

DECEMBER 1953 FOREST SURVEY RELEASE 73

## FOREST STATISTICS FOR ALABAMA

A REPORT OF THE  
SOUTHERN FOREST SURVEY

Philip R. Wheeler, In Charge



Southern Forest Experiment Station, New Orleans, Louisiana

Philip A. Briegleb, Director

## THE SOUTHERN FOREST SURVEY

The Southern Forest Survey, an activity of the Southern Forest Experiment Station, covers the seven States of the Station's territory--Alabama, Arkansas, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

This Survey is a part of the nation-wide Forest Survey authorized by the McSweeney-McNary Forest Research Act of 1928. Its five-fold purpose is (1) to take inventory of the supply of standing timber and other forest products; (2) to ascertain the rate at which this supply is being increased through growth; (3) to determine the rate at which this supply is being diminished through use, and by fire, insects, disease, and other destructive agencies; (4) to estimate the present requirements and the probable future trend in the requirements for timber and other forest products; and (5) to correlate these findings with existing and anticipated economic conditions, in order that policies may be formulated for the effective use of lands suitable for forest production.

Large-scale cooperative assistance enabled the Southern Forest Survey to complete the reinventory of Alabama's forests almost two years ahead of schedule. Cooperation from the Alabama Forest Products Association and other groups who helped expedite the Survey is gratefully acknowledged.

The following organizations each furnished one or more foresters who served as chiefs of cruising parties: Division of Forestry, Alabama Department of Conservation; Alabama Power Co.; Coosa River Newsprint Co.; Courtaulds (Ala.) Inc.; Gulf States Paper Corp.; Hollingsworth and Whitney Co.; International Paper Co.; St. Regis Paper Co.; and the Division of Forestry Relations, Tennessee Valley Authority.

The following organizations and individuals provided assistant cruisers or monies to hire assistant cruisers: Allison Lumber Co., Inc.; American National Bank (Union Springs, Ala.); Anthony Lumber Co.; A. B. Carroll Lumber Co.; Castleberry Lumber Co.; E. B. Chancey Lumber Co.; Clancy Lumber Co., Inc.; Dixie Yellow Pine Co.; Dixon Lumber Co.; First National Bank (Clanton, Ala.); First National Bank (Union Springs, Ala.); Halcyon Hill; Russell Johnson (Wetumpka, Ala.); E. O. Majors (Tallassee, Ala.); T. L. McKee and Sons; Miller and Co., Inc.; T. R. Miller Mill Co.; National Gypsum Co.; Pate and Hodge Lumber Co.; Peoples Savings Bank (Clanton, Ala.); Scotch Lumber Co. Inc.; Cecil H. Smith and Son; M. W. Smith Lumber Co.; W. T. Smith Lumber Co.; Stremming Veneer Co., Inc.; Tallassee Lumber Co.; A. R. Taylor (Clanton, Ala.); and Vredenburgh Sawmill Co.

## CONTENTS

|                                                                                             | Page |
|---------------------------------------------------------------------------------------------|------|
| <b>Highlights of the forest situation</b> . . . . .                                         | 1    |
| Forest acreage up 10 percent . . . . .                                                      | 1    |
| Softwood acreage up 6 percent; hardwood up 19 percent . . . . .                             | 2    |
| Poletimber stands predominate . . . . .                                                     | 4    |
| Three-fifths of forest well stocked . . . . .                                               | 5    |
| Softwood growing stock down 5 percent; hardwood up 6 percent . . . . .                      | 6    |
| Non-growing stock 1.9 billion cubic feet . . . . .                                          | 8    |
| Sawtimber volume down 12 percent . . . . .                                                  | 8    |
| Large-tree quality good . . . . .                                                           | 10   |
| Net annual growth 769 million cubic feet; sawtimber growth 2.8 billion board feet . . . . . | 11   |
| Total 1951 drain 595 million cubic feet; sawtimber drain 2.5 billion board feet. . . . .    | 12   |
| <br><b>Accuracy of the Survey</b> . . . . .                                                 | 13   |
| <br><b>Summary tables:</b>                                                                  |      |
| 1. Commercial forest land by forest-type group and change between Surveys . . . . .         | 4    |
| 2. Growing stock volume and change between Surveys . . . . .                                | 7    |
| 3. Sawtimber volume and change between Surveys . . . . .                                    | 9    |
| 4. Sawtimber volume by log grade and tree diameter . . . . .                                | 10   |
| <br><b>Detailed tables:</b>                                                                 |      |
| 5. Forest and nonforest land by Survey region . . . . .                                     | 16   |
| 6. Commercial forest land by class of ownership . . . . .                                   | 16   |
| 7. Land area and commercial forest by county . . . . .                                      | 17   |
| 8. Commercial forest land by stand size and <i>forest</i> type . . . . .                    | 18   |
| 9. Commercial forest land by degree of tree stocking and forest type . . . . .              | 19   |
| 10. Area of sawtimber stands by stand quality and forest type . . . . .                     | 20   |
| 11. Basal area per acre of growing stock and cull trees . . . . .                           | 21   |
| 12. Total volume by class of timber and species . . . . .                                   | 22   |
| 13. Total volume by class of timber and species . . . . .                                   | 24   |
| 14. Growing stock by species and Survey region . . . . .                                    | 26   |
| 15. Distribution of growing stock by species within each forest type. . . . .               | 27   |
| 16. Growing stock by species and stand size . . . . .                                       | 28   |
| 17. Average volume per acre of growing stock by forest type and Survey region . . . . .     | 29   |
| 18. Average volume per acre of growing stock by stand size and forest type . . . . .        | 29   |
| 19. Sawtimber volume by species and tree diameter . . . . .                                 | 30   |
| 20. Sawtimber volume by species and stand size . . . . .                                    | 31   |
| 21. Sawtimber volume by species and Survey region . . . . .                                 | 32   |
| 22. Average sawtimber volume per acre by forest type and Survey region . . . . .            | 33   |
| 23. Average sawtimber volume per acre by stand size and forest type . . . . .               | 33   |
| 24. Softwood sawtimber volume by log grade and stand quality . . . . .                      | 33   |
| 25. Hardwood sawtimber volume by log class and stand quality . . . . .                      | 34   |
| 26. Net annual growth of sawtimber and growing stock . . . . .                              | 34   |
| 27. Net annual growth per acre of sawtimber and growing stock . . . . .                     | 35   |
| 28. Commodity drain on sawtimber and growing stock by commodity . . . . .                   | 36   |
| 29. Commodity drain on sawtimber and growing stock by species . . . . .                     | 37   |
| 30. Commodity drain on sawtimber and growing stock by class of timber . . . . .             | 37   |
| <br><b>Change tables:</b>                                                                   |      |
| 31. Change in commercial forest land between Surveys . . . . .                              | 38   |
| 32. Change in growing stock between Surveys . . . . .                                       | 38   |
| 33. Change in sawtimber volume between Surveys . . . . .                                    | 39   |
| 34. Total number of live trees and change between Surveys . . . . .                         | 39   |
| <br><b>Definitions of terms</b> . . . . .                                                   | 40   |
| <br><b>Standard tables</b> . . . . .                                                        | 46   |

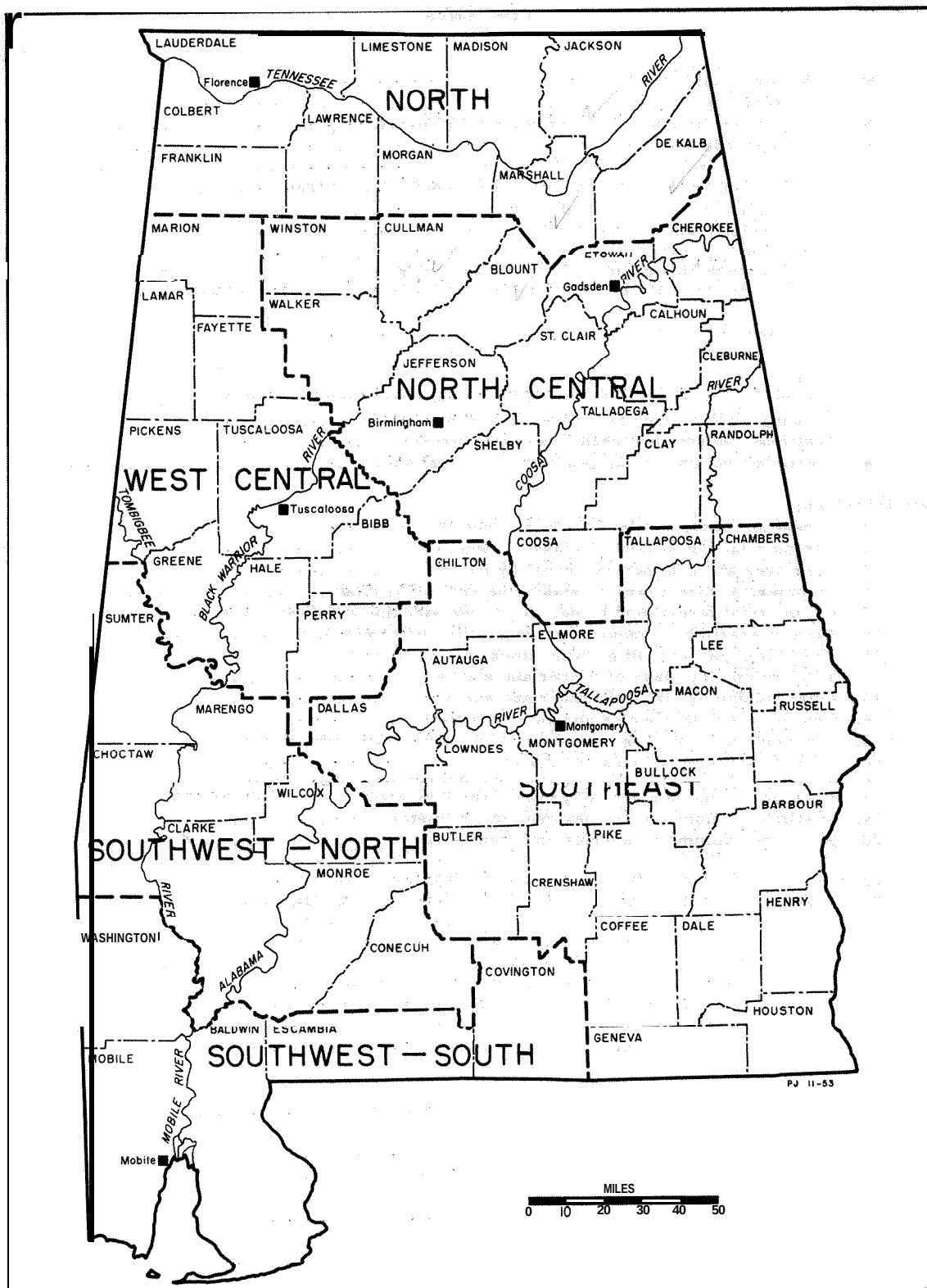


Figure 1.--Forest Survey regions in Alabama.

## FOREST STATISTICS FOR ALABAMA

This report summarizes data on forest acreage, timber volume, growth, and drain<sup>1/</sup> collected by the Southern Forest Survey in Alabama. It is primarily the product of the new Forest Survey of the State, made between 1951 and 1953, but it also draws on the first Forest Survey of 1935-36 to show the changes in forest conditions during the intervening 17 years.<sup>21</sup>

In the discussion of highlights that follows, the six Survey regions of the State (fig. 1) have been grouped into three. The West Central, North Central, and North regions are referred to as the North; the two southwestern regions are termed the Southwest.

To make valid comparisons between the two Surveys, both sets of data must conform to the same standards. In this report the findings of the first Survey have been adjusted to those of the Resurvey. The reasons for and nature of these adjustments are discussed on page 15.

### Highlights of the Forest Situation

#### Forest acreage up 10 percent

Of the 32.7 million acres of land in Alabama, 64 percent is forested. Present commercial forest area totals 20.8 million acres--10 percent more than in 1935-36. Alabama's increase in forest acreage follows the general trend of farm land abandonment in the southern uplands,

---

<sup>1/</sup> Technical terms are defined on pages 40-45.

<sup>2/</sup> Survey dates by region were: North, 1936 and 1951; North Central, 1936 and 1952; West Central, 1935 and 1951; Southeast, 1935 and 1953; Southwest, 1935 and 1953.

Increases in forest acreage have taken place quite generally over the State, except in the 10 northernmost counties and the 3 counties in the extreme Southwest. The largest increases in forest area--over 40 percent in some instances--have occurred through the central and Piedmont counties,

North Alabama, the most heavily industrialized section of the State, has 62 percent of its land area in forest. The coal and iron ore mines that feed Birmingham's steel industry are important woodusers. Two of Alabama's 7 wood-pulp mills are also in the region--at Coosa Pines and Tuscaloosa.

Southeast Alabama, though 56 percent forested, is characterized by a largely agricultural economy. Cotton, livestock, and peanuts are the major income sources for the farm population.

Southwest Alabama has the highest proportion of forest land--75 percent. Mobile, chief city in the region, is the center for the State's pulpwood industry.

More than 95 percent of Alabama's commercial forest land is privately held. Virtually all the remaining acreage is in State and Federal ownership.

#### Softwood acreage up 6 percent; hardwood up 19 percent

The longleaf-slash type, which distinguishes the lower Coastal Plain, dominates 3 million acres of forest land (fig. 2). Longleaf also occurs in the North Central region; but here much of its former acreage was taken over by loblolly or shortleaf pines as the old-growth longleaf was logged off. North of the longleaf region, the loblolly-shortleaf type covers about 8 million acres, and on an additional 3 million acres southern pines are heavily mixed with hardwoods--oaks, gums, hickories, and others.

The area classed as upland hardwood occupies 4 million acres; seven-tenths of this acreage is in North Alabama. Bottomland hardwoods, primarily in the Southwest and secondarily along rivers and streams throughout the State, aggregate 2.4 million acres.

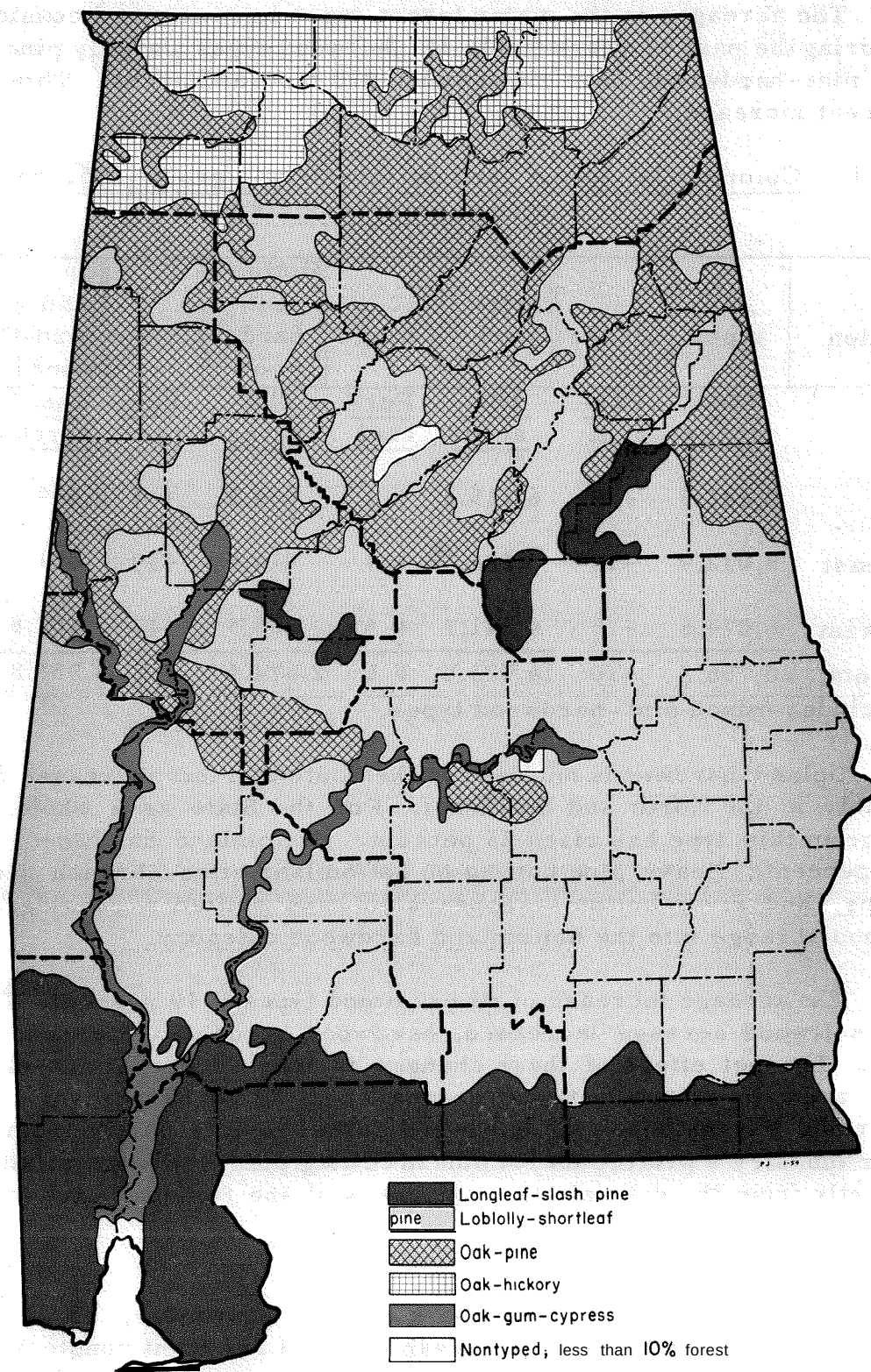


Figure 2.--Major forest types in Alabama.

The acreages in the major forest types have changed considerably during the past 17 years (table 1). Softwood types (largely pine and mixed pine-hardwood) have risen about 870 thousand acres. This is a 6-percent increase,

**Table 1. --Commercial forest land by forest-type group (1951-53) and change between Surveys**

| Region    | All types         | Change          | Soft-wood <sup>1/</sup> | Change          | Bottom-land hardwood | Change          | Up-land hardwood  | Change          |
|-----------|-------------------|-----------------|-------------------------|-----------------|----------------------|-----------------|-------------------|-----------------|
|           | <u>Thd. acres</u> | <u>Per-cent</u> | <u>Thd. acres</u>       | <u>Per-cent</u> | <u>Thd. acres</u>    | <u>Per-cent</u> | <u>Thd. acres</u> | <u>Per-cent</u> |
| North     | 9,648.5           | + 9             | 6,115.2                 | + 1             | 694.2                | t 4             | 2,839.1           | +32             |
| Southeast | 5,032.9           | +18             | 3,566.1                 | 6 1 7           | 814.9                | +19             | 651.9             | +23             |
| Southwest | 6,074.8           | t 5             | 4,741.7                 | t 6             | 865.3                | +17             | 467.8             | - 1 4           |
| Total     | 20,756.2          | +10             | 14,423.0                | + 6             | 2,374.4              | t 13            | 3,958.8           | t 23            |

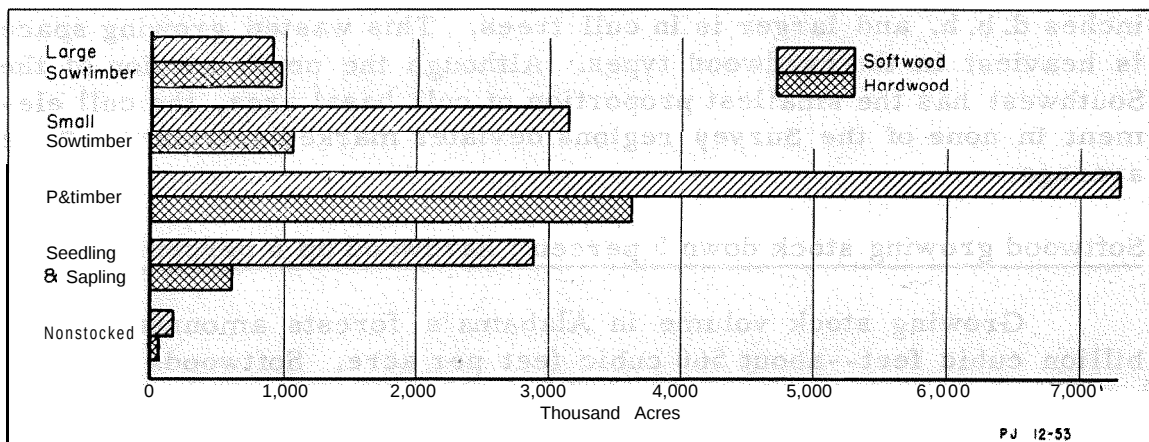
<sup>1/</sup> Includes mixed pine-hardwood types,

Upland hardwoods declined in the Southwest but increased considerably in the North and Southeast. For the State as a whole, the acreage in this type has risen 23 percent. Bottomland hardwoods are up 13 percent. Heavy pine cutting on bottomland sites--branch heads, swamps, and river bottoms--appears to have shifted a considerable softwood acreage into the bottomland hardwood category,

The acreage increase of all hardwood types is 19 percent. Thus, while softwood acreage increased, hardwood acreage increased even faster. The net effect of these changes is that the proportion of the forest area, in softwood types shrank from 72 to 69 percent. The more rapid expansion of the hardwood forest results partly from the timber industry's preference for pine in cutting pine-hardwood mixtures and partly from the natural aggressiveness of the residual hardwoods.

#### Poletimber stands predominate

Alabama's timber stands--29 percent sawtimber, 53 percent poletimber, 17 percent seedling and sapling, and 1 percent nonstocked--have a disproportionately large area in small trees (fig. 3). The disparity is greatest in the North region and in the pine-hardwood type

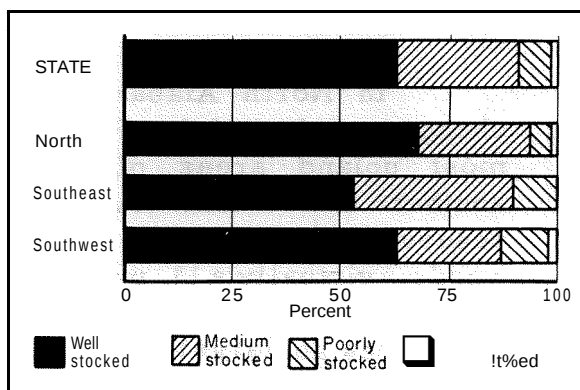


**Figure 3. --Forest area by stand size and forest-type group, 1951-53.**

throughout the State. Forty-five percent of the bottomland hardwood type, however, is in sawtimber stands. The Southwest has 39 percent of its forest area in sawtimber; Southeast 30 percent; North 23 percent.

### Three-fifths of forest well stocked

Sixty-three percent of Alabama's forest land can be considered well stocked (fig. 4). That is, it has at least 70 percent of the number of good trees (including well-established seedlings) required to occupy the site fully for best growth. This is a higher proportion of well-stocked forest than has been found in other Mid-South States that have been surveyed since 1946. Twenty-eight percent of the forest acreage is medium stocked--40 to 69 percent of full stocking. Eight percent is poorly (10 to 39 percent) stocked, and only 1 percent is nonstocked. The Southwest region has both the best and the poorest stocking--the best in the north section, the poorest in the south. Of the major forest types, bottomland hardwoods are the best stocked, the pine type poorest.



**Figure 4. --Degree of stocking by region, 1951-53.**

Full utilization of the timber-producing capacity of Alabama's forests is impeded by an accumulation of cull trees too rotten or limby for any foreseeable use. About one-fifth of the basal area of all live trees 2

inches d. b. h. and larger is in cull trees. This wasted growing space is heaviest in the hardwood types. Although the north section of the Southwest has the smallest proportion of cull basal area, the cull element in none of the Survey regions deviates markedly from the State average.

### Softwood growing stock down 5 percent; hardwood up 6 percent

Growing stock volume in Alabama's forests amounts to 11.7 billion cubic feet--about 560 cubic feet per acre. Softwoods make up

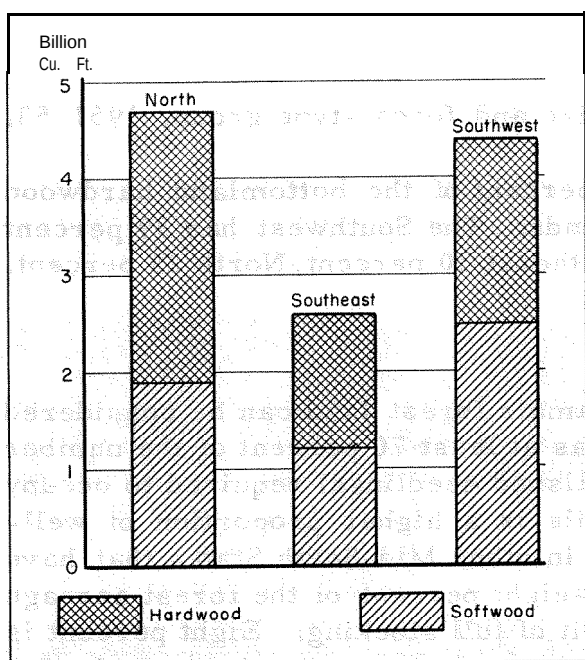


Figure 5. --Growing stock by region, 1951-53.

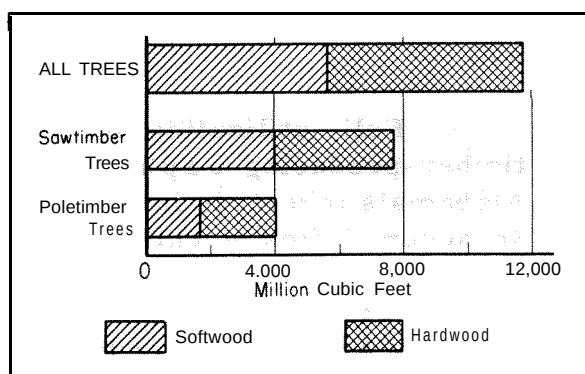


Figure 6. --Growing stock in pole-timber and sawtimber trees, 1951-53.

5.6 billion; hardwoods 6.1 billion. In North Alabama growing stock is 40 percent softwood; in Southeast 47 percent; in Southwest 57 percent (fig. 5). Seven-tenths of the softwood volume and six-tenths of the hardwood is in sawtimber trees (fig. 6).

Important changes in growing stock volume have occurred since the initial Survey in the middle 1930's. Softwood has declined 5 percent (table 2). Hardwood has increased 6 percent. The real significance of these figures, however, lies in the marked change in the numbers of trees in the different size classes between Surveys (fig. 7).

In North Alabama the change is typical of that found in most upland areas of other southern States that have been resurveyed since 1946. Softwoods--virtually all pine--have been cut heavily in all sizes 10 inches and larger in d. b. h. The rate of depletion is greatest in the bigger tree sizes. Though large hardwoods have

Table 2. --Growing stock volume (1951-53) and change between Surveys

| Region    | Softwood           |         | Hardwood           |         |
|-----------|--------------------|---------|--------------------|---------|
|           | Volume             | Change  | Volume             | Change  |
|           | Million<br>cu. ft. | Percent | Million<br>cu. ft. | Percent |
| North     | 1,895.4            | -26     | 2,849.9            | -2      |
| Southeast | 1,218.2            | -9      | 1,395.4            | +7      |
| Southwest | 2,502.5            | +25     | 1,851.0            | +22     |
| Total     | 5,616.1            | -5      | 6,096.3            | +6      |

also been reduced in numbers, hardwoods have been cut less heavily than softwoods.

Growing stock changes in North Alabama pose a serious -but not insurmountable- problem to the region's wood-using industries. Although volume has declined, there has been a large increase in the number of small growing stock trees. These trees are the key to North Alabama's forest future. Much of the increase is in low-value species such as hickory; but a substantial part is in desirable species--southern pines, yellow-poplar, and white oaks. This young timber offers a happy opportunity to rebuild the depleted growing stock. Much depends on the extent to which forest managers take advantage of the new growth.

