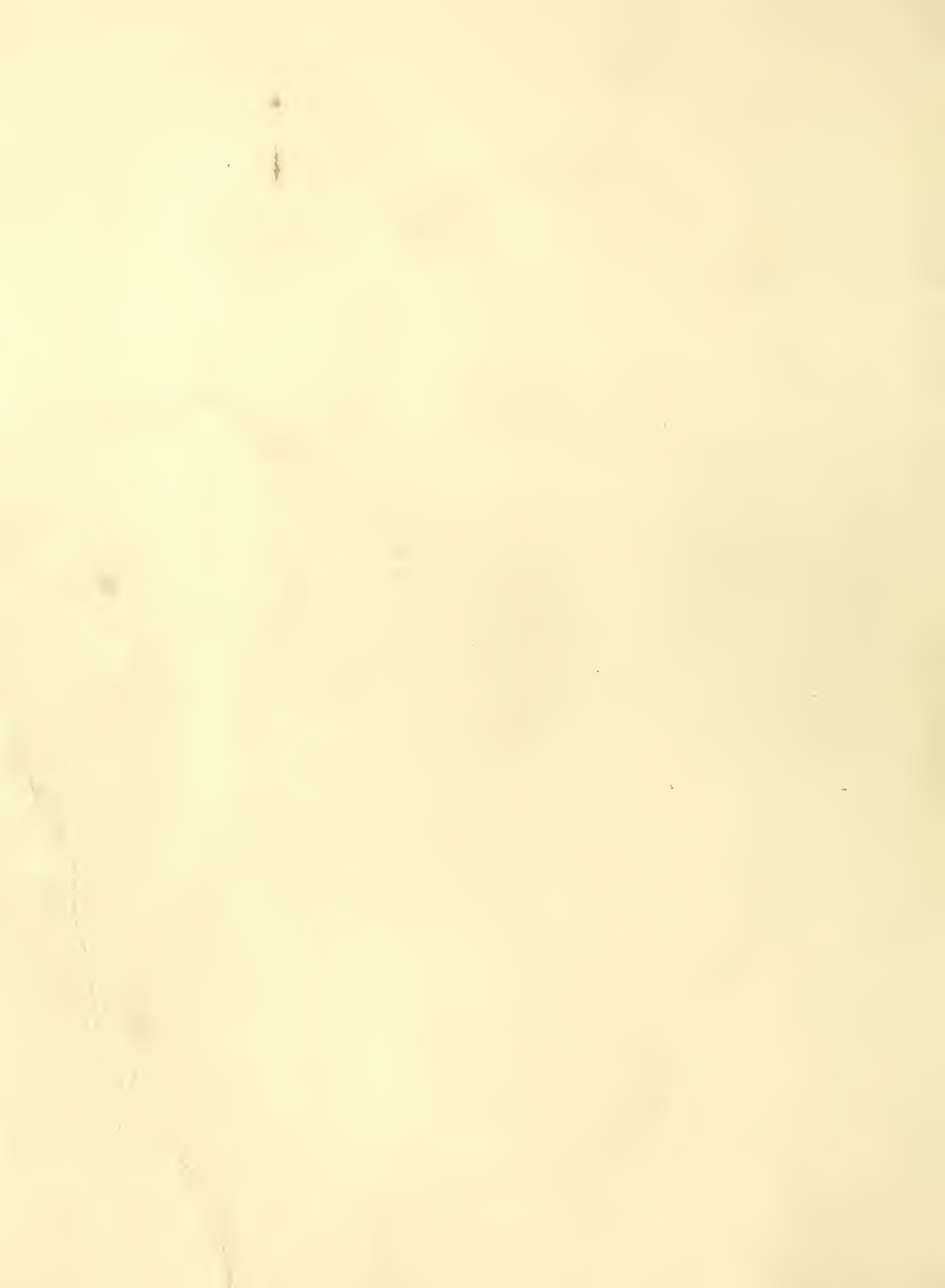


Historic, archived document

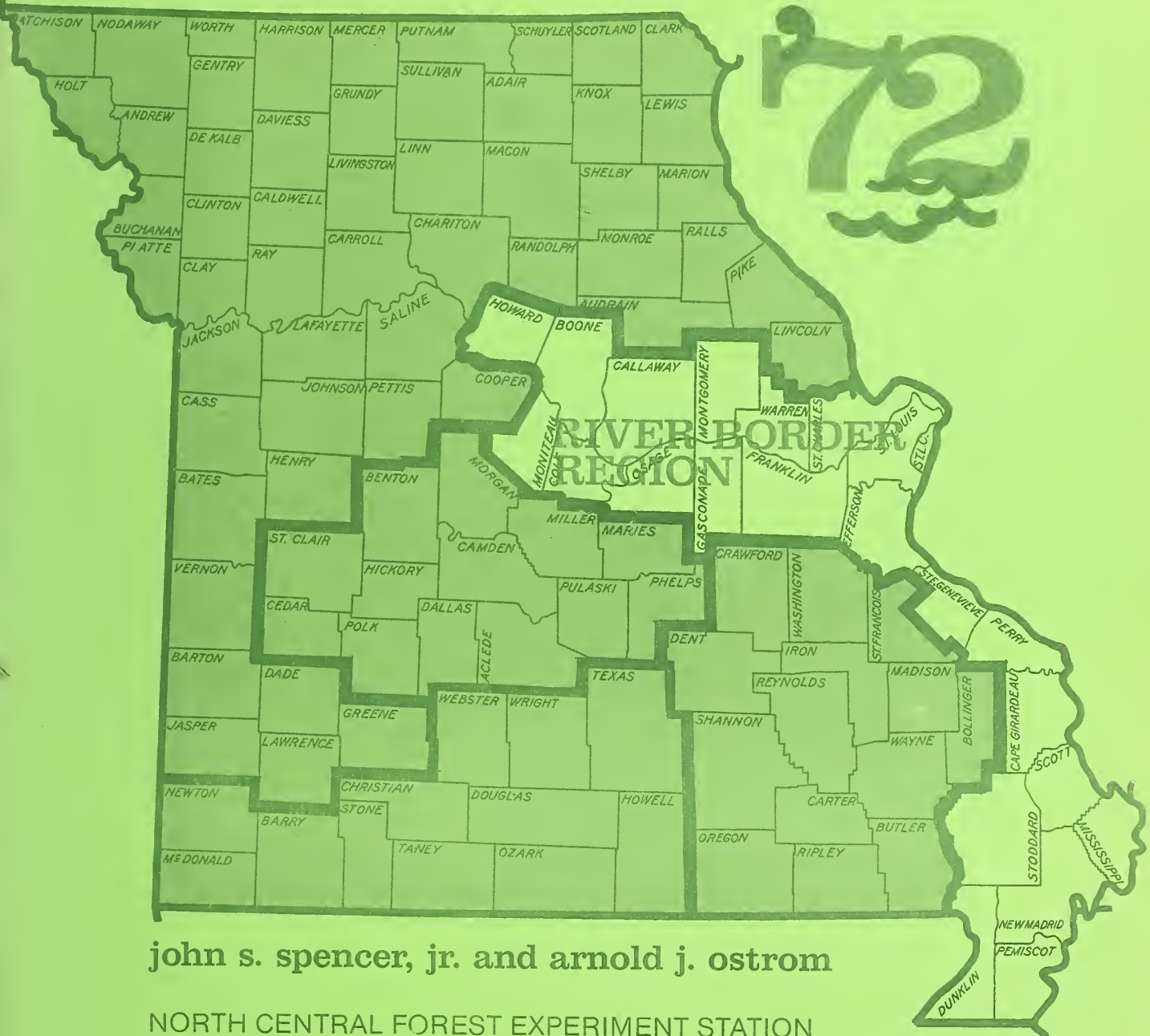
Do not assume content reflects current scientific knowledge, policies, or practices.



a SD 11
. A35
c. 2

USDA LIBRARY
MAY 10 1999
1999 MAR 10 P 1:45
NORTH CENTRAL FOREST EXPERIMENT STATION

TIMBER RESOURCE OF MISSOURI'S riverborder region



john s. spencer, jr. and arnold j. ostrom

NORTH CENTRAL FOREST EXPERIMENT STATION
FOREST SERVICE • U.S. DEPARTMENT OF AGRICULTURE

THE AUTHORS: John S. Spencer, Jr., is a Resource Analyst and Arnold J. Ostrom is a Mensurationist for the Station. Both authors are located at the Station's Headquarters Laboratory in St. Paul, Minnesota.

North Central Forest Experiment Station
John H. Ohman, Director
Forest Service - U.S. Department of Agriculture
Folwell Avenue
St. Paul, Minnesota 55101
(Maintained in cooperation with the University of Minnesota)

G L O S S A R Y O F T E R M S
Used in Resource Bulletins Reporting

M I S S O U R I ' S 1 9 7 2 T I M B E R R E S O U R C E

NORTH CENTRAL FOREST EXPERIMENT STATION
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Land-Use Classes

Gross area.--The entire area of land and water as determined by the Bureau of Census, 1960.

Land area.--The area of dry land and land temporarily or partially covered by water such as marshes, swamps, flood plains, streams, sloughs, and estuaries. Canals less than 1/8-mile wide, and lakes, reservoirs, and ponds smaller than 40 acres are included as land area. These figures are from the Bureau of Census, 1960.

Forest land.--Land at least 16.7 percent stocked by forest trees of any size, or formerly having such tree cover, and not currently developed for nonforest use. Includes afforested areas. The minimum forest area classified was 1 acre. Roadside, streamside, and shelterbelt strips of timber must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails, streams, and clearings in forest areas were classed as forest if less than 120 feet in width.

Commercial forest land.--Forest land that is producing or is capable of producing crops of industrial wood and that is not withdrawn from timber utilization by statute or administrative regulation. This includes areas suitable for management to grow crops of industrial wood generally of a site quality capable of producing in excess of 20 cubic feet per acre of annual growth. This includes both inaccessible and inoperable areas.

Noncommercial forest land.--(a) Unproductive--forest land incapable of yielding crops of industrial wood because of adverse site conditions, (b) Productive--reserved--forest land withdrawn from commercial timber use through statute or administrative regulation, or exclusively used for Christmas tree production.

