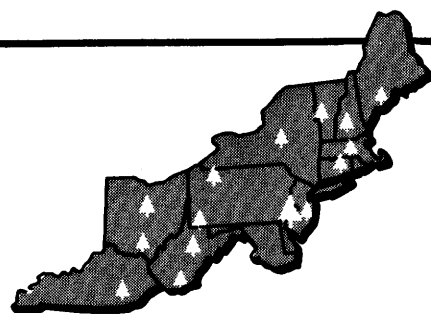


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Northeastern Forest Experiment Station



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A PREVIEW OF KENTUCKY'S FOREST RESOURCE

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Abstract.—Forty-eight percent of the total land area of Kentucky is forest. Sixty-three percent of this forest land is the oak-hickory forest type and 47 percent of the forest area supports sawtimber stands. There has been a 23-percent increase in the volume of growing stock and a 24-percent increase in the volume of sawtimber since the 1963 inventory. Total volume of growing stock is 11.4 billion cubic feet, and the sawtimber component is 27.6 billion board feet.

KEYWORDS: Forest surveys (Kentucky), forest area, resources (timber), statistics (forestry).

Forest is a major land use in Kentucky. Inventories of this resource have been made by the U.S. Forest Service three times in the past quarter century. Each survey was designed to provide a reliable estimate of the extent and condition of the forest resource and to indicate what changes were occurring. A detailed statistical and analytical report of the most recent inventory is being prepared for publication. It will give a comprehensive analysis of the current situation and trends in the forest resource. This is a preview of that report.

Forest Land Area Increases Slightly

Forests now occupy 12.2 of the 25.5 million acres of land in Kentucky. The state is essentially rural, and the area of forest has changed very little during the past quarter century. In 1949, forest accounted for 45 percent of the total land area. This increased to 47 percent in 1963 and to 48 percent in 1975.

The distribution of forest land in the state is not uniform. Eastern Kentucky is 81 percent forested and has one-half of the total forest

land. This is the mountainous part of the state, from the Daniel Boone National Forest east to West Virginia and from Tennessee north to the Ohio River. Urban-industrial development has been slight in this region, and mining activity is the principal cause of land-use change. Since 1963, the net effect of all forms of land-use change in the region has been a 1-percent increase in forest area. In the remainder of the state, forest varies from less than 25 percent of the land area in the Bluegrass Region to 46 percent in the Pennyroyal Region. Western Kentucky had a small decline in forest acreage since 1963 and is now 34 percent forested.

Nearly all of the 12.2 million acres of forest land is classified as commercial. Only 1 percent of the total land area—259 thousand acres—is classified as noncommercial forest. This category includes two land classes: (1) unproductive—forest land that is not capable of producing industrial roundwood products; (2) productive-reserved—publicly-owned forest lands, such as parks, where timber production is prohibited by law or regulation.

Since 1963 the area of productive-reserved forest lands has more than doubled. Though increases in this category of land use have occurred throughout the state, the largest increases were noted in eastern Kentucky and the Pennyroyal Region. Here the changes resulted from special land-use designations on the Daniel Boone National Forest and from recreational development of public lands in the Land Between the Lakes.

The distribution of forest types on commercial forest land in 1975 shows the oak-hickory type predominating, with 63 percent of the total. In addition, there are another 1 million acres of the oak-pine type. The oaks and hickory also predominate in this type, but a significant component of the stand is softwoods. Other important types are loblolly-shortleaf, maple-beech-birch, and elm-ash-red maple. These three types occupy nearly all the remaining forest area.

Nearly half—47 percent—of the commercial forest area now supports sawtimber stands. These are stands in which trees 5.0 inches dbh and larger constitute more than 50 percent of the total basal-area stocking and in which sawtimber-size trees are the majority. Poletimber stands occupy 25 percent of the area; seedling/sapling stands occupy the remaining 28 percent. This indicates only minor shifts in

the area of sawtimber and poletimber stands since 1963.

A study of forest-land owners was conducted in conjunction with this inventory. Two objectives of this study were to define the pattern of forest-land ownership more clearly and to seek an understanding of the motives and intentions of forest-land owners. An estimated 455,600 individuals, groups, or corporations each own 1 acre or more of the 11 million acres of private commercial forest land. In the past, 30 percent of these owners have harvested timber from their lands. The forest land owned by those who have harvested timber makes up 54 percent of the total private commercial forest area.