In Southeast Alabama the impact of timber cutting has also been heavy, but not to the same extent as in the North region. As figure 7 indicates,

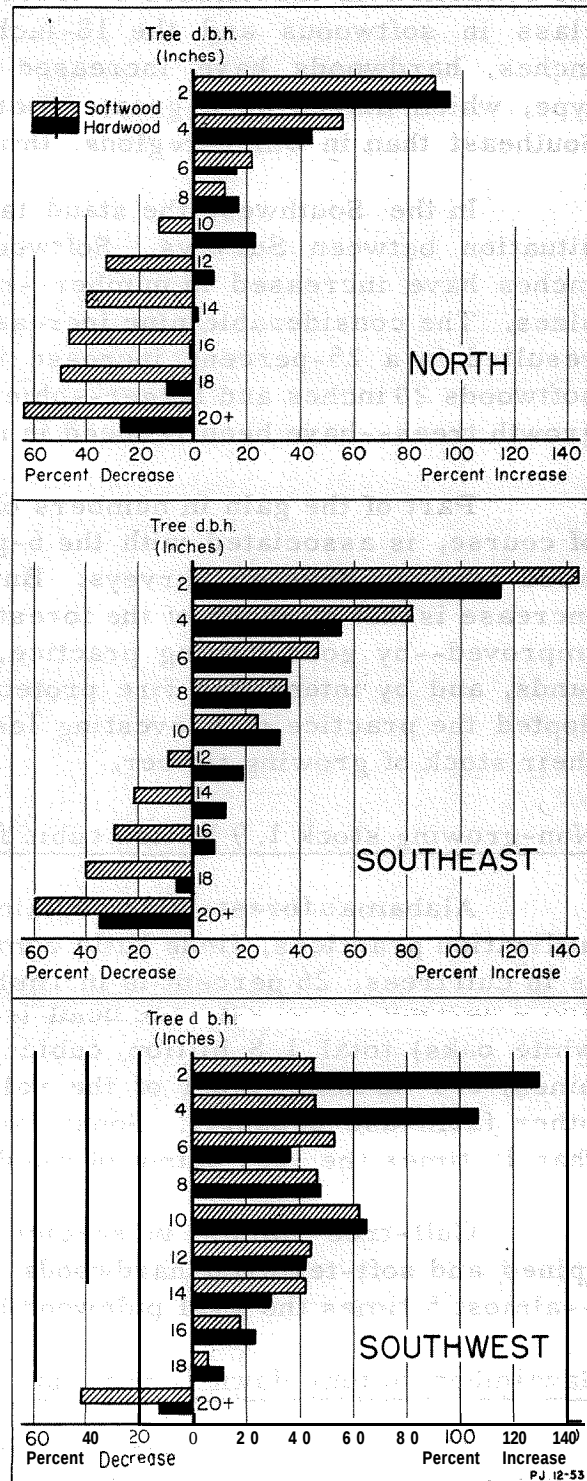


Figure 7. --Change in number of live trees between Surveys.

the reduction in the number of trees extends down through the 12-inch class in softwoods and the 18-inch class in hardwoods. Below 18 inches, hardwoods have increased considerably. In the bottomland type, which makes up a greater portion of the forest acreage in the Southeast than in other regions, this hardwood increase is favorable.

In the Southwest the stand tables indicate a greatly improved situation between Surveys. Softwoods in all tree sizes through 18 inches have increased in number--more than 40 percent in most tree sizes. The considerable pine increase, especially in sawtimber trees, resulted in a 25-percent increase in softwood growing stock. Only softwoods 20 inches and larger--chiefly old-growth and mature second-growth trees--have been reduced in numbers.

Part of the gain in numbers of small softwoods in the Southwest, of course, is associated with the 6-percent regional increase in softwood acreage between Surveys. But the prime factor in the softwood increase is that on much of the forest acreage, timber stands are being improved--by good cutting practice, by hardwood control in the uplands, and by intensified fire protection. Some owners have also adopted the practice of harvesting less than growth in order to build up their stock of growing timber,

#### Non-growing stock 1. 9 billion cubic feet

Alabama's forests also contain much timber that, under current utilization practices, finds little commercial use. Of this, 70 percent is in cull trees, 26 percent is in limbs of sawtimber-size hardwoods, and 4 percent is in salvable dead trees. Hardwoods (mainly red and white oaks) total 1. 8 billion cubic feet; softwoods (chiefly southern pines) 0. 1 billion. Most of the volume is suitable for fuelwood and other farm -use products. Sound volume in cull trees alone is more than 10 times the 1951 output of wood for domestic farm use.

Cull-tree volume in species generally acceptable for pulping (pines and soft-textured hardwoods) totals some 480 million cubic feet --almost 5 times the 1951 pulpwood harvest,

#### Sawtimber volume down 12 percent

Alabama's sawtimber volume totals 38. 2 billion board feet, of which two-fifths is in the Southwest region (fig. 8). Twenty-two billion board feet, 57 percent, is softwood,

Softwoods make up a greater portion of the sawtimber volume than of the growing stock. Loblolly pine, comprising 30 percent of the sawtimber volume, is the leading softwood species (fig. 9). Other southern pines--chiefly short-leaf--follow with 26 percent. All other softwoods make up 1 percent. Among hardwoods, red and white oaks lead with 16 percent of the total sawtimber volume. Sweet-, black-, and tupelo gum add up to 12 percent; hickories to 5 percent; and all other hardwoods to 10 percent.

Sawtimber volume dropped 5.4 billion board feet or 12 percent between Surveys.

This decline was felt in all of the State except the Southwest. There, total sawtimber volume increased 13 percent: 16 percent in softwoods and 7 percent in hardwoods (table 3).

Further expression of the improved situation in the Southwest is found in average volumes per acre--sawtimber volume now averages 2,600 board feet per acre; at the time of the first Survey it averaged 2,400 board feet. In contrast, North Alabama, which averaged 2,200

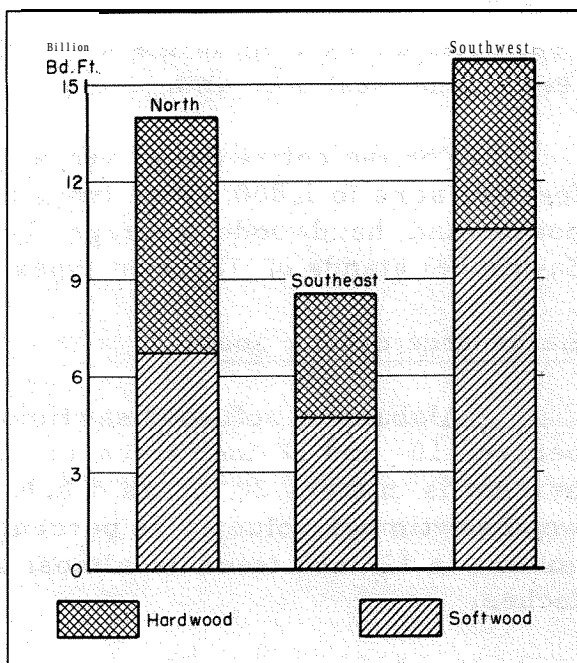


Figure 8. --Sawtimber volume by region, 1951-53.

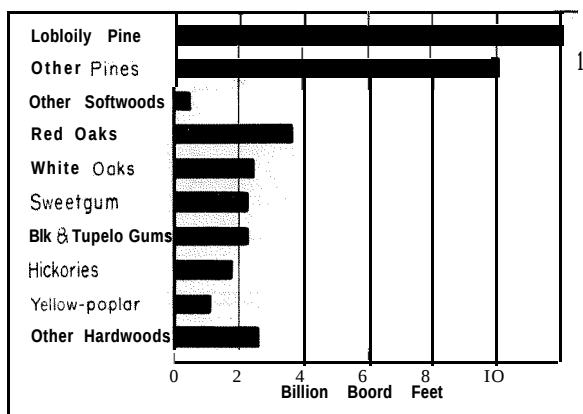


Figure 9. --Sawtimber volume by species, 1951-53.

Table 3. --Sawtimber volume (1951-53) and change between Surveys

| Region    | Softwood           |              | Hardwood           |              |
|-----------|--------------------|--------------|--------------------|--------------|
|           | Volume             | Change)      | Volume             | change       |
|           | Million<br>bd. ft. | Per-<br>cent | Million<br>bd. ft. | Per-<br>cent |
| North     | 6, 698. 6          | -40          | 7, 263. 5          | -12          |
| Southeast | 4, 720. 8          | -23          | 3, 798. 1          | - 8          |
| Southwest | 10, 509. 5         | +16          | 5, 220. 1          | + 7          |
| Total     | 21, 928. 9         | -17          | 16, 281. 7         | - 5          |

board feet at the time of the initial Survey, now averages 1,400 board feet. Southeast Alabama dropped from 2,400 board feet to 1,700.

For the entire State, average volume plunged from 2,300 board feet per acre to 1,800. Pine types now average 1,800 board feet, while bottomland hardwoods average 3,000 and upland hardwoods 1,400, Sawtimber stands of all forest types average 4,600 board feet per acre.

### Large-tree quality good

Alabama's softwood sawtimber volume is about equally divided between 10- and 12-inch trees and those 14 inches and larger; only 11 percent is in trees 20 inches d. b. h. and larger (table 4). Of the hardwood sawtimber volume, 54 percent is in 14- to 18-inch trees; and the volume in 12-inch trees is almost as much as that in trees over 18 inches,

Table 4. --Sawtimber volume by log grade and tree diameter, 1951-53

| Species group<br>and d. b. h.<br>class (inches) | All<br>grades     | Grade 1          | Grade 2          | Other<br>grades   |
|-------------------------------------------------|-------------------|------------------|------------------|-------------------|
| - - - - - <u>Million board feet</u> - - - - -   |                   |                  |                  |                   |
| <b>Softwood:</b>                                |                   |                  |                  |                   |
| 10 to 12                                        | 10, 593.7         | 33.7             | 218. 5           | 10,341. 5         |
| 14 to 18                                        | 8, 979. 3         | 28. 0            | 1, 856. 5        | 7, 094. 8         |
| 20 and up                                       | 2, 355.9          | 396.0            | 546.6            | 1, 413. 3         |
| <b>Total</b>                                    | <u>21, 928.9</u>  | <u>457.7</u>     | <u>2, 621. 6</u> | <u>18,849. 6</u>  |
| <b>Hardwood:</b>                                |                   |                  |                  |                   |
| 12                                              | 3, 642.9          | ...              | 27. 3            | 3, 615. 6         |
| 14 to 18                                        | 8, 775. 9         | 249.8            | 2, 055. 2        | 6, 470. 9         |
| 20 and up                                       | 3, 862. 9         | 1, 328. 1        | 1, 025. 6        | 1, 509. 2         |
| <b>Total</b>                                    | <u>16, 281.7</u>  | <u>1, 577.9</u>  | <u>3, 108. 1</u> | <u>11, 595. 7</u> |
| <b>All classes</b>                              | <u>38, 210. 6</u> | <u>2, 035. 6</u> | <u>5, 729. 7</u> | <u>30, 445. 3</u> |

Log quality is partly a function of tree size; the proportion of good-quality logs--grades 1 and 2--mounts rapidly with increasing tree diameter. In hardwoods 20 inches d. b. h. and larger, six-tenths of the volume is in good-quality logs; in 14- to 18-inch trees about one-quarter. But in the 12-inch class, virtually all of the volume is in low-grade saw-logs--small factory lumber logs, or logs that would yield chiefly ties and construction lumber.

As for softwoods, grade 1 and 2 logs comprise 40 percent of the sawtimber volume in trees 20 inches d. b. h. and larger; 21 percent of the volume in 14- to 18-inch trees; and 2 percent in 10- and 12-inch trees.

Of the total sawtimber volume, about three-tenths of the hardwood and one-seventh of the softwood is in grades 1 and 2. The low grade of much of Alabama's timber is due to the prevailing small sizes of sawtimber trees. Many of these trees will develop into better quality timber if permitted to grow to larger sizes.

Hardwood sawtimber stands are of higher average quality than softwood. More than half of the hardwood sawtimber area has at least four grade 2 or better logs per acre, while only one-third of the softwood sawtimber area does.

Net annual growth 769 million cubic feet; sawtimber growth 2. 8 billion board feet

Alabama's forests are now growing 769 million cubic feet annually in growing stock trees, including 2. 8 billion board feet of sawtimber. Statewide, more than three-fifths of the sawtimber growth is softwood; but in pole-timber-size trees--the future sawtimber supply--two-thirds of the growth is hardwood. More than four-fifths of the softwood growth and three-fifths of the hardwood is sawtimber.

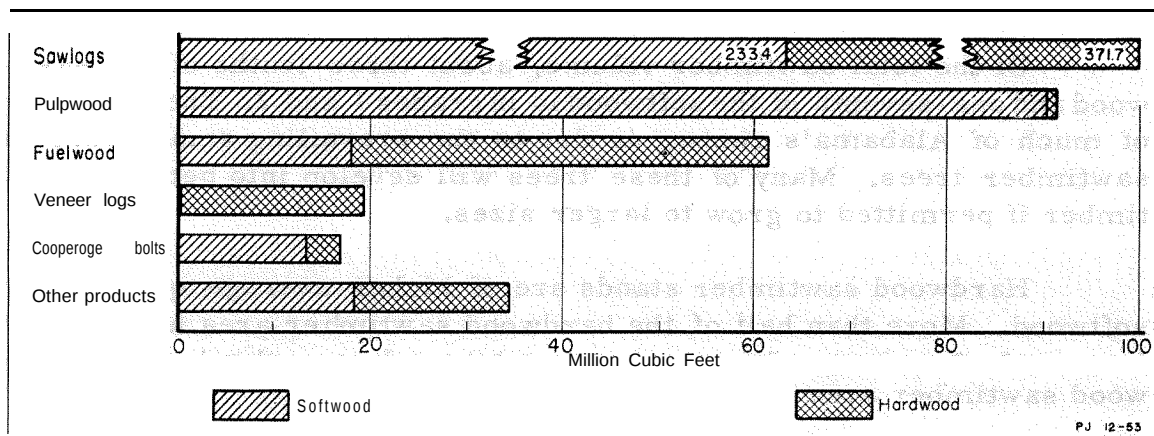
Annual net growth on growing stock averages 37 cubic feet per acre (about 0. 5 cord) for the State. It varies from 24 cubic feet (0. 3 cord) for the 10 northernmost counties to 52 cubic feet (0.7 cord) in the north section of the Southwest. In softwood types growth is slightly higher than in hardwood types: 38 cubic feet as compared to 35.

Annual net growth of sawtimber totals 133 board feet per acre for all stand-sizes. In sawtimber stands, growth per acre averages more than 300 board feet in softwood types; more than 200 board feet in hardwood types. Region-wide, growth in sawtimber stands ranges

from 138 board feet per acre in the 10 northernmost counties to 335 board feet in the north section of the Southwest.

**Total 1951 drain 595 million cubic feet; sawtimber drain 2. 5 billion board feet**

Commercial- and domestic-use cutting removed 595 million cubic feet from Alabama's growing stock in 1951, Sawlogs made up 63 percent of this volume; pulpwood 15 percent; fuelwood 10 percent; and all other products 12 percent (fig. 10). About one-seventh of the total commodity drain was for domestic farm use.



**Figure 10, --Commodity drain on growing stock, 1951.**

More than four-fifths of the 1951 sawtimber cut consisted of sawlogs and fuelwood. But considerable amounts of hardwood veneer logs, slack cooperage bolts, pine pulpwood, and pine poles were also harvested. Some 60 percent of the total board-footage was southern pine.

Alabama's timber resource supports some 3,000 sawmills, 7 wood-pulp mills, and more than 100 non-lumber establishments--veneer mills, cooperage plants, handle stock outfits, wood-preserving plants, and others. About 15 of the sawmills produce at least 10 million board feet annually.

## Accuracy of the Survey

The 1951-53 data on forest acreage and timber volume were secured by a systematic sampling method involving a forest-nonforest classification on aerial photographs and on-the-ground measurement of quarter-acre sample plots. In the North, West Central, Southeast, and the two Southwest regions, sample plots were taken in pairs at and near the intersections of a grid of east-west and north-south lines spaced three miles apart. Furthermore, in the river- and branch-bottoms of six<sup>3/</sup> counties of the Southwest, the number of sample plots was increased to strengthen the volume estimates and additional photo interpretation was done to improve the area estimate. In the North Central region, only 80 percent of the locations (i. e., pairs of plots) as determined from a 3-mile-square grid were sampled.

Accuracy of the estimates may be affected by two types of error. The first type stems from the use of a sample to estimate the whole and from variability of the item being sampled. This type is termed sampling error; it is susceptible to a mathematical evaluation of the probability of error. The second type of error derives from human mistakes in measurement, judgment, arithmetic, or recording, and from limitations of method or equipment. Effects of this second type of error--often referred to as reporting and estimating error--cannot be appraised mathematically, but the Forest Survey constantly attempts to hold such error to a minimum by proper training and good supervision, and by emphasis on careful work.

Statistical analysis of the data, using random-sampling formulas, indicates a sampling error of 0. 3 percent for the State estimate of total forest area, 1. 5 percent for total cubic-foot volume, and 2, 1 percent for total board-foot volume. However, because a systematic sample is generally more efficient than a random sample of the same size, these estimates of sampling error may be considered as setting an upper limit of error, rather than as expressing the actual probability of error. As the acreage and volumes for the State are broken down by Survey region, county, forest type, species, and other subdivisions of the data, the possibility of error increases and is greatest for the smallest items. The order of this increase is suggested in the following tabulation, which shows the sampling error to which the estimates may be liable on the probability of two chances out of three.

---

<sup>3</sup> / Baldwin Choctaw, Clarke, Mobile, Monroe, and Washington.

| Forest area          |                        | Cubic volume           |                        | Board-foot volume      |                        |
|----------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Size of area sampled | Maximum sampling error | Volume sampled         | Maximum sampling error | Volume sampled         | Maximum sampling error |
| <u>M acres</u>       | <u>Percent</u>         | <u>Million cu. ft.</u> | <u>Percent</u>         | <u>Million bd. ft.</u> | <u>Percent</u>         |
| 21,000               | 0.3                    | 12,000                 | 1.5                    | 38,000                 | 2.1                    |
| 10,000               | .4                     | 6,000                  | 2.1                    | 20,000                 | 2.9                    |
| 5,000                | .6                     | 3,000                  | 3.0                    | 10,000                 | 4.1                    |
| 2,000                | 1.0                    | 1,000                  | 5.1                    | 5,000                  | 5.8                    |
| 500                  | 1.9                    | 500                    | 7.3                    | 2,000                  | 9.2                    |
| 100                  | 4.3                    | 100                    | 16.2                   | 300                    | 23.7                   |

Growth estimates are based on radial-growth measurements and mortality data taken on the sample plots. No attempt was made to calculate sampling error in these estimates.

Drain estimates are conversions of production estimates. Production of hewn ties, commercial lumber, poles, piling, and round mine timbers was derived from Alabama Forest Products Severance Tax data. Commercial log and bolt production for other products was obtained by a 100-percent canvass of establishments or producers. Production of wood for fuel, fence posts, farm-use lumber, and miscellaneous domestic use on farms was estimated from an area sample. The data on production of each commodity were converted to drain upon growing stock by using drain-to-production ratios derived from measurements taken on sample cutting areas. The sampling errors to which the State cubic-foot drain estimates are liable, on a probability of two chances out of three, are found in the tabulation to the right.

| Commodity            | Sampling error of cubic-foot drain |
|----------------------|------------------------------------|
|                      | <u>Percent error</u>               |
| Sawlogs              | 1.9                                |
| Veneer logs          | 6.4                                |
| Cooperage bolts      | 1.7                                |
| Pulpwood             | 2.4                                |
| Fuelwood             | 13.3                               |
| Poles and piling     | 22.2                               |
| Posts                | 19.5                               |
| Hewn ties            | 6.7                                |
| Round mine timbers   | 6.6                                |
| Misc. logs and bolts | 13.6                               |
| All commodities      | 2.0                                |

In computing the changes that took place between 1935-36 and 1951-53, the data from the first Forest Survey were adjusted to make them as closely comparable as possible to data from the second Survey. This was necessary because of certain basic differences between the two sets of data. For example, published estimates from the first Survey were based on a total land area of 32,692,660 acres in Alabama. Since then, more accurate measurement by the U. S. Bureau of the Census has established a revised figure of 32,689,920 acres. Thus, while actual land acreage has changed little, if at all, the estimate of land acreage has decreased, affecting forest-area and timber-volume estimates in like proportion. Again, the lower diameter limit for hardwood sawtimber trees was dropped from 13.0 inches d. b. h. on the first Survey to 11.0 inches on the second Survey, in line with changing utilization practices.

In addition to these major points, a number of procedural differences between the two Surveys had to be taken into account. In every case, the data from the first Survey were adjusted to conform to the standards of the second Survey before change was computed.

The sampling error in the data on change in forest acreage and timber volume cannot be estimated. In the 1935-36 Survey, sample plots were spaced one-eighth mile apart on lines 10 miles apart. An estimate of sampling error was not made. However, the error in the estimate of the State forest acreage was probably very small, as it is for the second Survey; and the indicated change in total forest acreage may be considered essentially correct. Indicated changes for Survey regions and other portions of the total acreage should be valued in proportion to the magnitude of the item and of the change. Changes in timber volume, because of the possible effect of nonsampling as well as sampling errors, are shown only for major groupings of the data,

Table 5. --Forest and nonforest land by Survey region, 1951-53

| Land use                | State of<br>Alabama | North   | North<br>Central | West<br>Central | Southeast | Southwest-<br>North | Southwest-<br>South |
|-------------------------|---------------------|---------|------------------|-----------------|-----------|---------------------|---------------------|
| Thousand acres          |                     |         |                  |                 |           |                     |                     |
| Forest:                 |                     |         |                  |                 |           |                     |                     |
| Commercial              | 20,756.2            | 1,955.4 | 4,572.5          | 3,120.6         | 5,032.9   | 3,156.9             | 2,917.9             |
| Noncommercial:          |                     |         |                  |                 |           |                     |                     |
| Reserved                | 4.5                 | 2.      | 1                | .1              | .7        | (2/)                | .8                  |
| Unproductive            |                     |         |                  |                 |           |                     |                     |
| Total forest            | 20,771.2            | 1,957.5 | 4,573.4          | 3,121.3         | 5,032.9   | 3,156.9             | 2,929.2             |
| Nonforest <sup>1/</sup> | 11,918.7            | 2,541.1 | 2,021.8          | 1,274.9         | 3,999.4   | 1,218.1             | 863.4               |
| All land                | 32,689.9            | 4,498.6 | 6,595.2          | 4,396.2         | 9,032.3   | 4,375.0             | 3,792.6             |

<sup>1/</sup> Includes some acres of water according to Survey standards of area classification but defined by the Bureau of Census as land.

<sup>2/</sup> Negligible.

Table 6. --Commercial forest land by class of ownership, 1951-1953

| Class of ownership    | Commercial forest |         |
|-----------------------|-------------------|---------|
|                       | Thousand acres    | Percent |
| Private:              |                   |         |
| Farm <sup>1/</sup>    | 9,741.7           | 46.9    |
| Other                 | 10,038.6          | 48.4    |
| Total private         | 19,780.3          | 95.3    |
| Public: <sup>2/</sup> |                   |         |
| National forest       | 616.3             | 3.0     |
| T. V. A.              | 55.3              | .3      |
| Other federal         | 153.0             | .7      |
| State                 | 148.6             | .7      |
| County and municipal  | 2.7               | (3/)    |
| Total public          | 975.9             | 4.7     |
| All ownership         | 20,756.2          | 100.0   |

<sup>1/</sup> Based on 1950 Census of Agriculture.

<sup>2/</sup> Compiled 1952.

<sup>3/</sup> Negligible.

Table 7 . --Land area and commercial forest by county, 1951-53<sup>1/</sup>

| county         | All land          | Commercial forest |             | County         | All land          | Commercial forest |         |
|----------------|-------------------|-------------------|-------------|----------------|-------------------|-------------------|---------|
|                | Thousand<br>acres | Thousand<br>acres | Percent     |                | Thousand<br>acres | Thousand<br>acres | Percent |
| Autauga        | 383.4             | 242.4             | <b>63.2</b> | Jefferson      | 715.6             | 505.8             | 70.7    |
| Baldwin        | <b>1,032.3</b>    | 775.7             | 75.1        | Lamar          | 387.2             | 278.8             | 72.0    |
| <b>Barbour</b> | 575.4             | 340.0             | 59.1        | Lauderdale     | 440.3             | <b>147.8</b>      | 33.6    |
| Bibb           | 400.0             | 326.8             | 81.7        | Lawrence       | 439.0             | 194.3             | 44.3    |
| <b>Blount</b>  | 409.6             | 243.6             | 59.5        | <b>Lee</b>     | 391.7             | 239.7             | 61.2    |
| Bullock        | 393.6             | <b>208.2</b>      | 52.9        | Limestone      | <b>348.8</b>      | 88.2              | 25.3    |
| <b>Butler</b>  | 494.7             | <b>348.8</b>      | 70.5        | Lowndes        | 458.2             | 228.7             | 49.9    |
| Calhoun        | 390.4             | 265.6             | 68.0        | Macon          | 394.2             | 205.8             | 52.2    |
| Chambers       | 382.7             | 246.5             | 64.4        | Madison        | 514.0             | 158.1             | 30.8    |
| Cherokee       | 384.0             | 245.4             | 63.9        | Marengo        | 625.9             | 365.5             | 58.4    |
| <b>Chilton</b> | 447.4             | 318.6             | 71.2        | Marion         | 475.5             | 321.0             | 67.5    |
| Choctaw        | 587.5             | 484.4             | 82.5        | Marshall       | 365.4             | 148.5             | 40.6    |
| Clarke         | 794.2             | 682.2             | <b>85.9</b> | Mobile         | 798.7             | 596.4             | 74.7    |
| Clay           | 385.9             | 302.7             | 78.4        | Monroe         | 642.4             | 506.8             | 76.5    |
| Cleburne       | 367.4             | 292.1             | <b>79.5</b> | Montgomery     | 505.6             | 181.6             | 35.9    |
| Coffee         | 433.3             | 242.2             | 55.9        | <b>Morgan</b>  | 367.4             | 132.7             | 36.1    |
| Colbert        | <b>394.2</b>      | 212.0             | 53.8        | Perry          | 469.8             | 298.3             | 63.5    |
| Conecuh        | 544.0             | 373.8             | 68.7        | <b>Pickens</b> | 567.7             | 404.2             | 71.2    |
| <b>Coosa</b>   | 414.7             | <b>331.9</b>      | 80.0        | Pike           | 430.7             | 206.3             | 47.9    |
| Covington      | 661.8             | 454.9             | 68.7        | Randolph       | 371.8             | 245.0             | 65.9    |
| Crenshaw       | 391.0             | 243.2             | 62.2        | Russell        | 409.0             | <b>211.4</b>      | 51.7    |
| <b>Cullman</b> | 475.5             | 256.3             | 53.9        | St. Clair      | 410.2             | 309.3             | 75.4    |
| Dale           | 358.4             | 193.5             | 54.0        | Shelby         | 512.0             | 380.7             | 74.4    |
| Dallas         | 624.7             | 314.2             | <b>50.3</b> | Sumter         | 585.0             | 354.8             | 60.6    |
| <b>DeKalb</b>  | 497.9             | 230.5             | 46.3        | Talladega      | 480.0             | 303.8             | 63.3    |
| <b>Elmore</b>  | <b>401.9</b>      | 249.3             | 62.0        | Tallapoosa     | 455.0             | 328.3             | 72.2    |
| Escambia       | 615.7             | 496.3             | 80.6        | Tuscaloosa     | 857.6             | 700.1             | 81.6    |
| Etowah         | 355.2             | 218.4             | 61.5        | Walker         | 517.8             | 358.2             | 69.2    |
| Fayette        | 401.3             | 302.2             | 75.3        | Washington     | 684.1             | 594.6             | 86.9    |
| Franklin       | 412.2             | 233.3             | <b>56.6</b> | Wilcox         | 576.0             | 389.4             | 67.6    |
| Geneva         | 369.9             | 159.4             | 43.1        | Winston        | 405.1             | 313.7             | 77.4    |
| Greene         | 412.8             | 252.7             | 61.2        |                |                   |                   |         |
| Hale           | 424.3             | 236.5             | 55.7        |                |                   |                   |         |
| Henry          | 361.6             | 201.0             | 55.6        |                |                   |                   |         |
| Houston        | 369.9             | 123.8             | 33.5        |                |                   |                   |         |
| Jackson        | 719.4             | 410.0             | 57.0        |                |                   |                   |         |
|                |                   |                   |             | All counties   | 32,689.9          | <b>20,756.2</b>   | 63.5    |

<sup>1/</sup> County data on sawtimber volume and growing stock, suitable for combining into county groups, are available as a supplement to this release.

