	49	1401	1004	1356	1004	1320	994		1232	925		
		8	74	25.8	51	673	483	655	483	644	483		613	468		
		9	12	5.3	52	141	101	137	101	136	101		131	101		
		10	1	.5	53	15	11	14	11	14	11		14	11		
	1050	199.5		4827	3454	4376	3200	4219	3108		3839	2830				
MEAN CIA. 5.9 INCHES, WEIBULL PARAMETERS A= 1.9, B= 4.27, C= 3.42																
25	60	3	6	.3	37	6	4									
		4	56	4.9	44	111	79									
		5	153	20.9	49	526	376	500	355	470	333		402	262		
		6	234	45.9	53	1248	894	1202	891	1160	860		1059	783		
		7	227	60.7	56	1738	1246	1686	1246	1649	1246		1554	1176		
		8	136	47.5	58	1407	1010	1371	1010	1351	1010		1297	994		
		9	40	21.2	60	650	466	635	466	629	466		611	466		
		10	9	4.9	61	153	110	150	110	149	110		145	110		
		11	1	.7	62	21	15	20	15	20	15		20	15		
	870	2176.9		5860	4200	5564	4093	5428	4040		5088	3826				
MEAN DIA. 6.6 INCHES, WEIBULL PARAMETERS A= 2.6, B= 4.32, C= 3.19																

Age	Av. dom. ht.	D.b	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3							
30	67	4	18	1.6	47	38	27						
		5	74	111.1	53	275	197	262	188	248	177	215	153
		6	143	20.1	57	820	587	791	587	766	571	704	524
		7	180	48.1	61	1511	1076	1458	1076	1429	1076	1355	1030
		8	151	52.7	63	1696	1218	1654	1218	1634	1218	1574	1211
		9	86	38.0	66	1280	919	1252	919	1242	919	1210	919
		10	32	17.5	67	597	429	584	429	582	429	571	429
		11	7	4.6	69	163	117	159	117	159	117	157	117
		12	1	.8	70	28	20	28	20	28	20	27	21
			692	2111.4		6398	4590	6188	4554	6088	4527	5813	444%
WAN CIA. 7.3 INCHES, WEIBULL PARAMETERS A= 3.2, B= 4.48, C= 3.01													
35	74	4	4	.3	48	9	6						
		5	30	4.1	55	116	83	1111	79	1115	75	91	65
		6	74	14.5	60	447	320	431	320	418	313	387	289
		7	112	29.9	64	979	703	952	703	935	703	689	677
		8	121	42.2	67	1445	11138	1410	1038	1395	11138	1347	1037
		9	96	43.3	70	1547	1111	1513	1111	1503	1111	1467	1111
		10	58	31.6	72	1162	835	1139	635	1135	835	1115	835
		11	25	16.5	74	623	447	611	447	610	447	602	447
		12	7	5.5	76	213	153	209	153	209	153	207	153
		13	2	1.8	77	72	52	71	52	71	52	71	52
			531	189.9		6613	4748	6446	4738	6381	4727	6176	4666
MAN CIA. 6.1 INCHES, WEIBULL PARAMETERS A= 3.6, B= 4.81, C= 2.85													
40	79	5	10	1.4	55	39	28	37	26	35	25	30	22
		6	32	6.3	61	196	141	1911	141	184	138	170	127
		7	57	15.2	66	514	369	500	369	491	369	468	357
		8	75	26.2	69	922	662	901	662	891	662	862	662
		9	78	34.5	72	1266	909	1239	909	1231	909	1203	909
		10	64	34.9	75	1335	959	1309	959	1305	959	1283	959
		11	42	27.7	77	1068	782	1068	782	1067	782	1054	782
		12	23	18.1	79	727	523	715	523	715	523	709	523
		13	10	9.2	80	376	270	369	270	369	270	368	270
		14	3	3.2	82	134	96	132	96	132	96	132	96
		15	1	1.2	83	52	37	51	37	51	37	51	37
			395	177.9		6649	4776	6511	4774	6471	4771	6330	4744
MEAN CIA. 9.1 INCHES, WEIBULL PARAMETERS A= 4.1, B= 5.40, C= 2.72													