Nonforest land.--Land that has never supported forests, and land formerly forested where forest use is precluded by development for nonforest uses, such as cropland, improved pasture, residential areas, and city parks. Also includes improved roads and adjoining rights-of-way, powerline clearings, and certain areas of water classified by the Bureau

of Census as land. Unimproved roads, streams, canals, and nonforest strips in forest areas must be more than 120 feet wide, and clearings in forest areas must be more than 1 acre in size, to qualify as nonforest land.

Ownership Classes

National forest.--Federal lands that have been designated by executive order or statute as national forests or purchase units, and other lands under the administration of the USDA Forest Service.

Other Federal.--Federal lands other than national forest.

State, county, and municipal.--Lands owned by States, counties, or local public agencies, or lands leased by them for more than 50 years.

Forest industry.--Lands owned by companies or individuals operating primary wood-using plants.

Farmer-owned.--Lands owned by operators of farms. A farm must include 10 or more acres from which the sale of agricultural products totals \$50 or more annually, or if less than 10 acres, the yield must be at least \$250 annually.

Miscellaneous private.--Privately owned lands other than forest industry- or farmer-owned.

Tree Classes

All live trees.--Growing-stock, rough and rotten trees 1 inch d.b.h. and larger.

Growing-stock trees.--All live trees of commercial species except rough and rotten trees.

Desirable trees.--Growing-stock trees having no serious defects in quality limiting present or prospective use, and of relatively high vigor and containing no pathogens that may result in death or serious deterioration before rotation age. These are trees that would be favored by forest managers in silvicultural operations.

Acceptable trees.--Trees meeting the standards for growing stock but not qualifying as desirable trees.

Sawtimber trees.--Growing-stock trees of commercial species containing at least a 12-foot saw log or two noncontiguous saw logs, each 8 feet or longer. At least 33 percent of the gross volume of the tree must be sound wood. Softwoods must be at least 9.0 inches d.b.h. and hardwoods at least 11.0 inches.

Poletimber trees.--Growing-stock trees of commercial species at least 5.0 inches d.b.h. but smaller than sawtimber size, and of good form and vigor.

Saplings.--Live trees of commercial species 1.0 to 5.0 inches d.b.h. and of good form and vigor.

Seedlings.--Live trees of commercial species less than 1.0 inch d.b.h. that are expected to survive according to regional standards. (Examples of seedlings not expected to survive are those that are diseased or heavily damaged by logging, browsing, or fire). Only softwood seedlings over 6 inches and hardwood seedlings over 1 foot in height are counted.

Rotten trees.--Live trees (any size) of commercial species that do not contain a merchantable 12-foot saw log or two noncontiguous 8-foot or longer saw logs, now or prospectively, because of rot (that is, when more than 50 percent of the cull volume of the tree is rotten).

Rough trees.--Live trees that do not contain at least one merchantable 12-foot saw log or two noncontiguous 8-foot or longer saw logs, now or prospectively, because of roughness and poor form, as well as all live noncommercial species.

Short-log (rough trees).--Sawtimber-sized trees of commercial species that contain at least one merchantable 8- to 11-foot saw log but not a 12-foot saw log.

Stocking

The degree of utilization of land by trees as measured in terms of basal area and/or the number of trees in a stand compared to the basal area and/or number

of trees required to utilize fully the growth potential of the land.

A stocking percent of 100 indicates full utilization of the site and is equivalent to 80 square feet of basal area per acre in trees 5 inches d.b.h. and larger. In a stand of trees less than 5 inches d.b.h., a stocking percent of 100 would indicate that the present number of trees is sufficient to produce 80 square feet of basal area per acre when the trees do reach 5 inches d.b.h.

Stocking of all live trees, growing-stock trees, and desirable trees are recorded separately and stands are grouped into the following stocking classes.

Stocking Classes

Overstocked stands.--Stands in which stocking of trees is 133 percent or more.

Fully stocked stands.--Stands in which stocking of trees is from 100 to 133 percent.

Medium-stocked stands.--Stands in which stocking of trees is from 60 to 100 percent.

Poorly stocked stands.--Stands in which stocking of trees is from 16.7 to 60 percent.

Nonstocked areas.--Commercial forest land on which stocking of trees is less than 16.7 percent.

Area-Condition Classes

Class 10.--Areas fully stocked with desirable trees but not overstocked.

Class 20.--Areas fully stocked with desirable trees, but overstocked with all live trees.

Class 30.--Areas medium to fully stocked with desirable trees, and with less than 30 percent of the area controlled by other trees and/or inhibiting vegetation or surface conditions that will prevent occupancy by desirable trees.

Class 40.--Areas medium to fully stocked with desirable trees and with 30 percent or more of the area controlled by other trees and/or conditions that ordinarily prevent occupancy by desirable trees.

Class 50.--Areas poorly stocked with desirable trees, but fully stocked with growing-stock trees.

Class 60.--Areas poorly stocked with desirable trees, but with medium to full stocking of growing-stock trees.

Class 70.--Areas poorly stocked with desirable trees, and poorly stocked with growing-stock trees.

Stand-Size Classes

Stand.--A growth of trees on a minimum of 1 acre of forest land that is stocked by forest trees of any size.

Sawtimber stands.--Stands at least 16.7 percent stocked with growing-stock trees, with half or more of this stocking in sawtimber or poletimber trees and with sawtimber stocking at least equal to poletimber stocking.

Poletimber stands.--Stands at least 16.7 percent stocked with growing-stock trees, and with half or more of this stocking in sawtimber and/or poletimber trees and with poletimber stocking exceeding that of sawtimber.

Sapling-seedling stands.--Stands at least 16.7 percent stocked with growing-stock trees and with saplings and/or seedlings comprising more than half of this stocking.

Nonstocked areas.--Commercial forest land on which stocking of growing-stock trees is less than 16.7 percent.

Other Classifications

Site index.--An expression of forest site quality based on the height of a free-growing dominant or codominant tree of a representative species in the forest type at age 50.

Site classes.--A classification of forest land in terms of inherent capacity to grow crops of industrial wood expressed in cubic-foot growth per acre per year.

Stand-age.--Age of the main stand. Main stand refers to trees of the dominant forest type and stand-size class.

Basal area.--The area in square feet of the cross section at breast height of a single tree. When the basal area of all the trees in a stand are summed, the result is usually expressed as square feet of basal area per acre.

Forest Types

A classification of forest land based upon the species forming a plurality of live-tree stocking. Major forest types in Missouri are:

Shortleaf pine.--Forests in which shortleaf pine comprises a plurality of the stocking. (Common associates include oak, hickory, and gum.)

Eastern redcedar.--Forests in which eastern redcedar comprises a plurality of the stocking. (Common associates include oak and hickory.)

Eastern redcedar-hardwood.--Forests in which hardwoods (usually upland oaks) comprise a plurality of the stocking but in which eastern redcedar comprises 25 to 50 percent of the stocking. (Common associates include gum, hickory, and yellow-poplar.)

Shortleaf pine-oak.--Forests in which upland oaks comprise a plurality of the stocking, but in which shortleaf pine comprises 25 to 50 percent of the stocking.

Post-blackjack oak.--Forests in which post oak or blackjack oak, singly or in combination, comprises a plurality of the stocking except where shortleaf pine or redcedar comprises 25 to 50 percent.

Black-scarlet oak.--Forests in which upland oaks or hickory, singly or in combination, comprises a plurality of the stocking except where shortleaf pine or redcedar comprises 25 to 50 percent, or where white oak or post and blackjack oak

comprise a plurality. (Common associates include yellow-poplar, elm, maple, and black walnut.)

White oak.--Forests in which white oak and other white oak species, singly or in combination, comprise a plurality of the stocking except where shortleaf pine or redcedar comprises 25 to 50 percent.

Oak-gum-cypress.--Bottomland forests in which bottomland oaks such as pin, swamp white, and shingle oaks, along with tupelo, blackgum, sweetgum, and cypress, singly or in combination, comprise a plurality of the stocking. (Common associates include cottonwood, willow, ash, elm, hackberry, and maple.)

Elm-ash-cottonwood.--Forests in which elm, ash, or cottonwood, singly or in combination, comprises a plurality of the stocking. (Common associates include willow, sycamore, beech, and maple.)

Cottonwood.--Forests in which cottonwood comprises a plurality of the stocking.

Maple-beech.--Forests in which hard maple or beech, singly or in combination, comprises a plurality of the stocking. (Common associates include elm and basswood.)

Timber Volume

Volume of growing stock.--The volume of sound wood in the bole of growing-stock trees 5.0 inches d.b.h. and over, from a 1-foot stump to a minimum of 4.0-inch top diameter outside bark, or to the point where the central stem breaks into limbs. Growing-stock volumes are shown in cubic feet and cords. Conversion from one unit of measure to another may be accomplished by a factor of 79 cubic feet per solid wood cord.

Volume of sawtimber.--Net volume of the saw log portion of live sawtimber trees in board feet, International 1/4-inch rule, from stump to a minimum 7 inches top diameter outside bark for softwoods and 9 inches for hardwoods.

Upper stem portion.--That part of the bole of sawtimber trees above the merchantable sawtimber top to a minimum top diameter

of 4.0 inches outside bark or to the point where the central stem breaks into limbs.

Growth and Mortality

Net annual growth of growing stock.--Net annual growth of growing stock is the change in volume of sound wood that occurred during 1971 in growing-stock trees that were 5.0 inches d.b.h. or larger at the beginning of the year,

plus

the volume of sound wood in growing-stock trees smaller than 5.0 inches d.b.h. at the beginning of the year that grew sufficiently during the year to be reclassified into the 5.0-inch-or-larger d.b.h. classes (ingrowth),

plus

the volume of sound wood in trees that had been classified either as rough or rotten trees at the beginning of the year but were reclassified during the year as growing-stock trees,

plus

the annual change in volume of sound wood that occurred during the year on growing-stock trees that died during the year,

plus

the annual change in volume of sound wood that occurred in growing-stock trees included among timber removals for the year (See glossary for timber removals from growing stock, p. 5),

plus

the annual change in volume of sound wood in trees that had been classified as growing stock at the beginning of the year out were reclassified during the year as rough or rotten trees. Only the volume change that occurred during the portion of the years the trees were classified as growing stock was included,

minus

the volume of sound wood in growing-stock trees that died from natural causes during the year, and

minus

the volume of sound wood in trees that had been classified as growing stock at the beginning of the year, but were reclassified during the year as rough or rotten trees.