Table 8. --Commercial forest land by stand size and forest type, by Survey region, 1951-1953

| Forest type         | All stand sizes | Large saw-timber | Small saw-timber | Pole-timber | Seedling and sapling | Nonstocked and other areas <sup>1/</sup> | All stand sizes   | Large saw-timber | Small saw-timber | Pole-timber | Seedling and sapling | Nonstocked and other areas <sup>1/</sup> |
|---------------------|-----------------|------------------|------------------|-------------|----------------------|------------------------------------------|-------------------|------------------|------------------|-------------|----------------------|------------------------------------------|
| Thousand acres      |                 |                  |                  |             |                      |                                          | Thousand acres    |                  |                  |             |                      |                                          |
| STATE OF ALABAMA    |                 |                  |                  |             |                      |                                          | SOUTHEAST         |                  |                  |             |                      |                                          |
| Softwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Pine                | 11,002.3        | 723.7            | 2,649.6          | 5,216.7     | 2,247.7              | 164.6                                    | 2,829.9           | 166.1            | 646.9            | 1,268.7     | 734.8                | 13.4                                     |
| Pine-hardwood       | 3,256.0         | 176.4            | 490.6            | 1,986.4     | 581.8                | 20.8                                     | 714.7             | 42.9             | 120.2            | 425.7       | 125.9                | ...                                      |
| Other softwood      | 164.7           | 8.1              | 7.7              | 96.7        | 52.2                 | ...                                      | 21.5              | ...              | ...              | 15.3        | 6.2                  | ...                                      |
| Total               | 14,423.0        | 908.2            | 3,147.9          | 7,299.8     | 2,881.7              | 185.4                                    | 3,566.1           | 209.0            | 767.1            | 1,709.7     | 866.9                | 13.4                                     |
| Hardwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Bottomland hardwood | 2,374.4         | 522.2            | 542.4            | 1,130.4     | 172.7                | 6.7                                      | 814.9             | 102.8            | 222.5            | 437.3       | 52.3                 | ...                                      |
| Upland hardwood     | 3,958.8         | 436.2            | 534.1            | 2,482.4     | 448.7                | 57.4                                     | 651.9             | 49.7             | 133.8            | 367.5       | 95.1                 | 5.8                                      |
| Total               | 6,333.2         | 958.4            | 1,076.5          | 3,612.8     | 621.4                | 64.1                                     | 1,466.8           | 152.5            | 356.3            | 804.8       | 147.4                | 5.8                                      |
| All types           | 20,756.2        | 1,866.6          | 4,224.4          | 10,912.6    | 3,503.1              | 249.5                                    | 5,032.9           | 361.5            | 1,123.4          | 2,514.5     | 1,014.3              | 19.2                                     |
| NORTH               |                 |                  |                  |             |                      |                                          | SOUTHWEST - NORTH |                  |                  |             |                      |                                          |
| Softwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Pine                | 425.3           | 49.2             | 102.1            | 176.9       | 91.6                 | 5.5                                      | 1,853.2           | 252.1            | 653.1            | 734.5       | 210.6                | 2.9                                      |
| Pine-hardwood       | 257.4           | 30.5             | 43.8             | 137.7       | 43.1                 | 2.3                                      | 437.0             | 32.1             | 115.4            | 233.0       | 56.5                 | ...                                      |
| Other softwood      | 123.6           | 8.1              | 5.5              | 77.9        | 32.1                 | ...                                      | 17.4              | ...              | ...              | 3.5         | 13.9                 | ...                                      |
| Total               | 806.3           | 87.8             | 151.4            | 392.5       | 166.8                | 7.8                                      | 2,307.6           | 284.2            | 768.5            | 971.0       | 281.0                | 2.9                                      |
| Hardwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Bottomland hardwood | 145.5           | 26.8             | 17.2             | 75.6        | 23.6                 | 2.3                                      | 520.3             | 125.7            | 128.3            | 247.2       | 17.9                 | 1.2                                      |
| Upland hardwood     | 1,003.6         | 130.7            | 198.0            | 606.6       | 68.3                 | ...                                      | 329.0             | 44.9             | 52.0             | 209.7       | 22.4                 | ...                                      |
| Total               | 1,149.1         | 157.5            | 215.2            | 682.2       | 91.9                 | 2.3                                      | 849.3             | 170.6            | 180.3            | 456.9       | 40.3                 | 1.2                                      |
| All types           | 1,955.4         | 245.3            | 366.6            | 1,074.7     | 258.7                | 10.1                                     | 3,156.9           | 454.8            | 948.8            | 1,427.9     | 321.3                | 4.1                                      |
| NORTH CENTRAL       |                 |                  |                  |             |                      |                                          | SOUTHWEST - SOUTH |                  |                  |             |                      |                                          |
| Softwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Pine                | 2,305.8         | 128.0            | 420.8            | 1,206.2     | 523.6                | 27.2                                     | 2,204.7           | 62.2             | 605.1            | 961.6       | 468.7                | 107.1                                    |
| Pine-hardwood       | 977.2           | 33.5             | 90.3             | 637.4       | 211.7                | 4.3                                      | 227.2             | 8.9              | 60.6             | 107.2       | 47.7                 | 2.8                                      |
| Other softwood      | ...             | ...              | ...              | ...         | ...                  | ...                                      | 2.2               | ...              | 2.2              | ...         | ...                  | ...                                      |
| Total               | 3,283.0         | 161.5            | 511.1            | 1,843.6     | 735.3                | 31.5                                     | 2,434.1           | 71.1             | 667.9            | 1,068.8     | 516.4                | 109.9                                    |
| Hardwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Bottomland hardwood | 103.7           | 15.8             | 16.6             | 39.4        | 31.9                 | ...                                      | 345.0             | 135.5            | 67.1             | 130.1       | 12.3                 | ...                                      |
| Upland hardwood     | 1,185.8         | 144.4            | 76.7             | 788.9       | 159.3                | 16.5                                     | 138.8             | 3.2              | 13.9             | 57.3        | 29.3                 | 35.1                                     |
| Total               | 1,289.5         | 160.2            | 93.3             | 828.3       | 191.2                | 16.5                                     | 483.8             | 138.7            | 81.0             | 187.4       | 41.6                 | 35.1                                     |
| All types           | 4,572.5         | 321.7            | 604.4            | 2,671.9     | 926.5                | 48.0                                     | 2,917.9           | 209.8            | 748.9            | 1,256.2     | 558.0                | 145.0                                    |
| WEST CENTRAL        |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Softwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Pine                | 1,383.4         | 66.1             | 221.6            | 868.8       | 218.4                | 8.5                                      |                   |                  |                  |             |                      |                                          |
| Pine-hardwood       | 642.5           | 28.5             | 60.3             | 445.4       | 96.9                 | 11.4                                     |                   |                  |                  |             |                      |                                          |
| Other softwood      | ...             | ...              | ...              | ...         | ...                  | ...                                      |                   |                  |                  |             |                      |                                          |
| Total               | 2,025.9         | 94.6             | 281.9            | 1,314.2     | 315.3                | 19.9                                     |                   |                  |                  |             |                      |                                          |
| Hardwood types:     |                 |                  |                  |             |                      |                                          |                   |                  |                  |             |                      |                                          |
| Bottomland hardwood | 445.0           | 115.6            | 90.7             | 200.8       | 34.7                 | 3.2                                      |                   |                  |                  |             |                      |                                          |
| Upland hardwood     | 649.7           | 63.3             | 59.7             | 452.4       | 74.3                 | ...                                      |                   |                  |                  |             |                      |                                          |
| Total               | 1,094.7         | 178.9            | 150.4            | 653.2       | 109.0                | 3.2                                      |                   |                  |                  |             |                      |                                          |
| All types           | 3,120.6         | 273.5            | 432.3            | 1,967.4     | 424.3                | 23.1                                     |                   |                  |                  |             |                      |                                          |

<sup>1/</sup> Includes areas not classified elsewhere.

Table 9. --Commercial forest land by degree of tree stocking and forest type, by Survey region, 1951-1953

| Forest type         | All<br>stocking | Well<br>stocked | Medium<br>stocked | Poorly<br>stocked | Non-<br>stocked |
|---------------------|-----------------|-----------------|-------------------|-------------------|-----------------|
| Thousand acres      |                 |                 |                   |                   |                 |
| STATE OF ALABAMA    |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 11,002.3        | 482.9           | 3,264.1           | 1,094.0           | 161.3           |
| Pine-hardwood       | 3,256.0         | 2,028.8         | 969.4             | 237.0             | 20.8            |
| Other softwood      | 164.7           | 68.9            | 77.5              | 18.3              | ...             |
| Total               | 14,423.0        | 7,580.6         | 4,311.0           | 1,349.3           | 182.1           |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 2,374.4         | 1,718.2         | 534.4             | 116.3             | 5.5             |
| Upland hardwood     | 3,958.8         | 2,721.3         | 961.1             | 219.0             | 57.4            |
| Total               | 6,333.2         | 4,439.5         | 1,495.5           | 335.3             | 62.9            |
| All types           | 20,756.2        | 13,020.1        | 5,806.5           | 1,684.6           | 245.0           |
| NORTH               |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 425.3           | 256.5           | 145.1             | 18.2              | 5.5             |
| Pine-hardwood       | 257.4           | 150.0           | 92.1              | 13.0              | 2.3             |
| Other softwood      | 123.6           | 65.6            | 52.3              | 5.5               | ...             |
| Total               | 806.3           | 472.1           | 289.7             | 36.7              | 7.8             |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 145.5           | 72.0            | 54.7              | 16.5              | 2.3             |
| Upland hardwood     | 1,003.6         | 724.5           | 240.6             | 38.5              | ...             |
| Total               | 1,149.1         | 796.5           | 295.3             | 55.0              | 2.3             |
| All types           | 1,955.4         | 1,268.6         | 585.0             | 91.7              | 10.1            |
| NORTH CENTRAL       |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 2,305.8         | 1,592.3         | 552.8             | 133.5             | 27.2            |
| Pine-hardwood       | 977.2           | 661.3           | 284.5             | 27.1              | 4.3             |
| Other softwood      | ...             | ...             | ...               | ...               | ...             |
| Total               | 3,283.0         | 2,253.6         | 837.3             | 160.6             | 31.5            |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 103.7           | 63.5            | 32.8              | 7.4               | ...             |
| Upland hardwood     | 1,185.8         | 942.5           | 200.8             | 26.0              | 16.5            |
| Total               | 1,289.5         | 1,006.0         | 233.6             | 33.4              | 16.5            |
| All types           | 4,572.5         | 3,259.6         | 1,070.9           | 194.0             | 48.0            |
| WEST CENTRAL        |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 1,303.4         | 876.7           | 402.3             | 93.9              | 8.5             |
| Pine-hardwood       | 642.5           | 428.3           | 160.7             | 42.1              | 11.4            |
| Other softwood      | ...             | ...             | ...               | ...               | ...             |
| Total               | 1,945.9         | 1,305.0         | 563.0             | 136.0             | 19.9            |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 445.0           | 339.4           | 84.0              | 18.4              | 3.2             |
| Upland hardwood     | 649.7           | 456.2           | 162.6             | 30.9              | ...             |
| Total               | 1,094.7         | 795.6           | 246.6             | 49.3              | 3.2             |
| All types           | 3,040.6         | 2,100.6         | 809.6             | 185.3             | 23.1            |
| SOUTHEAST           |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 2,829.9         | 1,377.5         | 1,109.2           | 329.8             | 13.4            |
| Pine-hardwood       | 714.7           | 328.4           | 306.4             | 79.9              | ...             |
| Other softwood      | 21.5            | 3.3             | 12.4              | 5.8               | ...             |
| Total               | 3,566.1         | 1,709.2         | 1,428.0           | 415.5             | 13.4            |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 814.9           | 627.6           | 168.7             | 18.6              | ...             |
| Upland hardwood     | 651.9           | 287.9           | 279.2             | 79.0              | 3.8             |
| Total               | 1,466.8         | 915.5           | 447.9             | 97.6              | 5.8             |
| All types           | 5,032.9         | 2,624.7         | 1,075.9           | 513.1             | 19.2            |
| SOUTHWEST-NORTH     |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 1,853.2         | 1,509.5         | 279.0             | 61.8              | 2.9             |
| Pine-hardwood       | 437.0           | 343.2           | 70.3              | 23.5              | ...             |
| Other softwood      | 17.4            | ...             | 10.4              | 7.0               | ...             |
| Total               | 2,307.6         | 1,852.7         | 359.7             | 92.3              | 2.9             |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 520.3           | 378.5           | 124.7             | 17.1              | ...             |
| Upland hardwood     | 329.0           | 262.6           | 53.5              | 12.9              | ...             |
| Total               | 849.3           | 641.1           | 178.2             | 30.0              | ...             |
| All types           | 3,156.9         | 2,493.8         | 537.9             | 122.3             | 2.9             |
| SOUTHWEST-SOUTH     |                 |                 |                   |                   |                 |
| Softwood types:     |                 |                 |                   |                   |                 |
| Pine                | 2,204.7         | 870.4           | 775.7             | 454.8             | 103.8           |
| Pine-hardwood       | 227.2           | 117.6           | 55.4              | 51.4              | 2.8             |
| Other softwood      | 2.2             | ...             | 2.2               | ...               | ...             |
| Total               | 2,434.1         | 988.0           | 833.3             | 506.2             | 106.6           |
| Hardwood types:     |                 |                 |                   |                   |                 |
| Bottomland hardwood | 345.0           | 237.2           | 69.5              | 38.3              | ...             |
| Upland hardwood     | 138.8           | 47.6            | 24.4              | 31.7              | 35.1            |
| Total               | 483.8           | 284.8           | 93.9              | 70.0              | 35.1            |
| All types           | 2,917.9         | 1,272.8         | 927.2             | 576.2             | 141.7           |

Table 10. --Area of sawtimber stands by stand quality and forest type, by Survey region,  
1951-1953

| Forest type         | All<br>qualities | Fair or<br>better | Poor           | All<br>qualities | Fair or<br>better | Poor           |
|---------------------|------------------|-------------------|----------------|------------------|-------------------|----------------|
|                     | Thousand acres   | Thousand acres    | Thousand acres | Thousand acres   | Thousand acres    | Thousand acres |
| STATE OF ALABAMA    |                  |                   |                | SOUTHEAST        |                   |                |
| Softwood types:     |                  |                   |                |                  |                   |                |
| Pine                | 3, 373.3         | 1, 035.6          | 2, 337.7       | 813.0            | 202.9             | 610.1          |
| Pine-hardwood       | 667.0            | 281.2             | 385.8          | 163.1            | 57.7              | 105.4          |
| Other softwood      | 15.8             | 13.6              | 2.2            | ***              | ***               | ***            |
| Total               | 4,056.1          | 1, 330.4          | 2, 725.7       | 976.1            | 26% 6             | 715.5          |
| Hardwood types:     |                  |                   |                |                  |                   |                |
| Bottomland hardwood | 1, 064.6         | 588.7             | 475.9          | 325.3            | 73.3              | 252.0          |
| Upland hardwood     | 970.3            | 503.1             | 467.2          | 183.5            | 11.8              | 171.7          |
| Total               | 2, 034.9         | 1, 091.8          | 943.1          | 508.8            | 85.1              | 423.7          |
| All types           | 6, 091.0         | 2, 422.2          | 3, 668.8       | 1, 484.9         | 345.7             | 1, 139.2       |
| NORTH               |                  |                   |                | SOUTHWEST-NORTH  |                   |                |
| Softwood types:     |                  |                   |                |                  |                   |                |
| Pine                | 151.3            | 65.0              | 86.3           | 905.2            | 321.0             | 584.2          |
| Pine-hardwood       | 74.3             | 44.5              | 29.8           | 147.5            | 55.4              | 92.1           |
| Other softwood      | 13.6             | 13.6              | ***            | ***              | ***               | ***            |
| Total               | 239.2            | 123.1             | 116.1          | 1, 052.7         | 376.4             | 676.3          |
| Hardwood types:     |                  |                   |                |                  |                   |                |
| Bottomland hardwood | 44.0             | 29.7              | 14.3           | 254.0            | 160.0             | 94.0           |
| Upland hardwood     | 328.7            | 219.1             | 109.6          | 96.9             | 39.4              | 57.5           |
| Total               | 372.7            | 248.8             | 123.9          | 350.9            | 199.4             | 151.5          |
| All types           | 611.9            | 371.9             | 240.0          | 1, 403.6         | 575.8             | 827.8          |
| NORTH CENTRAL       |                  |                   |                | SOUTHWEST-SOUTH  |                   |                |
| Softwood types:     |                  |                   |                |                  |                   |                |
| Pine                | 548.8            | 229.7             | 319.1          | 667.3            | 112.9             | 554.4          |
| Pine-hardwood       | 123.8            | 66.2              | 57.6           | 69.5             | 7.4               | 62.1           |
| Other softwood      | ***              | ***               | ***            | 2.2              | ***               | 2.2            |
| Total               | 672.6            | 29% 9             | 376.7          | 739.0            | 120.3             | 618.7          |
| Hardwood types:     |                  |                   |                |                  |                   |                |
| Bottomland hardwood | 32.4             | 28.7              | 3.7            | 202.6            | 171.8             | 30.8           |
| Upland hardwood     | 221.1            | 164.1             | 57.0           | 17.1             | 2.2               | 14.9           |
| Total               | 253.5            | 192.8             | 60.7           | 219.7            | 174.0             | 45.7           |
| All types           | 926.1            | 488.7             | 437.4          | 958.7            | 294.3             | 664.4          |
| WEST CENTRAL        |                  |                   |                |                  |                   |                |
| Softwood types:     |                  |                   |                |                  |                   |                |
| Pine                | 287.7            | 104.1             | 183.6          |                  |                   |                |
| Pine-hardwood       | 88.8             | 50.0              | 38.8           |                  |                   |                |
| Other softwood      | ***              | ***               | ***            |                  |                   |                |
| Total               | 376.5            | 154.1             | 222.4          |                  |                   |                |
| Hardwood types:     |                  |                   |                |                  |                   |                |
| Bottomland hardwood | 206.3            | 125.2             | 81.1           |                  |                   |                |
| Upland hardwood     | 123.0            | 66.5              | 56.5           |                  |                   |                |
| Total               | 329.3            | 191.7             | 137.6          |                  |                   |                |
| All types           | 705.8            | 345.8             | 360.0          |                  |                   |                |

Table 11. --Basal area per acre of growing stock and cull trees by forest-type group and Survey region, 1951-53

| Forest-type group                      | State       | North       | North Central | West Central | Southeast   | Southwest-North | Southwest-South |
|----------------------------------------|-------------|-------------|---------------|--------------|-------------|-----------------|-----------------|
| -----Square feet-----                  |             |             |               |              |             |                 |                 |
| <b>Softwoods:</b>                      |             |             |               |              |             |                 |                 |
| 2- and 4-inch good trees <sup>1/</sup> | 12.7        | 14.0        | 12.8          | 15.4         | 11.9        | 15.7            | 7.9             |
| Growing stock                          | 32.5        | 32.6        | 29.7          | 32.2         | 28.4        | 45.3            | 30.2            |
| 2- and 4-inch poor trees               | 2.8         | 3.8         | 2.7           | 2.2          | 2.4         | 2.7             | 4.0             |
| Cull trees                             | 5.3         | 6.6         | 6.0           | 4.6          | 4.7         | 5.8             | 4.9             |
| All trees                              | <u>53.3</u> | <u>57.0</u> | <u>51.2</u>   | <u>54.4</u>  | <u>47.4</u> | <u>69.5</u>     | <u>47.0</u>     |
| <b>Bottomland hardwood:</b>            |             |             |               |              |             |                 |                 |
| 2- and 4-inch good trees <sup>1/</sup> | 12.1        | 13.7        | 14.9          | 9.4          | 13.3        | 9.6             | 14.6            |
| Growing stock                          | 54.7        | 39.2        | 35.9          | 59.0         | 48.7        | 55.6            | 74.7            |
| 2- and 4-inch poor trees               | 5.0         | 4.9         | 5.2           | 5.5          | 5.0         | 4.6             | 4.6             |
| Cull trees                             | 16.5        | 11.2        | 12.5          | 16.2         | 17.0        | 16.2            | 19.8            |
| All trees                              | <u>88.3</u> | <u>69.0</u> | <u>68.1</u>   | <u>90.1</u>  | <u>84.0</u> | <u>86.0</u>     | <u>113.7</u>    |
| <b>Upland hardwood:</b>                |             |             |               |              |             |                 |                 |
| 2- and 4-inch good trees <sup>1/</sup> | 10.8        | 10.1        | 10.5          | 11.2         | 11.8        | 14.5            | 3.6             |
| Growing stock                          | 34.0        | 39.2        | 31.6          | 34.0         | 30.6        | 40.8            | 15.8            |
| 2- and 4-inch poor trees               | 3.8         | 4.6         | 3.3           | 2.7          | 3.5         | 4.1             | 8.9             |
| Cull trees                             | 10.2        | 10.7        | 9.8           | 8.1          | 11.5        | 10.9            | 12.0            |
| All trees                              | <u>58.8</u> | <u>64.6</u> | <u>55.2</u>   | <u>56.0</u>  | <u>57.4</u> | <u>70.3</u>     | <u>40.3</u>     |
| <b>All types:</b>                      |             |             |               |              |             |                 |                 |
| 2- and 4-inch good trees <sup>1/</sup> | 12.2        | 12.0        | 12.3          | 13.6         | 12.2        | 14.6            | a. 5            |
| Growing stock                          | 35.3        | 36.5        | 30.3          | 36.4         | 31.9        | 46.5            | 34.7            |
| 2- and 4-inch poor trees               | 3.3         | 4.3         | 2.9           | 2.8          | 2.9         | 3.2             | 4.3             |
| Cull trees                             | 7.5         | 9.0         | 7.1           | 7.0          | 1.6         | 8.0             | 7.0             |
| All trees                              | <u>58.3</u> | <u>61.8</u> | <u>52.6</u>   | <u>59.8</u>  | <u>54.6</u> | <u>72.3</u>     | <u>54.5</u>     |

<sup>1/</sup> Includes only sound, well-formed trees.

Table 12. --Total volume by class of timber and species, by Survey region, 1951-53

| Table 12. -- Total volume by class of timber and species, by State, 1939 |               |                     |                 |             |                  |                |            |
|--------------------------------------------------------------------------|---------------|---------------------|-----------------|-------------|------------------|----------------|------------|
| Species                                                                  | All timber 1/ | Growing stock       |                 |             |                  | Hardwood limbs | Cull trees |
|                                                                          |               | Total growing stock | Sawtimber trees |             | Poletimber trees |                |            |
|                                                                          |               |                     | Sawlog portions | Upper stems |                  |                |            |
| -----Thousand cords-----                                                 |               |                     |                 |             |                  |                |            |
| STATE OF ALABAMA                                                         |               |                     |                 |             |                  |                |            |
| Softwood:                                                                |               |                     |                 |             |                  |                |            |
| Loblolly pine                                                            | 35,104        | 34,745              | 24,757          | 2,075       | 7,913            | ...            | 359        |
| Shortleaf pine                                                           | 17,573        | 17,418              | 9,153           | 859         | 7,406            | ...            | 155        |
| Longleaf pine                                                            | 12,017        | 11,952              | 7,492           | 754         | 3,706            | ...            | 65         |
| Slash pine                                                               | 5,904         | 5,877               | 4,123           | 371         | 1,383            | ...            | 27         |
| Other pines                                                              | 3,402         | 3,318               | 2,227           | 185         | 906              | ...            | 84         |
| Other softwoods                                                          | 1,656         | 1,570               | 1,130           | 108         | 332              | ...            | 86         |
| Total                                                                    | 75,656        | 74,880              | 48,882          | 4,352       | 21,646           | ...            | 776        |
| Hardwood:                                                                |               |                     |                 |             |                  |                |            |
| Red oaks                                                                 | 25,694        | 19,525              | 8,605           | 3,853       | 7,067            | 2,509          | 3,660      |
| White oaks                                                               | 18,063        | 14,512              | 5,981           | 2,708       | 5,823            | 1,266          | 2,285      |
| Hickories                                                                | 13,235        | 11,120              | 4,408           | 1,856       | 4,856            | 777            | 1,338      |
| Yellow-poplar                                                            | 5,133         | 4,638               | 2,483           | 844         | 1,311            | 179            | 316        |
| Sweetgum                                                                 | 14,918        | 13,152              | 5,546           | 2,120       | 5,486            | 420            | 1,346      |
| Black and tupelo gums                                                    | 14,958        | 12,472              | 5,592           | 2,249       | 4,631            | 554            | 1,932      |
| Other hardwoods                                                          | 25,213        | 15,570              | 6,148           | 2,757       | 6,665            | 1,543          | 8,100      |
| Total                                                                    | 117,214       | 90,989              | 38,763          | 16,387      | 35,839           | 7,248          | 18,977     |
| All species                                                              | 192,870       | 165,869             | 87,645          | 20,739      | 57,485           | 7,248          | 19,753     |
| NORTH                                                                    |               |                     |                 |             |                  |                |            |
| Softwood:                                                                |               |                     |                 |             |                  |                |            |
| Loblolly pine                                                            | 1,157         | 1,141               | 797             | 73          | 271              | ...            | 16         |
| Shortleaf pine                                                           | 1,327         | 1,308               | 687             | 63          | 558              | ...            | 19         |
| Other pines                                                              | 503           | 480                 | 321             | 28          | 131              | ...            | 23         |
| Other softwoods                                                          | 273           | 249                 | 89              | 12          | 148              | ...            | 24         |
| Total                                                                    | 3,260         | 3,178               | 1,894           | 176         | 1,108            | ...            | 82         |
| Hardwood:                                                                |               |                     |                 |             |                  |                |            |
| Red oaks                                                                 | 3,852         | 2,969               | 1,361           | 612         | 996              | 516            | 367        |
| White oaks                                                               | 3,554         | 2,969               | 1,234           | 581         | 1,154            | 76             | 509        |
| Hickories                                                                | 3,125         | 2,685               | 1,012           | 421         | 1,252            | 164            | 276        |
| Yellow-poplar                                                            | 530           | 466                 | 274             | 96          | 96               | 27             | 37         |
| Sweetgum                                                                 | 825           | 726                 | 342             | 140         | 244              | 28             | 71         |
| Black and tupelo gums                                                    | 707           | 531                 | 263             | 122         | 146              | 28             | 148        |
| Other hardwoods                                                          | 2,578         | 1,649               | 669             | 337         | 643              | 198            | 731        |
| Total                                                                    | 15,171        | 11,995              | 5,155           | 2,309       | 4,531            | 1,037          | 2,139      |
| All species                                                              | 18,431        | 15,173              | 7,049           | 2,485       | 5,639            | 1,037          | 2,221      |
| NORTH CENTRAL                                                            |               |                     |                 |             |                  |                |            |
| Softwood:                                                                |               |                     |                 |             |                  |                |            |
| Loblolly pine                                                            | 6,175         | 6,115               | 4,286           | 297         | 1,532            | ...            | 60         |
| Shortleaf pine                                                           | 4,184         | 4,149               | 1,849           | 146         | 2,154            | ...            | 35         |
| Longleaf pine                                                            | 1,928         | 1,911               | 1,232           | 97          | 582              | ...            | 17         |
| Other pines                                                              | 1,359         | 1,324               | 836             | 63          | 425              | ...            | 35         |
| Other softwoods                                                          | 34            | 22                  | 16              | 1           | 5                | ...            | 12         |
| Total                                                                    | 13,680        | 13,521              | 8,219           | 604         | 4,698            | ...            | 159        |
| Hardwood:                                                                |               |                     |                 |             |                  |                |            |
| Red oaks                                                                 | 5,070         | 4,016               | 1,580           | 724         | 1,712            | 345            | 709        |
| White oaks                                                               | 5,079         | 3,900               | 1,452           | 669         | 1,779            | 357            | 822        |
| Hickories                                                                | 3,870         | 3,148               | 1,069           | 476         | 1,603            | 198            | 534        |
| Yellow-poplar                                                            | 857           | 781                 | 427             | 146         | 208              | 30             | 46         |
| Sweetgum                                                                 | 1,360         | 1,164               | 469             | 194         | 501              | 38             | 158        |
| Black and tupelo gums                                                    | 827           | 630                 | 228             | 111         | 291              | 22             | 175        |
| Other hardwoods                                                          | 2,607         | 1,198               | 400             | 198         | 600              | 128            | 1,281      |
| Total                                                                    | 19,670        | 14,837              | 5,625           | 2,518       | 6,694            | 1,108          | 3,725      |
| All species                                                              | 33,350        | 28,358              | 13,844          | 3,122       | 11,392           | 1,108          | 3,884      |
| WEST CENTRAL                                                             |               |                     |                 |             |                  |                |            |
| Softwood:                                                                |               |                     |                 |             |                  |                |            |
| Loblolly pine                                                            | 4,647         | 4,612               | 2,972           | 272         | 1,368            | ...            | 35         |
| Shortleaf pine                                                           | 2,851         | 2,830               | 1,219           | 120         | 1,491            | ...            | 21         |
| Longleaf pine                                                            | 696           | 689                 | 503             | 45          | 141              | ...            | 7          |
| Other pines                                                              | 245           | 240                 | 78              | 11          | 151              | ...            | 5          |
| Other softwoods                                                          | 213           | 201                 | 168             | 15          | 18               | ...            | 12         |
| Total                                                                    | 8,652         | 8,572               | 4,940           | 463         | 3,169            | ...            | 80         |
| Hardwood:                                                                |               |                     |                 |             |                  |                |            |
| Red oaks                                                                 | 4,429         | 3,503               | 1,536           | 696         | 1,271            | 389            | 537        |
| White oaks                                                               | 2,981         | 2,492               | 925             | 455         | 1,112            | 205            | 284        |
| Hickories                                                                | 2,464         | 2,157               | 882             | 387         | 888              | 149            | 158        |
| Yellow-poplar                                                            | 533           | 494                 | 187             | 73          | 234              | 12             | 21         |
| Sweetgum                                                                 | 3,275         | 2,978               | 1,346           | 485         | 1,147            | 81             | 216        |
| Black and tupelo gums                                                    | 2,607         | 2,227               | 1,045           | 418         | 764              | 83             | 297        |
| Other hardwoods                                                          | 3,190         | 1,852               | 713             | 349         | 790              | 175            | 1,163      |
| Total                                                                    | 19,479        | 15,703              | 6,634           | 2,863       | 6,206            | 1,094          | 2,682      |
| All species                                                              | 28,131        | 24,275              | 11,574          | 3,326       | 9,375            | 1,094          | 2,762      |