SI 60

1,750 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. h t	All trees, total stem		B-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	No.	Ft 2	Ft	----- Ft 3 -----							
10	28	1	20	.1	8	1	0						
		2	159	3.5	17	36	23						
		3	444	21.8	22	260	180						
		4	560	48.9	24	617	435						
		5	277	37.8	26	510	362	468	296	411	254	286	161
		6	40	7.9	28	113	81	117	74	99	66	81	55
		7	1	.3	28	4	3	4	3	3	2	3	2
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1501	120.1		1541	1084	579	373	513	324	370	218
			MEAN CIA. 3.8 INCHES, WEIBULL PARAMETERS A= .1, B= 3.91, c= 4.08										
15	41	2	25	.5	23	7	5						
		3	152	7.5	30	119	83						
		4	362	31.6	34	560	397						
		5	455	62.0	37	1185	645	1111	758	1021	692	817	540
		6	290	56.9	39	1141	816	1089	786	11134	745	907	649
		7	82	21.9	41	4611	330	444	330	429	319	394	292
		8	8	2.8	42	60	43	58	43	57	43	54	40
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1374	163.3		3532	2519	2702	1917	2541	1799	2172	1521
			MEAN CIA. 4.9 INCHES, WEIBULL PARAMETERS A= 1.1, E= 4.08, C= 3.64										
20	51	2	2	.0	26	1	0						
		3	46	2.3	35	42	29						
		4	179	15.6	41	332	236						
		5	331	45.1	45	1046	747	990	696	926	648	778	538
		6	3511	66.7	48	1692	1211	1625	1196	1561	1148	1409	1032
		7	208	55.6	50	1423	1020	1377	1020	1342	1011	1254	943
		8	63	22.0	52	584	419	569	419	559	419	533	407
		9	9	4.11	53	108	77	105	77	104	77	100	77
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			1188	213.3		5228	3739	4666	3408	4492	3303	4074	2997
			MEAN CIA. 5.7 INCHES, WEIBULL PARAMETERS A= 1.9, E= 4.09, C= 3.34										
25	60	3	9	.4	38	9	6						
		4	75	6.5	46	156	111						
		5	193	26.3	51	690	493	657	469	620	441	534	377
		6	277	54.4	54	1505	1078	1450	1076	1400	1040	1281	949
		7	246	65.7	57	1917	1375	1860	1375	1820	1375	1718	1301
		8	131	45.7	59	1378	989	1343	989	1325	989	1272	976
		9	40	17.7	61	5511	395	538	395	533	395	518	395
		10	6	3.3	62	104	74	101	74	101	74	99	74
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
			977	2211.1		6309	4521	5949	4378	5800	4314	5422	4072
			MEAN CIA. 6.4 INCHES, WEIBULL PARAMETERS A= 2.6, E= 4.14, C= 3.12										