Net annual growth of sawtimber.--

Net annual growth of sawtimber is the change in volume of sound wood that occurred during 1971 in trees that were sawtimber size at the beginning of the year,

plus

the volume of sound wood in growing-stock trees smaller than sawtimber size at the beginning of the year that grew sufficiently during the year to be reclassified as sawtimber trees (ingrowth),

plus

the volume of sound wood in trees that had been classified either as rough or rotten trees at the beginning of the year, but were reclassified during the year as sawtimber trees,

plus

the annual change in volume of sound wood that occurred during the year on sawtimber trees that died during the year,

plus

the annual change in volume of sound wood that occurred in sawtimber trees included among timber removals for the year (see glossary for timber removals from sawtimber, p. 5),

plus

the annual change in volume of sound wood in trees that had been classified as sawtimber trees at the beginning of the year, but were reclassified during the year as rough or rotten trees. Only the volume change that occurred during the portion of the year the trees were classified as sawtimber was included,

minus

the volume of sound wood in sawtimber trees that died from natural causes during the year, and

minus

the volume of sound wood in trees that had been classified as sawtimber trees at the beginning of the year, but were reclassified during the year as rough or rotten trees.

*Mortality of growing stock.--*The volume of sound wood in growing-stock trees dying annually from natural causes. Natural causes include fire, insects, disease, animal damage, weather, and suppression.

*Mortality of sawtimber.--*The net board-foot volume of sawtimber trees dying annually from natural causes.

Timber Removals

*Timber removals from growing stock.--*The volume of sound wood in growing-stock trees removed annually for forest products (including roundwood products and logging residues) and for other removals (see glossary for volume of growing stock, p. 4). Roundwood products are logs, bolts, or other round sections cut and used from trees. Logging residues are the unused portions of cut trees plus unused trees killed by logging. Other removals are growing-stock trees removed but not utilized for products or trees left standing but "removed" from the commercial forest land classification by land use change--examples are removals from cultural operations such as timber stand improvement work, land clearing, and changes in land use.

*Timber removals from sawtimber.--*The net board-foot volume of live sawtimber trees removed for forest products annually (including roundwood products and logging residues) and for other removals (see glossary for volume of sawtimber, p. 4).

*Timber products output.--*All timber products cut from roundwood, and byproducts of wood manufacturing plants. Roundwood products include logs, bolts, or other round sections cut from growing-stock trees,

cull trees, salvable dead trees, trees on nonforest land, noncommercial species, sapling-size trees, and limbwood. Byproducts from primary manufacturing plants include slabs, edgings, trimmings, miscuts, sawdust, shavings, veneer cores and clippings, and screenings of pulpmills that are used as pulp chips or other products.

Plant byproducts.--Wood products, such as pulpwood chips, obtained incidental to production of other manufactured products.

Plant residues.--Wood materials from manufacturing plants not utilized for some product.

★ U. S. GOVERNMENT PRINTING OFFICE 1974--762789/20 REGION NO. 6

Spencer, John S., Jr., and Arnold J. Ostrom.

1975. Timber resource of Missouri's Riverborder, 1972. North Cent. For. Exp. Stn., St. Paul, Minn. 74 p. (USDA For. Serv. Resour. Bull. NC-25)

The third timber inventory of Missouri's Riverborder Forest Survey Unit shows that neither the total volume of growing stock nor of sawtimber changed significantly between 1959 and 1972. Area of commercial forest land declined slightly. Presents statistics on forest area and timber volume, growth, mortality, ownership, and use in 1972.


OXFORD: 524.1:905.2(778). KEY WORDS: timber volume, growth, utilization, forest areas.

Spencer, John S., Jr., and Arnold J. Ostrom.

1975. Timber resource of Missouri's Riverborder, 1972. North Cent. For. Exp. Stn., St. Paul, Minn. 74 p. (USDA For. Serv. Resour. Bull. NC-25)

The third timber inventory of Missouri's Riverborder Forest Survey Unit shows that neither the total volume of growing stock nor of sawtimber changed significantly between 1959 and 1972. Area of commercial forest land declined slightly. Presents statistics on forest area and timber volume, growth, mortality, ownership, and use in 1972.

OXFORD: 524.1:905.2(778). KEY WORDS: timber volume, growth, utilization, forest areas.



FOREWORD

Forest Survey is a continuing endeavor as mandated by the McSweeney-McNary Forest Research Act of 1928. Its objective is to inventory periodically the Nation's forest lands to determine their extent, condition, and volumes of timber, growth, and depletions. This kind of up-to-date information is essential to frame intelligent forest policies and programs. USDA Forest Service regional experiment stations are charged with the responsibility for conducting these inventories and publishing summary reports for individual States. The North Central Forest Experiment Station is responsible for Forest Survey work done in Michigan, Wisconsin, Minnesota, North Dakota, eastern South Dakota, Nebraska, Iowa, Illinois, Indiana, Missouri, and Kansas.

Fieldwork for the 1972 Missouri Forest Survey was started in January 1970 and was completed in May 1973. Reports on the two previous surveys of Missouri's timber resource are dated 1947 and 1959. These earlier reports provide a basis for comparison with the information in this report for those interested in trends that have developed over the past quarter century.

Similar Resource Bulletins reporting statistical highlights and detailed tables on the timber resource of the other Survey Units in Missouri (see cover) are in preparation. These will provide the basis for a comprehensive analysis of the timber resource of the entire State which will be published as a separate report.

A higher degree of accuracy of survey information was obtained during the 1972 survey than otherwise would have been feasible because of intensified field sampling made possible by extra funding provided the North Central Station by the State Legislature through the Missouri Department of Conservation. The Department also conducted a canvass of primary wood-using plants in the State, which was used to help in estimating the quantity of timber products harvested in Missouri.

Personnel from the National Forests in Missouri installed sample plots on national forest lands, which were used to inventory those lands. The USDA Agricultural Stabilization and Conservation Service and the State Historical Society of Missouri furnished aerial photos used in the survey.

N O T E

• References to information concerning growth, mortality, and removals are dated 1971, but information concerning forest area and timber inventory incorporates changes that occurred during calendar year 1971; therefore, they represent conditions as of January 1, 1972 and are dated 1972.

• Many of the terms used in this Resource Bulletin have specialized meanings, which are defined in "Glossary of Terms Used in Resource Bulletins Reporting Missouri's 1972 Timber Resource." Copies of this Glossary can be obtained from the North Central Forest Experiment Station.

CONTENTS

Highlights	1
Tables	2
Principal Tree Species in Missouri's River-	
border Unit	70
Appendix	71
Accuracy of Survey	71
Survey Procedure	72
Managed Harvest	72
Log Grade	73

TIMBER RESOURCE OF MISSOURI'S RIVERBORDER, 1972

John S. Spencer, Jr., and Arnold J. Ostrom

HIGHLIGHTS¹

Forest Area

Area of forest land declined slightly from 2,237 thousand acres in 1959 to 2,157 thousand acres in 1972.

Commercial forest area slipped from 2,188 thousand acres in 1959 to 2,109 thousand acres in 1972.

Franklin County contains the largest area of commercial forest (234 thousand acres), followed by Jefferson County (216 thousand acres) and Callaway County (175 thousand acres).

Farmers, private individuals, and corporations not directly engaged in timber processing own 97 percent of the commercial forest land.

The white oak type and black-scarlet oak type dominated the commercial forest in 1972 as they did in 1959. In 1972 the white oak type totaled 701 thousand acres as compared to 504 thousand acres in 1959. The black-scarlet oak type totaled 486 thousand acres in 1972 as compared to 568 thousand acres in 1959.

Sawtimber stands account for 40 percent of commercial forest lands, followed by poletimber stands (36 percent), sapling and seedling stands (21 percent), and non-stocked areas (3 percent).

Timber Volume

Volume of growing stock (1.3 billion cubic feet) did not change significantly between 1959 and 1972.

Total sawtimber volume (3.6 billion board feet) remained virtually the same between 1959 and 1972.

Collectively, the oaks account for two-thirds of the 1972 growing-stock volume.

Average volume per acre of growing stock is 632 cubic feet (8.0 cords) in 1972, compared to 612 cubic feet (7.7 cords) in 1959.

Farmers, private individuals, and corporations not directly engaged in timber processing own 96 percent of the growing-stock volume.

Volume in rough and rotten trees that are alive (nongrowing stock) is 449 million cubic feet, most of which is in rough trees.

Short-log trees account for 76 million cubic feet of the total volume in rough and rotten trees.

Stand Conditions

Net annual growth on growing-stock trees was 34.2 million cubic feet (433 thousand cords) in 1971.

The rate of growth on growing-stock trees was 2.6 percent of inventory volume.

Mortality of growing-stock trees in 1971 amounted to 2.4 million cubic feet (30 thousand cords), largely caused by disease.

Forty-four percent of the commercial forest includes stands younger than 50 years old.

Area of commercial forest land is divided almost evenly into 10-year age classes.

Fifty-two percent of the commercial forest area is capable of growing trees 50 feet and taller at age 50, but only 16 percent is capable of growing trees 70 feet and taller at age 50.

¹Published 1959 statistics have been adjusted to be comparable with 1972 data because of changed definitions and procedures used during the two surveys.

Fifty-five percent of the commercial forest is poorly stocked and 3 percent is nonstocked with growing-stock trees.

Timber Use

Timber removals from growing stock in 1971 amounted to 36 million cubic feet (450 thousand cords), compared to net annual growth on growing-stock trees of 34 million cubic feet (433 thousand cords). (See glossary for timber removals, page 5).

Fifty-six percent of the volume of removals from growing stock was classed as "other" removals; and therefore was not utilized (see glossary for timber removals, page 5).

The output of timber products in 1969 amounted to 23 million cubic feet; principally as saw logs (36 percent), fuelwood (24 percent), cooperage (15 percent), and pulpwood (11 percent).