Volume Change

Data from the remeasurement of a portion of the ground sample plots established for the 1963 inventory provide estimates of growth, mortality, and removals during the period between inventories. During the 12-year period, average annual net growth of growing stock was 27 cubic feet per acre; sawtimber growth was 75 board feet per acre. In 1974 the annual net growth of growing stock was 33 cubic feet per acre, and of sawtimber was 80 board feet per acre. The ratio of growth to removals was more than 2 to 1 during the entire period.

Analysis of the current volume and growth includes a procedure to determine whether past volume and growth estimates are directly comparable with the present estimate. This procedure helps to locate inconsistencies in the data and to evaluate differences that may be the result of procedural or definitional differences between inventory occasions. The analysis for Kentucky pinpointed average tree volume by 2-inch diameter class as the major area of discrepancy between the 1963 and 1975 inventories. The volume table used in 1963 was found to be very conservative in comparison to all others tested. When the 1963 stand-table data were used with average tree volumes from the 1975 inventory, the adjusted 1963 estimates of volume reflected the standards, procedures, and definitions used in the 1975 inventory.

Here are the 1963 figures, adjusted as described above, to be used in making comparisons of trends:

| | <i>Growing stock</i> (million cubic feet) | <i>Sawtimber</i> (million board feet) |
|-----------|---|---|
| Softwoods | 613.0 | 1,413 |
| Hardwoods | 8,673.4 | 20,841 |

Growing Stock and Sawtimber Volume Increases

There has been a 23-percent increase in the volume of growing stock and a 24-percent increase in the volume of sawtimber since 1963. The total volume of growing stock in Kentucky is 11.4 billion cubic feet. This is an average of 962 cubic feet per acre of commercial forest

land. The sawtimber portion of growing stock totals 27.5 billion board feet, equivalent to 2,315 board feet per acre.

The distribution of growing-stock volume by species has changed very little since 1963. Hardwoods continue to predominate. Softwoods make up only 7.5 percent of the total volume. The white oak group is now the most prevalent hardwood group, with 22.7 percent of total volume. The maples have increased from 5.6 to 7.4 percent of total volume. Both red maple and sugar maple contributed about equally to this increase.

The following tables describe the forest resource of Kentucky.

Table 1.—Land area in Kentucky, by land classes, counties, and geographic units, 1975

| County | Total land area ^a | Nonforest land area | Forest land | | Percent |
|---------------------------------|---------------------------------|------------------------|---------------------------------|----------------|-----------|
| | | | Non- commercial ^b | Commercial | |
| ----- Thousand acres ----- | | | | | |
| Floyd | 255.5 | 39.0 | 5.3 | 211.2 | 83 |
| Harlan | 300.0 | 23.5 | 8.3 | 268.2 | 89 |
| Knott | 227.9 | 19.5 | 4.7 | 203.7 | 89 |
| Leslie | 263.7 | 12.7 | 4.3 | 246.7 | 94 |
| Letcher | 217.0 | 19.3 | 3.2 | 194.5 | 90 |
| Martin | 147.8 | 16.0 | 1.9 | 129.9 | 88 |
| Perry | 219.6 | 18.6 | 8.8 | 192.2 | 88 |
| Pike | 503.0 | 54.9 | 6.4 | 441.7 | 88 |
| Eastern Unit | 2,134.5 | 203.5 | 42.9 | 1,888.1 | 88 |
| Boyd | 102.1 | 41.3 | .1 | 60.7 | 59 |
| Carter | 257.4 | 69.5 | 6.7 | 181.2 | 70 |
| Elliott | 153.6 | 38.7 | 3.3 | 111.6 | 73 |
| Greenup | 224.3 | 66.3 | 3.6 | 154.4 | 69 |
| Johnson | 169.0 | 33.4 | — | 135.6 | 80 |
| Lawrence | 272.0 | 54.1 | — | 217.9 | 80 |
| Lewis | 311.3 | 79.8 | — | 231.5 | 74 |
| Magoffin | 193.9 | 30.6 | — | 163.3 | 84 |
| Menifee | 134.4 | 28.0 | 9.0 | 97.4 | 72 |
| Morgan | 236.2 | 63.8 | — | 172.4 | 73 |
| Powell | 110.7 | 26.3 | 5.1 | 79.3 | 72 |
| Rowan | 185.6 | 43.7 | — | 141.9 | 76 |
| Wolfe | 145.4 | 31.2 | 13.0 | 101.2 | 70 |
| Northern Cumberland Unit | 2,495.9 | 606.7 | 40.8 | 1,848.4 | 74 |
| Bell | 236.7 | 34.9 | 13.4 | 188.4 | 80 |
| Breathitt | 316.2 | 38.8 | — | 277.4 | 88 |
| Clay | 303.4 | 52.2 | — | 251.2 | 83 |
| Estill | 166.4 | 51.2 | — | 115.2 | 69 |
| Jackson | 215.7 | 62.0 | — | 153.7 | 71 |
| Knox | 238.7 | 54.2 | — | 184.5 | 77 |
| Laurel | 285.2 | 104.0 | 1.1 | 180.1 | 63 |
| Lee | 134.4 | 24.5 | — | 109.9 | 82 |
| McCreary | 267.4 | 30.5 | 10.4 | 226.5 | 85 |
| Owsley | 126.1 | 20.8 | — | 105.3 | 84 |
| Rockcastle | 199.0 | 63.7 | — | 135.3 | 68 |
| Whitley | 293.4 | 63.7 | .5 | 229.2 | 78 |
| Southern Cumberland Unit | 2,782.6 | 600.5 | 25.4 | 2,156.7 | 78 |