Age	Av. dom. ht.	D.b.	Stems h. per acre	Basal area	Av. ht.	All trees, total stem		5-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	Ft 3							
30	67	4	24	2.1	46	52	37						
		5	95	13.0	53	353	252	336	241	316	228	276	196
		6	176	34.6	58	1027	736	991	736	960	716	884	650
		7	2115	54.8	61	1709	1226	1664	1226	1628	1226	1543	1173
		8	159	55.5	64	1614	1302	1770	1302	1748	1302	1605	1296
		9	80	35.3	66	1191	655	1164	855	1156	655	1126	655
		10	26	14.2	68	492	353	482	353	480	353	471	353
		11	5	3.3	69	116	83	114	83	114	83	112	83
		12	1	.a	70	28	20	28	20	28	20	27	20
						-----	-----	-----	-----	-----	-----	-----	-----
			771	213.5		6782	4864	6545	4816	6432	4783	6124	4634
			MAN CIA. 7.1 INCHES, WEIBULL PARAMETERS A= 3.2, B= 4.28, C= M.96										
35	74	4	5	.4	49	11	6						
		5	39	5.3	56	153	109	146	105	139	100	121	67
		6	92	16.1	61	564	404	545	404	523	396	490	366
		7	134	35.6	65	1190	654	1157	654	1137	854	1082	624
		8	137	47.6	68	1661	1192	1621	1192	1603	1192	1550	1192
		9	101	44.6	70	1594	1145	1560	1145	1549	1145	1512	1145
		10	53	26.9	72	1062	763	1041	763	1037	763	1019	763
		11	20	13.2	74	498	358	489	356	488	358	462	358
		12	5	3.9	76	152	109	149	109	149	109	148	109
		13	1	.9	77	36	26	36	26	36	26	35	26
						-----	-----	-----	-----	-----	-----	-----	-----
			567	199.1		6921	4968	6744	4356	6667	4943	6439	4870
			MEAN CIA. 7.9 INCHES, WEIBULL PARAMETERS A= 3.6, B= 4.58, C= 2.82										
40	79	4	1	.1	49	2	2						
		5	13	1.8	57	52	37	50	36	47	34	41	30
		6	41	6.1	62	256	163	247	183	240	180	222	166
		7	71	19.0	67	650	466	632	466	621	466	592	452
		8	87	30.4	71	1101	791	1075	791	1064	791	1030	791
		9	66	38.0	74	1435	1031	1404	1031	1396	1031	1365	1031
		10	66	36.1	76	1395	1003	1368	1003	1364	1003	1342	1003
		11	40	26.4	78	1050	755	1031	755	1030	755	1017	755
		12	19	14.9	80	609	437	598	437	598	437	593	437
		13	7	6.5	81	266	191	262	191	262	191	261	191
		14	2	2.1	83	90	65	89	65	89	65	89	65
						-----	-----	-----	-----	-----	-----	-----	-----
			433	163.2		6906	4961	6756	4958	6711	4953	6552	4921
			MEAN CIA. 8.8 INCHES, WEIBULL PARAMETERS A= 4.1, B= 5.12, C= 2.69										

SI 60

2,000 stems per acre

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. ht	All trees, total stem		B-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.		
Yrs	Ft	In	No.	Ft 2	Ft	Ft 3							
10	28	1	30	.2	8	2	1						
		2	216	4.7	17	48	31						
		3	550	27.11	22	322	222						
		4	611	53.3	25	700	494						
		5	255	34.0	26	469	333	431	272	379	234	263	148
		6	29	5.7	26	82	59	77	54	72	49	59	40
		7	1	.3	28	4	3	4	3	3	2	3	2
			1692	125.9		1627	1143	512	329	454	265	325	190
MEAN CIA. 3.7 INCHES, WEIBULL PARAMETERS A= .1, E= 3.76, C= 3.96													
15	41	2	36	.8	23	10	7						
		3	199	9.8	311	156	109						
		4	440	38.4	35	700	496						
		5	503	68.6	38	1345	959	1263	866	1164	792	938	624
		6	266	56.2	40	1154	825	11112	797	1048	758	923	663
		7	70	16.7	41	393	282	379	262	367	273	336	250
		8	6	2.1	42	45	32	44	32	43	32	40	30
			1540	194.5		3803	2710	2766	1977	2622	1855	2237	1567
MEAN CIA. 4.6 INCHES, WEIBULL PARAMETERS A= 1.1, E= 3.93, C= 3.54													
20	51	2	2	.0	27	1	0						
		3	61	3.0	36	57	40						
		4	225	19.6	42	426	304						
		5	390	53.2	46	1259	699	1193	841	1118	785	944	655
		6	379	74.4	48	1632	1312	1760	1295	1691	1243	1526	1116
		7	203	54.3	50	1388	995	1344	995	1311	967	1224	921
		8	55	19.2	52	510	366	496	366	488	366	466	356
		9	7	3.1	53	84	60	82	60	81	60	78	60
			1322	226.6		5559	3976	4675	3557	4688	3441	4238	3110
MEAN CIA. 5.6 INCHES, WEIBULL PARAMETERS A= 1.9, B= 3.95, C= 3.26													
25	60	3	12	.6	39	12	9						
		4	96	8.4	46	200	142						
		5	234	31.9	51	637	596	796	568	751	535	648	457
		6	315	61.9	55	1743	1249	1680	1249	1624	1207	1488	1114
		7	259	69.2	57	2018	1447	1958	1447	1917	1447	1808	1370
		8	125	43.6	59	1315	944	1282	944	1264	944	1214	931
		9	34	15.0	61	466	336	457	336	453	336	440	336
		10	5	2.7	62	66	62	84	62	64	62	82	62
			1080	233.3		6679	4787	6257	4606	6093	4531	5680	4260
MEAN CIA. 6.3 INCHES, WEIBULL PARAMETERS A= 2.6, B= 3.99, C= 3.06													