Total volume of wood residues from primary plants in 1969 was 7 million cubic feet, of which 3 million cubic feet was not used.²

Managed Harvest³

For the years 1972 through 1981, annual managed harvest from growing stock on commercial forests is estimated to average 39 million cubic feet (494 thousand cords)--32 million cubic feet from harvest cuttings and 7 million cubic feet from thinnings.

During the same period, annual managed harvest from rough and rotten trees (nongrowing stock) is estimated to average 12 million cubic feet (155 thousand cords).

TABLES

Area:

1. Area of land by land class, 1959 and 1972.
2. Area of land and forest land, by county.

²Primary plants are those using logs and bolts or chips, shavings, etc., from logs and bolts.

³Managed harvest is defined in the appendix on page 72.

3. Area of commercial forest land for survey unit and for individual counties within unit, by forest type and stand-size class.

4. Area of commercial forest land, by county and ownership class.

5. Area of commercial forest land, by stand-volume and ownership class.

6. Area of commercial forest land, by area-condition and ownership class.

7. Area of commercial forest land, by site and ownership class.

8. Area of commercial forest land, by forest type and ownership class.

9. Area of commercial forest land, by forest type and stand-age class.

10. Area of commercial forest land, by forest type and site-index class.

11. Area of commercial forest land, by forest type and basal-area class.

12. Area of commercial forest land, by forest type, stand-size, and site class.

13. Area of commercial forest land, by stocking class based on selected stand components.

14. Area of commercial forest land, by stocking class of growing-stock trees and stand-size class.

15. Area of noncommercial forest land, by ownership class.

16. Area of noncommercial forest land, by forest type.

Number of Trees:

17. Number of all live trees on commercial forest land, by species and diameter class.

18. Number of growing-stock trees on commercial forest land, by species and diameter class.

19. Number of short-log trees on commercial forest land, by species and diameter class.

Volume:

20. Net volume of growing stock and sawtimber on commercial forest land, by species, 1959 and 1972.

21. Net volume on commercial forest land for survey unit and for individual counties within unit, by species and kind of material.

22. Net volume of timber on commercial forest land, by class of timber, and softwoods and hardwoods.

23. Net volume of growing stock, sawtimber, and rough and rotten trees on commercial forest land, by individual species.

24. Net volume of growing stock and sawtimber on commercial forest land, by ownership class and species group.

25. Net volume of growing stock on commercial forest land, by species and diameter class.

26. Net volume of sawtimber on commercial forest land, by species and diameter class.

27. Net volume of growing stock on commercial forest land, by species and forest type.

28. Net volume of sawtimber on commercial forest land, by species and forest type.

29. Net volume of timber in cull trees on commercial forest land, by species and cull tree class.

30. Net volume of short-log trees on commercial forest land, by species and diameter class.

31. Net volume of sawtimber on commercial forest land, by species and log grade class.

32. Walnut volume on nonforest land, by diameter class and class of timber.

Growth and Removals:

33. Net annual growth of growing stock and sawtimber on commercial forest land, by species and county.

34. Timber removals from growing stock and sawtimber on commercial forest land, by item and species group.

35. Timber removals from growing stock and sawtimber on commercial forest land, by species and county.

Mortality:

36. Annual mortality of growing stock and sawtimber on commercial forest land, by cause and softwoods and hardwoods.

37. Annual mortality of growing stock and sawtimber on commercial forest land, by species.

Utilization:

38. Output of timber products by source of material and softwoods and hardwoods.

39. Forest products harvested, by ownership class and product.

40. Volume of primary plant residue, by kind of material and type of use.

41. Timber products output from roundwood, by species and product.

Annual Managed Harvest:

42. Average annual managed harvest for 1972-1981 from harvest cuttings and thinnings on commercial forest land, by species and kind of material.

43. Average annual managed harvest of growing stock for 1972-1981 from harvest cuttings and thinnings on commercial forest land, by species and forest type.

44. Average annual managed harvest of growing stock for 1972-1981 from harvest cuttings and thinnings on commercial forest land, by species and stand-volume class.

45. Average annual managed harvest for 1972-1981, by harvest cuttings of growing stock on commercial forest land, by species and stand-volume class.

46. Average annual managed harvest for 1972-1981, by thinnings of growing stock on commercial forest land, by species and stand-volume class.

47. Average annual managed harvest of sawtimber for 1972-1981 from harvest cuttings and thinnings on commercial forest land, by species and forest type.

48. Average annual managed harvest of sawtimber for 1972-1981 from harvest cuttings and thinnings on commercial forest land, by species and stand-volume class.

49. Average annual managed harvest for 1972-1981, by harvest cuttings of sawtimber on commercial forest land, by species and stand-volume class.

50. Average annual managed harvest for 1972-1981, by thinnings of sawtimber

on commercial forest land, by species and stand-volume class.

51. Area of managed harvest for 1972-1981, by harvest cuttings on commercial forest land, by forest type and stand-age class.

52. Area of managed harvest by thinnings on commercial forest land for 1972-1981, by forest type and stand-age class.

Text Tables:

53. Sampling errors for estimates smaller than unit totals of volume, net growth, and removals, and of area of commercial forest land.

54. Forest type, site index, and rotation age by management objective used in calculation of annual managed harvest, Missouri.

Table 1.--Area of land by land class, Riverborder, Missouri, 1959 and 1972
(Thousand acres)

LAND CLASS	1959 ^{1/}	1972
COMMERCIAL FOREST LAND:		
EASTERN REDCEDAR TYPE	14.93	59.30
EASTERN REDCEDAR-HARDWOOD TYPE	68.01	115.40
SHORTLEAD PINE-OAK TYPE	18.09	4.30
POST-BLACKJACK OAK TYPE	225.40	281.50
BLACK-SCARLET OAK TYPE	567.70	485.90
WHITE OAK TYPE	504.07	701.20
OAK-GUM-CYPRESS TYPE	105.40	56.60
ELM-ASH-COTTONWOOD TYPE	255.73	194.00
COTTONWOOD	1.80	4.80
MAPLE-BEECH TYPE	--	133.40
NONSTOCKED	427.33	72.50
SUBTOTAL	2,188.46	2,108.90
NONCOMMERCIAL FOREST LAND:		
UNPRODUCTIVE	32.10	32.40
PRODUCTIVE-RESERVED	16.10	16.10
SUBTOTAL	48.20	48.50
NONFOREST LAND	5,774.54	5,850.90
TOTAL	8,011.20	8,008.30

^{1/} FIGURES HAVE BEEN ADJUSTED FROM THOSE PUBLISHED PREVIOUSLY FOR 1959 TO CONFORM TO 1972 LAND CLASSES BECAUSE OF CHANGES IN SURVEY DEFINITIONS AND PROCEDURES.

Table 2.--Area of land and forest land, by county, Riverborder, Missouri, 1972

COUNTY	LAND AREA	FOREST LAND			COMMERCIAL FOREST AS A PERCENT OF LAND AREA
		ALL FOREST	NONCOMMERCIAL	COMMERCIAL	
		THOUSAND ACRES			PERCENT
BOONE	438.3	112.6	3.0	109.6	25
CALLAWAY	534.4	179.0	3.5	175.5	33
CAPE GIRARDEAU	367.3	91.1	3.7	87.4	24
COLE	245.7	79.8	1.9	77.9	32
DUNKLIN	347.5	20.1	--	20.1	6
FRANKLIN	597.6	243.7	9.2	234.5	39
GASCONADE	332.4	157.4	3.1	154.3	46
HOWARD	301.7	63.6	1.1	62.5	21
JEFFERSON	427.3	219.8	3.3	216.5	51
MISSISSIPPI	265.7	13.8	.9	12.9	5
MONITEAU	268.0	61.1	1.5	59.6	22
MONTGOMERY	341.7	104.4	2.3	102.1	30
NEW MADRID	434.8	15.5	--	15.5	4
OSAGE	388.9	174.3	4.1	170.2	44
PEMISCOT	315.4	11.8	--	11.8	4
PERRY	301.4	104.6	1.2	103.4	34
ST. CHARLES	352.6	90.1	.5	89.6	25
ST. LOUIS	358.8	68.9	2.8	66.1	18
STE. GENEVIEVE	319.6	156.6	4.8	151.8	47
SCOTT	269.5	18.0	--	18.0	7
STODDARD	526.8	46.1	--	46.1	9
WARREN	272.9	125.1	1.6	123.5	45
ALL COUNTIES	8,008.3	2,157.4	48.5	2,108.9	26

Table 3.--Area of commercial forest land for Missouri's Riverborder Survey Unit and for individual counties within Unit, by forest type and stand-size class, 1972

(Thousand acres)

ALL COUNTIES					
Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Non-stocked areas
Eastern redcedar	59.3	4.5	22.5	32.3	--
Eastern redcedar-hardwood	115.4	16.0	12.7	86.7	--
Shortleaf pine-oak	4.3	1.1	3.2	--	--
Post-blackjack oak	281.5	48.2	175.0	58.3	--
Black-scarlet oak	485.9	181.6	159.6	144.7	--
White oak	701.2	407.8	250.8	42.6	--
Oak-gum-cypress	56.6	27.1	25.6	3.9	--
Elm-ash-cottonwood	194.0	105.9	61.5	26.6	--
Cottonwood	4.8	4.8	--	--	--
Maple-beech ^{1/}	133.4	45.7	47.4	40.3	--
Nonstocked ^{1/}	72.5	--	--	--	72.5
All forest types	2,108.9	842.7	758.3	435.4	72.5
BOONE COUNTY					
Eastern redcedar	3.3	.2	1.0	2.1	--
Eastern redcedar-hardwood	7.1	.6	.7	5.8	--
Post-blackjack oak	16.0	2.2	10.1	3.7	--
Black-scarlet oak	25.6	8.7	8.5	8.4	--
White oak	34.8	19.5	12.6	2.7	--
Oak-gum-cypress	1.8	.5	1.3	--	--
Elm-ash-cottonwood	9.1	4.7	2.9	1.5	--
Cottonwood	.2	.2	--	--	--
Maple-beech ^{1/}	7.8	2.4	2.4	3.0	--
Nonstocked ^{1/}	3.9	--	--	--	3.9
All forest types	109.6	39.0	39.5	27.2	3.9
CALLAWAY COUNTY					
Eastern redcedar	4.2	.3	1.3	2.6	--
Eastern redcedar-hardwood	9.4	1.2	1.2	7.0	--
Post-blackjack oak	28.0	3.6	18.1	6.3	--
Black-scarlet oak	42.1	14.7	14.6	12.8	--
White oak	58.5	31.9	22.7	3.9	--
Oak-gum-cypress	3.4	.9	2.5	--	--
Elm-ash-cottonwood	12.7	6.6	4.3	1.8	--
Cottonwood	.2	.2	--	--	--
Maple-beech ^{1/}	11.5	3.6	3.8	4.1	--
Nonstocked ^{1/}	5.5	--	--	--	5.5
All forest types	175.5	63.0	68.5	38.5	5.5
CAPE GIRARDEAU COUNTY					
Eastern redcedar	2.4	.2	.7	1.5	--
Eastern redcedar-hardwood	5.2	.6	.4	4.2	--
Post-blackjack oak	10.8	2.3	6.3	2.2	--
Black-scarlet oak	18.6	7.4	6.3	4.9	--
White oak	32.7	21.1	10.1	1.5	--
Oak-gum-cypress	1.1	.3	.8	--	--
Elm-ash-cottonwood	7.5	4.1	2.3	1.1	--
Cottonwood	.2	.2	--	--	--
Maple-beech ^{1/}	6.1	1.9	2.0	2.2	--
Nonstocked ^{1/}	2.8	--	--	--	2.8
All forest types	87.4	38.1	28.9	17.6	2.8