Table 12. --Total volume by class of timber and species, by Survey region. 1951-53 (continued)

| Species                                                                                        | All<br>timber <sup>1/</sup> | Growing stock             |                    |                |        | Poletimber<br>trees | Hardwood<br>limbs | Cull<br>trees |
|------------------------------------------------------------------------------------------------|-----------------------------|---------------------------|--------------------|----------------|--------|---------------------|-------------------|---------------|
|                                                                                                |                             | Total<br>growing<br>stock | Sawtimber trees    |                |        |                     |                   |               |
|                                                                                                |                             |                           | Sawlog<br>portions | Upper<br>stems |        |                     |                   |               |
| ----- Thousand cords -----                                                                     |                             |                           |                    |                |        |                     |                   |               |
| SOUTHEAST                                                                                      |                             |                           |                    |                |        |                     |                   |               |
| Softwood:                                                                                      |                             |                           |                    |                |        |                     |                   |               |
| Loblolly pine                                                                                  | 10,153                      | 9,986                     | 6,920              | 630            | 2,436  | ...                 | ...               | 167           |
| Shortleaf pine                                                                                 | 3,887                       | 3,846                     | 2,058              | 220            | 1,568  | ...                 | ...               | 41            |
| Longleaf pine                                                                                  | 1,428                       | 1,417                     | 828                | 84             | 505    | ...                 | ...               | 11            |
| Slash Pine                                                                                     | 351                         | 351                       | 237                | 22             | 92     | ...                 | ...               | ...           |
| Other pines                                                                                    | 388                         | 383                       | 280                | 24             | 79     | ...                 | ...               | 5             |
| Other softwoods                                                                                | 268                         | 260                       | 211                | 21             | 28     | ...                 | ...               | 8             |
| Total                                                                                          | 16,475                      | 16,243                    | 10,534             | 1,001          | 4,708  | ...                 | ...               | 232           |
| Hardwood:                                                                                      |                             |                           |                    |                |        |                     |                   |               |
| Red oaks                                                                                       | 5,410                       | 3,858                     | 1,719              | 763            | 1,376  | 515                 | ...               | 1,037         |
| White oaks                                                                                     | 2,348                       | 1,770                     | 802                | 343            | 625    | 209                 | ...               | 369           |
| Hickories                                                                                      | 2,016                       | 1,660                     | 763                | 284            | 613    | 143                 | ...               | 213           |
| Yellow-poplar                                                                                  | 1,779                       | 1,607                     | 853                | 282            | 472    | 55                  | ...               | 117           |
| Sweetgum                                                                                       | 4,563                       | 3,963                     | 1,620              | 603            | 1,740  | 118                 | ...               | 482           |
| Black and tupelo gums                                                                          | 4,205                       | 3,606                     | 1,545              | 610            | 1,445  | 124                 | ...               | 481           |
| Other hardwoods                                                                                | 6,927                       | 4,369                     | 1,745              | 718            | 1,906  | 355                 | ...               | 2,203         |
| Total                                                                                          | 27,248                      | 20,827                    | 9,047              | 3,603          | 8,177  | 1,519               | ...               | 4,902         |
| All species                                                                                    | 43,723                      | 37,070                    | 19,581             | 4,604          | 12,885 | 1,519               | ...               | 5,134         |
| SOUTHWEST-NORTH                                                                                |                             |                           |                    |                |        |                     |                   |               |
| Softwood :                                                                                     |                             |                           |                    |                |        |                     |                   |               |
| Loblolly pine                                                                                  | 11,547                      | 11,496                    | 8,738              | 704            | 2,054  | ...                 | ...               | 51            |
| Shortleaf pine                                                                                 | 5,005                       | 4,969                     | 3,159              | 290            | 1,520  | ...                 | ...               | 36            |
| Longleaf pine                                                                                  | 1,315                       | 1,309                     | 970                | 87             | 252    | ...                 | ...               | 6             |
| Slash pine                                                                                     | 253                         | 253                       | 148                | 13             | 92     | ...                 | ...               | ...           |
| Other pines                                                                                    | 780                         | 775                       | 619                | 32             | 104    | ...                 | ...               | 5             |
| Other softwoods                                                                                | 272                         | 267                       | 215                | 19             | 33     | ...                 | ...               | 5             |
| Total                                                                                          | 19,172                      | 19,069                    | 13,849             | 1,165          | 4,055  | ...                 | ...               | 103           |
| Hardwood:                                                                                      |                             |                           |                    |                |        |                     |                   |               |
| Red oaks                                                                                       | 5,026                       | 3,836                     | 1,790              | 780            | 1,266  | 511                 | ...               | 679           |
| White oaks                                                                                     | 3,167                       | 2,612                     | 1,143              | 497            | 972    | 300                 | ...               | 255           |
| Hickories                                                                                      | 1,561                       | 1,352                     | 619                | 257            | 476    | 112                 | ...               | 97            |
| Yellow-poplar                                                                                  | 873                         | 797                       | 466                | 154            | 177    | 33                  | ...               | 43            |
| Sweetgum                                                                                       | 3,937                       | 3,482                     | 1,408              | 564            | 1,510  | 115                 | ...               | 340           |
| Black and tupelo gums                                                                          | 1,919                       | 1,648                     | 722                | 290            | 636    | 67                  | ...               | 204           |
| Other hardwoods                                                                                | 5,794                       | 3,886                     | 1,600              | 713            | 1,573  | 440                 | ...               | 1,468         |
| Total                                                                                          | 22,277                      | 17,613                    | 7,748              | 3,255          | 6,610  | 1,578               | ...               | 3,086         |
| All species                                                                                    | 41,449                      | 36,682                    | 21,597             | 4,420          | 10,665 | 1,578               | ...               | 3,189         |
| SOUTHWEST-SOUTH                                                                                |                             |                           |                    |                |        |                     |                   |               |
| Softwood:                                                                                      |                             |                           |                    |                |        |                     |                   |               |
| Loblolly pine                                                                                  | 1,425                       | 1,395                     | 1,044              | 99             | 252    | ...                 | ...               | 30            |
| Shortleaf pine                                                                                 | 319                         | 316                       | 181                | 20             | 115    | ...                 | ...               | 3             |
| Longleaf pine                                                                                  | 6,650                       | 6,626                     | 3,939              | 441            | 2,226  | ...                 | ...               | 24            |
| Slash pine                                                                                     | 5,300                       | 5,273                     | 3,738              | 336            | 1,199  | ...                 | ...               | 27            |
| Other pines                                                                                    | 127                         | 116                       | 93                 | 7              | 16     | ...                 | ...               | 11            |
| Other softwoods                                                                                | 596                         | 571                       | 431                | 40             | 100    | ...                 | ...               | 25            |
| Total                                                                                          | 24,427                      | 24,297                    | 14,446             | 943            | 3,908  | ...                 | ...               | 120           |
| Hardwood:                                                                                      |                             |                           |                    |                |        |                     |                   |               |
| Red oaks                                                                                       | 1,907                       | 1,343                     | 619                | 278            | 446    | 233                 | ...               | 331           |
| White oaks                                                                                     | 934                         | 769                       | 425                | 163            | 181    | 119                 | ...               | 46            |
| Hickories                                                                                      | 389                         | 493                       | 270                | 31             | 24     | 21                  | ...               | 60            |
| Yellow-poplar                                                                                  | 958                         | 839                       | 361                | 93             | 124    | 22                  | ...               | 46            |
| Sweetgum                                                                                       | 4,693                       | 3,836                     | 1,349              | 134            | 344    | 40                  | ...               | 79            |
| Black and tupelo gums                                                                          | 4,117                       | 2,616                     | 1,021              | 442            | 1,153  | 247                 | ...               | 1,254         |
| Other hardwoods                                                                                | 13,369                      | 10,014                    | 4,554              | 1,839          | 3,621  | 912                 | ...               | 2,443         |
| Total                                                                                          | 27,786                      | 24,311                    | 14,000             | 2,782          | 7,529  | 912                 | ...               | 2,563         |
| All species                                                                                    | 52,213                      | 48,608                    | 38,446             | 7,202          | 21,194 | 2,431               | ...               | 5,752         |
| <sup>1/</sup> -Sound volume in dead trees considered salvage but not included in growing stock |                             |                           |                    |                |        |                     |                   |               |

1/- Sound volume in dead trees considered salvable, but not included. This volume is as follows:

| Region         | Softwood | Hardwood |
|----------------|----------|----------|
| Thousand cords |          |          |
| North          | 55       | 104      |
| North Central  | 137      | 144      |
| West central   | 51       | 122      |

| Region          | Softwood | Hardwood |
|-----------------|----------|----------|
| Thousand cords  |          |          |
| Southeast       | 80       | 43       |
| Southwest-North | 69       | 81       |
| Southwest-South | 43       | 49       |
| Total           | 435      | 543      |

Table 13. --Total volume by class of timber and species, by Survey region 1951-53

| Species                        | All<br>timber 1/ | Growing stock             |                    |                | Poletimber<br>trees | Hardwood<br>limbs | Cull<br>trees |
|--------------------------------|------------------|---------------------------|--------------------|----------------|---------------------|-------------------|---------------|
|                                |                  | Total<br>growing<br>stock | Sawtimber trees    |                |                     |                   |               |
|                                |                  |                           | Sawlog<br>portions | Upper<br>stems |                     |                   |               |
| ----- Million cubic feet ----- |                  |                           |                    |                |                     |                   |               |
| STATE OF ALABAMA               |                  |                           |                    |                |                     |                   |               |
| Softwood:                      |                  |                           |                    |                |                     |                   |               |
| Loblolly pine                  | 2,422.9          | 2,605.9                   | 1,856.8            | 155.7          | 593.4               | ...               | 26.9          |
| Shortleaf pine                 | 1,317.9          | 1,306.3                   | 686.4              | 64.4           | 555.5               | ...               | 11.6          |
| Longleaf pine                  | 901.3            | 896.5                     | 361.9              | 56.6           | 218.0               | ...               | 4.8           |
| Slash pine                     | 442.8            | 440.8                     | 309.3              | 27.8           | 103.7               | ...               | 2.0           |
| Other pines                    | 255.1            | 248.8                     | 167.1              | 13.8           | 67.9                | ...               | 6.3           |
| Other softwoods                | 124.3            | 117.8                     | 84.7               | 8.1            | 25.0                | ...               | 6.5           |
| Total                          | 5,674.2          | 5,616.1                   | 3,666.2            | 326.4          | 1,623.5             | ...               | 58.1          |
| Hardwood:                      |                  |                           |                    |                |                     |                   |               |
| Red oaks                       | 1,721.6          | 1,308.2                   | 576.6              | 258.1          | 473.5               | 168.1             | 245.3         |
| White oaks                     | 1,210.2          | 972.3                     | 400.8              | 181.4          | 390.1               | 84.8              | 153.1         |
| Hickories                      | 886.8            | 745.0                     | 295.3              | 124.3          | 325.4               | 52.1              | 89.7          |
| Yellow-poplar                  | 343.9            | 310.7                     | 166.4              | 56.5           | 87.8                | 12.0              | 21.2          |
| Sweetgum                       | 999.5            | 881.2                     | 371.5              | 142.1          | 361.6               | 28.1              | 90.2          |
| Black and tupelo gums          | 1,002.2          | 835.6                     | 374.6              | 150.7          | 310.3               | 37.2              | 129.4         |
| Other hardwoods                | 1,689.2          | 1,043.3                   | 411.9              | 184.8          | 446.6               | 103.3             | 542.6         |
| Total                          | 7,853.4          | 6,096.3                   | 2,599.1            | 1,097.9        | 2,401.3             | 485.6             | 1,271.5       |
| All species                    | 13,527.6         | 11,712.4                  | 6,263.3            | 1,424.3        | 4,024.8             | 485.6             | 1,329.6       |
| NORTH                          |                  |                           |                    |                |                     |                   |               |
| Softwood:                      |                  |                           |                    |                |                     |                   |               |
| Loblolly pine                  | 86.8             | 85.6                      | 59.8               | 5.5            | 20.3                | ...               | 1.2           |
| Shortleaf pine                 | 99.5             | 98.1                      | 51.5               | 4.7            | 41.9                | ...               | 1.4           |
| Other pines                    | 37.7             | 36.0                      | 24.1               | 2.1            | 9.8                 | ...               | 1.7           |
| Other softwoods                | 10.5             | 18.7                      | 6.7                | .9             | 11.1                | ...               | 1.8           |
| Total                          | 244.5            | 238.4                     | 142.1              | 13.2           | 83.1                | ...               | 6.1           |
| Hardwood:                      |                  |                           |                    |                |                     |                   |               |
| Red oaks                       | 258.1            | 198.9                     | 91.2               | 41.0           | 66.7                | 34.6              | 24.6          |
| White oaks                     | 238.1            | 198.9                     | 82.7               | 38.9           | 77.3                | 5.1               | 34.1          |
| Hickories                      | 209.4            | 179.9                     | 67.8               | 28.2           | 83.9                | 11.0              | 18.5          |
| Yellow-poplar                  | 35.5             | 31.2                      | 18.4               | 9.4            | 6.4                 | 1.9               | 2.5           |
| Sweetgum                       | 55.3             | 48.7                      | 22.9               | 8.2            | 16.4                | 1.9               | 4.7           |
| Black and tupelo gums          | 47.4             | 35.6                      | 17.6               | 9.8            | 9.8                 | ...               | 9.9           |
| Other hardwoods                | 172.7            | 110.5                     | 44.8               | 22.6           | 43.1                | 13.2              | 49.0          |
| Total                          | 1,016.5          | 803.7                     | 345.4              | 154.7          | 303.6               | 69.5              | 143.3         |
| All species                    | 1,261.0          | 1,042.1                   | 487.5              | 167.9          | 386.7               | 69.5              | 149.4         |
| NORTH CENTRAL                  |                  |                           |                    |                |                     |                   |               |
| Softwood:                      |                  |                           |                    |                |                     |                   |               |
| Loblolly pine                  | 463.1            | 458.6                     | 321.4              | 22.3           | 114.9               | ...               | 4.5           |
| Shortleaf pine                 | 313.8            | 311.2                     | 138.7              | 10.9           | 161.6               | ...               | 2.6           |
| Longleaf pine                  | 144.6            | 143.3                     | 92.4               | 7.3            | 41.6                | ...               | 1.3           |
| Other pines                    | 101.9            | 99.3                      | 62.7               | 4.7            | 31.9                | ...               | 2.6           |
| Other softwoods                | 2.6              | 1.7                       | 1.2                | .1             | .4                  | ...               | .9            |
| Total                          | 1,026.0          | 1,014.1                   | 616.4              | 45.3           | 352.4               | ...               | 11.9          |
| Hardwood:                      |                  |                           |                    |                |                     |                   |               |
| Red oaks                       | 339.7            | 269.1                     | 105.9              | 48.5           | 114.7               | 23.1              | 47.5          |
| White oaks                     | 340.3            | 261.3                     | 97.3               | 44.8           | 119.2               | 23.9              | 55.1          |
| Hickories                      | 259.3            | 210.9                     | 71.6               | 31.9           | 107.4               | 12.6              | 35.8          |
| Yellow-poplar                  | 57.4             | 52.3                      | 28.6               | 9.8            | 13.9                | 2.0               | 3.1           |
| Sweetgum                       | 91.1             | 78.0                      | 31.4               | 13.0           | 33.6                | 2.5               | 10.6          |
| Black and tupelo gums          | 55.4             | 42.2                      | 15.3               | 7.4            | 17.4                | 1.5               | 11.7          |
| Other hardwoods                | 174.7            | 80.3                      | 26.8               | 13.3           | 40.2                | 8.6               | 85.8          |
| Total                          | 2,343.9          | 2,008.2                   | 956.9              | 168.7          | 448.5               | 74.2              | 249.6         |
| All species                    |                  |                           |                    | 214.0          | 800.9               | 74.2              | 261.5         |
| WEST CENTRAL                   |                  |                           |                    |                |                     |                   |               |
| Softwood:                      |                  |                           |                    |                |                     |                   |               |
| Loblolly pine                  | 348.5            | 345.9                     | 222.9              | 20.4           | 102.6               | ...               | 2.6           |
| Shortleaf pine                 | 213.8            | 212.2                     | 91.4               | 9.0            | 111.8               | ...               | 1.6           |
| Longleaf pine                  | 52.2             | 51.7                      | 37.7               | 3.4            | 10.6                | ...               | .5            |
| Other pines                    | 18.4             | 18.0                      | 5.9                | .8             | 11.3                | ...               | .4            |
| Other softwoods                | 16.0             | 15.1                      | 12.6               | 1.1            | 1.4                 | ...               | .9            |
| Total                          | 648.9            | 642.9                     | 370.5              | 34.7           | 237.7               | ...               | 6.0           |
| Hardwood:                      |                  |                           |                    |                |                     |                   |               |
| Red oaks                       | 296.8            | 234.7                     | 102.9              | 46.6           | 85.2                | 26.1              | 36.0          |
| White oaks                     | 189.7            | 147.9                     | 59.1               | 30.5           | 74.5                | 13.7              | 19.0          |
| Hickories                      | ...              | ...                       | ...                | 25.9           | 59.5                | 10.0              | 10.6          |
| Yellow-poplar                  | 35.7             | 33.1                      | 12.5               | 4.9            | 15.7                | .8                | 1.8           |
| Sweetgum                       | 219.4            | 199.5                     | 90.2               | 32.5           | 76.8                | 5.4               | 14.5          |
| Black and tupelo gums          | 174.7            | 149.2                     | 70.0               | 28.0           | 51.2                | 5.6               | 19.9          |
| Other hardwoods                | 1,305.1          | 1,052.1                   | 447.8              | 23.4           | 52.9                | 11.7              | 77.9          |
| Total                          | 2,200.1          | 1,695.0                   | 815.0              | 226.5          | 415.8               | 73.3              | 179.7         |
| All species                    | 1,954.0          | 1,695.0                   | 815.0              | 226.5          | 653.5               | 73.3              | 185.7         |

Table 13. --Total volume by class of timber and species, by Survey region, 1951-53 (continued)

| Species               | All<br>timber <sup>1/</sup> | Growing stock             |                    |                 |                     | Hardwood<br>limbs | Cull<br>trees |
|-----------------------|-----------------------------|---------------------------|--------------------|-----------------|---------------------|-------------------|---------------|
|                       |                             | Total<br>growing<br>stock | Sawtimber trees    |                 | Poletimber<br>trees |                   |               |
|                       |                             |                           | Sawlog<br>portions | Upper<br>sterna |                     |                   |               |
| Million cubic feet    |                             |                           |                    |                 |                     |                   |               |
| SOUTHEAST             |                             |                           |                    |                 |                     |                   |               |
| Softwood:             |                             |                           |                    |                 |                     |                   |               |
| Loblolly pine         | 761.5                       | 749.0                     | 519.0              | 47.3            | 182.7               | ...               | 12.5          |
| Shortleaf pine        | 291.5                       | 288.4                     | 154.3              | 16.5            | 117.6               | ...               | 3.1           |
| Longleaf pine         | 107.1                       | 106.3                     | 62.1               | 6.3             | 37.9                | ...               | .8            |
| Slash pine            | 26.3                        | 26.3                      | 17.8               | 1.6             | 6.9                 | ...               | ...           |
| Other pines           | 29.1                        | 28.7                      | 21.0               | 1.8             | 5.9                 | ...               | .4            |
| Other softwoods       | 20.1                        | 19.5                      | 15.8               | 1.6             | 2.1                 | ...               | .6            |
| Total                 | 1,235.6                     | 1,218.2                   | 790.0              | 75.1            | 353.1               | ...               | 17.4          |
| Hardwood:             |                             |                           |                    |                 |                     |                   |               |
| Red oaks              | 362.5                       | 258.5                     | 115.2              | 51.1            | 92.2                | 34.5              | 69.5          |
| White oaks            | 157.3                       | 118.6                     | 53.7               | 23.0            | 41.9                | 14.0              | 24.7          |
| Hickories             | 135.1                       | 111.2                     | 51.1               | 19.0            | 41.1                | 9.6               | 14.3          |
| Yellow-poplar         | 119.2                       | 107.7                     | 57.2               | 18.9            | 31.6                | 3.7               | 7.8           |
| Sweetgum              | 305.7                       | 265.5                     | 108.5              | 40.4            | 116.6               | 7.9               | 32.3          |
| Black and tupelo gums | 281.7                       | 241.2                     | 103.5              | 40.9            | 96.8                | 8.3               | 32.2          |
| Other hardwoods       | 464.1                       | 292.7                     | 116.9              | 48.1            | 127.7               | 23.8              | 147.6         |
| Total                 | 1,625.6                     | 1,395.4                   | 606.1              | 271.4           | 547.9               | 101.8             | 328.4         |
| All species           | 3,061.2                     | 2,613.6                   | 1,396.1            | 316.5           | 901.0               | 101.8             | 345.8         |
| SOUTHWEST-NORTH       |                             |                           |                    |                 |                     |                   |               |
| Softwood:             |                             |                           |                    |                 |                     |                   |               |
| Loblolly pine         | 866.0                       | 862.2                     | 655.4              | 52.8            | 154.0               | ...               | 3.8           |
| Shortleaf pine        | 375.4                       | 372.7                     | 236.9              | 21.8            | 114.0               | ...               | 2.7           |
| Longleaf pine         | 98.6                        | 98.2                      | 72.8               | 6.5             | 18.9                | ...               | .4            |
| Slash pine            | 19.0                        | 19.0                      | 11.1               | 1.0             | 6.9                 | ...               | ...           |
| Other pines           | 58.5                        | 58.1                      | 46.4               | 3.9             | 7.8                 | ...               | .4            |
| Other softwoods       | 20.4                        | 20.0                      | 16.1               | 1.4             | 2.5                 | ...               | .4            |
| Total                 | 1,437.9                     | 1,430.2                   | 1,038.7            | 87.4            | 304.1               | ...               | 7.7           |
| Hardwood:             |                             |                           |                    |                 |                     |                   |               |
| Red oaks              | 336.7                       | 257.0                     | 119.9              | 52.3            | 84.8                | 34.2              | 45.5          |
| White oaks            | 212.2                       | 175.0                     | 76.6               | 33.3            | 65.1                | 20.1              | 17.1          |
| Hickories             | 104.6                       | 90.6                      | 41.5               | 17.2            | 31.9                | 7.5               | 6.5           |
| Yellow-poplar         | 58.5                        | 53.4                      | 31.2               | 10.3            | 11.9                | 2.2               | 2.9           |
| Sweetgum              | 153.8                       | 233.3                     | 94.3               | 37.8            | 101.2               | 7.7               | 22.8          |
| Black and tupelo gums | 128.6                       | 110.4                     | 48.4               | 19.4            | 42.6                | 4.5               | 13.7          |
| Other hardwoods       | 388.2                       | 260.4                     | 107.2              | 47.8            | 105.4               | 29.5              | 98.3          |
| Total                 | 1,492.6                     | 1,180.1                   | 519.1              | 218.1           | 442.9               | 105.7             | 206.8         |
| All species           | 2,930.5                     | 2,610.3                   | 1,557.8            | 305.5           | 747.0               | 105.7             | 214.9         |
| SOUTHWEST-SOUTH       |                             |                           |                    |                 |                     |                   |               |
| Softwood:             |                             |                           |                    |                 |                     |                   |               |
| Loblolly pine         | 106.9                       | 104.6                     | 78.3               | 7.4             | 18.9                | ...               | 2.3           |
| Shortleaf pine        | 23.9                        | 23.7                      | 13.6               | 1.5             | 8.6                 | ...               | .2            |
| Longleaf pine         | 498.8                       | 497.0                     | 296.9              | 33.1            | 167.0               | ...               | 1.8           |
| Slash pine            | 397.5                       | 395.5                     | 280.4              | 25.2            | 89.9                | ...               | 2.0           |
| Other pines           | 9.5                         | 8.7                       | 7.0                | .5              | 1.2                 | ...               | .8            |
| Other softwoods       | 1,081.3                     | 1,072.3                   | 702.3              | 70.0            | 7.5                 | ...               | 1.9           |
| Total                 |                             |                           |                    |                 | 293.1               | ...               | 9.0           |
| Hardwood:             |                             |                           |                    |                 |                     |                   |               |
| Red oaks              | 127.8                       | 90.0                      | 41.5               | 18.6            | 29.9                | 15.6              | 22.2          |
| White oaks            | 62.6                        | 51.5                      | 28.5               | 10.9            | 12.1                | 8.0               | 3.1           |
| Hickories             | 13.3                        | 7.9                       | 4.2                | 2.1             | 1.6                 | 1.4               | 4.0           |
| Yellow-poplar         | 37.6                        | 33.0                      | 18.5               | 6.2             | 8.3                 | 1.5               | 3.1           |
| Sweetgum              | 64.2                        | 56.2                      | 24.2               | 9.0             | 23.0                | 2.7               | 5.3           |
| Black and tupelo gums | 314.4                       | 257.0                     | 119.8              | 46.8            | 90.4                | 15.4              | 42.0          |
| Other hardwoods       | 275.8                       | 175.3                     | 68.4               | 29.6            | 17.3                | 16.5              | 84.0          |
| Total                 | 895.7                       | 670.9                     | 305.1              | 123.2           | 242.6               | 61.1              | 163.7         |
| All species           | 1,977.0                     | 1,743.2                   | 1,013.6            | 193.9           | 535.7               | 61.1              | 172.7         |

<sup>1/</sup> Sound volume in dead trees considered salvable is not included. This volume is as follows:

| Region        | Softwood           | Hardwood |
|---------------|--------------------|----------|
|               | Million cubic feet |          |
| North         | 4.1                | 7.0      |
| North Central | 10.3               | 9.6      |
| West Central  | 3.8                | 8.2      |

| Region          | Softwood           | Hardwood |
|-----------------|--------------------|----------|
|                 | Million cubic feet |          |
| Southeast       | 6.0                | 2.9      |
| Southwest-North | 5.2                | 5.4      |
| Southwest-South | 3.2                | 3.3      |
| Total           | 32.6               | 36.4     |