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Table 1.—(Cont'd)

| County | Total land area ^a | Nonforest land area | Forest land | | Percent |
|-----------------|---------------------------------|------------------------|---------------------------------|------------|---------|
| | | | Non- commercial ^b | Commercial | |
| | | | | | |
| Anderson | 131.8 | 86.7 | 0.2 | 44.9 | 34 |
| Bath | 183.7 | 125.4 | — | 58.3 | 32 |
| Boone | 159.6 | 110.2 | .2 | 49.2 | 31 |
| Bourbon | 192.0 | 181.7 | — | 10.3 | 5 |
| Boyle | 117.3 | 96.3 | — | 21.0 | 18 |
| Bracken | 130.4 | 84.3 | — | 46.1 | 35 |
| Campbell | 95.4 | 66.9 | .2 | 28.3 | 30 |
| Carroll | 83.5 | 45.8 | .6 | 37.1 | 44 |
| Clark | 165.8 | 143.7 | — | 22.1 | 13 |
| Fayette | 179.3 | 170.1 | .3 | 8.9 | 5 |
| Fleming | 224.0 | 151.1 | — | 72.9 | 33 |
| Franklin | 135.0 | 95.4 | — | 39.6 | 29 |
| Gallatin | 63.8 | 36.2 | — | 27.6 | 43 |
| Garrard | 151.3 | 124.4 | — | 26.9 | 18 |
| Grant | 159.2 | 104.7 | .3 | 54.2 | 34 |
| Harrison | 197.1 | 158.8 | — | 38.3 | 19 |
| Henry | 185.0 | 138.5 | .4 | 46.1 | 25 |
| Jefferson | 239.8 | 203.3 | 3.1 | 33.4 | 14 |
| Jessamine | 113.4 | 98.1 | — | 15.3 | 13 |
| Kenton | 105.7 | 73.6 | .4 | 31.7 | 30 |
| Lincoln | 217.6 | 168.2 | — | 49.4 | 23 |
| Madison | 285.2 | 210.3 | .7 | 74.2 | 26 |
| Mason | 152.1 | 125.5 | — | 26.6 | 17 |
| Mercer | 163.6 | 143.3 | — | 20.3 | 12 |
| Montgomery | 130.6 | 102.9 | — | 27.7 | 21 |
| Nicholas | 130.6 | 103.6 | — | 27.0 | 21 |
| Oldham | 117.4 | 91.5 | — | 25.9 | 22 |
| Owen | 224.6 | 131.2 | — | 93.4 | 42 |
| Pendleton | 178.6 | 118.8 | .7 | 59.1 | 33 |
| Robertson | 64.6 | 43.9 | .1 | 20.6 | 32 |
| Scott | 181.8 | 150.7 | — | 31.1 | 17 |
| Shelby | 245.1 | 200.2 | .2 | 44.7 | 18 |
| Spencer | 123.5 | 95.3 | — | 28.2 | 23 |
| Trimble | 93.5 | 51.3 | — | 42.2 | 45 |
| Washington | 196.4 | 161.8 | — | 34.6 | 18 |
| Woodford | 123.5 | 110.6 | — | 12.9 | 10 |
| Bluegrass Unit | 5,641.8 | 4,304.3 | 7.4 | 1,330.1 | 24 |
| Adair | 251.5 | 128.6 | 13.1 | 109.8 | 44 |
| Breckenridge | 361.2 | 203.8 | 4.9 | 152.5 | 42 |
| Bullitt | 192.0 | 87.6 | .6 | 103.8 | 54 |
| Casey | 278.5 | 127.4 | .8 | 150.3 | 54 |
| Clinton | 121.3 | 55.0 | 2.5 | 63.8 | 53 |
| Cumberland | 198.2 | 67.0 | 2.0 | 129.2 | 65 |
| Grayson | 327.5 | 177.3 | 4.7 | 145.5 | 44 |
| Green | 180.5 | 119.4 | .2 | 60.9 | 34 |
| Hancock | 119.7 | 55.6 | .5 | 63.6 | 53 |
| Hardin | 394.3 | 251.9 | .7 | 141.7 | 36 |
| Hart | 272.0 | 154.9 | 6.4 | 110.7 | 41 |
| Larue | 166.4 | 105.7 | .4 | 60.3 | 36 |
| Marion | 219.5 | 146.7 | .5 | 72.3 | 33 |
| Meade | 195.3 | 112.3 | 2.4 | 80.6 | 41 |
| Metcalfe | 189.4 | 105.0 | .4 | 84.0 | 44 |
| Nelson | 279.6 | 181.1 | .7 | 97.8 | 35 |
| Pulaski | 418.2 | 217.4 | 8.6 | 192.2 | 46 |
| Russell | 152.5 | 75.5 | 13.4 | 63.6 | 42 |
| Taylor | 181.4 | 108.5 | 13.0 | 59.9 | 33 |
| Wayne | 281.7 | 89.3 | 5.8 | 186.6 | 66 |
| Pennyroyal Unit | 4,780.7 | 2,570.0 | 81.6 | 2,129.1 | 45 |