^{1/} See glossary for stand-size classes (page 3). (Table 3 cont. on next page)

(Table 3 cont.)

COLE COUNTY

Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Non-stocked areas
Eastern redcedar	2.9	.1	.8	2.0	--
Eastern redcedar-hardwood	6.1	.7	.6	4.8	--
Post-blackjack oak	12.1	1.4	7.8	2.9	--
Black-scarlet oak	18.2	6.0	6.1	6.1	--
White oak	23.7	13.1	8.6	2.0	--
Oak-gum-cypress	1.3	.3	1.0	--	--
Elm-ash-cottonwood	5.2	2.1	1.8	1.3	--
Cottonwood	.1	.1	--	--	--
Maple-beech	4.7	1.4	1.5	1.8	--
Nonstocked <u>1/</u>	3.6	--	--	--	3.6
All forest types	77.9	25.2	28.2	20.9	3.6
DUNKLIN COUNTY					
Post-blackjack oak	.4	.4	--	--	--
Black-scarlet oak	1.7	.8	.5	.4	--
White oak	1.0	--	.2	.8	--
Oak-gum-cypress	5.7	4.5	.8	.4	--
Elm-ash-cottonwood	9.7	6.7	2.1	.9	--
Cottonwood	.2	.2	--	--	--
Maple-beech	.6	--	.6	--	--
Nonstocked <u>1/</u>	.8	--	--	--	.8
All forest types	20.1	12.6	4.2	2.5	.8
FRANKLIN COUNTY					
Eastern redcedar	8.3	.8	3.8	3.7	--
Eastern redcedar-hardwood	13.0	2.3	1.2	9.5	--
Shortleaf pine-oak	.6	.6	--	--	--
Post-blackjack oak	28.4	6.7	16.8	4.9	--
Black-scarlet oak	55.0	22.2	17.3	15.5	--
White oak	89.0	55.4	30.5	3.1	--
Oak-gum-cypress	3.0	1.4	1.6	--	--
Elm-ash-cottonwood	16.3	8.0	5.8	2.5	--
Cottonwood	.3	.3	--	--	--
Maple-beech <u>1/</u>	14.1	4.6	5.4	4.1	--
Nonstocked	6.5	--	--	--	6.5
All forest types	234.5	102.3	82.4	43.3	6.5
GASCONADE COUNTY					
Eastern redcedar	3.2	.4	1.3	1.5	--
Eastern redcedar-hardwood	7.7	.9	1.5	5.3	--
Post-blackjack oak	26.5	4.0	16.8	5.7	--
Black-scarlet oak	35.4	13.8	12.9	8.7	--
White oak	58.6	33.7	22.1	2.8	--
Oak-gum-cypress	2.5	.8	1.7	--	--
Elm-ash-cottonwood	9.1	4.4	3.3	1.4	--
Cottonwood	.1	.1	--	--	--
Maple-beech	7.5	2.4	3.4	1.7	--
Nonstocked <u>1/</u>	3.7	--	--	--	3.7
All forest types	154.3	60.5	63.0	27.1	3.7

1/ See glossary for stand-size classes (page 3)

(Table 3 cont. on next page)

(Table 3 cont.)

HOWARD COUNTY

Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Non-stocked areas
Eastern redcedar	2.6	.1	.8	1.7	--
Eastern redcedar-hardwood	4.6	.3	.3	4.0	--
Post-blackjack oak	7.6	1.2	4.7	1.7	--
Black-scarlet oak	15.2	5.0	4.7	5.5	--
White oak	18.8	10.8	6.3	1.7	--
Oak-gum-cypress	.9	.3	.6	--	--
Elm-ash-cottonwood	5.2	2.4	1.6	1.2	--
Cottonwood	.1	.1	--	--	--
Maple-beech	4.9	1.5	1.3	2.1	--
Nonstocked ^{1/}	2.6	--	--	--	2.6
All forest types	62.5	21.7	20.3	17.9	2.6
JEFFERSON COUNTY					
Eastern redcedar	8.5	.6	3.5	4.4	--
Eastern redcedar-hardwood	10.5	2.2	1.4	6.9	--
Post-blackjack oak	29.2	5.3	18.4	5.5	--
Black-scarlet oak	53.2	20.0	16.9	16.3	--
White oak	80.9	49.0	28.3	3.6	--
Oak-gum-cypress	3.0	1.4	1.6	--	--
Elm-ash-cottonwood	11.1	5.0	3.9	2.2	--
Cottonwood	.1	.1	--	--	--
Maple-beech	12.0	4.0	4.6	3.4	--
Nonstocked ^{1/}	8.0	--	--	--	8.0
All forest types	216.5	87.6	78.6	42.3	8.0
MISSISSIPPI COUNTY					
Oak-gum-cypress	3.1	1.2	1.1	.8	--
Elm-ash-cottonwood	7.9	4.8	2.7	.4	--
Cottonwood	.5	.5	--	--	--
Maple-beech	.6	--	.6	--	--
Nonstocked ^{1/}	.8	--	--	--	.8
All forest types	12.9	6.5	4.4	1.2	.8
MONITEAU COUNTY					
Eastern redcedar	2.3	.1	.7	1.5	--
Eastern redcedar-hardwood	4.2	.2	.4	3.6	--
Post-blackjack oak	9.4	.8	6.2	2.4	--
Black-scarlet oak	15.1	4.2	4.7	6.2	--
White oak	16.7	8.4	6.4	1.9	--
Oak-gum-cypress	1.3	.5	.8	--	--
Elm-ash-cottonwood	3.3	1.2	1.2	.9	--
Maple-beech	4.5	1.0	1.3	2.2	--
Nonstocked ^{1/}	2.8	--	--	--	2.8
All forest types	59.6	16.4	21.7	18.7	2.8

^{1/} See glossary for stand-size classes (page 3). (Table 3 cont. on next page)

(Table 3 cont.)

MONTGOMERY COUNTY

Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Non-stocked areas
MONTGOMERY COUNTY					
Eastern redcedar	1.7	.1	.5	1.1	--
Eastern redcedar-hardwood	7.9	1.1	.7	6.1	--
Post-blackjack oak	16.2	2.0	10.4	3.8	--
Black-scarlet oak	22.7	8.1	8.4	6.2	--
White oak	30.7	16.8	11.6	2.3	--
Oak-gum-cypress	1.9	.4	1.5	--	--
Elm-ash-cottonwood	9.9	6.0	2.8	1.1	--
Cottonwood	.3	.3	--	--	--
Maple-beech ^{1/}	7.1	2.6	2.4	2.1	--
Nonstocked ^{1/}	3.7	--	--	--	3.7
All forest types	102.1	37.4	38.3	22.7	3.7
NEW MADRID COUNTY					
Oak-gum-cypress	3.2	1.4	.9	.9	--
Elm-ash-cottonwood	10.1	6.0	3.2	.9	--
Cottonwood	.4	.4	--	--	--
Maple-beech ^{1/}	.8	--	.8	--	--
Nonstocked ^{1/}	1.0	--	--	--	1.0
All forest types	15.5	7.8	4.9	1.8	1.0
OSAGE COUNTY					
Eastern redcedar	6.3	.3	2.3	3.7	--
Eastern redcedar-hardwood	8.6	1.3	1.2	6.1	--
Post-blackjack oak	26.7	3.4	17.5	5.8	--
Black-scarlet oak	42.7	13.9	14.0	14.8	--
White oak	55.5	30.8	20.4	4.3	--
Oak-gum-cypress	3.2	1.2	2.0	--	--
Elm-ash-cottonwood	10.8	5.6	3.5	1.7	--
Cottonwood	.2	.2	--	--	--
Maple-beech ^{1/}	9.8	3.5	3.6	2.7	--
Nonstocked ^{1/}	6.4	--	--	--	6.4
All forest types	170.2	60.2	64.5	39.1	6.4
PEMISCOT COUNTY					
White oak	.3	--	.3	--	--
Oak-gum-cypress	2.4	1.8	.5	.1	--
Elm-ash-cottonwood	7.4	4.7	2.5	.2	--
Cottonwood	.4	.4	--	--	--
Maple-beech ^{1/}	.7	--	.7	--	--
Nonstocked ^{1/}	.6	--	--	--	.6
All forest types	11.8	6.9	4.0	.3	.6

^{1/} See glossary for stand-size classes (page 3).

(Table 3 cont. on next page)

(Table 3 cont.)