Table 14. --Growing stock by species and Survey region, 1951-53

| Species                                       | state of<br>Alabama | North          | North<br>Central | West<br>Central | Southeast      | Southwest-<br>North | Southwest-<br>South |
|-----------------------------------------------|---------------------|----------------|------------------|-----------------|----------------|---------------------|---------------------|
| ----- Million cubic feet -----                |                     |                |                  |                 |                |                     |                     |
| <b>Softwood:</b>                              |                     |                |                  |                 |                |                     |                     |
| Loblolly pine                                 | 2,605.9             | 85.6           | 458.6            | 345.9           | 749.0          | 862.2               | 104.6               |
| Shortleaf pine                                | 1,306.3             | 98.1           | 311.2            | 212.2           | 288.4          | 372.7               | 23.7                |
| Longleaf pine                                 | 896.5               | ...            | 143.3            | 51.7            | 106.3          | 98.2                | 497.0               |
| Slash pine                                    | 440.8               | ...            | ...              | ...             | 26.3           | 19.0                | 395.5               |
| Virginia pine                                 | 159.8               | 36.0           | 99.3             | 17.7            | 6.7            | 0.1                 | ...                 |
| Other pines                                   | 89.0                | ...            | ...              | 0.3             | 22.0           | 58.0                | 8.7                 |
| Cypress                                       | 80.0                | ...            | ...              | 13.8            | 16.4           | 17.4                | 32.4                |
| Other softwoods                               | 37.8                | 18.7           | 1.7              | 1.3             | 3.1            | 2.6                 | 10.4                |
| <b>Total</b>                                  | <b>5,616.1</b>      | <b>238.4</b>   | <b>1,014.1</b>   | <b>642.9</b>    | <b>1,218.2</b> | <b>1,430.2</b>      | <b>1,072.3</b>      |
| <b>Hardwood:</b>                              |                     |                |                  |                 |                |                     |                     |
| Black, scarlet, and<br>southern red oaks      | 646.3               | 120.9          | 205.6            | 110.9           | 82.5           | 92.1                | 34.3                |
| Cherrybark, Shumard,<br>and northern red oaks | 1,835.9             | 59.7           | 35.0             | 35.4            | 20.1           | 32.1                | 3.0                 |
| Water oaks                                    | 476.0               | 18.3           | 28.5             | 88.4            | 155.3          | 132.8               | 52.7                |
| White oak                                     | 433.7               | 99.2           | 115.8            | 65.0            | 63.0           | 72.2                | 18.5                |
| Other white oaks                              | 538.6               | 99.7           | 145.5            | 102.0           | 55.6           | 102.8               | 33.0                |
| Pecan                                         | 32.1                | .2             | .7               | 1.6             | ...            | 16.0                | 13.6                |
| Other hickories                               | 745.0               | 179.9          | 210.9            | 144.5           | 111.2          | 90.6                | 7.9                 |
| Sweetgum                                      | 881.2               | 48.7           | 78.0             | 199.5           | 265.5          | 233.3               | 56.2                |
| Black and tupelo gums                         | 835.6               | 35.6           | 42.2             | 149.2           | 241.2          | 110.4               | 257.0               |
| Cottonwood                                    | 17.8                | .2             | .1               | 2.0             | 8.9            | 3.9                 | 2.7                 |
| Willow                                        | 28.7                | 1.5            | 3.1              | 5.9             | 10.6           | 6.5                 | 1.1                 |
| soft maples                                   | 108.4               | 10.0           | 17.9             | 22.3            | 31.7           | 14.4                | 12.1                |
| Yellow-poplar                                 | 310.7               | 31.2           | 52.3             | 33.1            | 107.7          | 53.4                | 33.0                |
| Sweetbay and magnolia                         | 249.9               | 1.6            | 1.5              | 21.5            | 83.8           | 48.0                | 93.5                |
| Elms                                          | 140.5               | 23.8           | 13.9             | 15.8            | 35.8           | 38.5                | 12.7                |
| Ash                                           | 126.5               | 18.9           | 10.7             | 12.9            | 32.8           | 31.8                | 19.4                |
| Beech                                         | 93.1                | 16.9           | 13.3             | 11.1            | 20.0           | 29.8                | 2.0                 |
| sycamore                                      | 31.1                | 2.0            | 2.2              | 2.5             | 10.4           | 11.9                | 2.1                 |
| Hackberry                                     | 75.8                | 3.2            | 2.0              | 10.1            | 17.9           | 31.0                | 11.6                |
| Other hardwoods                               | 139.4               | 32.2           | 14.9             | 18.4            | 40.8           | 28.6                | 4.5                 |
| <b>Total</b>                                  | <b>6,096.3</b>      | <b>803.7</b>   | <b>994.1</b>     | <b>1,052.1</b>  | <b>1,395.4</b> | <b>1,180.1</b>      | <b>670.9</b>        |
| <b>All species</b>                            | <b>11,712.4</b>     | <b>1,042.1</b> | <b>2,008.2</b>   | <b>1,695.0</b>  | <b>2,613.6</b> | <b>2,610.3</b>      | <b>1,743.2</b>      |

Table 15. --Distribution of growing stock by species within each forest type, 1951-53

| Species                                      | All<br>types | Pine  | Pine •<br>hard •<br>wood | Other<br>soft-<br>wood | Bottom-<br>land<br>hardwood | Upland<br>hard-<br>wood |
|----------------------------------------------|--------------|-------|--------------------------|------------------------|-----------------------------|-------------------------|
| ----- Percent -----                          |              |       |                          |                        |                             |                         |
| Softwood:                                    |              |       |                          |                        |                             |                         |
| Loblolly pine                                | 22.2         | 38.9  | 14.2                     | 0.7                    | 2.1                         | 2.4                     |
| Shortleaf pine                               | 11.2         | 18.6  | 10.9                     | ...                    | .1                          | 2.3                     |
| Longleaf pine                                | 7.7          | 14.3  | 2.5                      | ...                    | .1                          | .5                      |
| Slash pine                                   | 3.8          | 6.6   | 1.8                      | .5                     | .8                          | .1                      |
| Other pine s                                 | 2.1          | 2.8   | 3.8                      | .2                     | .6                          | .8                      |
| Cypress                                      | .7           | .1    | (1/)                     | ...                    | 3.3                         | (1/)                    |
| Other softwoods                              | .3           | .1    | .3                       | 42.6                   | .1                          | .3                      |
| Total                                        | 48.0         | 81.4  | 33.5                     | 44.0                   | 7.1                         | 6.4                     |
| Hardwood :                                   |              |       |                          |                        |                             |                         |
| Black, scarlet and<br>southern red oaks      | 5.5          | 2.9   | 11.1                     | ...                    | 0.3                         | 15.2                    |
| Cherrybark, Shumard<br>and northern red oaks | 1.6          | 1.2   | 47.2                     | 6.8                    | 2.0                         | 5.1                     |
| Water oaks                                   | 4.1          |       |                          | 1.2                    | 11.8                        | 3.3                     |
| White oak                                    | 3.7          | 1.4   | 7.0                      | ...                    | 1.5                         | 10.8                    |
| Other white oaks                             | 4.6          | 2.0   | 7.7                      | 8.9                    | 3.9                         | 10.8                    |
| Pecan                                        | .3           | (1/)  | ...                      | ...                    | 1.4                         | (1/)                    |
| Other hickories                              | 6.3          | 2.0   | 10.0                     | 19.1                   | 3.0                         | 20.2                    |
| Sweetgum                                     | 7.5          | 3.9   | 8.6                      | 1.0                    | 16.4                        | 7.7                     |
| Black and tupelo gums                        | 7.1          | 2.0   | 5.1                      | .5                     | 23.8                        | 4.8                     |
| Cottonwood                                   | .2           | (1/)  | .2                       | ...                    | .5                          | (1/)                    |
| Willow                                       | .2           | (1/)  | .2                       | ...                    | .9                          | .1                      |
| Maples                                       | 1.1          | .2    | 1.3                      | 3.1                    | 2.6                         | 1.8                     |
| Yellow -poplar                               | 2.7          | 1.0   | 4.4                      | .7                     | 3.5                         | 5.2                     |
| Sweetbay and magnolia                        | 2.1          | .8    | 2.2                      | 1.2                    | 6.6                         | 1.1                     |
| Elms                                         | 1.2          | .2    | .7                       | 5.1                    | 3.8                         | 1.5                     |
| Ash                                          | 1.1          | .2    | .4                       | 5.3                    | 3.6                         | 1.3                     |
| Beech                                        | .8           | .2    | .8                       | ...                    | 1.2                         | 2.2                     |
| Sycamore                                     | .3           | (1/)  | .2                       | ...                    | .9                          | .3                      |
| Hackberry                                    | .6           | (1/)  |                          | .2                     | 3.2                         | .1                      |
| Other hardwoods                              | 1.0          | .3    | (1/)                     | 2.9                    | 2.0                         | 2.1                     |
| Total                                        | 52.0         | 18.6  | 66.5                     | 56.0                   | 92.9                        | 93.6                    |
| All species                                  | 100.0        | 100.0 | 100.0                    | 100.0                  | 100.0                       | 100.0                   |

1/ Negligible.

Table 16. --Growing stock by species and stand size, by Survey region, 1951-1953

| Species               | All stand sizes | Large saw-timber | Small saw-timber | Pole-timber | Seedling and sapling | Nonstocked and other areas 1/ |
|-----------------------|-----------------|------------------|------------------|-------------|----------------------|-------------------------------|
|                       |                 |                  | MI               | ton         | cubic feet           |                               |
| STATE OF ALABAMA      |                 |                  |                  |             |                      |                               |
| Softwood:             |                 |                  |                  |             |                      |                               |
| Loblolly pine         | 2,605.9         | 666.5            | 1,154.1          | 726.3       | 58.3                 | 0.5                           |
| Shortleaf pine        | 1,306.3         | 121.9            | 567.9            | 572.9       | 43.1                 | .5                            |
| Longleaf pine         | 896.5           | 55.5             | 480.8            | 316.9       | 41.0                 | 1.3                           |
| Slash pine            | 440.8           | 66.7             | 237.7            | 124.1       | 12.0                 | .3                            |
| Other pines           | 248.8           | 71.0             | 98.0             | 74.6        | 5.0                  | .2                            |
| Other softwoods       | 117.8           | 57.2             | 38.7             | 19.4        | 2.5                  | ...                           |
| Total                 | 5,616.1         | 1,038.8          | 2,577.2          | 1,834.2     | 162.1                | 3.8                           |
| Hardwood:             |                 |                  |                  |             |                      |                               |
| Red oaks              | 1,308.2         | 351.2            | 340.1            | 577.9       | 31.6                 | 1.4                           |
| White oaks            | 972.3           | 250.0            | 243.1            | 455.1       | 23.7                 | .4                            |
| Hickories             | 310.0           | 183.6            | 123.6            | 300.6       | 19.8                 | ...                           |
| Sweetgum              | 881.2           | 228.0            | 280.9            | 353.4       | 18.7                 | .2                            |
| Black and tupelo gums | 835.6           | 255.7            | 296.8            | 274.1       | 8.6                  | .4                            |
| Other hardwoods       | 1,043.3         | 344.2            | 325.8            | 353.3       | 19.7                 | .3                            |
| Total                 | 6,096.3         | 1,665.6          | 1,785.4          | 2,510.8     | 131.6                | 2.9                           |
| All species*          | 11,712.4        | 2,704.4          | 4,362.6          | 4,345.0     | 293.7                | 6.7                           |
| NORTH                 |                 |                  |                  |             |                      |                               |
| Softwood types:       |                 |                  |                  |             |                      |                               |
| Loblolly pine         | 85.6            | 29.8             | 29.7             | 25.1        | 1.0                  | ...                           |
| Shortleaf pine        | 98.1            | 13.3             | 49.2             | 32.2        | 3.4                  | 2/                            |
| Longleaf pine         | ...             | ...              | ...              | ...         | ...                  | ...                           |
| Slash pine            | ...             | ...              | ...              | ...         | ...                  | ...                           |
| Other pines           | 36.0            | 6.4              | 21.3             | 7.6         | .7                   | ...                           |
| Other softwoods       | 18.7            | 4.0              | 3.4              | 10.6        | .7                   | ...                           |
| Total                 | 238.4           | 33.3             | 103.6            | 75.5        | 5.8                  | ...                           |
| Hardwood:             |                 |                  |                  |             |                      |                               |
| Red oaks              | 198.9           | 51.6             | 67.3             | 78.6        | 1.4                  | ...                           |
| White oaks            | 198.9           | 55.8             | 60.4             | 79.8        | 2.9                  | ...                           |
| Hickories             | 179.9           | 33.3             | 49.0             | 95.2        | 2.4                  | ...                           |
| Sweetgum              | 48.7            | 12.9             | 10.0             | 20.5        | 1.3                  | ...                           |
| Black and tupelo gums | 35.6            | 13.3             | 6.3              | 14.9        | 1.1                  | ...                           |
| Other hardwoods       | 110.3           | 40.9             | 20.6             | 41.3        | 1.7                  | ...                           |
| Total                 | 603.7           | 219.2            | 227.7            | 345.8       | 10.9                 | .1                            |
| All species           | 1,042.1         | 272.7            | 331.3            | 421.3       | 16.1                 | .1                            |
| NORTH CENTRAL         |                 |                  |                  |             |                      |                               |
| Softwood types:       |                 |                  |                  |             |                      |                               |
| Loblolly pine         | 458.6           | 121.9            | 112.3            | 146.3       | 17.8                 | .3                            |
| Shortleaf pine        | 311.2           | 17.0             | 99.0             | 182.9       | 12.1                 | .2                            |
| Longleaf pine         | 143.3           | 12.7             | 66.9             | 57.2        | 6.3                  | .2                            |
| Slash pine            | ...             | ...              | ...              | ...         | ...                  | ...                           |
| Other pines           | 1.7             | 21.8             | 39.3             | 34.5        | 3.7                  | ...                           |
| Other softwoods       | 1,014.1         | 1.3              | .2               | .1          | .1                   | ...                           |
| Total                 | ...             | 174.7            | 377.7            | 421.0       | 40.0                 | .7                            |
| Hardwood:             |                 |                  |                  |             |                      |                               |
| Red oaks              | 269.1           | 51.4             | 51.1             | 152.6       | 13.4                 | .6                            |
| White oaks            | 261.3           | 65.2             | 43.4             | 143.4       | 8.9                  | .4                            |
| Hickories             | 210.9           | 33.6             | 39.8             | 129.4       | 8.1                  | ...                           |
| Yellow-poplar         | 52.3            | 20.7             | 13.5             | 16.2        | 1.9                  | ...                           |
| Blackgum              | 78.0            | 20.1             | 18.7             | 34.3        | 4.0                  | ...                           |
| Other hardwoods       | 80.3            | 28.3             | 11.3             | 36.4        | 4.3                  | ...                           |
| Total                 | 994.2           | 235.0            | 180.3            | 534.6       | 43.0                 | 1.0                           |
| All species           | 2,008.2         | 409.7            | 558.2            | 955.6       | 83.0                 | 1.7                           |
| WEST CENTRAL          |                 |                  |                  |             |                      |                               |
| Softwood:             |                 |                  |                  |             |                      |                               |
| Loblolly pine         | 345.9           | 67.3             | 120.8            | 149.9       | 7.8                  | .1                            |
| Shortleaf pine        | 212.2           | 8.3              | 64.1             | 133.9       | 5.9                  | ...                           |
| Longleaf pine         | 51.7            | 5.3              | 21.6             | 19.8        | 5.0                  | ...                           |
| Other pines           | 18.0            | .1               | 2.3              | 15.0        | .4                   | .2                            |
| Other softwoods       | 15.1            | .8               | 7.2              | .5          | .6                   | ...                           |
| Total                 | 642.9           | 87.8             | 216.0            | 319.1       | 19.7                 | .3                            |
| Hardwood:             |                 |                  |                  |             |                      |                               |
| Red oaks              | 234.7           | 68.7             | 44.8             | 114.0       | 7.2                  | ...                           |
| White oaks            | 167.0           | 31.5             | 32.7             | 97.2        | 5.6                  | ...                           |
| Hickories             | 144.5           | 30.0             | 24.3             | 84.4        | 3.8                  | 2/                            |
| Yellow-poplar         | 33.1            | 9.2              | 10.1             | 13.3        | .5                   | ...                           |
| Sweetgum              | 199.5           | 72.6             | 50.9             | 73.1        | 2.9                  | ...                           |
| Black and tupelo gums | 149.2           | 48.3             | 49.8             | 49.1        | 2.0                  | ...                           |
| Other hardwoods       | 124.1           | 46.8             | 28.0             | 45.5        | 3.8                  | ...                           |
| Total                 | 1,052.1         | 307.1            | 240.6            | 476.6       | 27.8                 | 2/                            |
| All species           | 1,695.0         | 394.9            | 456.6            | 795.7       | 47.5                 | .3                            |
| SOUTHEAST             |                 |                  |                  |             |                      |                               |
|                       |                 |                  |                  |             |                      |                               |
|                       | 749.0           | 152.2            | 347.2            | 225.9       | 23.7                 | ...                           |
|                       | 288.4           | 26.4             | 126.3            | 116.5       | 19.0                 | .2                            |
|                       | 106.3           | 10.2             | 49.4             | 40.6        | 6.0                  | .1                            |
|                       | 26.3            | 3.8              | 10.6             | 10.4        | 1.5                  | ...                           |
|                       | 28.7            | 8.4              | 11.9             | 8.3         | .1                   | 1.1                           |
|                       | 19.5            | 12.1             | 4.0              | 3.2         | .2                   | ...                           |
|                       | 1,320.5         | 213.1            | 549.4            | 404.9       | 50.3                 | .3                            |
|                       |                 |                  |                  |             |                      |                               |
|                       | 258.5           | 56.8             | 77.0             | 114.9       | 9.8                  | ...                           |
|                       | 118.6           | 21.0             | 33.9             | 57.1        | 4.6                  | ...                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 107.2           | 20.0             | 49.6             | 49.0        | 2.9                  | ...                           |
|                       | 265.5           | 39.1             | 110.7            | 108.9       | 6.7                  | .1                            |
|                       | 241.2           | 42.0             | 95.8             | 101.4       | 2.0                  | 2/                            |
|                       | 292.7           | 73.9             | 108.4            | 103.8       | 6.6                  | ...                           |
|                       | 1,395.4         | 277.0            | 508.8            | 576.5       | 32.8                 | .3                            |
|                       |                 |                  |                  |             |                      |                               |
|                       | 862.2           | 281.6            | 421.9            | 153.0       | 5.7                  | ...                           |
|                       | 372.7           | 52.6             | 218.3            | 99.3        | 2.5                  | ...                           |
|                       | 98.2            | 22.4             | 50.0             | 24.2        | 1.4                  | ...                           |
|                       | 19.0            | 5.3              | 7.4              | 6.3         | ...                  | ...                           |
|                       | 58.1            | 28.8             | 21.9             | 7.3         | .1                   | ...                           |
|                       | 20.0            | 11.1             | 5.9              | 2.9         | .1                   | ...                           |
|                       | 1,430.2         | 401.8            | 725.4            | 293.0       | 10.0                 | ...                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 257.0           | 88.2             | 77.3             | 87.4        | 4.1                  | ...                           |
|                       | 175.0           | 50.5             | 60.5             | 62.7        | 1.3                  | ...                           |
|                       | 90.6            | 26.8             | 27.5             | 35.8        | .5                   | ...                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 233.3           | 54.3             | 80.0             | 96.0        | 3.0                  | ...                           |
|                       | 110.4           | 32.9             | 40.2             | 36.7        | .6                   | ...                           |
|                       | 260.4           | 86.5             | 92.0             | 80.1        | 1.8                  | ...                           |
|                       | 1,180.1         | 361.8            | 398.2            | 408.6       | 11.5                 | ...                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 2,610.3         | 763.6            | 1,123.6          | 701.6       | 21.5                 | ...                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 104.6           | 13.7             | 62.2             | 26.1        | 2.5                  | .1                            |
|                       | 23.7            | 4.3              | 11.0             | 8.1         | .2                   | .1                            |
|                       | 497.0           | 4.9              | 292.9            | 175.1       | 22.1                 | 2.0                           |
|                       | 395.5           | 57.6             | 219.7            | 107.4       | 10.5                 | .3                            |
|                       | a.7             | 5.5              | 1.3              | 1.9         | ...                  | ...                           |
|                       | 42.8            | 21.9             | 18.0             | 2.1         | .8                   | ...                           |
|                       | ...             | 107.9            | 605.1            | 320.7       | 36.1                 | 2.3                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 90.0            | 34.5             | 10.2             | 14.9        | 1.7                  | .8                            |
|                       | 51.5            | 26.0             | 3.6              | 3.6         | .4                   | ...                           |
|                       | 7.9             | 1.0              | 2.9              | ...         | ...                  | ...                           |
|                       | 33.0            | 3.7              | 19.9             | 9.3         | .1                   | ...                           |
|                       |                 |                  |                  |             |                      |                               |
|                       | 256.0           | 130.0            | 96.0             | 20.8        | 1.1                  | .4                            |
|                       | 175.3           | 67.8             | 65.5             | 40.2        | 1.5                  | .3                            |
|                       | 670.9           | 265.5            | 229.6            | 168.7       | 5.6                  | 1.5                           |
|                       | 1,743.2         | 373.4            | 034.7            | 489.4       | 41.7                 | 4.0                           |

1/ Includes areas not classified elsewhere.

2/ Negligible

Table 17. --Average volume per acre of growing stock by forest type and Survey region,  
1951-53

| Forest type             | State | North | North<br>Central | West<br>Central | South-<br>east | South-<br>west-<br>North | South-<br>west-<br>South |
|-------------------------|-------|-------|------------------|-----------------|----------------|--------------------------|--------------------------|
| ----- Cubic feet -----  |       |       |                  |                 |                |                          |                          |
| <b>Softwood types :</b> |       |       |                  |                 |                |                          |                          |
| Pine                    | 538   | 549   | 460              | 467             | 447            | 866                      | 502                      |
| Pine -hardwood          | 451   | 434   | 356              | 424             | 447            | 654                      | 580                      |
| Other softwood          | 251   | 285   | .                | ...             | 126            | 11                       | 1,500                    |
| Total                   | 515   | 471   | 429              | 453             | 445            | 819                      | 510                      |
| <b>Hardwood types:</b>  |       |       |                  |                 |                |                          |                          |
| Bottomland hardwood     | 960   | 580   | 546              | 1,018           | 868            | 980                      | 1,357                    |
| Upland hardwood         | 507   | 576   | 458              | 498             | 488            | 637                      | 241                      |
| Total                   | 677   | 576   | 465              | 710             | 699            | 848                      | 1,036                    |
| All types               | 564   | 533   | 439              | 543             | 519            | 827                      | 597                      |

Table 18. --Average volume per acre of growing stock by stand size and forest type, 1951-53

| Forest type             | All<br>stand<br>sizes | Large<br>saw-<br>timber | Small<br>saw-<br>timber | Pole-<br>timber | Seedling<br>and<br>sapling | Nonstocked<br>and other<br>areas <sup>1/</sup> |
|-------------------------|-----------------------|-------------------------|-------------------------|-----------------|----------------------------|------------------------------------------------|
| ----- Cubic feet -----  |                       |                         |                         |                 |                            |                                                |
| <b>Softwood types :</b> |                       |                         |                         |                 |                            |                                                |
| Pine                    | 538                   | 1,537                   | 1,037                   | 360             | 78                         | 29                                             |
| Pine -hardwood          | 451                   | 1,376                   | 915                     | 369             | 78                         | 2/                                             |
| Other softwood          | 251                   | 914                     | 974                     | 247             | 50                         | ...                                            |
| Total                   | 515                   | 1,500                   | 1,018                   | 361             | 78                         | 26                                             |
| <b>Hardwood types:</b>  |                       |                         |                         |                 |                            |                                                |
| Bottomland hardwood     | 960                   | 1,647                   | 1,299                   | 605             | 177                        | 15                                             |
| Upland hardwood         | 507                   | 1,104                   | 852                     | 414             | 88                         | 31                                             |
| Total                   | 677                   | 1,400                   | 1,077                   | 474             | 113                        | 30                                             |
| All types               | 564                   | 1,449                   | 1,033                   | 398             | 84                         | 27                                             |

<sup>1/</sup> Includes areas not classified elsewhere.

<sup>2/</sup> Negligible.

Table 19. --Sawtimber volume by species and tree diameter, by Survey region, 1951-1953

| Species               | All<br>diameter<br>classes | 10 • 12<br>inches 1/ | 14 • 16<br>inches | 20 • 24<br>inches | 26<br>inches<br>and up |
|-----------------------|----------------------------|----------------------|-------------------|-------------------|------------------------|
| Million board feet    |                            |                      |                   |                   |                        |
| STATE OF ALABAMA      |                            |                      |                   |                   |                        |
| Softwood:             |                            |                      |                   |                   |                        |
| Loblolly pine         | 11,306.7                   | 4,538.5              | 4,967.5           | 1,417.1           | 383.6                  |
| Shortleaf pine        | 3,989.8                    | 2,657.5              | 1,251.2           | 81.1              | ...                    |
| Longleaf pine         | 3,294.4                    | 2,033.7              | 1,157.1           | 92.9              | 10.7                   |
| Slash pine            | 1,856.6                    | 852.3                | 929.7             | 74.6              | ...                    |
| Other pines           | 964.4                      | 395.5                | 418.4             | 150.5             | ...                    |
| Other softwoods       | 517.0                      | 116.2                | 255.4             | 91.9              | 53.5                   |
| Total                 | 21,928.9                   | 10,593.7             | 8,979.3           | 1,908.1           | 447.8                  |
| Hardwood:             |                            |                      |                   |                   |                        |
| Red oaks              | 3,686.0                    | 718.9                | 1,891.0           | 653.7             | 422.4                  |
| White oaks            | 2,541.3                    | 599.0                | 1,234.5           | 432.0             | 275.8                  |
| Hickories             | 1,810.2                    | 451.3                | 1,042.5           | 241.4             | 75.0                   |
| Yellow-poplar         | 1,057.1                    | 183.7                | 612.8             | 171.7             | 88.9                   |
| Sweetgum              | 2,316.2                    | 596.8                | 1,347.8           | 308.0             | 63.6                   |
| Black and tupelo gums | 2,308.2                    | 522.8                | 1,265.1           | 407.5             | 112.8                  |
| Other hardwoods       | 2,562.7                    | 570.4                | 1,382.2           | 451.6             | 158.5                  |
| Total                 | 16,281.7                   | 3,642.9              | 8,775.9           | 2,665.9           | 1,197.0                |
| All species           | 38,210.6                   | 14,236.6             | 17,755.2          | 4,574.0           | 1,644.8                |
| NORTH                 |                            |                      |                   |                   |                        |
| Softwood:             |                            |                      |                   |                   |                        |
| Loblolly pine         | 367.6                      | 120.4                | 180.8             | 59.2              | 7.2                    |
| Shortleaf pine        | 302.4                      | 192.7                | 103.8             | 5.9               | ...                    |
| Longleaf pine         | ...                        | ...                  | ...               | ...               | ...                    |
| Slash pine            | ...                        | ...                  | ...               | ...               | ...                    |
| Other pines           | 133.4                      | 56.5                 | 76.9              | ...               | ...                    |
| Other softwoods       | 39.7                       | 20.6                 | 9.4               | 9.7               | ...                    |
| Total                 | 843.1                      | 390.2                | 370.9             | 74.8              | 7.2                    |
| Hardwood:             |                            |                      |                   |                   |                        |
| Red oaks              | 577.7                      | 131.1                | 298.3             | 79.8              | 68.5                   |
| White oaks            | 521.2                      | 121.5                | 242.1             | 84.1              | 73.5                   |
| Hickories             | 406.3                      | 113.8                | 237.3             | 48.5              | 6.7                    |
| Yellow-poplar         | 119.1                      | 11.6                 | 53.3              | 37.3              | 16.9                   |
| Sweetgum              | 145.1                      | 26.9                 | 78.2              | 29.9              | 10.1                   |
| Black and tupelo gums | 105.2                      | 17.3                 | 59.4              | 27.9              | ...                    |
| Other hardwoods       | 280.2                      | 38.3                 | 128.7             | 73.7              | 39.5                   |
| Total                 | 2,154.6                    | 460.7                | 1,097.7           | 381.2             | 215.2                  |
| All species           | 2,997.9                    | 850.9                | 1,468.6           | 456.0             | 222.4                  |
| NORTH CENTRAL         |                            |                      |                   |                   |                        |
| Softwood:             |                            |                      |                   |                   |                        |
| Loblolly pine         | 1,948.9                    | 798.9                | 852.9             | 249.1             | 48.0                   |
| Shortleaf pine        | 796.1                      | 597.9                | 191.2             | 7.0               | ...                    |
| Longleaf pine         | 549.5                      | 322.0                | 186.8             | 40.7              | ...                    |
| Slash pine            | ...                        | ...                  | ...               | ...               | ...                    |
| Other pines           | 342.1                      | 184.6                | 137.9             | 19.6              | ...                    |
| Other softwoods       | 7.0                        | 1.2                  | 5.8               | ...               | ...                    |
| Total                 | 3,643.6                    | 1,904.6              | 1,374.6           | 316.4             | 48.0                   |
| Hardwood:             |                            |                      |                   |                   |                        |
| Red oaks              | 671.9                      | 159.6                | 359.9             | 126.0             | 26.4                   |
| White oaks            | 610.9                      | 162.5                | 340.8             | 87.0              | 20.6                   |
| Hickories             | 431.8                      | 129.8                | 258.5             | 43.5              | ...                    |
| Yellow-poplar         | 179.4                      | 23.9                 | 111.5             | 33.2              | 10.8                   |
| Sweetgum              | 197.1                      | 49.7                 | 99.4              | 48.0              | ...                    |
| Black and tupelo gums | 91.9                       | 21.2                 | 48.4              | 22.3              | ...                    |
| Other hardwoods       | 163.9                      | 43.8                 | 92.0              | 28.1              | ...                    |
| Total                 | 2,978.9                    | 590.5                | 1,310.5           | 388.1             | 51.8                   |
| All species           | 5,990.5                    | 2,495.1              | 2,685.1           | 704.5             | 105.8                  |
| WEST CENTRAL          |                            |                      |                   |                   |                        |
| Softwood:             |                            |                      |                   |                   |                        |
| Loblolly pine         | 1,353.0                    | 563.3                | 611.2             | 143.4             | 35.1                   |
| Shortleaf pine        | 522.1                      | 408.3                | 113.8             | ...               | ...                    |
| Longleaf pine         | 227.3                      | 107.2                | 105.0             | 4.4               | 10.7                   |
| Other pines           | 30.9                       | 25.0                 | 5.9               | ...               | ...                    |
| Other softwoods       | 78.6                       | 15.8                 | 27.2              | 14.5              | 21.1                   |
| Total                 | 2,311.9                    | 1,119.6              | 863.1             | 162.3             | 66.9                   |
| Hardwood:             |                            |                      |                   |                   |                        |
| Red oaks              | 659.9                      | 128.6                | 317.5             | 102.3             | 111.3                  |
| White oaks            | 389.6                      | 104.8                | 190.9             | 70.2              | 23.7                   |
| Hickories             | 360.8                      | 93.9                 | 190.5             | 53.1              | 23.3                   |
| Yellow-poplar         | 76.4                       | 21.2                 | 46.5              | 1.7               | 5.0                    |
| Sweetgum              | 563.7                      | 133.8                | 342.9             | 87.0              | ...                    |
| Black and tupelo gums | 419.5                      | 91.4                 | 221.0             | 59.4              | 47.7                   |
| Other hardwoods       | 291.9                      | 59.6                 | 156.2             | 54.5              | 21.6                   |
| Total                 | 3,363.8                    | 633.3                | 1,465.5           | 430.2             | 232.8                  |
| All species           | 4,973.7                    | 1,752.9              | 2,328.6           | 592.5             | 299.7                  |
| SOUTHEAST             |                            |                      |                   |                   |                        |
| All diameter classes  | 3,142.1                    | 1,409.5              | 1,241.1           | 344.5             | 147.0                  |
| 10 • 12 inches 1/     | 887.5                      | 621.7                | 244.9             | 20.9              | ...                    |
| 14 • 16 inches        | 363.3                      | 211.8                | 146.5             | 5.0               | ...                    |
| 20 • 24 inches        | 107.6                      | 40.9                 | 63.7              | 3.0               | ...                    |
| 26 inches and up      | 125.9                      | 48.3                 | 52.6              | 25.0              | ...                    |
| Total                 | 94.4                       | 17.5                 | 67.3              | 9.6               | ...                    |
| All species           | 4,720.8                    | 2,349.7              | 1,816.1           | 408.0             | 147.0                  |
| SOUTHWEST-NORTH       |                            |                      |                   |                   |                        |
| All diameter classes  | 4,020.0                    | 1,461.5              | 1,834.2           | 600.5             | 123.8                  |
| 10 • 12 inches 1/     | 1,403.3                    | 786.1                | 576.2             | 41.0              | ...                    |
| 14 • 16 inches        | 441.8                      | 213.3                | 196.9             | 31.4              | ...                    |
| 20 • 24 inches        | 68.3                       | 20.4                 | 47.9              | ...               | ...                    |
| 26 inches and up      | 289.9                      | 70.0                 | 114.0             | 105.9             | ...                    |
| Total                 | 99.5                       | 13.3                 | 48.1              | 32.3              | 5.8                    |
| All species           | 6,322.8                    | 2,564.8              | 2,817.3           | 811.1             | 129.6                  |
| SOUTHWEST-SOUTH       |                            |                      |                   |                   |                        |
| All diameter classes  | 475.1                      | 184.9                | 247.3             | 20.4              | 22.5                   |
| 10 • 12 inches 1/     | 78.4                       | 50.8                 | 21.3              | 6.3               | ...                    |
| 14 • 16 inches        | 1,712.5                    | 1,179.2              | 521.9             | 11.4              | ...                    |
| 20 • 24 inches        | 1,680.7                    | 791.0                | 818.1             | 71.6              | ...                    |
| 26 inches and up      | 42.2                       | ...                  | ...               | ...               | ...                    |
| Total                 | 197.8                      | 11.4                 | 81.6              | 25.8              | 26.6                   |
| All species           | 4,186.7                    | 2,264.8              | 1,737.3           | 135.5             | 49.1                   |