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Table 1.— (Cont'd)

| County | Total land area ^a | Nonforest land area | Forest land | | Percent |
|-----------------------------------|------------------------------|---------------------|-----------------------------|------------|---------|
| | | | Non-commercial ^b | Commercial | |
| ----- <i>Thousand acres</i> ----- | | | | | |
| Allen | 232.9 | 139.5 | 0.7 | 92.7 | 40 |
| Barren | 311.0 | 241.5 | 2.1 | 67.4 | 22 |
| Butler | 283.4 | 135.8 | — | 147.6 | 52 |
| Caldwell | 228.4 | 140.1 | — | 88.3 | 39 |
| Christian | 464.1 | 293.9 | .6 | 169.6 | 37 |
| Crittenden | 233.3 | 140.7 | — | 92.6 | 40 |
| Daviess | 295.6 | 239.6 | .6 | 55.4 | 19 |
| Edmonson | 194.6 | 79.2 | 44.8 | 70.6 | 36 |
| Henderson | 277.1 | 222.8 | 1.6 | 52.7 | 19 |
| Hopkins | 353.8 | 200.1 | 2.1 | 151.6 | 43 |
| Logan | 360.1 | 244.5 | .1 | 115.5 | 32 |
| McLean | 164.5 | 123.1 | — | 41.4 | 25 |
| Monroe | 213.7 | 120.8 | .1 | 92.8 | 43 |
| Muhlenberg | 307.5 | 172.4 | 1.0 | 134.1 | 44 |
| Ohio | 381.2 | 186.2 | — | 195.0 | 51 |
| Simpson | 152.9 | 129.8 | — | 23.1 | 15 |
| Todd | 240.3 | 165.8 | — | 74.5 | 31 |
| Union | 217.9 | 183.9 | — | 34.0 | 16 |
| Warren | 349.4 | 261.6 | .2 | 87.6 | 25 |
| Webster | 216.8 | 157.9 | — | 58.9 | 27 |
| Western Coalfield Unit | 5,478.5 | 3,579.2 | 53.9 | 1,845.4 | 34 |
| Ballard | 165.9 | 121.4 | 1.4 | 43.1 | 26 |
| Calloway | 245.8 | 166.2 | — | 79.6 | 32 |
| Carlisle | 125.1 | 93.2 | 1.1 | 30.8 | 25 |
| Fulton | 129.9 | 103.6 | — | 26.3 | 20 |
| Graves | 358.3 | 276.0 | — | 82.3 | 23 |
| Hickman | 157.5 | 122.1 | .3 | 35.1 | 22 |
| Livingston | 199.5 | 120.4 | — | 79.1 | 40 |
| Lyon | 161.8 | 80.9 | — | 80.9 | 50 |
| McCracken | 159.7 | 121.0 | .2 | 38.5 | 24 |
| Marshall | 193.7 | 125.2 | 2.4 | 66.1 | 34 |
| Trigg | 293.6 | 149.8 | 1.5 | 142.3 | 48 |
| Western Unit | 2,190.8 | 1,479.8 | 6.9 | 704.1 | 32 |
| State total | 25,504.8 | 13,344.0 | 258.9 | 11,901.9 | 47 |

^a Source: Bureau of the Census, Area Measurement Report, Areas of Kentucky, 1960 (July 1964).