PERRY COUNTY

Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Non-stocked areas
Eastern redcedar	2.7	.3	1.0	1.4	--
Eastern redcedar-hardwood	5.7	1.0	.4	4.3	--
Shortleaf pine-oak	.5	--	.5	--	--
Post-blackjack oak	13.4	2.8	8.1	2.5	--
Black-scarlet oak	24.2	9.5	7.8	6.9	--
White oak	38.7	23.7	13.3	1.7	--
Oak-gum-cypress	1.3	.6	.7	--	--
Elm-ash-cottonwood	7.6	3.6	2.6	1.4	--
Cottonwood	.2	.2	--	--	--
Maple-beech	6.5	2.0	2.5	2.0	--
Nonstocked ^{1/}	2.6	--	--	--	2.6
All forest types	103.4	43.7	36.9	20.2	2.6
ST. CHARLES COUNTY					
Eastern redcedar	1.9	.2	.7	1.0	--
Eastern redcedar-hardwood	6.2	1.0	.2	5.0	--
Post-blackjack oak	7.7	2.3	4.0	1.4	--
Black-scarlet oak	17.0	6.6	6.0	4.4	--
White oak	30.0	19.3	9.6	1.1	--
Oak-gum-cypress	1.1	.3	.8	--	--
Elm-ash-cottonwood	14.7	9.2	4.0	1.5	--
Cottonwood	.6	.6	--	--	--
Maple-beech	7.3	3.4	2.1	1.8	--
Nonstocked ^{1/}	3.1	--	--	--	3.1
All forest types	89.6	42.9	27.4	16.2	3.1
ST. LOUIS COUNTY					
Eastern redcedar	2.4	.2	.9	1.3	--
Eastern redcedar-hardwood	5.6	.8	.5	4.3	--
Post-blackjack oak	6.3	1.6	3.5	1.2	--
Black-scarlet oak	14.6	5.2	4.3	5.1	--
White oak	20.1	12.4	6.4	1.3	--
Oak-gum-cypress	1.0	.4	.6	--	--
Elm-ash-cottonwood	7.3	4.3	2.2	.8	--
Cottonwood	.2	.2	--	--	--
Maple-beech	5.8	1.9	1.8	2.1	--
Nonstocked ^{1/}	2.8	--	--	--	2.8
All forest types	66.1	27.0	20.2	16.1	2.8
STE. GENEVIEVE COUNTY					
Eastern redcedar	3.8	.3	1.6	1.9	--
Eastern redcedar-hardwood	7.1	.8	1.2	5.1	--
Shortleaf pine-oak	3.2	.5	2.7	--	--
Post-blackjack oak	24.5	3.3	16.1	5.1	--
Black-scarlet oak	37.4	12.6	12.7	12.1	--
White oak	53.7	30.2	20.4	3.1	--
Oak-gum-cypress	2.8	1.2	1.6	--	--
Elm-ash-cottonwood	6.7	2.7	2.6	1.4	--
Maple-beech	8.7	2.6	3.4	2.7	--
Nonstocked ^{1/}	3.9	--	--	--	3.9
All forest types	151.8	54.2	62.3	31.4	3.9

^{1/} See glossary for stand-size classes (page 3). (Table 3 cont. on next page)

(Table 3 cont.)

SCOTT COUNTY

Forest type	All stands	Sawtimber stands	Poletimber stands	Sapling and seedling stands	Nonstocked areas
Post-blackjack oak	.5	.5	--	--	--
Black-scarlet oak	6.5	4.6	1.1	.8	--
White oak	4.7	2.1	1.6	1.0	--
Oak-gum-cypress	1.7	1.2	.5	--	--
Elm-ash-cottonwood	2.5	1.4	.9	.2	--
Cottonwood	.1	.1	--	--	--
Maple-beech <u>1/</u>	1.7	1.4	.3	--	--
Non-stocked <u>1/</u>	.3	--	--	--	.3
All forest types	18.0	11.3	4.4	2.0	.3
STODDARD COUNTY					
Post-blackjack oak	1.4	1.4	--	--	--
Black-scarlet oak	13.6	8.1	3.2	2.3	--
White oak	8.2	3.1	3.1	2.0	--
Oak-gum-cypress	9.0	5.8	1.5	1.7	--
Elm-ash-cottonwood	9.3	6.7	1.8	.8	--
Cottonwood	.2	.2	--	--	--
Maple-beech <u>1/</u>	3.6	2.6	.3	.7	--
Nonstocked <u>1/</u>	.8	--	--	--	.8
All forest types	46.1	27.9	9.9	7.5	.8
WARREN COUNTY					
Eastern redcedar	2.8	.3	1.6	.9	--
Eastern redcedar-hardwood	6.5	1.0	.8	4.7	--
Post-blackjack oak	16.4	3.0	10.2	3.2	--
Black-scarlet oak	27.1	10.2	9.6	7.3	--
White oak	44.6	26.5	16.3	1.8	--
Oak-gum-cypress	1.9	.7	1.2	--	--
Elm-ash-cottonwood	10.6	5.7	3.5	1.4	--
Cottonwood	.2	.2	--	--	--
Maple-beech <u>1/</u>	7.1	2.9	2.6	1.6	--
Nonstocked <u>1/</u>	6.3	--	--	--	6.3
All forest types	123.5	50.5	45.8	20.9	6.3

1/ See glossary for stand-size classes (page 3).

Table 4.--Area of commercial forest land, by county and ownership class, Riverborder, Missouri, 1972
(Thousand acres)

COUNTY	ALL OWNERSHIPS	NATIONAL FOREST	OTHER FEDERAL	STATE, COUNTY, AND MUNICIPAL	FOREST INDUSTRY	FARMER AND MISCELLANEOUS PRIVATE
BOONE	109.6	--	0.7	1.7	--	107.2
CALLAWAY	175.5	--	3.4	.2	--	171.9
CAPE GIRARDEAU	87.4	--	--	.1	--	87.3
COLE	77.9	--	--	.1	--	77.8
DUNKLIN	20.1	--	--	2.9	2.5	14.7
FRANKLIN	234.5	--	--	.2	--	234.3
GASCONADE	154.3	--	--	--	--	154.3
HOWARD	62.5	--	--	1.3	--	61.2
JEFFERSON	216.5	--	--	--	--	216.5
MISSISSIPPI	12.9	--	--	--	2.0	10.9
MONITEAU	59.6	--	--	--	--	59.6
MONTGOMERY	102.1	--	--	1.2	.1	100.8
NEW MADRID	15.5	--	--	--	6.0	9.5
OSAGE	170.2	--	--	--	--	170.2
PEMISCOT	11.8	--	--	2.0	2.5	7.3
PERRY	103.4	--	--	--	--	103.4
ST. CHARLES	89.6	--	1.0	3.8	--	84.8
ST. LOUIS	66.1	--	--	3.2	--	62.9
STE. GENEVIEVE	151.8	9.2	--	--	--	142.6
SCOTT	18.0	--	--	--	--	18.0
STODDARD	46.1	--	8.0	1.8	--	36.3
WARREN	123.5	--	--	4.1	1.3	118.1
ALL COUNTIES	2,108.9	9.2	13.1	22.6	14.4	2,049.6

Table 5.--Area of commercial forest land, by stand-volume and ownership class, Riverborder, Missouri, 1972
(Thousand acres)

STAND VOLUME PER ACRE ^{1/} (BOARD FEET)	ALL OWNERSHIPS	NATIONAL FOREST	OTHER FEDERAL	STATE, COUNTY, AND MUNICIPAL	FOREST INDUSTRY	FARMER AND MISCELLANEOUS PRIVATE
LESS THAN 1,500	1,007.4	6.1	9.4	9.3	7.2	975.4
1,500 TO 5,000	922.8	3.1	3.3	9.6	7.1	899.7
MORE THAN 5,000	178.7	--	.4	3.7	.1	174.5
ALL CLASSES	2,108.9	9.2	13.1	22.6	14.4	2,049.6

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 6.--Area of commercial forest land, by area-condition and ownership class, Riverborder, Missouri, 1972
(Thousand acres)

AREA-CONDITION CLASS ^{1/}	ALL OWNERSHIPS	NATIONAL FOREST	OTHER FEDERAL	STATE, COUNTY, AND MUNICIPAL	FOREST INDUSTRY	FARMER AND MISCELLANEOUS PRIVATE
40	4.8	--	--	--	--	4.8
50	70.5	--	1.1	3.2	--	66.2
60	847.7	5.4	5.8	12.0	5.8	817.8
70	1,185.9	3.8	6.2	6.5	8.6	1,160.8
ALL CLASSES	2,108.9	9.2	13.1	22.6	14.4	2,049.6

^{1/} See glossary for area-condition classes (page 2).

Table 7.--Area of commercial forest land, by site and ownership class, Riverborder, Missouri, 1972
(Thousand acres)

SITE CLASS (CUBIC FEET OF GROWTH PER ACRE PER YEAR)	ALL OWNERSHIPS	NATIONAL FOREST	OTHER FEDERAL	STATE, COUNTY, AND MUNICIPAL	FOREST INDUSTRY	FARMER AND MISCELLANEOUS PRIVATE
165 OR MORE	3.1	--	--	--	--	3.1
120-164	24.9	--	--	--	2.6	22.3
85-119	106.4	--	5.9	3.5	8.0	89.0
50-84	318.4	1.9	2.1	6.6	2.6	305.2
LESS THAN 50	1,656.1	7.3	5.1	12.5	1.2	1,630.0
ALL CLASSES	2,108.9	9.2	13.1	22.6	14.4	2,049.6

Table 8.--Area of commercial forest land, by forest type and ownership class, Riverborder, Missouri, 1972
(Thousand acres)

FOREST TYPE	OWNERSHIPS			NATIONAL FOREST 1/		OTHER FEDERAL		STATE AND MUNICIPAL		FOREST INDUSTRY		FARMER AND MISCELLANEOUS PRIVATE	
	ALL	20-	30-	40-	50-	60-	70-	80-	90-	100-	120-	139-	140+
EASTERN REDCEDAR	59.3	--	--	--	--	--	--	--	--	--	--	--	59.3
EASTERN REDCEDAR-HARDWOOD	115.4	--	--	--	--	--	--	--	--	--	--	--	115.4
SHORTLEAF PINE-OAK	4.3	2.1	--	--	--	--	--	--	--	--	--	--	2.2
POST-BLACKJACK OAK	281.5	.1	--	--	--	--	--	--	--	--	--	--	281.4
BLACK-SCARLET OAK	485.9	--	--	--	6.2	3.9	.6	479.1	689.9	42.7	173.0	133.4	70.2
WHITE OAK	701.2	6.6	--	--	8.0	5.9	11.2	1.8	3.0	133.4	70.2	2.3	2,049.6
OAK-GUM-CYPRESS	56.6	--	--	--	4.3	--	--	--	--	--	--	--	--
ELM-ASH-COTTONWOOD	194.0	.4	5.1	--	--	--	--	--	--	--	--	--	--
COTTONWOOD	4.8	--	--	--	--	--	--	--	--	--	--	--	--
MAPLE-BEECH	133.4	--	--	--	--	--	--	--	--	--	--	--	--
NONSTOCKED 2/	72.5	--	--	--	2.3	--	--	--	--	--	--	--	--
ALL FOREST TYPES	2,108.9	9.2	13.1	22.6	14.4	2,049.6							

1/ ESTIMATES OF AREA OF SOME FOREST TYPES FOR NATIONAL FOREST OWNER DIFFER FROM THOSE SHOWN IN CURRENT TIMBER MANAGEMENT PLANS FOR THE NATIONAL FORESTS IN MISSOURI.
2/ SEE GLOSSARY FOR STAND-SIZE CLASSES (PAGE 3).