1/ Hardwood sawtimber volume not tallied in trees under 11.0 inches d. b. b.

Table 20. --Sawtimber volume by species and stand size, by Survey region, 1951-1953

| Species                | All stand sizes    | Large saw-timber   | Small saw-timber   | Pole-timber        | Seedling and sapling | Nonstocked and other areas | 1/ |
|------------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------------|----|
|                        | Million board feet | Million board feet | Million board feet | Million board feet | Million board feet   | Million board feet         |    |
| STATE OF ALABAMA       |                    |                    |                    |                    |                      |                            |    |
| <b>Softwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Loblolly pine          | 11,306.7           | 3,873.3            | 5,295.2            | 1,971.5            | 165.7                | 1.0                        |    |
| Shortleaf pine         | 3,989.8            | 614.3              | 2,205.8            | 1,084.6            | 84.1                 | 1.0                        |    |
| Longleaf pine          | 3,294.4            | 320.0              | 1,916.3            | 903.6              | 147.4                | 7.1                        |    |
| Slash pine             | 1,856.6            | 362.0              | 1,086.0            | 366.2              | 41.4                 | 1.0                        |    |
| Other pines            | 964.4              | 369.9              | 391.7              | 187.6              | 15.2                 | ...                        |    |
| Other softwoods        | 517.0              | 310.3              | 167.3              | 31.4               | 8.0                  | ...                        |    |
| <b>Total</b>           | <b>21,928.9</b>    | <b>5,849.8</b>     | <b>11,062.3</b>    | <b>4,544.9</b>     | <b>461.8</b>         | <b>10.1</b>                |    |
| <b>Hardwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Red oaks               | 3,686.0            | 1,388.5            | 983.9              | 1,212.2            | 98.9                 | 2.5                        |    |
| White oaks             | 2,541.3            | 963.5              | 684.0              | 846.6              | 46.0                 | 1.2                        |    |
| Hickories              | 1,810.2            | 531.4              | 490.8              | 744.3              | 43.0                 | 0.7                        |    |
| Yellow-poplar          | 1,057.1            | 358.6              | 465.0              | 225.4              | 8.1                  | ...                        |    |
| Sweetgum               | 2,316.2            | 882.5              | 790.2              | 603.3              | 40.2                 | ...                        |    |
| Black and tupelo gums  | 2,308.2            | 1,003.5            | 763.3              | 524.4              | 16.2                 | .8                         |    |
| Other hardwoods        | 2,562.7            | 1,100.2            | 816.2              | 605.8              | 40.2                 | .3                         |    |
| <b>Total</b>           | <b>16,281.7</b>    | <b>6,228.2</b>     | <b>4,993.4</b>     | <b>4,762.0</b>     | <b>292.6</b>         | <b>5.5</b>                 |    |
| <b>All species</b>     | <b>38,210.6</b>    | <b>12,078.0</b>    | <b>16,055.7</b>    | <b>9,306.9</b>     | <b>754.4</b>         | <b>15.6</b>                |    |
| NORTH                  |                    |                    |                    |                    |                      |                            |    |
| <b>Softwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Loblolly pine          | 367.6              | 162.9              | 136.4              | 66.5               | 1.8                  | ...                        |    |
| Shortleaf pine         | 302.4              | 62.4               | 187.4              | 51.6               | 1.0                  | ...                        |    |
| Longleaf pine          | ...                | ...                | ...                | ...                | ...                  | ...                        |    |
| Slash pine             | ...                | ...                | ...                | ...                | ...                  | ...                        |    |
| Other pines            | 133.4              | 25.7               | 97.0               | 10.0               | .7                   | ...                        |    |
| Other softwoods        | 39.7               | 19.7               | 8.4                | 11.2               | .4                   | ...                        |    |
| <b>Total</b>           | <b>843.1</b>       | <b>270.7</b>       | <b>429.2</b>       | <b>139.3</b>       | <b>3.9</b>           | <b>...</b>                 |    |
| <b>Hardwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Red oaks               | 577.7              | 193.1              | 206.1              | 176.2              | 2.3                  | ...                        |    |
| White oaks             | 521.2              | 212.9              | 160.8              | 143.3              | 4.2                  | ...                        |    |
| Hickories              | 406.3              | 97.9               | 143.7              | 158.9              | 5.8                  | ...                        |    |
| Yellow-poplar          | 119.1              | 52.6               | 42.3               | 24.2               | ...                  | ...                        |    |
| Sweetgum               | 145.1              | 48.0               | 48.2               | 45.8               | 3.1                  | ...                        |    |
| Black and tupelo gums  | 105.2              | 49.3               | 17.0               | 37.7               | 1.2                  | ...                        |    |
| Other hardwoods        | 280.2              | 138.7              | 45.2               | 94.5               | 1.8                  | ...                        |    |
| <b>Total</b>           | <b>2,154.8</b>     | <b>192.5</b>       | <b>663.3</b>       | <b>680.6</b>       | <b>18.4</b>          | <b>...</b>                 |    |
| <b>All species</b>     | <b>2,997.9</b>     | <b>1,063.2</b>     | <b>1,092.5</b>     | <b>819.9</b>       | <b>22.3</b>          | <b>...</b>                 |    |
| NORTH CENTRAL          |                    |                    |                    |                    |                      |                            |    |
| <b>Softwood types:</b> |                    |                    |                    |                    |                      |                            |    |
| Loblolly pine          | 1,948.9            | 724.2              | 776.5              | 382.5              | 65.3                 | .4                         |    |
| Shortleaf pine         | 796.1              | 72.1               | 377.7              | 318.6              | 27.4                 | .3                         |    |
| Longleaf pine          | 549.5              | 76.7               | 255.5              | 191.1              | 25.1                 | 1.1                        |    |
| Slash pine             | ...                | ...                | ...                | ...                | ...                  | ...                        |    |
| Other pines            | 342.1              | 104.1              | 137.6              | 86.5               | 13.9                 | ...                        |    |
| Other softwoods        | 7.0                | 3.1                | 1.3                | .3                 | .3                   | ...                        |    |
| <b>Total</b>           | <b>3,643.6</b>     | <b>982.2</b>       | <b>1,548.6</b>     | <b>979.0</b>       | <b>132.0</b>         | <b>1.8</b>                 |    |
| <b>Hardwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Red oaks               | 611.9              | 207.1              | 127.3              | 301.4              | 35.3                 | .8                         |    |
| White oaks             | 610.9              | 242.6              | 112.7              | 238.8              | 15.6                 | 1.2                        |    |
| Hickories              | 431.8              | 98.6               | 100.2              | 218.1              | 14.9                 | ...                        |    |
| Yellow-poplar          | 179.4              | 91.4               | 52.9               | 28.2               | 6.9                  | ...                        |    |
| Sweetgum               | 197.1              | 105.6              | 30.4               | 54.3               | 6.8                  | ...                        |    |
| Black and tupelo gums  | 91.9               | 28.2               | 21.3               | 38.3               | 4.1                  | ...                        |    |
| Other hardwoods        | 163.9              | 83.9               | 15.8               | 56.2               | 8.0                  | ...                        |    |
| <b>Total</b>           | <b>2,346.9</b>     | <b>857.4</b>       | <b>460.6</b>       | <b>935.3</b>       | <b>91.6</b>          | <b>2.0</b>                 |    |
| <b>All species</b>     | <b>5,990.5</b>     | <b>1,839.6</b>     | <b>2,009.2</b>     | <b>1,914.3</b>     | <b>223.6</b>         | <b>3.8</b>                 |    |
| WEST CENTRAL           |                    |                    |                    |                    |                      |                            |    |
| <b>Softwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Loblolly pine          | 1,353.0            | 382.6              | 576.6              | 371.0              | 22.1                 | ...                        |    |
| Shortleaf pine         | 522.1              | 40.0               | 235.5              | 234.2              | 12.4                 | ...                        |    |
| Longleaf pine          | 227.3              | 31.6               | 101.6              | 69.8               | 24.3                 | ...                        |    |
| Other pines            | 30.9               | ...                | 5.5                | 25.4               | ...                  | ...                        |    |
| Other softwoods        | 78.6               | 38.5               | 36.9               | ...                | 3.2                  | ...                        |    |
| <b>Total</b>           | <b>2,211.9</b>     | <b>492.7</b>       | <b>956.1</b>       | <b>700.4</b>       | <b>62.7</b>          | <b>...</b>                 |    |
| <b>Hardwood:</b>       |                    |                    |                    |                    |                      |                            |    |
| Red oaks               | 659.9              | 269.2              | 133.5              | 237.1              | 20.1                 | ...                        |    |
| White oaks             | 389.6              | 120.3              | 95.2               | 164.3              | 9.8                  | ...                        |    |
| Hickories              | 360.8              | 113.0              | 67.7               | 164.1              | 16.0                 | ...                        |    |
| Yellow-poplar          | 76.4               | 27.1               | 23.1               | 25.7               | .5                   | ...                        |    |
| Sweetgum               | 563.7              | 314.7              | 122.1              | 120.2              | 6.7                  | ...                        |    |
| Black and tupelo gums  | 419.5              | 196.5              | 136.9              | 82.8               | 3.3                  | ...                        |    |
| Other hardwoods        | 291.9              | 141.9              | 59.5               | 79.9               | 10.6                 | ...                        |    |
| <b>Total</b>           | <b>2,761.8</b>     | <b>1,182.7</b>     | <b>638.0</b>       | <b>874.1</b>       | <b>67.0</b>          | <b>...</b>                 |    |
| <b>All species</b>     | <b>4,973.7</b>     | <b>1,675.4</b>     | <b>1,594.1</b>     | <b>1,574.5</b>     | <b>129.7</b>         | <b>...</b>                 |    |
| SOUTHEAST              |                    |                    |                    |                    |                      |                            |    |
| 3,142.1                | 878.2              | 1,593.0            | 621.7              | 49.2               | ...                  | ...                        |    |
| 887.5                  | 131.5              | 489.4              | 227.0              | 38.9               | .7                   | ...                        |    |
| 363.3                  | 56.2               | 182.1              | 106.2              | 18.8               | ...                  | ...                        |    |
| 107.6                  | 21.2               | 48.0               | 30.3               | 8.1                | ...                  | ...                        |    |
| 125.9                  | 48.5               | 48.4               | 29.0               | ...                | ...                  | ...                        |    |
| 94.4                   | 66.2               | 21.2               | 6.3                | .7                 | ...                  | ...                        |    |
| 4,720.8                | 1,201.8            | 2,382.1            | 1,020.5            | 115.7              | .7                   | ...                        |    |
| 736.8                  | 226.2              | 222.7              | 261.4              | 26.5               | ...                  | ...                        |    |
| 340.2                  | 83.9               | 117.4              | 125.8              | 13.1               | ...                  | ...                        |    |
| 322.6                  | 114.6              | 92.2               | 109.9              | 5.2                | .7                   | ...                        |    |
| 361.3                  | 67.5               | 193.9              | 99.2               | .7                 | ...                  | ...                        |    |
| 671.3                  | 135.9              | 340.3              | 183.5              | 11.6               | ...                  | ...                        |    |
| 636.7                  | 159.1              | 265.5              | 206.6              | 4.9                | ...                  | ...                        |    |
| 729.2                  | 244.3              | 307.7              | 163.0              | 14.2               | ...                  | ...                        |    |
| 3,798.1                | 1,032.1            | 1,539.7            | 1,149.4            | 76.2               | .7                   | ...                        |    |
| 8,518.9                | 2,233.9            | 3,921.8            | 2,169.9            | 191.9              | 1.4                  | ...                        |    |
| SOUTHWEST-NORTH        |                    |                    |                    |                    |                      |                            |    |
| 4,020.0                | 1,648.2            | 1,913.5            | 877.4              | 178.4              | ...                  | ...                        |    |
| 1,403.8                | 128.0              | 229.1              | 79.4               | 3.3                | ...                  | ...                        |    |
| 68.3                   | 30.0               | 30.8               | 7.5                | ...                | ...                  | ...                        |    |
| 289.9                  | 161.6              | 98.4               | 29.3               | .6                 | ...                  | ...                        |    |
| 99.5                   | 63.6               | 28.4               | 7.1                | .4                 | ...                  | ...                        |    |
| 6,322.8                | 2,316.1            | 3,177.6            | 801.7              | 27.4               | ...                  | ...                        |    |
| 767.3                  | 342.2              | 229.9              | 182.0              | 13.2               | ...                  | ...                        |    |
| 489.4                  | 182.8              | 163.5              | 139.8              | 3.3                | ...                  | ...                        |    |
| 263.2                  | 103.6              | 77.0               | 82.4               | .2                 | ...                  | ...                        |    |
| 201.4                  | 104.4              | 71.6               | 25.4               | ...                | ...                  | ...                        |    |
| 585.6                  | 187.2              | 215.6              | 172.5              | 10.3               | ...                  | ...                        |    |
| 301.5                  | 125.0              | 90.4               | 84.8               | 1.3                | ...                  | ...                        |    |
| 671.0                  | 268.8              | 242.6              | 155.3              | 4.3                | ...                  | ...                        |    |
| 3,279.4                | 1,314.0            | 1,090.6            | 842.2              | 32.6               | ...                  | ...                        |    |
| 9,602.2                | 3,630.1            | 4,268.2            | 1,643.9            | 60.0               | ...                  | ...                        |    |
| SOUTHWEST-SOUTH        |                    |                    |                    |                    |                      |                            |    |
| 475.1                  | 77.2               | 299.2              | 88.5               | 9.6                | .6                   | ...                        |    |
| 78.4                   | 23.6               | 38.4               | 16.1               | .3                 | ...                  | ...                        |    |
| 1,712.5                | 27.5               | 1,148.0            | 457.1              | 73.9               | 6.0                  | ...                        |    |
| 1,680.7                | 310.8              | 1,007.2            | 328.4              | 33.3               | 1.0                  | ...                        |    |
| 42.2                   | 30.0               | 4.8                | 7.4                | ...                | ...                  | ...                        |    |
| 197.8                  | 117.2              | 71.1               | 6.5                | 3.0                | ...                  | ...                        |    |
| 4,186.7                | 586.3              | 2,568.7            | 904.0              | 120.1              | 1.6                  | ...                        |    |
| 272.4                  | 150.7              | 64.4               | 54.1               | 1.5                | 1.7                  | ...                        |    |
| 190.0                  | 121.0              | 34.4               | 34.6               | ...                | ...                  | ...                        |    |
| 25.5                   | 3.7                | 10.0               | 10.9               | .9                 | ...                  | ...                        |    |
| 119.5                  | 15.6               | 81.2               | 22.7               | ...                | ...                  | ...                        |    |
| 153.4                  | 91.1               | 33.6               | 27.0               | 1.7                | ...                  | ...                        |    |
| 753.4                  | 444.8              | 232.2              | 14.2               | 1.4                | .8                   | ...                        |    |
| 426.5                  | 222.6              | 145.4              | 56.9               | 1.3                | .3                   | ...                        |    |
| 1,940.7                | 1,049.5            | 601.2              | 280.4              | 6.8                | 2.8                  | ...                        |    |
| 6,127.4                | 1,635.8            | 3,169.9            | 1,184.4            | 126.9              | 10.4                 | ...                        |    |

1/ Includes areas not classified elsewhere.

Table 21. --Sawtimber volume by species and Survey region, 1951-53

| Species                                   | state    | North   | North Central | West Central | Southeast | Southwest-North | Southwest-South |
|-------------------------------------------|----------|---------|---------------|--------------|-----------|-----------------|-----------------|
| ----- Million board feet -----            |          |         |               |              |           |                 |                 |
| <b>Softwood:</b>                          |          |         |               |              |           |                 |                 |
| Loblolly pine                             | 11,306.7 | 367.6   | 1,948.9       | 1,353.0      | 3,142.1   | 4,020.0         | 475.1           |
| Shortleaf pine                            | 3,989.8  | 302.4   | 796.1         | 522.1        | 887.5     | 1,403.3         | 78.4            |
| Longleaf pine                             | 3,294.4  | ...     | 549.5         | 227.3        | 363.3     | 441.8           | 1,712.5         |
| Slash pine                                | 1,856.6  | ...     | ...           | ...          | 107.6     | 68.3            | 1,680.7         |
| Virginia pine                             | 526.0    | 133.4   | 342.1         | 30.6         | 19.9      | ...             | ...             |
| Other pines                               | 438.4    | ...     | ...           | 3            | 106.0     | 289.9           | 42.2            |
| Cypress                                   | 415.8    | ...     | ...           | 75.6         | 85.9      | 94.4            | 159.9           |
| Other softwoods                           | 101.2    | 39.7    | 7.0           | 3.0          | 8.5       | 5.1             | 37.9            |
| Total                                     | 21,928.9 | 843.1   | 3,643.6       | 2,211.9      | 4,720.8   | 6,322.8         | 4,186.7         |
| <b>Hardwood:</b>                          |          |         |               |              |           |                 |                 |
| Black, scarlet and southern red oaks      | 1,623.0  | 335.5   | 477.3         | 260.7        | 232.7     | 241.0           | 75.8            |
| Cherrybark, Shumard and northern red oaks | 662.0    | 193.1   | 118.0         | 135.2        | 86.4      | 117.8           | 11.5            |
| Water oaks                                | 1,401.0  | 49.1    | 76.6          | 264.0        | 417.7     | 408.5           | 185.1           |
| White oak                                 | 1,265.6  | 280.7   | 327.8         | 158.9        | 217.3     | 210.3           | 70.6            |
| Other white oaks                          | 1,275.7  | 240.5   | 283.1         | 230.7        | 122.9     | 279.1           | 119.4           |
| Pecan                                     | 124.0    | .7      | 3.0           | 6.9          | ...       | 57.1            | 56.3            |
| Other hickories                           | 1,810.2  | 406.3   | 431.8         | 360.8        | 322.6     | 263.2           | 25.5            |
| Sweetgum                                  | 2,316.2  | 145.1   | 197.1         | 563.7        | 671.3     | 585.6           | 153.4           |
| Black and tupelo gums                     | 2,308.2  | 105.2   | 91.9          | 419.5        | 636.7     | 301.5           | 753.4           |
| Cottonwood                                | 64.1     | .6      | ...           | 3.6          | 36.4      | 15.4            | 8.1             |
| Willow                                    | 51.7     | .9      | 4.2           | 11.6         | 17.8      | 16.1            | 1.1             |
| Soft maples                               | 204.4    | 22.2    | 32.7          | 41.7         | 64.5      | 24.4            | 18.9            |
| Yellow-poplar                             | 1,057.1  | 119.1   | 179.4         | 76.4         | 361.3     | 201.4           | 119.5           |
| Sweetbay and magnolia                     | 505.7    | 4.9     | .6            | 41.7         | 166.7     | 106.7           | 185.1           |
| Elms                                      | 370.4    | 53.0    | 26.3          | 40.2         | 100.7     | 104.0           | 46.2            |
| Ash                                       | 326.7    | 55.8    | 25.1          | 33.2         | 79.6      | 72.9            | 60.1            |
| Beech                                     | 344.3    | 66.1    | 51.0          | 40.1         | 73.7      | 105.0           | 8.4             |
| Sycamore                                  | 105.7    | 3.9     | 9.4           | 7.4          | 38.4      | 42.2            | 4.4             |
| Hackberry                                 | 215.7    | 5.6     | 1.2           | 30.5         | 61.8      | 83.2            | 33.4            |
| Other hardwoods                           | 250.0    | 66.5    | 10.4          | 35.0         | 89.6      | 44.0            | 4.5             |
| Total                                     | 16,281.7 | 2,154.8 | 2,346.9       | 2,761.8      | 3,798.1   | 3,279.4         | 1,940.7         |
| All species                               | 38,210.6 | 2,997.9 | 5,990.5       | 4,973.7      | 8,518.9   | 9,602.2         | 6,127.4         |

Table 22. --Average sawtimber volume per acre by forest type and Survey region, 1951-53

| Forest type         | State        | North        | North Central | West Central | South-east   | Southwest-North | Southwest-South |
|---------------------|--------------|--------------|---------------|--------------|--------------|-----------------|-----------------|
| <b>Board feet</b>   |              |              |               |              |              |                 |                 |
| Softwood types:     |              |              |               |              |              |                 |                 |
| Pine                | 1,936        | 1,869        | 1,534         | 1,439        | 1,609        | 3,461           | 1,819           |
| Pine-hardwood       | 1,293        | 1,215        | 917           | 1,092        | 1,302        | 2,127           | 1,934           |
| Other softwood      | 614          | 675          |               | 307          |              |                 | 5,045           |
| <b>Total</b>        | <b>1,776</b> | <b>1,477</b> | <b>1,350</b>  | <b>1,329</b> | <b>1,539</b> | <b>3,183</b>    | <b>1,833</b>    |
| Hardwood types:     |              |              |               |              |              |                 |                 |
| Bottomland hardwood | 3,023        | 1,702        | 1,423         | 3,235        | 2,570        | 3,224           | 4,557           |
| Upland hardwood     | 1,370        | 1,554        | 1,189         | 1,297        | 1,434        | 1,765           | 678             |
| <b>Total</b>        | <b>1,990</b> | <b>1,572</b> | <b>1,208</b>  | <b>2,085</b> | <b>2,065</b> | <b>2,659</b>    | <b>3,444</b>    |
| All types           | 1,841        | 1,533        | 1,310         | 1,594        | 1,693        | 3,042           | 2,100           |

Table 23. --Average sawtimber volume per acre by stand size and forest type, 1951-53

| Forest type         | All stand sizes | Large saw-timber | Small saw-timber | Pole-timber | Seedling and sapling | Nonstocked and other areas |
|---------------------|-----------------|------------------|------------------|-------------|----------------------|----------------------------|
| <b>Board feet</b>   |                 |                  |                  |             |                      |                            |
| Softwood types:     |                 |                  |                  |             |                      |                            |
| Pine                | 1,936           | 7,793            | 4,121            | 814         | 214                  | 72                         |
| Pine-hardwood       | 1,293           | 5,814            | 3,099            | 188         | 168                  |                            |
| Other softwood      | 614             | 3,951            | 3,026            | 422         | 96                   |                            |
| <b>Total</b>        | <b>1,776</b>    | <b>7,374</b>     | <b>3,959</b>     | <b>802</b>  | <b>203</b>           | <b>64</b>                  |
| Hardwood types:     |                 |                  |                  |             |                      |                            |
| Bottomland hardwood | 3,023           | 6,704            | 4,008            | 1,253       | 504                  |                            |
| Upland hardwood     | 1,370           | 4,310            | 2,654            | 821         | 184                  | 64                         |
| <b>Total</b>        | <b>1,990</b>    | <b>5,614</b>     | <b>3,336</b>     | <b>956</b>  | <b>273</b>           | <b>58</b>                  |
| All types           | 1,841           | 6,471            | 3,801            | 853         | 215                  | 63                         |

1/ Includes areas not classified elsewhere.