Age	Av. dom. ht.	D.b.h.	Stems per acre	Basal area	Av. h t	All trees, total stem		5-inch class and greater to o.b. tops of—					
								2 inches		3 inches		4 inches	
						0. b.	I. b.	0. b.	I. b.	0. b.	I. b.	0. b.	I. b.
Yrs	Ft	In	NO.	Ft 2	Ft	Ft 3							
30	67	3	1	.0	41	1	1						
		4	31	2.7	49	69	49						
		5	118	16.1	55	455	325	434	312	411	296	359	257
		6	207	40.6	59	1228	880	1166	880	1150	859	1061	791
		7	227	60.7	62	1923	1380	1669	1380	1833	1380	1739	1323
		8	163	56.9	65	1889	1356	1843	1356	1621	1356	1757	1352
		9	75	33.1	67	1133	814	1108	814	1100	814	1072	814
		10	21	11.5	69	403	290	395	290	393	290	366	290
		11	3	2.0	70	71	51	69	51	69	51	68	51
			646	223.6		7172	5146	6904	5083	6777	5046	6442	4676
MAN CIA. 7.0 INCHES, WEIBULL PARAMETERS A= 3.2, B= 4.12, C= 2.91													
35	74	4	7	.6	50	16	11						
		5	49	6.7	57	196	140	187	135	176	126	156	112
		6	111	21.6	62	692	496	669	496	650	487	602	450
		7	157	42.0	66	1416	1016	1377	1016	1353	1016	1288	962
		8	140	51.7	69	1820	1307	1777	1307	1756	1307	1700	1307
		9	101	44.6	72	1639	1178	1604	1176	1595	1176	1557	1176
		10	46	26.2	74	988	710	969	710	966	710	949	710
		11	16	10.6	75	404	290	396	290	396	290	391	290
		12	3	2.4	77	92	66	91	66	91	66	90	66
					640	206.4		7263	5214	7070	5198	6967	5182
MEAN CIA. 7.7 INCHES, WEIBULL PARAMETERS A= 3.6, B= 4.39, C= 2.79													
40	79	4	1	.1	49	2	2						
		5	17	2.3	57	68	49	65	47	62	44	54	39
		6	50	9.6	63	317	227	306	227	296	223	276	207
		7	84	22.4	67	769	552	746	552	735	552	701	535
		8	100	34.9	71	1265	909	1236	909	1223	909	1184	909
		9	93	41.1	74	1551	1114	1519	1114	1510	1114	1476	1114
		10	66	36.0	76	1395	1003	1366	1003	1364	1003	1342	1003
		11	37	24.4	76	971	690	953	698	952	696	941	696
		12	16	12.6	80	512	368	504	368	504	368	499	368
		13	5	4.6	81	190	137	187	137	187	137	186	137
		14	1	1.1	83	45	33	44	33	44	33	44	33
					470	169.3		7085	5092	6930	5088	6879	5081
KAN CIA. 6.6 INCHES, WEIBULL PARAMETERS A= 4.1, B= 4.90, C= 2.67													



Smalley, Glendon W., and Bailey, Robert L.

1974. Yield tables and stand structure for shortleaf pine plantations in Tennessee, Alabama, and Georgia highlands. South. For. Exp. Stn., New Orleans, La. 57 p. (USDA For. Serv. Res. Pap. so-97)

Detailed schedules of trees per acre, basal area, mean tree height, and cubic-foot yields in eight volume categories by 1-inch diameter classes are presented for all combinations of four site indexes, seven ages from seed, and six planting densities.

Additional keywords : *Pinus echinata*, diameter distributions, Weibull function, survival, height-diameter relationships.