^b Includes unproductive and productive-reserved forest land.

Table 2.—Area of commercial forest land in Kentucky, by ownership classes and geographic units, 1975

[In thousands of acres]

| Ownership class | Eastern | Northern Cumberland | Southern Cumberland | Bluegrass | Pennyroyal | Western Coalfield | Western | Total |
|------------------------------------|----------------|------------------------|------------------------|----------------|----------------|----------------------|--------------|-----------------|
| National Forest | 47.6 | 103.5 | 394.5 | 16.2 | 27.0 | — | — | 588.8 |
| Other federal | 24.6 | — | .2 | 1.8 | 72.6 | 5.1 | 125.6 | 229.9 |
| State | 15.4 | .8 | 24.5 | 3.1 | 4.1 | 21.2 | 6.9 | 76.0 |
| County and municipal | — | — | — | .1 | .1 | .1 | .3 | .6 |
| Total public | 87.6 | 104.3 | 419.2 | 21.2 | 103.8 | 26.4 | 132.8 | 895.3 |
| Forest industry | 53.0 | 81.6 | 26.6 | — | 26.4 | 20.2 | 47.3 | 255.1 |
| Farmer-owned | 266.8 | 880.4 | 682.2 | 905.6 | 1,228.3 | 1,157.2 | 368.5 | 5,489.0 |
| Miscellaneous private: | | | | | | | | |
| Individual | 1,051.1 | 725.8 | 958.5 | 372.1 | 746.4 | 422.4 | 155.5 | 4,431.8 |
| Corporate | 429.6 | 56.3 | 70.2 | 31.2 | 24.2 | 219.2 | — | 830.7 |
| Total miscellaneous private | 1,480.7 | 782.1 | 1,028.7 | 403.3 | 770.6 | 641.6 | 155.5 | 5,262.5 |
| All ownerships | 1,888.1 | 1,848.4 | 2,156.7 | 1,330.1 | 2,129.1 | 1,845.4 | 704.1 | 11,901.9 |

Table 3.—Area of commercial forest land, by forest types and standsize classes, Kentucky, 1975

[In thousands of acres]

| Forest type | All stands | Sawtimber stands | Poletimber stands | Sapling-seedling stands ^a |
|-----------------------------|-----------------|------------------|-------------------|--------------------------------------|
| White and red pine | 38.2 | 38.2 | — | — |
| Loblolly and shortleaf pine | 942.8 | 281.4 | 157.6 | 503.8 |
| Oak-pine | 1,040.6 | 335.8 | 215.6 | 489.2 |
| Oak-hickory | 7,488.5 | 3,622.6 | 2,183.3 | 1,682.6 |
| Oak-gum | 101.6 | 57.6 | 19.2 | 24.8 |
| Elm-ash-red maple | 936.0 | 288.0 | 212.9 | 435.1 |
| Maple-beech-birch | 1,354.2 | 920.7 | 217.5 | 216.0 |
| All types | 11,901.9 | 5,544.3 | 3,006.1 | 3,351.5 |

^a Includes 46,200 acres of nonstocked areas in the oak-hickory type.

Table 4.—Area of commercial forest land in Kentucky, by forest types and geographic units, 1975