Table 9.--Area of commercial forest land, by forest type and stand-age class, Riverborder, Missouri, 1972
(Thousand acres)

FOREST TYPE	ALL	STAND AGE CLASS (YEARS)													
		0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	120-139	140+	
EASTERN REDCEDAR	59.3	11.6	20.7	--	--	3.4	14.0	3.4	6.2	--	--	--	--	--	
E. REDCEDAR-HARDWOOD	115.4	39.3	38.7	8.7	--	4.3	14.0	--	--	2.6	7.8	--	--	--	
SHORTLEAF PINE OAK	4.3	--	--	--	3.2	--	--	--	--	1.1	--	--	--	--	
POST-BLACKJACK OAK	281.5	5.3	37.1	10.7	21.3	21.1	44.2	21.1	40.1	34.0	16.0	15.9	14.7	--	
BLACK-SCARLET OAK	485.9	54.3	70.9	35.1	60.6	62.6	50.1	32.9	23.2	29.2	15.5	28.6	20.9	--	
WHITE OAK	701.2	13.8	22.8	11.3	26.7	59.8	66.3	75.5	91.5	87.9	98.4	117.5	29.7	--	
OAK-GUM-CYPRESS	56.6	3.0	.9	18.1	8.9	--	6.7	6.7	--	--	3.9	7.0	1.4	--	
ELM-ASH-COTTONWOOD	194.0	20.8	5.8	46.4	37.8	17.4	17.9	21.4	4.2	8.4	6.1	3.7	2.1	--	
COTTONWOOD	4.8	--	--	3.0	1.8	--	--	--	--	--	--	--	--	--	
MAPLE-BEECH	133.4	33.1	6.5	5.7	19.2	13.2	6.3	5.1	14.3	9.6	11.1	4.7	4.6	--	
NONSTOCKED 2/	72.5	26.4	12.1	10.7	--	1.8	11.0	--	4.5	6.0	--	--	--	--	
ALL FOREST TYPES	2108.9	209.6	215.5	149.7	174.5	185.2	205.9	190.7	181.2	181.3	156.7	185.2	73.4	--	

1/ See glossary for stand-size classes (page 3).

Table 10.--Area of commercial forest land, by forest type and site-index class, Riverborder, Missouri, 1972 (Thousand acres)

FOREST TYPE	SITE-INDEX CLASS (HEIGHT IN FEET AT 50 YEARS)													
	0- : 9	10- : 19	20- : 29	30- : 39	40- : 49	50- : 59	60- : 69	70- : 79	80- : 89	90+ :				
ALL	59.3	--	9.0	38.0	12.3	--	--	--	--	--	--	--	--	--
CLASSES	115.4	--	5.8	47.0	29.6	12.7	14.5	5.8	--	--	--	--	--	--
E. REDCEDAR-HARDWD	4.3	--	--	--	3.2	--	1.1	--	--	--	--	--	--	--
SHORTLEAF PINE OAK	281.5	--	41.8	105.6	70.7	55.7	5.4	2.3	--	--	--	--	--	--
POST-BLACKJACK OAK	485.9	--	--	34.3	89.3	178.8	117.4	41.4	21.8	8.0	2.9	--	--	--
BLACK-SCARLET OAK	701.2	--	--	221.7	209.2	170.4	45.7	46.2	13.1	12.0	--	--	--	--
WHITE OAK	56.6	--	--	--	6.2	5.1	11.1	9.1	13.1	54.1	--	--	--	--
OAK-GUM-CYPRESS	194.0	--	--	8.6	8.0	17.0	37.5	26.6	42.2	4.8	--	--	--	--
ELM-ASH-COTTONWOOD	4.8	--	--	--	--	--	--	--	--	--	--	--	--	--
COTTONWOOD	133.4	--	--	4.7	21.6	39.3	27.5	30.5	9.8	--	--	--	--	--
MAPLE-BEECH	72.5	--	16.4	21.4	--	14.8	5.7	10.0	4.2	--	--	--	--	--
NONSTOCKED	2108.9	--	73.0	481.3	450.1	493.8	265.9	171.9	99.1	73.8	--	--	--	--
ALL FOREST TYPES														

∫ See glossary for stand-size classes (page 3).

Table 11.--Area of commercial forest land, by forest type and basal-area class, Riverborder, Missouri, 1972. (Thousand acres)

FOREST TYPE	BASAL-AREA CLASS (SQUARE FEET PER ACRE)													
	0- : 19	20- : 39	40- : 59	60- : 79	80- : 99	100- : 119	120- : 139	140- : 159	160- : 179	180+ :				
ALL	59.3	6.0	4.7	28.0	20.6	--	--	--	--	--	--	--	--	--
CLASSES	115.4	25.3	27.2	39.3	12.5	11.1	--	--	--	--	--	--	--	--
E. REDCEDAR-HARDWD	4.3	--	--	--	4.3	--	--	--	--	--	--	--	--	--
SHORTLEAF PINE OAK	281.5	5.4	--	68.1	112.5	49.6	45.9	--	--	--	--	--	--	--
POST-BLACKJACK OAK	485.9	23.4	20.4	149.4	146.8	110.4	35.5	--	--	--	--	--	--	--
BLACK-SCARLET OAK	701.2	6.2	13.8	87.5	251.6	230.4	107.4	4.3	--	--	--	--	--	--
WHITE OAK	56.6	--	1.9	14.8	20.2	2.9	8.5	4.8	--	--	--	--	--	--
OAK-GUM-CYPRESS	194.0	9.6	22.8	42.9	46.2	43.2	14.7	10.9	3.7	--	--	--	--	--
ELM-ASH-COTTONWOOD	4.8	--	--	--	--	1.8	3.0	--	--	--	--	--	--	--
COTTONWOOD	133.4	26.6	13.3	36.0	35.2	15.6	6.7	--	--	--	--	--	--	--
MAPLE-BEECH	72.5	29.1	27.6	6.0	4.5	5.3	--	--	--	--	--	--	--	--
NONSTOCKED	2108.9	131.6	131.7	472.0	654.4	470.3	221.7	20.0	7.2	--	--	--	--	--
ALL FOREST TYPES														

∫ See glossary for stand-size classes (page 3).

Table 12.--Area of commercial forest land, by forest type, stand-size, and site class, Riverborder, Missouri, 1972
(Thousand acres)

FOREST TYPE AND STAND-SIZE CLASS	: ALL SITE : 165 CU. FT. : 120 TO 165 : 85 TO 120 : 50 TO 85 : LESS THAN	: CLASSES : OR MORE	: CU. FT. :	: CU. FT. :	: CU. FT. :	: 50 CU. FT.
EASTERN REDCEDAR						
SAWTIMBER	4.5	--	--	--	--	4.5
POLETIMBER	22.5	--	--	--	--	22.5
SAPLING AND SEEDLING	32.3	--	--	--	--	32.3
ALL STANDS	59.3	--	--	--	--	59.3
EASTERN REDCEDAR-HARDWOOD						
SAWTIMBER	16.0	--	--	--	--	16.0
POLETIMBER	12.7	--	--	--	--	12.7
SAPLING AND SEEDLING	86.7	--	--	--	5.7	81.0
ALL STANDS	115.4	--	--	--	5.7	109.7
SHORTLEAF PINE-OAK						
SAWTIMBER	1.1	--	--	--	1.1	--
POLETIMBER	3.2	--	--	--	--	3.2
SAPLING AND SEEDLING	--	--	--	--	--	--
ALL STANDS	4.3	--	--	--	1.1	3.2
POST-BLACKJACK OAK						
SAWTIMBER	48.2	--	--	--	2.3	45.9
POLETIMBER	175.0	--	--	--	--	175.0
SAPLING AND SEEDLING	58.3	--	--	--	5.4	52.9
ALL STANDS	281.5	--	--	--	7.7	273.8
BLACK-SCARLET OAK						
SAWTIMBER	181.6	--	--	--	62.8	118.8
POLETIMBER	159.6	--	--	10.0	25.2	124.4
SAPLING AND SEEDLING	144.7	--	--	13.4	5.5	125.8
ALL STANDS	485.9	--	--	23.4	93.5	369.0
WHITE OAK						
SAWTIMBER	407.8	--	--	--	43.0	364.8
POLETIMBER	250.8	--	--	--	20.6	230.2
SAPLING AND SEEDLING	42.6	--	--	--	13.5	29.1
ALL STANDS	701.2	--	--	--	77.1	624.1
OAK-GUM-CYPRESS						
SAWTIMBER	27.1	--	--	18.7	3.9	4.5
POLETIMBER	25.6	--	--	5.0	8.9	11.7
SAPLING AND SEEDLING	3.9	--	--	1.1	2.8	--
ALL STANDS	56.6	--	--	24.8	15.6	16.2
ELM-ASH-COTTONWOOD						
SAWTIMBER	105.9	3.1	23.1	30.6	31.4	17.7
POLETIMBER	61.5	--	--	11.0	15.6	34.9
SAPLING AND SEEDLING	26.6	--	--	7.9	7.1	11.6
ALL STANDS	194.0	3.1	23.1	49.5	54.1	64.2
COTTONWOOD						
SAWTIMBER	4.8	--	1.8	3.0	--	--
POLETIMBER	--	--	--	--	--	--
SAPLING AND SEEDLING	--	--	--	--	--	--
ALL STANDS	4.8	--	1.8	3.0	--	--
MAPLE-BEECH						
SAWTIMBER	41.7	--	--	--	23.2	18.5
POLETIMBER	48.1	--	--	--	23.1	25.0
SAPLING AND SEEDLING	43.6	--	--	.7	9.8	33.1
ALL STANDS	133.4	--	--	.7	56.1	76.6
NONSTOCKED ^{1/}	72.5	--	--	5.0	7.5	60.0
TOTAL ALL TYPES	2,108.9	3.1	24.9	106.4	318.4	1,656.1

^{1/} See glossary for stand-size classes (page 3).