Table 24 --Softwood sawtimber volume by log grade and species group and Survey region, 1951-53

| Species group<br>and<br>Survey region | All<br>grades | Grade 1 | Grade 2 | Grade 3                      |                   | Total   | Grade 4                      |                   |         |
|---------------------------------------|---------------|---------|---------|------------------------------|-------------------|---------|------------------------------|-------------------|---------|
|                                       |               |         |         | In fair and<br>better stands | In poor<br>stands |         | In fair and<br>better stands | In poor<br>stands |         |
|                                       |               |         |         | Million cubic feet           |                   |         |                              |                   |         |
| species group:                        |               |         |         |                              |                   |         |                              |                   |         |
| Loblolly pine                         | 11,306.7      | 329.5   | 1,357.3 | 3,713.4                      | 1,163.6           | 2,549.8 | 5,906.5                      | 1,505.4           | 4,401.1 |
| Shortleaf pine                        | 3,989.8       | 9.0     | 371.2   | 1,575.2                      | 412.8             | 1,162.4 | 2,034.4                      | 484.3             | 1,550.1 |
| Longleaf pine                         | 3,294.4       | 12.7    | 377.2   | 1,456.8                      | 200.6             | 1,256.2 | 1,447.7                      | 243.4             | 1,204.3 |
| Slash pine                            | 1,856.6       | 15.4    | 314.5   | 946.0                        | 286.2             | 660.4   | 580.1                        | 174.3             | 405.8   |
| other pines                           | 964.4         | 20.3    | 69.3    | 290.5                        | 136.0             | 154.5   | 584.3                        | 214.7             | 369.6   |
| Other softwoods 1/                    | 517.0         | 70.8    | 132.1   | 175.3                        | 170.3             | 5.0     | 138.8                        | 125.9             | 12.9    |
| Total                                 | 21,928.9      | 457.7   | 2,621.6 | 8,157.8                      | 2,369.5           | 5,788.3 | 10,691.8                     | 2,748.0           | 7,943.8 |
| Survey region:                        |               |         |         |                              |                   |         |                              |                   |         |
| North                                 | 843.1         | 38.6    | 121.0   | 317.4                        | 108.0             | 209.4   | 366.1                        | 151.2             | 214.9   |
| North Central                         | 3,643.6       | 64.6    | 575.4   | 1,204.9                      | 395.4             | 809.5   | 1,798.7                      | 593.2             | 1,205.5 |
| West Central                          | 2,211.9       | 37.6    | 268.8   | 723.5                        | 234.8             | 488.7   | 1,182.0                      | 327.3             | 854.7   |
| Southeast                             | 4,720.8       | 136.9   | 397.2   | 1,875.7                      | 441.1             | 1,434.6 | 2,311.0                      | 376.7             | 1,934.3 |
| Southwest-North                       | 6,322.8       | 145.3   | 782.4   | 2,013.6                      | 760.7             | 1,252.9 | 3,381.5                      | 1,007.5           | 2,374.0 |
| Southwest-South                       | 4,186.7       | 34.7    | 416.8   | 2,022.7                      | 429.5             | 1,593.2 | 1,652.5                      | 292.1             | 1,360.4 |
| Total                                 | 21,928.9      | 457.7   | 2,621.6 | 8,157.8                      | 2,369.5           | 5,788.3 | 10,691.8                     | 2,748.0           | 7,943.8 |

1/ All redcedar sawlogs were graded as No. 1.

Table 25. --Hardwood sawtimber volume by log class and stand quality, by species group and Survey region, 1951-53

| Species group<br>and<br>Survey region | All<br>classes | Standard lumber logs |            |         |                              |                   | Tie and timber logs |                                 |                      |
|---------------------------------------|----------------|----------------------|------------|---------|------------------------------|-------------------|---------------------|---------------------------------|----------------------|
|                                       |                | Grade<br>1           | Grade<br>2 | Grade 3 |                              |                   | Total               | In fair<br>and better<br>stands | In<br>poor<br>stands |
|                                       |                |                      |            | Total   | In fair and<br>better stands | In poor<br>stands |                     |                                 |                      |
| ----- Million board feet -----        |                |                      |            |         |                              |                   |                     |                                 |                      |
| Species group:                        |                |                      |            |         |                              |                   |                     |                                 |                      |
| Red oaks                              | 3,686.0        | 338.8                | 545.8      | 1,684.9 | 607.4                        | 1,077.5           | 1,116.5             | 321.6                           | 794.9                |
| White oaks                            | 2,541.3        | 281.4                | 583.1      | 1,145.7 | 450.6                        | 695.1             | 531.1               | 133.7                           | 397.4                |
| Hickories                             | 1,810.2        | 159.5                | 372.6      | 913.1   | 269.0                        | 644.1             | 365.0               | 86.1                            | 278.9                |
| Yellow-poplar                         | 1,057.1        | 131.5                | 172.7      | 454.4   | 174.7                        | 279.7             | 298.5               | 107.3                           | 191.2                |
| Sweetgum                              | 2,316.2        | 172.6                | 395.8      | 1,026.2 | 411.3                        | 614.9             | 721.6               | 183.8                           | 537.8                |
| Black and tupelo gums                 | 2,308.2        | 262.9                | 530.1      | 1,140.6 | 546.3                        | 594.3             | 374.6               | 94.1                            | 280.5                |
| Other hardwoods                       | 2,562.7        | 231.2                | 508.0      | 1,176.1 | 464.1                        | 712.0             | 647.4               | 159.4                           | 488.0                |
| Total                                 | 16,281.7       | 1,577.9              | 3,108.1    | 7,541.0 | 2,923.4                      | 4,617.6           | 4,054.7             | 1,086.0                         | 2,968.7              |
| Survey region:                        |                |                      |            |         |                              |                   |                     |                                 |                      |
| North                                 | 2,154.8        | 304.8                | 541.7      | 1,111.8 | 495.5                        | 616.3             | 196.5               | 89.7                            | 106.8                |
| North Central                         | 2,346.9        | 166.5                | 531.8      | 1,312.2 | 470.9                        | 841.3             | 336.4               | 120.4                           | 216.0                |
| West Central                          | 2,761.8        | 316.8                | 539.6      | 1,504.7 | 598.1                        | 906.6             | 400.7               | 153.9                           | 246.8                |
| Southeast                             | 3,798.1        | 116.5                | 400.1      | 1,556.9 | 332.1                        | 1,224.8           | 1,724.6             | 322.7                           | 1,401.9              |
| Southwest-North                       | 3,279.4        | 366.7                | 643.1      | 1,355.6 | 653.4                        | 702.2             | 914.0               | 272.0                           | 642.0                |
| Southwest-South                       | 1,940.7        | 306.6                | 451.8      | 699.8   | 373.4                        | 326.4             | 482.5               | 127.3                           | 355.2                |
| Total                                 | 16,281.7       | 1,577.9              | 3,108.1    | 7,541.0 | 2,923.4                      | 4,617.6           | 4,054.7             | 1,086.0                         | 2,968.7              |

Table 26. --Net annual growth of sawtimber and growing stock by species and class of timber, by Survey region, 1951-53

| Class<br>of<br>timber | Growing stock      |          |          | Sawtimber          |          |          |
|-----------------------|--------------------|----------|----------|--------------------|----------|----------|
|                       | All<br>species     | Softwood | Hardwood | All<br>species     | Softwood | Hardwood |
|                       | Million cubic feet |          |          | Million board feet |          |          |
| STATE OF ALABAMA      |                    |          |          |                    |          |          |
| Sawtimber trees       | 572.5              | 364.8    | 207.7    | 2,769.6            | 1,863.7  | 905.9    |
| Poletimber trees      | 196.1              | 65.8     | 130.3    | ...                | ...      | ...      |
| Total                 | 768.6              | 430.6    | 338.0    | 2,769.6            | 1,863.7  | 905.9    |
| NORTH                 |                    |          |          |                    |          |          |
| Sawtimber trees       | 33.7               | 12.3     | 21.4     | 149.1              | 58.5     | 90.6     |
| Poletimber trees      | 13.8               | 3.5      | 10.3     | ...                | ...      | ...      |
| Total                 | 47.5               | 15.8     | 31.7     | 149.1              | 58.5     | 90.6     |
| NORTH CENTRAL         |                    |          |          |                    |          |          |
| Sawtimber trees       | 87.3               | 58.4     | 28.9     | 420.3              | 295.0    | 125.3    |
| Poletimber trees      | 43.6               | 18.8     | 24.8     | ...                | ...      | ...      |
| Total                 | 130.9              | 77.2     | 53.7     | 420.3              | 295.0    | 125.3    |
| WEST CENTRAL          |                    |          |          |                    |          |          |
| Sawtimber trees       | 90.8               | 53.0     | 37.8     | 397.6              | 238.3    | 159.3    |
| Poletimber trees      | 37.9               | 14.4     | 23.5     | ...                | ...      | ...      |
| Total                 | 128.7              | 67.4     | 61.3     | 397.6              | 238.3    | 159.3    |
| SOUTHEAST             |                    |          |          |                    |          |          |
| Sawtimber trees       | 140.9              | 85.9     | 55.0     | 706.1              | 458.0    | 248.1    |
| Poletimber trees      | 53.5               | 16.0     | 37.5     | ...                | ...      | ...      |
| Total                 | 194.4              | 101.9    | 92.5     | 706.1              | 458.0    | 248.1    |
| SOUTHWEST-NORTH       |                    |          |          |                    |          |          |
| Sawtimber trees       | 132.1              | 91.4     | 40.7     | 668.1              | 489.3    | 178.8    |
| Poletimber trees      | 30.8               | 9.2      | 21.6     | ...                | ...      | ...      |
| Total                 | 162.9              | 100.6    | 62.3     | 668.1              | 489.3    | 178.8    |
| SOUTHWEST-SOUTH       |                    |          |          |                    |          |          |
| Sawtimber trees       | 87.7               | 63.8     | 23.9     | 428.4              | 324.6    | 103.8    |
| Poletimber trees      | 16.5               | 3.9      | 12.6     | ...                | ...      | ...      |
| Total                 | 104.2              | 67.7     | 36.5     | 428.4              | 324.6    | 103.8    |

Table 27. --Net annual growth per acre of sawtimber and growing stock, by forest-type and stand-size group, by Survey region, 1951-1953

| Stand- size group | Growing stock |                |                | Sawtimber  |                |                |
|-------------------|---------------|----------------|----------------|------------|----------------|----------------|
|                   | AU types      | Softwood types | Hardwood types | All types  | Softwood types | Hardwood types |
|                   | Cubic feet    |                |                | Board feet |                |                |
| STATE OF ALABAMA  |               |                |                |            |                |                |
| Sawtimber         | 60            | 64             | 52             | 271        | 303            | 206            |
| Poletimber        | 33            | 34             | 30             | 93         | 103            | 75             |
| Other stand sizes | <u>12</u>     | <u>11</u>      | <u>14</u>      | <u>27</u>  | <u>29</u>      | <u>19</u>      |
| Total             | <u>37</u>     | <u>38</u>      | <u>35</u>      | <u>133</u> | <u>143</u>     | <u>111</u>     |
| NORTH             |               |                |                |            |                |                |
| Sawtimber         | 34            | 46             | 27             | 138        | 1.92           | 104            |
| Poletimber        | 23            | 26             | 21             | 58         | 67             | 52             |
| Other stand sizes | <u>9</u>      | <u>9</u>       | <u>7</u>       | <u>9</u>   | <u>9</u>       | <u>11</u>      |
| Total             | <u>24</u>     | <u>28</u>      | <u>22</u>      | <u>76</u>  | <u>91</u>      | <u>66</u>      |
| NORTH CENTRAL     |               |                |                |            |                |                |
| Sawtimber         | 52            | 62             | 26             | 228        | 273            | 109            |
| Poletimber        | 27            | 30             | 21             | 69         | 78             | 48             |
| Other stand sizes | <u>11</u>     | <u>9</u>       | <u>22</u>      | <u>25</u>  | <u>27</u>      | <u>19</u>      |
| Total             | <u>29</u>     | <u>31</u>      | <u>22</u>      | <u>92</u>  | <u>106</u>     | <u>56</u>      |
| WEST CENTRAL      |               |                |                |            |                |                |
| Sawtimber         | 66            | 70             | 60             | 278        | 310            | 240            |
| Pole timber       | 38            | 40             | 32             | 93         | 102            | 76             |
| Other stand sizes | <u>19</u>     | <u>20</u>      | <u>16</u>      | <u>40</u>  | <u>44</u>      | <u>26</u>      |
| Total             | <u>41</u>     | <u>42</u>      | <u>39</u>      | <u>127</u> | <u>131</u>     | <u>120</u>     |
| SOUTHEAST         |               |                |                |            |                |                |
| Sawtimber         | 65            | 64             | 66             | 279        | 295            | 248            |
| Poletimber        | 35            | 32             | 39             | 104        | 107            | 97             |
| Other stand sizes | <u>11</u>     | <u>11</u>      | <u>11</u>      | <u>30</u>  | <u>31</u>      | <u>27</u>      |
| Total             | <u>39</u>     | <u>36</u>      | <u>45</u>      | <u>140</u> | <u>140</u>     | <u>142</u>     |
| SOUTHWEST-NORTH   |               |                |                |            |                |                |
| Sawtimber         | 68            | 72             | 56             | 335        | 368            | 235            |
| Poletimber        | 43            | 46             | 37             | 130        | 143            | 101            |
| Other stand sizes | <u>19</u>     | <u>20</u>      | <u>10</u>      | <u>41</u>  | <u>44</u>      | <u>17</u>      |
| Total             | <u>52</u>     | <u>55</u>      | <u>43</u>      | <u>212</u> | <u>233</u>     | <u>152</u>     |
| SOUTHWEST-SOUTH   |               |                |                |            |                |                |
| Sawtimber         | 60            | 56             | 72             | 286        | 283            | 293            |
| Poletimber        | 34            | 32             | 42             | 113        | 114            | 107            |
| Other stand sizes | <u>6</u>      | <u>6</u>       | <u>3</u>       | <u>18</u>  | <u>20</u>      | <u>8</u>       |
| Total             | <u>36</u>     | <u>33</u>      | <u>50</u>      | <u>147</u> | <u>141</u>     | <u>176</u>     |

Table 28. --Commodity drain on sawtimber and growing stock in species groups, by commodity and Survey region, 1951

| Commodity              | Growing stock      |                    |                    | Sawtimber          |                    |                    |
|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                        | All species        | Soft-wood          | Hard-wood          | All species        | Soft-wood          | Hard-wood          |
|                        | Million cubic feet | Million cubic feet | Million cubic feet | Million board feet | Million board feet | Million board feet |
| STATE OF ALABAMA       |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 371.7              | 233.4              | 138.3              | 1,859.8            | 1,219.4            | 640.4              |
| Veneer logs            | 19.3               | .1                 | 19.2               | 105.7              | .4                 | 105.3              |
| Cooperage bolts        | 17.0               | 13.4               | 3.6                | 86.0               | 69.7               | 16.3               |
| Pulpwood               | 91.3               | 90.2               | 1.1                | 127.6              | 125.2              | 2.4                |
| Fuelwood               | 61.6               | 18.0               | 43.6               | 223.6              | 84.1               | 139.5              |
| Piling                 | 2.6                | 2.6                | ...                | 12.7               | 12.7               | ...                |
| Poles                  | 9.4                | 9.4                | ...                | 45.6               | 45.6               | ...                |
| Posts                  | 8.3                | 2.6                | 5.9                | 14.8               | .4                 | 14.4               |
| Hewn ties              | 4.0                | .4                 | 3.6                | 17.9               | 2.3                | 15.6               |
| Round mine timbers     | 4.6                | 2.2                | 2.4                | 2.6                | 2.6                | ...                |
| Miscellaneous products | 5.3                | 1.0                | 4.3                | 13.8               | .7                 | 13.1               |
| Total                  | 595.3              | 373.3              | 222.0              | 2,510.1            | 1,563.1            | 947.0              |
| SOUTHEAST              |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 108.4              | 63.0               | 45.6               | 540.0              | 329.4              | 210.6              |
| Veneer logs            | 4.7                | .1                 | (1/)               | 25.7               | .4                 | 25.3               |
| Cooperage bolts        | .3                 | .3                 | ...                | 1.7                | 1.7                | (1/)               |
| Pulpwood               | 27.4               | 27.2               | .2                 | 38.2               | 37.7               | .5                 |
| Fuelwood               | 17.2               | 3.5                | 13.7               | 60.0               | 16.0               | 44.0               |
| Piling                 | .3                 | .3                 | ...                | 1.3                | 1.3                | ...                |
| Poles                  | .9                 | .9                 | ...                | 4.2                | 4.2                | ...                |
| Posts                  | 2.4                | .7                 | 1.7                | 4.2                | .2                 | 4.0                |
| Hewn ties              | 2.5                | .2                 | 2.3                | 11.1               | 1.2                | 9.9                |
| Round mine timbers     | ...                | ...                | ...                | ...                | ...                | ...                |
| Miscellaneous products | 1.1                | .2                 | .9                 | 2.6                | .1                 | 2.5                |
| Total                  | 165.2              | 96.4               | 68.8               | 689.0              | 392.2              | 296.8              |
| NORTH                  |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 25.8               | 13.9               | 11.9               | 127.8              | 72.7               | 55.1               |
| Veneer logs            | 1.0                | ...                | 1.0                | 5.3                | ...                | 5.3                |
| Cooperage bolts        | 1.8                | ...                | 1.8                | 7.7                | ...                | 7.7                |
| Pulpwood               | .7                 | .7                 | ...                | .9                 | .9                 | ...                |
| Fuelwood               | 12.3               | 3.4                | 8.9                | 44.7               | 16.4               | 28.3               |
| Piling                 | ...                | ...                | ...                | ...                | ...                | ...                |
| Poles                  | .2                 | .2                 | ...                | .8                 | .8                 | ...                |
| Posts                  | 1.8                | .4                 | 1.4                | 3.6                | .1                 | 3.5                |
| Hewn ties              | .1                 | ...                | .1                 | .2                 | ...                | .2                 |
| Round mine timbers     | ...                | ...                | ...                | ...                | ...                | ...                |
| Miscellaneous products | 1.2                | .1                 | 1.1                | 3.7                | (1/)               | 3.7                |
| Total                  | 44.9               | 18.7               | 26.2               | 194.7              | 90.9               | 103.8              |
| SOUTHWEST-NORTH        |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 88.0               | 56.4               | 31.6               | 440.8              | 294.8              | 146.0              |
| Veneer logs            | 6.3                | ...                | 6.3                | 34.6               | ...                | 34.6               |
| Cooperage bolts        | 7.6                | 6.9                | .7                 | 38.9               | 35.4               | 3.5                |
| Pulpwood               | 16.7               | 16.5               | .2                 | 23.4               | 23.0               | .4                 |
| Fuelwood               | 8.0                | 1.7                | 6.3                | 27.8               | 7.8                | 20.0               |
| Piling                 | 2.0                | 2.0                | ...                | 9.9                | 9.9                | ...                |
| Poles                  | 3.8                | 3.8                | ...                | 18.6               | 18.6               | ...                |
| Posts                  | .9                 | .3                 | .6                 | 1.5                | (1/)               | 1.5                |
| Hewn ties              | 1.0                | .2                 | .8                 | 4.6                | .9                 | 3.7                |
| Round mine timbers     | ...                | ...                | ...                | ...                | ...                | (1/)               |
| Miscellaneous products | 1.9                | .3                 | 1.6                | 6.0                | .5                 | 5.5                |
| Total                  | 136.2              | 88.1               | 48.1               | 606.1              | 390.9              | 215.2              |
| NORTH-CENTRAL          |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 62.6               | 45.0               | 17.6               | 316.4              | 235.1              | 81.3               |
| Veneer logs            | .6                 | ...                | .6                 | 3.3                | ...                | 3.3                |
| Cooperage bolts        | 5.7                | 5.3                | .4                 | 29.5               | 27.8               | 1.7                |
| Pulpwood               | 10.3               | 10.3               | (1/)               | 14.4               | 14.4               | (1/)               |
| Fuelwood               | 15.1               | 6.4                | 8.7                | 57.9               | 29.8               | 28.1               |
| Piling                 | (1/)               | (1/)               | ...                | (1/)               | (1/)               | ...                |
| Poles                  | .3                 | .3                 | ...                | 1.6                | 1.6                | ...                |
| Posts                  | 1.9                | .7                 | 1.2                | 3.0                | .1                 | 2.9                |
| Hewn ties              | .1                 | ...                | .1                 | .4                 | ...                | .4                 |
| Round mine timbers     | 3.1                | 1.5                | 1.6                | 1.7                | 1.7                | ...                |
| Miscellaneous products | .4                 | .2                 | .2                 | .4                 | .1                 | .3                 |
| Total                  | 100.1              | 69.7               | 30.4               | 428.6              | 310.6              | 118.0              |
| SOUTHWEST-SOUTH        |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 33.9               | 24.3               | 9.6                | 171.4              | 126.8              | 44.6               |
| Veneer logs            | 5.3                | ...                | 5.3                | 29.1               | ...                | 29.1               |
| Cooperage bolts        | ...                | ...                | ...                | ...                | ...                | ...                |
| Pulpwood               | 22.4               | 22.3               | .1                 | 31.1               | 30.9               | .2                 |
| Fuelwood               | 4.1                | 1.9                | 2.2                | 16.0               | 9.0                | 7.0                |
| Piling                 | .3                 | .3                 | ...                | 1.4                | 1.4                | ...                |
| Poles                  | 3.6                | 3.6                | ...                | 17.3               | 17.3               | ...                |
| Posts                  | .5                 | (1/)               | .3                 | 1.4                | .2                 | 1.2                |
| Hewn ties              | .9                 | .4                 | .5                 | .5                 | .5                 | ...                |
| Round mine timbers     | .2                 | .1                 | .1                 | (1/)               | (1/)               | (1/)               |
| Total                  | 71.5               | 53.1               | 18.4               | 269.0              | 186.1              | 82.9               |
| WEST-CENTRAL           |                    |                    |                    |                    |                    |                    |
| Sawlogs                | 53.0               | 30.8               | 22.2               | 263.4              | 160.6              | 102.8              |
| Veneer logs            | 1.4                | ...                | 1.4                | 7.7                | ...                | 7.7                |
| Cooperage bolts        | 1.6                | .9                 | .7                 | 8.2                | 4.8                | 3.4                |
| Pulpwood               | 13.8               | 1.2                | .6                 | 19.6               | 18.3               | 1.3                |
| Fuelwood               | 4.9                | (1/)               | 3.8                | 17.2               | 5.1                | 12.1               |
| Piling                 | (1/)               | ...                | ...                | .1                 | .1                 | ...                |
| Poles                  | .6                 | .6                 | ...                | 3.1                | 3.1                | ...                |
| Posts                  | 1.0                | .3                 | .7                 | 1.7                | (1/)               | 1.7                |
| Hewn ties              | (1/)               | ...                | (1/)               | .2                 | ...                | .2                 |
| Round mine timbers     | .6                 | .3                 | .3                 | .4                 | .4                 | ...                |
| Miscellaneous products | .5                 | .1                 | .4                 | 1.1                | (1/)               | 1.1                |
| Total                  | 77.4               | 47.3               | 30.1               | 322.7              | 192.4              | 130.3              |

1/ Negligible.

Table 29. --Commodity drain of sawtimber and growing stock by species, 1951

| Species               | Growing stock   | I | Sawtimber       |
|-----------------------|-----------------|---|-----------------|
|                       | Million cu. ft. |   | Million bd. ft. |
| Softwood:             |                 |   |                 |
| Pines                 | 371.2           |   | 1,555.7         |
| Other                 | 2.1             |   | 7.4             |
| Total                 | <u>373.3</u>    |   | <u>1,563.1</u>  |
| Hardwood:             |                 |   |                 |
| Oaks                  | 82.1            |   | 321.8           |
| Other firm-textured   |                 |   |                 |
| hardwoods             | 22.8            |   | 86.8            |
| Sweetgum              | 54.6            |   | 245.0           |
| Black and tupelo gums | 28.3            |   | 132.6           |
| Yellow-poplar         | 26.6            |   | 124.5           |
| Other soft-textured   |                 |   |                 |
| hardwoods             | 7.6             |   | 36.3            |
| Total                 | <u>333.0</u>    |   | <u>947.0</u>    |
| All species           | 595.3           |   | 2,510.1         |

Table 30. --Commodity drain on sawtimber and growing stock, by species group and class of timber, by Survey region, 1951

| Class of timber  | All species  | Growing stock      |              | All species    | Sawtimber          |              |
|------------------|--------------|--------------------|--------------|----------------|--------------------|--------------|
|                  |              | Soft-wood          | Hard-wood    |                | Soft-wood          | Hard-wood    |
|                  |              | Million cubic feet |              |                | Million board feet |              |
| STATE OF ALABAMA |              |                    |              |                |                    |              |
| Sawtimber trees  | 491.4        | 295.7              | 195.7        | 2,510.1        | 1,563.1            | 947.0        |
| Poletimber trees | 103.9        | 77.6               | 26.3         | ...            | ...                | ...          |
| Total            | <u>595.3</u> | <u>373.3</u>       | <u>222.0</u> | <u>2,510.1</u> | <u>1,563.1</u>     | <u>947.0</u> |
| NORTH            |              |                    |              |                |                    |              |
| Sawtimber trees  | 38.8         | 17.0               | 21.8         | 194.7          | 90.9               | 103.8        |
| Poletimber trees | 6.1          | 1.7                | 4.4          | ...            | ...                | ...          |
| Total            | <u>44.9</u>  | <u>18.7</u>        | <u>26.2</u>  | <u>194.7</u>   | <u>90.9</u>        | <u>103.8</u> |
| NORTH CENTRAL    |              |                    |              |                |                    |              |
| Sawtimber trees  | 82.8         | 58.2               | 24.6         | 428.6          | 310.6              | 118.0        |
| Poletimber trees | 17.3         | 11.5               | 5.8          | ...            | ...                | ...          |
| Total            | <u>100.1</u> | <u>69.7</u>        | <u>30.4</u>  | <u>428.6</u>   | <u>310.6</u>       | <u>118.0</u> |
| WEST CENTRAL     |              |                    |              |                |                    |              |
| Sawtimber trees  | 63.4         | 36.4               | 27.0         | 322.7          | 192.4              | 130.3        |
| Poletimber trees | 14.0         | 10.9               | 3.1          | ...            | ...                | ...          |
| Total            | <u>77.4</u>  | <u>47.3</u>        | <u>30.1</u>  | <u>322.7</u>   | <u>192.4</u>       | <u>130.3</u> |
| SOUTHEAST        |              |                    |              |                |                    |              |
| Sawtimber trees  | 135.9        | 74.4               | 61.5         | 689.0          | 392.2              | 296.8        |
| Poletimber trees | 29.3         | 22.0               | 7.3          | ...            | ...                | ...          |
| Total            | <u>165.2</u> | <u>96.4</u>        | <u>68.8</u>  | <u>689.0</u>   | <u>392.2</u>       | <u>296.8</u> |
| SOUTHWEST-NORTH  |              |                    |              |                |                    |              |
| Sawtimber trees  | 117.7        | 73.4               | 44.3         | 606.1          | 390.9              | 215.2        |
| Poletimber trees | 18.5         | 14.7               | 3.8          | ...            | ...                | ...          |
| Total            | <u>136.2</u> | <u>88.1</u>        | <u>48.1</u>  | <u>606.1</u>   | <u>390.9</u>       | <u>215.2</u> |
| SOUTHWEST-SOUTH  |              |                    |              |                |                    |              |
| Sawtimber trees  | 52.8         | 36.3               | 16.5         | 269.0          | 186.1              | 82.9         |
| Poletimber trees | 18.7         | 16.8               | 1.9          | ...            | ...                | ...          |
| Total            | <u>71.5</u>  | <u>53.1</u>        | <u>18.4</u>  | <u>269.0</u>   | <u>186.1</u>       | <u>82.9</u>  |

**Table 3 1. --Change in commercial forest land between Surveys by  
forest-type group and Survey region, 1935-36 and  
1951-53**

| Survey<br>region | Change between Surveys |                             |                      |                    |
|------------------|------------------------|-----------------------------|----------------------|--------------------|
|                  | All<br>types           | Soft-<br>wood <sup>1/</sup> | Bottom-<br>and hdwd. | Upland<br>hardwood |
|                  | - - - -                | - - - -                     | - - - -              | - - - -            |
|                  |                        | <u>Percent</u>              |                      |                    |
| North            | - 7                    | - 20                        | - 16                 | t 10               |
| North Central    | t 14                   | t 5                         | (2/)                 | t 48               |
| West Central     | t 15                   | t 7                         | t 14                 | t 52               |
| Southeast        | t 18                   | t 17                        | + 19                 | t 23               |
| Southwest-North  | t 14                   | t 16                        | t 15                 | t 3                |
| Southwest-South  | - 3                    | - 2                         | t 18                 | - 38               |
| Total            | + 10                   | t 6                         | t 13                 | t 23               |

<sup>1/</sup> Includes mixed pine-hardwood types.

<sup>2/</sup> Negligible.

**Table 32. --Change in growing stock between Surveys by species group  
and Survey region, 1935-36 and 1951-53**

| Survey<br>region | Change between Surveys |                |               |
|------------------|------------------------|----------------|---------------|
|                  | All<br>species         | Soft-<br>wood  | Hard-<br>wood |
|                  | - - - -                | - - - -        | - - - -       |
|                  |                        | <u>Percent</u> |               |
| North            | - 19                   | - 31           | - 14          |
| North Central    | - 20                   | - 31           | - 4           |
| West Central     | (1/)                   | - 14           | t 12          |
| Southeast        | - - 1                  | - 9            | t 7           |
| Southwest-North  | t 20                   | t 24           | t 15          |
| Southwest-South  | t 30                   | t 27           | t 36          |
| Total            | + 1                    | - 5            | t 6           |

<sup>1/</sup> Negligible.