[In thousands of acres]

| Geographic units | White and red pine | Loblolly-shortleaf pine | Oak-pine | Oak-hickory | Oak-gum | Elm-ash-red maple | Maple-beech-birch | All types |
|---------------------|--------------------|-------------------------|----------------|----------------|--------------|-------------------|-------------------|-----------------|
| Eastern | 14.3 | 29.6 | 56.6 | 1,215.5 | 13.4 | 89.0 | 469.7 | 1,888.1 |
| Northern Cumberland | 12.0 | 119.4 | 157.9 | 1,286.3 | — | 142.9 | 129.9 | 1,848.4 |
| Southern Cumberland | 11.9 | 261.9 | 299.0 | 1,239.1 | — | 107.5 | 237.3 | 2,156.7 |
| Bluegrass | — | 207.3 | 250.5 | 677.1 | — | 121.7 | 73.5 | 1,330.1 |
| Pennyroyal | — | 236.1 | 161.4 | 1,232.0 | 49.7 | 125.2 | 324.7 | 2,129.1 |
| Western Coalfield | — | 74.9 | 88.4 | 1,357.3 | 24.9 | 201.0 | 98.9 | 1,845.4 |
| Western | — | 13.6 | 26.8 | 481.2 | 13.6 | 148.7 | 20.2 | 704.1 |
| Total | 38.2 | 942.8 | 1,040.6 | 7,488.5 | 101.6 | 936.0 | 1,354.2 | 11,901.9 |

Table 5.—Estimated number of private owners of commercial forest land in Kentucky, and acres owned, by form of ownership, 1975

| Form of ownership | Number of owners | Thousand acres owned | Percent of owners who have harvested | Percent of acres owned by harvesters |
|-------------------|------------------|----------------------|--------------------------------------|--------------------------------------|
| Individual | 427,200 | 9,200.0 | 28 | 43 |
| Corporation | 2,600 | 1,023.9 | (*) | 8 |
| Partnership | 8,400 | 243.9 | 1 | 1 |
| Undivided estate | 16,300 | 478.6 | 1 | 2 |
| Other | 1,100 | 60.2 | (*) | (*) |
| Total | 455,600 | 11,006.6 | 30 | 54 |

*Less than 0.5 percent.

Table 6.—Area of commercial forest land in Kentucky, by stand-size classes and geographic units, 1975

[In thousands of acres]

| Geographic units | Sawtimber stands | Poletimber stands | Sapling-seedling stands | Nonstocked areas | All classes |
|---------------------|------------------|-------------------|-------------------------|------------------|-----------------|
| Eastern | 1,081.2 | 383.3 | 423.6 | — | 1,888.1 |
| Northern Cumberland | 794.4 | 550.0 | 492.1 | 11.9 | 1,848.4 |
| Southern Cumberland | 1,153.4 | 555.0 | 426.5 | 21.8 | 2,156.7 |
| Bluegrass | 381.5 | 308.6 | 640.0 | — | 1,330.1 |
| Pennyroyal | 1,097.6 | 547.8 | 471.2 | 12.5 | 2,129.1 |
| Western Coalfield | 757.4 | 465.1 | 622.9 | — | 1,845.4 |
| Western | 278.8 | 196.3 | 229.0 | — | 704.1 |
| Total | 5,544.3 | 3,006.1 | 3,305.3 | 46.2 | 11,901.9 |

Table 7.—Net volume of growing-stock trees^a on commercial forest land in Kentucky, by species and tree size, 1975

| Species | All trees | Poletimber trees | Sawtimber trees | |
|------------------------|-------------------------------|------------------|-----------------|---------------------------------|
| | -----Million cubic feet ----- | | | Million board feet ^b |
| Redcedar | 116.1 | 82.9 | 33.2 | 116.2 |
| Hard pines | 661.2 | 216.5 | 444.7 | 1,577.9 |
| Other softwoods | 85.2 | 13.9 | 71.3 | 272.9 |
| Total softwoods | 862.5 | 313.3 | 549.2 | 1,967.0 |
| Select white oaks | 1,519.0 | 548.9 | 970.1 | 3,807.0 |
| Select red oaks | 652.5 | 150.8 | 501.7 | 2,055.4 |
| Other white oaks | 1,081.3 | 377.8 | 703.5 | 2,775.4 |
| Other red oaks | 1,744.6 | 533.1 | 1,211.5 | 4,832.2 |
| Red maple | 409.8 | 213.0 | 196.8 | 768.5 |
| Sugar maple | 441.4 | 222.1 | 219.3 | 848.6 |
| Hickory | 1,496.0 | 725.0 | 771.0 | 2,991.3 |
| Beech | 486.2 | 92.6 | 393.6 | 1,677.9 |
| Ash | 335.9 | 162.5 | 173.4 | 660.6 |
| Black Walnut | 124.9 | 60.9 | 64.0 | 237.7 |
| Sweetgum | 130.0 | 60.4 | 69.6 | 265.0 |
| Yellow-poplar | 1,007.9 | 402.5 | 605.4 | 2,389.9 |
| Blackgum | 221.1 | 86.2 | 134.9 | 515.9 |
| Basswood | 107.4 | 43.2 | 64.2 | 254.7 |
| Other hardwoods | 823.2 | 438.4 | 384.8 | 1,504.8 |
| Total hardwoods | 10,581.2 | 4,117.4 | 6,463.8 | 25,584.9 |
| All species | 11,443.7 | 4,430.7 | 7,013.0 | 27,551.9 |

^a Growing-stock trees are trees that satisfy national specifications for form and allowable cull. Net volumes are given for all such trees 5.0 inches dbh and larger.

^b International 1/4-inch rule.

Table 8.—Net volume of growing stock and sawtimber on commercial forest land in Kentucky, by counties and geographic units, 1975

| County and unit | Growing stock | Sawtimber |
|---------------------------------|---------------------------|---------------------------------------|
| | <i>Million cubic feet</i> | <i>Million board feet^a</i> |
| Floyd | 204.2 | 558.3 |
| Harlan | 272.5 | 758.4 |
| Knott | 197.8 | 543.0 |
| Leslie | 246.3 | 679.9 |
| Letcher | 192.6 | 529.9 |
| Martin | 129.4 | 356.4 |
| Perry | 189.8 | 520.7 |
| Pike | 427.7 | 1,167.0 |
| Eastern Unit | 1,860.3 | 5,113.6 |
| Boyd | 54.6 | 111.5 |
| Carter | 184.4 | 391.9 |
| Elliott | 126.4 | 279.3 |
| Greenup | 164.3 | 349.8 |
| Johnson | 134.9 | 276.6 |
| Lawrence | 212.9 | 433.3 |
| Lewis | 273.1 | 624.1 |
| Magoffin | 166.1 | 340.9 |
| Menifee | 108.4 | 236.1 |
| Morgan | 171.4 | 349.1 |
| Powell | 92.5 | 206.5 |
| Rowan | 167.4 | 378.6 |
| Wolfe | 115.5 | 254.8 |
| Northern Cumberland Unit | 1,971.9 | 4,232.5 |
| Bell | 168.4 | 380.2 |
| Breathitt | 259.6 | 598.0 |
| Clay | 241.3 | 566.0 |
| Estill | 114.7 | 265.4 |
| Jackson | 157.5 | 375.1 |
| Knox | 169.4 | 385.9 |
| Laurel | 193.0 | 455.8 |
| Lee | 116.4 | 271.7 |
| McCreary | 231.0 | 544.1 |
| Owsley | 101.0 | 237.4 |
| Rockcastle | 130.6 | 298.9 |
| Whitley | 218.7 | 505.0 |
| Southern Cumberland Unit | 2,101.6 | 4,883.5 |
| Anderson | 17.7 | 37.0 |
| Bath | 28.6 | 65.7 |
| Boone | 20.4 | 42.9 |
| Bourbon | 4.1 | 8.9 |
| Boyle | 10.9 | 25.7 |
| Bracken | 16.8 | 34.6 |
| Campbell | 12.0 | 26.2 |
| Carroll | 18.6 | 43.2 |
| Clark | 9.1 | 20.2 |
| Fayette | 3.9 | 9.3 |
| Fleming | 43.3 | 106.7 |
| Franklin | 14.8 | 29.6 |
| Gallatin | 12.5 | 27.2 |
| Garrard | 13.3 | 30.9 |
| Grant | 15.9 | 29.1 |
| Harrison | 13.4 | 26.2 |
| Henry | 18.1 | 37.3 |
| Jefferson | 14.1 | 30.8 |
| Jessamine | 7.4 | 17.1 |
| Kenton | 13.3 | 28.3 |
| Lincoln | 25.7 | 60.4 |
| Madison | 32.4 | 72.3 |
| Mason | 12.5 | 28.3 |