**Table 33. --Change in sawtimber volume between Surveys by species group and Survey region, 1935-36 and 1951-53**

| Survey region   | Change between Surveys |           |           |
|-----------------|------------------------|-----------|-----------|
|                 | All species            | Soft-wood | Hard-wood |
|                 | Percent                |           |           |
| North           | - 21                   | - 34      | - 14      |
| North Central   | - 38                   | - 46      | - 19      |
| West Central    | - 18                   | - 31      | - 2       |
| Southeast       | - 17                   | - 23      | - 8       |
| Southwest-North | t 8                    | t 14      | - 3       |
| Southwest-South | t 22                   | t 18      | \$ 3 2    |
| Total           | - 12                   | - 17      | - 5       |

**Table 34. --Total number of live trees <sup>1/</sup> by species group and Survey region (1951-53) and change between Surveys (1935-36 and 1951-53)**

| Diameter class (inches) | Softwood       |                | Hardwood       |                |
|-------------------------|----------------|----------------|----------------|----------------|
|                         | Thousand trees | Percent change | Thousand trees | Percent change |
| STATE OF ALABAMA        |                |                |                |                |
| 2-4                     | 2,392,324      | +78            | 6,568,793      | +99            |
| 6-8                     | 583,273        | t33            | 110,027        | t27            |
| 10-12                   | 181,663        | +10            | 265,463        | t29            |
| 14-18                   | 49,159         | -18            | 101,009        | t 8            |
| 20 and up               | 4,487          | -55            | 17,871         | -25            |
| Total                   | 3,210,906      | +59            | 7,723,163      | t82            |
| NORTH                   |                |                |                |                |
| 2-4                     | 146,365        | +11            | 756,607        | - 3            |
| 6-8                     | 35,541         | -21            | 94,058         | (2/)           |
| 10-12                   | 7,388          | -37            | 33,540         | - 6            |
| 14-18                   | 2,089          | -32            | 13,046         |                |
| 20 and up               | 176            | -50            | 2,652          | -24            |
| Total                   | 191,559        | (2/)           | 899,983        | +32            |
| NORTH CENTRAL           |                |                |                |                |
| 2-4                     | 618,947        | t96            | 1,331,776      | +108           |
| 6-8                     | 131,930        | +20            | 167,554        | + 23           |
| 10-12                   | 33,924         | -20            | 47,883         | t 12           |
| 14-18                   | 7,596          | -51            | 16,022         | - 6            |
| 20 and up               | 695            | -69            | 2,443          | - 31           |
| Total                   | 793,092        | +63            | 1,565,678      | + 8 6          |
| WEST CENTRAL            |                |                |                |                |
| 2-4                     | 388,786        | +95            | 1,027,816      | t97            |
| 6-8                     | 92,411         | +42            | 123,711        | t27            |
| 10-12                   | 20,208         | -13            | 45,381         | t41            |
| 14-18                   | 4,926          | -32            | 16,687         | t 8            |
| 20 and up               | 448            | -58            | 2,721          | -24            |
| Total                   | 506,779        | +71            | 1,216,316      | t81            |
| SOUTHEAST               |                |                |                |                |
|                         | 616,684        | +125           | 1,542,750      | G-102          |
|                         | 131,540        | + 43           | 160,090        | + 37           |
|                         | 43,037         | + 11           | 62,662         | t 27           |
|                         | 11,149         | - 27           | 24,348         | + 8            |
|                         | 1,116          | - 60           | 3,908          | - 35           |
|                         | 803,526        | t 90           | 1,793,758      | t 87           |
| SOUTHWEST-NORTH         |                |                |                |                |
|                         | 390,912        | +74            | 1,173,208      | +156           |
|                         | 100,165        | +50            | 135,747        | + 51           |
|                         | 39,459         | +51            | 46,961         | t 54           |
|                         | 13,721         | +28            | 19,995         | t 21           |
|                         | 1,664          | -32            | 3,845          | - 25           |
|                         | 545,921        | +65            | 1,379,756      | t130           |
| SOUTHWEST-SOUTH         |                |                |                |                |
|                         | 230,630        | t14            | 736,636        | t89            |
|                         | 91,686         | +51            | 88,867         | +26            |
|                         | 37,647         | t59            | 29,036         | +57            |
|                         | 9,678          | +18            | 10,911         | \$29           |
|                         | 388            | -64            | 2,302          | +15            |
|                         | 376,029        | t25            | 867,752        | t77            |

<sup>1/</sup> Includes both cull and growing stock trees.

<sup>2/</sup> Negligible.

## Definitions of Terms

### Forest Land

Forest land. Includes: (a) land which is at least 10 percent stocked by trees of any size and capable of producing timber or other wood products, or of exerting an influence on the climate or on the water regime; (b) land from which the trees have been removed to less than 10 percent stocking and which has not been developed for other use; (c) afforested areas.

Commercial forest land. Forest land which is (a) producing, or is physically capable of producing, usable crops of wood (usually sawtimber), (b) economically available now or prospectively, and (c) not withdrawn from timber utilization.

Noncommercial forest land. Forest land (a) withdrawn from timber utilization through statute, ordinance, or administrative order but which otherwise qualifies as commercial forest land or (b) incapable of yielding usable wood products (usually sawtimber) because of adverse site conditions, or physical inaccessibility.

### Tree Species

Commercial species. Includes species that normally have value for commercial timber products; excludes so-called weed or noncommercial species such as blackjack oak, scrub post oak, blue beech, sourwood, etc.

Softwoods. Coniferous species, of which the most numerous are loblolly pine (*Pinus taeda*); shortleaf pine (*P. echinata*); longleaf pine (*P. palustris*); and slash pine (*P. caribaea*).

Hardwoods. Broadleaved species, of which the most numerous genera or species are the oaks (*Quercus* spp.); hickories, except pecans (*Carya* spp.); and sweetgum (*Liquidambar styraciflua*).

### Forest Type

Forest type is determined upon the basis of the predominant species as indicated by cubic volume for sawtimber and poletimber stands, and number of trees for seedling-sapling stands,

Longleaf - slash pine. Forests in which 50 percent or more of the stand is longleaf or slash pine, singly or in combination, (Common associates include other southern pines, oak, and gum. )

Loblolly-shortleaf pine. Forests in which 50 percent or more of the stand is loblolly pine, shortleaf pine, or other southern yellow pines excepting longleaf or slash pine, singly or in combination. (Common associates include oak, hickory, and gum. )

White -red -jack pine. Forests in which 50 percent or more of the stand is eastern white pine, red pine, or jack pine, singly or in combination, (Common associates include hemlock, aspen, birch, and maple. )

Spruce-fir. Forests in which 50 percent or more of the stand is spruce or true firs, singly or in combination. (Common associates include white cedar, tamarack, maple, birch, and hemlock. )

Oak-pine. Forests in which 50 percent or more of the stand is hardwoods, usually upland oaks, but in which southern pines make up 25 - 49 percent of the stand. (Common associates include gum, hickory, and yellow -poplar. )

Oak-hickory. Forests in which 50 percent or more of the stand is upland oaks or hickory, singly or in combination, except where pines comprise 25 - 49 percent in which case the stand would be classified "oak-pine." (Common associates include yellow -poplar, elm, maple , and black walnut. )

Maple -beech-birch. Forests in which 50 percent or more of the stand is maple, beech, or yellow birch, singly or in combination. (Common associates include hemlock, elm, basswood and white pine. )

Oak-gum-cypress. Bottomland forests in which 50 percent or more of the stand is tupelo, blackgum, sweetgum, oaks, or southern cypress, singly or in combination, except where pines comprise 25 - 49 percent in which case the stand would be classified "oak-pine." (Common associates include cottonwood, willow, ash, elm, hackberry, and maple. )

Elm-ash-cottonwood. Forests in which 50 percent or more of the stand is elm, ash, or cottonwood, singly or in combination. (Common associates include willow, sycamore, beech, and maple. )

In the detailed tables in this report, the types listed above have been grouped into five major forest types. Following is a list of these major groupings together with the types contained in each:

Pine. Consists of longleaf-slash pine type and loblolly-shortleaf pine type.

Pine-hardwood. Same as oak-pine type.

Other softwood. Forests in which redcedar, white cedar, or hemlock comprise at least 25 percent of the stand. In the national standard forest types, the redcedar is included with oak-hickory, the white cedar with spruce -fir, and hemlock with white-red-jack pine.

Upland hardwood. Consists of oak-hickory type and maple - beech-birch type.

Bottomland hardwood, Consists of oak-gum-cypress type and elm-ash-cottonwood type.

### Class of Timber

Sawtimber tree. A live tree of commercial species at least 9.0 inches d. b. h. in softwoods and 11.0 inches d. b. h. in hardwoods, that contains at least a 12-foot merchantable butt log--or, if the butt log is a cull, at least 50 percent of the gross sawlog volume is in merchantable logs. To be merchantable, a log must meet the following requirements:

- (a) In softwoods, logs having a minimum 8-inch small -end diameter inside bark and at least one -third sound, with sweep or crook not exceeding two-thirds the small-end diameter. Cedar logs must have sound heartwood,
- (b) In hardwoods, logs having a minimum 8-inch small-end diameter inside bark and which meet the specifications of a standard lumber log or a tie and timber log.

Poletimber tree. A live tree of commercial species between 5.0 inches d. b. h. and sawtimber size, but straight and clear enough to become a sawtimber tree in the future.

Seedling and sapling tree. Live, well-established seedlings and trees of commercial species less than 5.0 inches in d.b. h., sound and of good form.

Gull tree. A live tree 5.0 inches or larger in d. b. h., which is unmerchantable for sawlogs now or prospectively because of defect, rot, or species.

Hardwood limbs. Limbs of hardwood sawtimber trees and sawtimber-size cull hardwood trees to a minimum diameter of 4.0 inches inside bark.

### Stand -size Class

Large sawtimber. Stands with sawtimber trees having a net volume of at least 1,500 board feet per acre and at least half of this volume in saw - timber trees 15.0 inches d. b. h. and larger.

Small sawtimber. Stands which have a net volume of at least 1,500 board feet per acre in sawtimber trees, but which do not meet the specifications for large sawtimber.

Poletimber. Stands failing to meet the sawtimber specification but at least 10 percent stocked with poletimber and larger trees (5.0 inches d. b. h. and larger) and with at least half the minimum stocking in pole - timber trees.

Seedling and sapling. Stands not qualifying as either sawtimber or pole - timber stands, but having at least 10 percent stocking of trees of commercial species and with at least half the minimum stocking in seedling and sapling trees.

Nonstocked and other areas. Commercial forest land not qualifying as sawtimber, pole timber, or seedling and sapling stands,

### Tree Stocking

Stocking is the extent to which growing space is effectively utilized by present or potential growing-stock trees of commercial species. Stands are considered to be well stocked when the percentage of full stocking is 70 or above, medium stocked when the percentage is 40 to 69, poorly stocked when the percentage is 10 to 39, and nonstocked when the percentage is under 10.

## **Volume**

**Sawtimber volume.** Net volume in board feet, International 1/4-inch rule, in merchantable sawlogs in sawtimber trees.

**Growing stock.** Net volume in cubic feet of sawtimber and poletimber trees from stump to a minimum 4.0-inch top diameter (of central stem) inside bark.

**Total volume.** Net volume in cubic feet of sawtimber trees, poletimber trees, cull trees, and salvable dead trees from stump to a minimum 4.0-inch top inside bark. Includes bole only of softwoods but both bole and limbs of hardwoods to a minimum 4.0-inch diameter inside bark.

## **Basal Area**

**Basal area.** Cross-sectional area, including bark, of trees at breast height, measured in square feet.

## **Diameter**

**D. b. h. (diameter breast high).** Tree diameter in inches, outside bark, measured at 4-1/2 feet above ground.

**Diameter class.** The 2-inch diameter classes extend from 1.0 inch below to 0.9 inch above the stated midpoint. Thus, the 12-inch class includes trees 11.0 inches to and including 12.9 inches d. b. h.

## **Growth**

**Net annual growth of sawtimber.** The change during the inventory year in net board-foot volume of sawtimber on commercial forest land resulting from natural causes.

**Net annual growth of growing stock.** The change during the inventory year in net cubic-foot volume of the growing stock on commercial forest land resulting from natural causes.

## **Drain**

**Commodity drain on sawtimber.** The board-foot volume of sawtimber trees removed from commercial forest land during a specified year as timber products and logging waste.

**Commodity drain on growing stock:** The cubic-foot volume of sawtimber and poletimber trees removed from commercial forest land during a specified year as timber products and logging waste.

#### Softwood Log Grades <sup>4/</sup>

Softwood log grades are based on the value yield per unit outturn of yard lumber. <sup>5/</sup> The value of lumber yield may be expressed relative to the value of No. 2 Common lumber taken as 100 percent. Expressed thus, studies have shown that lumber from grade 1 logs has a value 244 percent as great as No. 2 Common lumber, while the corresponding percentages are 189 percent for grade 2 logs, 142 percent for grade 3 logs, and 107 percent for grade 4 logs.

#### Hardwood Log Class

Specifications for standard lumber logs (hardwood log grades 1, 2, and 3) are based on suitability for standard factory lumber, <sup>6/</sup> Studies have shown that for nearly all species tested, the yield of No. 1 Common and better lumber in grade 1 logs varies from 65 to 80 percent; in grade 2 logs from 40 to 64 percent; and in grade 3 logs from 13 to 36 percent.

Tie and timber logs are suitable for ties, timbers, and certain other construction lumber items. Specifications for tie and timber logs are based chiefly on knot size and log soundness; clear cuttings are not required,

#### Stand Quality

**Fair and better,** A stand in which at least four grade-2 or better logs are present per acre.

**Poor.** A stand in which fewer than four grade-2 or better logs are present per acre.

---

<sup>4/</sup> For detailed specifications of log grades, see "Interim log grades for southern pine." Southern Forest Experiment Station, 18 pp. 1953.

<sup>5/</sup> Except for redcedar; all redcedar sawlogs were graded as No. 1.

<sup>6/</sup> For detailed specifications of log grades, see "Hardwood log grades for standard lumber: proposals and results." U.S. Forest Products Laboratory D1737. 1949.

### Standard Tables

The 10 tables that follow will be found in all Forest Survey State reports in order that forest statistics for a group of States can be easily compared or compiled.

**Table I. --Land area, by major classes of land, Alabama, 1951-1953**

| Class of land                       | Area                  |
|-------------------------------------|-----------------------|
|                                     | <u>Thousand acres</u> |
| <b>Forest:</b>                      |                       |
| Commercial                          | 20,756.2              |
| Noncommercial:                      |                       |
| Reserved from commercial timber use | 4.5                   |
| Unproductive for timber use         | 10.5                  |
| Total                               | 20,771.2              |
| Nonforest: <sup>1/</sup>            | 11,918.7              |
| <b>Total, all classes</b>           | <b>32,689.9</b>       |

<sup>1/</sup> Includes some acreage of water according to Survey standards of area classification but defined by the Bureau of Census as land.

**Table II. --Commercial forest land area, by ownership and stand-size classes, Alabama, 1951-1953**

| Ownership class                                   | Total    | Saw-timber stands | Pole-timber stands | Seedling and sapling stands <sup>1/</sup> |
|---------------------------------------------------|----------|-------------------|--------------------|-------------------------------------------|
|                                                   | - - - -  | Thousand acres    |                    | - - - -                                   |
| <b>Federally owned or managed:</b>                |          |                   |                    |                                           |
| National forest                                   | 616.3    | 241.3             | 275.0              | 100.0                                     |
| Indian                                            | ...      | ...               | ...                | ...                                       |
| Other                                             | 208.3    | 71.8              | 109.4              | 27.1                                      |
| Total                                             | 824.6    | 313.1             | 384.4              | 127.1                                     |
| <b>State, county, and municipal <sup>2/</sup></b> | 151.3    | 60.6              | 68.5               | 22.2                                      |
| <b>Private</b>                                    | 19,780.3 | 5,717.3           | 10,459.7           | 3,603.3                                   |
| <b>All owner ships</b>                            | 20,756.2 | 6,091.0           | 10,912.6           | 3,752.6                                   |

<sup>1/</sup> Nonstocked and other areas included with seedling and sapling stands

<sup>2/</sup> Separation of State, county, and municipal not available.

**Table III. --Area of commercial forest land, by major forest types, Alabama, 1951-53**

| Forest type             | Thousand acres |
|-------------------------|----------------|
| White-red- jack pine    | 2.6            |
| Spruce-fir              | 2.2            |
| Longleaf- slash pine    | 2,995.8        |
| Loblolly-shortleaf pine | 8,006.5        |
| Oak-pine                | 3,256.0        |
| Oak-hickory             | 4,087.9        |
| Oak-gum-cypress         | 2,330.8        |
| Elm-ash-cottonwood      | 43.6           |
| Maple-beech-birch       | 30.8           |
| Total                   | 20,756.2       |

Table IV. --Net volume of live sawtimber and growing stock on commercial forest land, by stand-size class, Alabama,  
1951-53

| Stand- size class                                      | Sawtimber                 | Growing stock             |
|--------------------------------------------------------|---------------------------|---------------------------|
|                                                        | <u>Million board feet</u> | <u>Million cubic feet</u> |
| Sawtimber stands                                       | 28, 133. 7                | 7, 067. 0                 |
| Poletimber stands                                      | 9, 306. 9                 | 4, 345. 0                 |
| Seedling and sapling stands                            | 754. 4                    | 293. 7                    |
| Nonstocked and other areas<br>not elsewhere classified | <u>15. 6</u>              | <u>6. 7</u>               |
| Total                                                  | 38, 210. 6                | 11, 712. 4                |

Table V. --Net volume of live sawtimber and growing stock on commercial forest land, by ownership class, Alabama,  
1951-1953

| Ownership class                            | Sawtimber              | Growing stock          |
|--------------------------------------------|------------------------|------------------------|
|                                            | <u>Million bd. ft.</u> | <u>Million cu. ft.</u> |
| Federally owned or managed:                |                        |                        |
| National Forest                            | 1, 565. 3              | 415. 3                 |
| Indian                                     | ...                    | ...                    |
| Other                                      | <u>368. 9</u>          | <u>112. 3</u>          |
| Total                                      | 1, 934. 2              | 527. 6                 |
| State, county, and municipal <sup>1/</sup> | 327. 8                 | 102. 7                 |
| Private <sup>2/</sup>                      | <u>35, 948. 6</u>      | <u>11, 082. 1</u>      |
| All owner ships                            | 38, 210. 6             | 11, 712. 4             |

<sup>1/</sup> Separation between State, county, and municipal not available.

<sup>2/</sup> Separation between farm, industrial, and other private ownership classes not available.

Table VI. --Net volume of live sawtimber and growing stock on commercial forest land, by species, Alabama, 1951-53

| Species                                                                     | Sawtimber          | Growing stock      |
|-----------------------------------------------------------------------------|--------------------|--------------------|
|                                                                             | Million board feet | Million cubic feet |
| <b>Softwoods:</b>                                                           |                    |                    |
| Longleaf and slash pines                                                    | 5,151.0            | 1,337.3            |
| Shortleaf and loblolly pines                                                | 15,296.5           | 3,912.2            |
| Other southern yellow pines                                                 | 964.4              | 248.8              |
| Hemlock                                                                     | 19.4               | 3.5                |
| Cypress                                                                     | 415.8              | 80.0               |
| Other eastern softwoods                                                     | 81.8               | 34.3               |
| <b>Total</b>                                                                | <b>21,928.9</b>    | <b>5,616.1</b>     |
| <b>Hardwoods:</b>                                                           |                    |                    |
| White oaks ( <i>Q. alba</i> and <i>prinus</i> )                             | 1,418.9            | 484.2              |
| Red oaks ( <i>Q. borealis</i> and <i>falcata</i> var. <i>pagodaefolia</i> ) | 561.0              | 155.1              |
| Other white oaks                                                            | 1,122.4            | 488.1              |
| Other red oaks                                                              | 3,125.0            | 1,153.1            |
| Yellow birch                                                                | 11.1               | 4.8                |
| Sugar maple                                                                 | 47.9               | 19.8               |
| Soft maples                                                                 | 204.4              | 108.4              |
| Beech                                                                       | 344.3              | 93.1               |
| Sweetgum                                                                    | 2,316.2            | 881.2              |
| Tupelo and blackgum                                                         | 2,308.2            | 835.6              |
| Ash                                                                         | 326.7              | 126.5              |
| Hickory                                                                     | 1,934.2            | 777.1              |
| Cottonwood                                                                  | 64.1               | 17.8               |
| Basswood                                                                    | 73.1               | 21.9               |
| Yellow-poplar                                                               | 1,057.1            | 310.7              |
| Black walnut                                                                | 20.1               | 8.6                |
| Other eastern hardwoods                                                     | 1,347.0            | 610.3              |
| <b>Total</b>                                                                | <b>16,281.7</b>    | <b>6,096.3</b>     |
| <b>All species</b>                                                          | <b>38,210.6</b>    | <b>11,712.4</b>    |

Table VII.--Net volume of live sawtimber on commercial forest land, by diameter-class groups and species, Alabama, 1951-53

| Species                                                                        | Diameter class groups          |           |           |           |           |                  | Total    |
|--------------------------------------------------------------------------------|--------------------------------|-----------|-----------|-----------|-----------|------------------|----------|
|                                                                                | 10 inches                      | 12 inches | 14 inches | 16 inches | 18 inches | 20 inches and up |          |
|                                                                                | ----- Million board feet ----- |           |           |           |           |                  |          |
| Southern yellow pines                                                          | 5,313.1                        | 5,164.4   | 4,029.5   | 2,803.6   | 1,890.8   | 2,210.5          | 21,411.9 |
| Other eastern softwoods                                                        | 50.7                           | 65.5      | 94.6      | 103.8     | 57.0      | 145.4            | 517.0    |
| White oaks ( <i>Q. alba</i><br>and <i>prinus</i> )                             | ...                            | 297.1     | 294.3     | 254.7     | 193.3     | 379.5            | 1,418.9  |
| Other white oaks                                                               | ...                            | 301.9     | 218.6     | 153.2     | 120.4     | 328.3            | 1,122.4  |
| Red oaks ( <i>Q. borealis</i> and<br><i>falcata</i> var. <i>pagodaefolia</i> ) | ...                            | 75.4      | 106.4     | 101.3     | 70.6      | 207.3            | 561.0    |
| Other red oaks                                                                 | ...                            | 643.5     | 647.7     | 549.5     | 415.5     | 868.8            | 3,125.0  |
| Sugar maple                                                                    | ...                            | 14.7      | 11.5      | 10.1      | 2.3       | 9.3              | 47.9     |
| Beech                                                                          | ...                            | 32.6      | 43.2      | 30.7      | 58.6      | 179.2            | 344.3    |
| Sweetgum                                                                       | ...                            | 596.8     | 581.0     | 425.1     | 341.7     | 371.6            | 2,316.2  |
| Tupelo and blackgum                                                            | ...                            | 522.8     | 507.1     | 446.1     | 311.9     | 520.3            | 2,308.2  |
| Yellow-poplar                                                                  | ...                            | 183.7     | 203.8     | 241.7     | 167.3     | 260.6            | 1,057.1  |
| Other eastern hardwoods                                                        | ...                            | 974.4     | 975.9     | 727.7     | 564.7     | 738.0            | 3,980.7  |

**Table VIII, --Net volume of all timber on commercial forest land, by class of material and species group, Alabama, 1951-53**

| Class of material                    | Total           | Softwoods      | Hardwoods      |
|--------------------------------------|-----------------|----------------|----------------|
| - - - - Million cubic feet - - - - - |                 |                |                |
| <b>Growing stock:</b>                |                 |                |                |
| <b>Sawtimber trees:</b>              |                 |                |                |
| Sawlog portion                       | 6, 263.3        | 3, 666.2       | 2,597.1        |
| Upper stem portion                   | 1,424.3         | 326.4          | 1,097.9        |
| Total                                | 7, 687.6        | 3, 992.6       | 3, 695.0       |
| <b>Poletimber trees</b>              | 4, 024.8        | 1, 623.5       | 2,401. 3       |
| <b>Total growing stock</b>           | <u>11,712.4</u> | <u>5,616.1</u> | <u>6,096.3</u> |
| <b>Other material:</b>               |                 |                |                |
| Sound cull trees                     | 945.4           | 52.8           | 892.6          |
| Rotten cull trees                    | 384.2           | 5.3            | 378.9          |
| Hardwood limbs                       | 485.6           | 0.0            | 485.6          |
| Salvable dead trees                  | 69.0            | 32.6           | 36.4           |
| <b>Total other material</b>          | <u>1,884. 2</u> | <u>90.7</u>    | <u>1,793.5</u> |
| <b>Total, all timber</b>             | 13, 596.6       | 5,706.8        | 7, 889.8       |

**Table IX. --Net annual growth, annual mortality, and commodity drain on live sawtimber and growing stock on commercial forest land, by species groups, Alabama, 1951**

| Item                         | Sawtimber          |            |            | Growing stock      |            |            |
|------------------------------|--------------------|------------|------------|--------------------|------------|------------|
|                              | Total              | Soft-woods | Hard-woods | Total              | Soft-woods | Hard-woods |
|                              | Million board feet |            |            | Million cubic feet |            |            |
| <b>Net annual growth</b>     | 2,769.6            | 1,863.7    | 905.9      | 768.6              | 430.6      | 338.0      |
| <b>Annual mortality</b>      | 229.3              | 131.6      | 97.7       | 82.3               | 38.6       | 43.7       |
| <b>Commodity drain</b>       |                    |            |            |                    |            |            |
| Timber products              | 2,422.4            | 1,531.1    | 891.3      | 509.3              | 341.8      | 167.5      |
| Logging waste                | 87.7               | 32.0       | 55.7       | 86.0               | 31.5       | 54.2       |
| <b>Total commodity drain</b> | 2,510.1            | 1,563.1    | 947.0      | 595.3              | 373.3      | 222.7      |

Table X. --Total output of timber products and commodity drain on live sawtimber and growing stock, Alabama, 1951

| Product                  | Volume of products cut <sup>1/</sup> |           |           | Commodity drain on sawtimber |            |            | Commodity drain on growing stock |            |            |
|--------------------------|--------------------------------------|-----------|-----------|------------------------------|------------|------------|----------------------------------|------------|------------|
|                          | Standard unit                        | Number    | M cu. ft. | Total                        | Soft-woods | Hard-woods | Total                            | Soft-woods | Hard-woods |
|                          |                                      |           |           |                              |            |            |                                  |            |            |
| Million board feet       |                                      |           |           |                              |            |            |                                  |            |            |
| Sawlogs                  | MBM <sup>2/</sup>                    | 1,944,733 | 310,875   | 1,859.8                      | 1,219.4    | 640.4      | 371.7                            | 233.4      | 138.3      |
| Veneer logs and bolts    | MBM <sup>2/</sup>                    | 95,775    | 13,408    | 105.7                        | .4         | 105.3      | 19.3                             | .1         | 19.2       |
| Cooperage logs and bolts | MBM <sup>2/</sup>                    | 86,254    | 13,882    | 86.0                         | 69.7       | 16.3       | 17.0                             | 13.4       | 3.6        |
| Pulpwood bolts           | Std.                                 |           |           |                              |            |            |                                  |            |            |
|                          | cords <sup>3/</sup>                  | 1,406,207 | 106,061   | 127.6                        | 125.2      | 2.4        | 91.3                             | 90.2       | 1.1        |
| Fuelwood                 | Std.                                 |           |           |                              |            |            |                                  |            |            |
|                          | cords <sup>3/</sup>                  | 1,203,296 | 90,365    | 223.6                        | 84.1       | 139.5      | 61.6                             | 18.0       | 43.6       |
| Piling                   | M linear feet                        | 3,087     | 2,220     | 12.7                         | 12.7       | ...        | 2.6                              | 2.6        | ...        |
| Poles                    | M pieces                             | 401       | 7,960     | 45.6                         | 45.6       | ...        | 9.4                              | 9.4        | ...        |
| Posts                    | M pieces                             | 16,766    | 10,831    | 14.8                         | .4         | 14.4       | 8.5                              | 2.6        | 5.9        |
| Hewn ties                | M pieces                             | 337       | 2,366     | 17.9                         | 2.3        | 15.6       | 4.0                              | .4         | 3.6        |
| Mine timbers             | M cu. ft.                            | 4,260     | 4,269     | 2.6                          | 2.6        | ...        | 4.6                              | 2.2        | 2.4        |
| Miscellaneous            | M cu. ft.                            | 5,414     | 5,414     | 13.8                         | .7         | 13.1       | 5.3                              | 1.0        | 4.3        |
| Total                    |                                      |           | 567,651   | 2,510.1                      | 1,563.1    | 947.0      | 595.3                            | 373.3      | 222.0      |

<sup>1/</sup> Includes material from both growing stock and other miscellaneous sources.

<sup>2/</sup> International 1/4-inch rule.

<sup>3/</sup> Rough wood basis.

<sup>4/</sup> Includes shuttle blocks, excelsior, handle stock, etc.