CONTINUED

Table 8.—(Cont'd)

| County and unit | Growing stock | Sawtimber |
|------------------------|-------------------------------|--|
| | <i>Million cubic feet</i> | <i>Million board feet</i> ^a |
| Mercer | 7.7 | 15.8 |
| Montgomery | 13.7 | 32.0 |
| Nicholas | 10.7 | 22.3 |
| Oldham | 11.2 | 24.8 |
| Owen | 48.5 | 114.1 |
| Pendleton | 19.7 | 37.6 |
| Robertson | 7.0 | 13.7 |
| Scott | 13.5 | 29.3 |
| Shelby | 18.1 | 38.0 |
| Spencer | 10.7 | 21.8 |
| Trimble | 18.8 | 41.0 |
| Washington | 17.1 | 39.8 |
| Woodford | 5.6 | 12.1 |
| Bluegrass | 581.1 | 1,280.2 |
| Adair | 112.6 | 280.7 |
| Breckenridge | 149.0 | 370.7 |
| Bullitt | 106.1 | 266.0 |
| Casey | 167.4 | 426.6 |
| Clinton | 66.5 | 166.3 |
| Cumberland | 138.1 | 346.7 |
| Grayson | 142.0 | 351.1 |
| Green | 63.3 | 161.0 |
| Hancock | 64.5 | 159.2 |
| Hardin | 133.2 | 331.1 |
| Hart | 107.5 | 264.7 |
| Larue | 63.9 | 161.5 |
| Marion | 70.7 | 173.6 |
| Meade | 79.0 | 194.6 |
| Metcalfe | 91.1 | 232.6 |
| Nelson | 97.6 | 242.2 |
| Pulaski | 190.0 | 465.9 |
| Russell | 68.7 | 172.9 |
| Taylor | 63.4 | 160.1 |
| Wayne | 195.7 | 485.7 |
| Pennyroyal Unit | 2,170.3 | 5,413.2 |
| Allen | 107.1 | 266.7 |
| Barren | 71.5 | 175.1 |
| Butler | 162.5 | 390.8 |
| Caldwell | 87.6 | 203.6 |
| Christian | 188.3 | 455.1 |
| Crittenden | 92.2 | 216.9 |
| Daviess | 48.4 | 114.3 |
| Edmonson | 73.2 | 177.7 |
| Henderson | 50.1 | 116.1 |
| Hopkins | 153.2 | 368.0 |
| Logan | 134.6 | 332.3 |
| McLean | 38.1 | 90.4 |
| Monroe | 102.1 | 246.7 |
| Muhlenberg | 131.1 | 308.4 |
| Ohio | 204.4 | 487.9 |
| Simpson | 25.8 | 63.8 |
| Todd | 81.2 | 192.9 |
| Union | 35.1 | 84.0 |
| Warren | 93.3 | 224.5 |
| Webster | 57.8 | 138.1 |
| Western Coalfield Unit | 1,937.6 | 4,653.3 |

CONTINUED

Table 8.— (Cont'd)

| County and unit | Growing stock | Sawtimber |
|-----------------|---------------------------|---------------------------------------|
| | <i>Million cubic feet</i> | <i>Million board feet^a</i> |
| Ballard | 46.5 | 109.8 |
| Calloway | 95.1 | 230.6 |
| Carlisle | 34.9 | 81.4 |
| Fulton | 31.1 | 78.4 |
| Graves | 78.6 | 180.4 |
| Hickman | 43.7 | 111.2 |
| Livingston | 99.5 | 243.0 |
| Lyon | 103.5 | 246.9 |
| McCracken | 38.3 | 92.5 |
| Marshall | 71.3 | 168.2 |
| Trigg | 178.4 | 433.2 |
| Western Unit | 820.9 | 1,975.6 |
| State total | 11,443.7 | 27,551.9 |

^a International 1/4-inch rule.

Table 9.—Average annual net growth and removals of growing stock and sawtimber on commercial forest land in Kentucky, by geographic units, 1962-74

| Geographic units | Growing stock | | Sawtimber | |
|--------------------------|----------------------------|-------------------------|--|-------------------------|
| | Average annual net growth | Average annual removals | Average annual net growth | Average annual removals |
| | <i>Thousand cubic feet</i> | | <i>Thousand board feet^a</i> | |
| Eastern Unit | 47,501 | 14,450 | 127,310 | 43,761 |
| Northern Cumberland Unit | 50,055 | 23,426 | 119,551 | 70,557 |
| Southern Cumberland Unit | 49,675 | 21,189 | 115,905 | 62,998 |
| Bluegrass Unit | 21,911 | 4,781 | 58,403 | 15,181 |
| Pennyroyal Unit | 65,359 | 30,341 | 208,331 | 95,347 |
| Western Coalfield Unit | 62,554 | 31,612 | 191,247 | 99,942 |
| Western Unit | 22,295 | 13,776 | 73,670 | 38,715 |
| State total | 319,350 | 139,575 | 894,417 | 426,501 |

^a International 1/4-inch rule.