Table 13.--Area of commercial forest land, by stocking class based on selected stand components, Riverborder, Missouri, 1972
(Thousand acres)

STOCKING PERCENTAGE	STOCKING CLASSIFIED IN TERMS OF					
	ALL TREES	GROWING-STOCK TREES			ROUGH AND ROTTEN TREES	INHIBITING VEGETATION
	TOTAL	DESIRABLE	ACCEPTABLE			
140+	3.3	--	--	--	--	--
130-139	49.0	--	--	--	--	--
120-129	152.8	9.2	--	--	--	--
110-119	282.6	9.6	--	3.6	--	--
100-109	468.6	45.0	--	20.2	--	--
90-99	433.1	107.4	--	42.6	6.5	--
80-89	345.9	127.4	--	133.8	22.5	--
70-79	201.9	278.5	--	247.5	58.4	--
60-69	92.9	303.4	4.8	298.2	191.2	--
50-59	43.8	371.8	--	386.0	297.2	--
40-49	22.3	404.0	1.9	443.4	430.3	1.6
30-39	2.0	214.4	9.6	259.1	475.9	.9
20-29	10.7	141.3	68.9	161.4	334.6	2.0
10-19	--	71.1	106.8	87.3	232.7	--
0-9	--	25.8	1,916.9	25.8	59.6	2,104.4
TOTAL	2,108.9	2,108.9	2,108.9	2,108.9	2,108.9	2,108.9

Table 14.--Area of commercial forest land, by stocking class of growing-stock trees and stand-size class, Riverborder, Missouri, 1972.

(Thousand acres)

STOCKING PERCENTAGE	ALL STANDS	SAWTIMBER STANDS	POLETIMBER STANDS	SAPLING AND SEEDLING STANDS	NONSTOCKED AREAS ^{1/}
101 to 133	63.8	45.6	17.3	0.9	--
61 to 100	816.7	383.8	307.2	125.7	--
17 to 60	1,155.9	413.3	433.8	308.8	--
Less than 17	72.5	--	--	--	72.5
ALL CLASSES	2,108.9	842.7	758.3	435.4	72.5

^{1/} See glossary for stand-size classes (page 3).

Table 15.--Area of noncommercial forest land, by ownership class, Riverborder, Missouri, 1972
(Thousand acres)

OWNERSHIP CLASS	ALL AREAS	PRODUCTIVE RESERVED AREAS	UNPRODUCTIVE AREAS
NATIONAL FOREST	0.7	--	0.7
OTHER PUBLIC	16.1	16.1	--
FARMER AND MISCELLANEOUS PRIVATE	31.7	--	31.7
ALL OWNERSHIPS	48.5	16.1	32.4

Table 16.--Area of noncommercial forest land, by forest type, River-
border, Missouri, 1972
(Thousand acres)

FOREST TYPE	: ALL : : AREAS :	: PRODUCTIVE : : RESERVED : : AREAS :	: UNPRODUCTIVE : : AREAS :
SHORTLEAF PINE-OAK	0.1	0.1	--
POST-BLACKJACK OAK	35.2	2.8	32.4
BLACK-SCARLET OAK	4.9	4.9	--
WHITE OAK	7.2	7.2	--
OAK-GUM-CYPRESS	.1	.1	--
ELM-ASH-COTTONWOOD	.9	.9	--
MAPLE-BEECH	.1	.1	--
ALL FOREST TYPES	48.5	16.1	32.4

Table 17.--Number of all live trees on commercial forest land, by species and diameter class, Riverborder, Missouri, 1972
(Thousand trees)

SPECIES	DIAMETER CLASS (INCHES AT BREST HEIGHT)																
	ALL																
	1.0- 2.9	3.0- 4.9	5.0- 6.9	7.0- 8.9	9.0- 10.9	11.0- 12.9	13.0- 14.9	15.0- 16.9	17.0- 18.9	19.0- 20.9	21.0- 22.9	23.0- 24.9	25.0- 26.9	27.0- 28.9	28.0- 29.9	29.0- 30.9	31.0- 32.9
SOFTWOODS:																	
SHORTLEAF PINE	1808	463	989	238	81	--	28	9	--	--	--	--	--	--	--	--	--
CYPRESS	255	--	--	--	17	35	15	47	32	44	17	20	16	7	5	--	--
EASTERN REDCEDAR	60308	32618	15130	6866	3677	1439	453	83	42	--	--	--	--	--	--	--	--
TOTAL SOFTWOODS	62371	33081	16119	7104	3775	1474	496	139	74	44	17	20	16	7	5	--	--
HARDWOODS:																	
SELECT WHITE OAKS	140196	47846	27231	19126	15949	11949	8499	5115	2459	904	522	257	288	49	2	--	--
OTHER WHITE OAKS	98000	31796	25840	17851	11031	6103	2919	1416	541	287	120	38	58	--	--	--	--
SELECT RED OAKS	18192	5957	2171	1908	2018	1960	1249	1024	732	562	298	141	146	26	--	--	--
RED OAKS	74275	33681	13339	9159	6777	5005	2461	1716	863	555	332	178	178	28	3	--	--
OTHER RED OAKS	28881	14158	8117	3280	1584	915	369	227	36	100	61	14	19	1	--	--	--
HICKORY A	76082	48203	10967	8613	3959	2016	1177	596	336	130	47	27	6	5	--	--	--
HICKORY B	80402	50005	17549	6573	3503	1662	687	226	106	42	19	15	14	1	--	--	--
HARD MAPLE	48153	33962	6693	3195	2335	1135	441	209	67	67	19	19	11	--	--	--	--
SOFT MAPLE	8421	5997	1094	228	348	281	203	96	57	42	18	9	36	12	--	--	--
HEECH	255	--	193	--	--	11	19	7	10	3	3	6	2	1	--	--	--
SWEETGUM	835	163	192	131	46	86	97	37	48	29	--	--	4	2	--	--	--
TUPELO+BLACKGUM	5935	2273	1897	653	334	319	248	62	97	32	2	10	8	--	--	--	--
ASH	51244	28570	11613	4283	3245	1717	1111	321	196	76	22	34	46	10	--	--	--
SYCAMORE	5814	2768	1150	500	319	269	216	228	119	86	56	53	44	6	--	--	--
COTTONWOOD	3889	2321	176	293	354	162	156	145	84	81	40	17	35	23	2	--	--
RIVER BIRCH	1147	250	375	424	16	--	36	--	13	19	8	--	--	6	--	--	--
YELLOW-POPLAR	122	--	494	60	19	10	22	4	--	--	3	--	--	4	--	--	--
BASSWOOD	536	--	--	--	--	--	24	--	13	--	--	--	5	--	--	--	--
BLACK WALNUT	9648	2681	2361	1421	1327	782	406	386	198	58	28	--	--	--	--	--	--
BLACK CHERRY	4634	1931	2012	286	144	100	67	70	24	--	--	--	--	--	--	--	--
ELM	91781	65213	15435	5978	2783	1191	605	146	171	114	50	29	37	21	8	--	--
OTHER HARDWOODS	161181	119057	26282	7175	3738	2154	1241	766	435	153	76	49	54	1	--	--	--
NONCOMMERCIAL SPP.	56446	50954	4933	393	166	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL HARDWOODS	966069	547786	180114	91530	59995	37827	22253	12797	6605	3340	1724	896	991	196	15	--	--
ALL SPECIES	1028440	580867	196233	98634	63770	39301	22749	12936	6679	3384	1741	916	1007	203	20	--	--

Table 20.--Net volume of growing stock and sawtimber on commercial forest land, by species, Riverborder, Missouri, 1959 and 1972

SPECIES	GROWING STOCK		SAWTIMBER	
	1959 ^{1/}	1972	1959 ^{1/}	1972
	MILLION CUBIC FEET		MILLION BOARD FEET ^{2/}	
SOFTWOODS:				
SHORTLEAF PINE	--	1.3	--	1.6
CYPRESS	13.2	7.4	61.4	34.4
EASTERN REDCEDAR	14.3	31.0	11.1	58.2
TOTAL SOFTWOODS	27.5	39.7	72.5	94.2
HARDWOODS:				
SELECT WHITE OAKS	536.8	461.2	1,436.7	1,362.6
OTHER WHITE OAKS	109.8	139.9	143.3	217.6
SELECT RED OAKS	123.9	94.5	527.4	366.6
RED OAKS	143.3	163.3	411.2	436.5
OTHER RED OAKS	27.0	15.3	108.4	41.3
HICKORY A	67.4	77.1	169.1	192.4
HICKORY B	41.1	50.1	63.1	87.6
HARD MAPLE	25.3	23.1	31.7	23.8
SOFT MAPLE	12.1	11.1	25.9	38.0
BEECH	.4	.3	1.6	1.3
SWEETGUM	6.8	4.5	25.6	19.1
TUPELO AND BLACKGUM	7.4	8.7	21.9	24.4
ASH	52.2	45.1	86.2	88.7
SYCAMORE	19.7	34.1	90.3	134.4
COTTONWOOD	10.7	33.6	52.7	159.7
RIVER BIRCH	.5	2.5	1.0	9.8
YELLOW-POPLAR	.2	1.6	.6	4.6
BASSWOOD	.1	.7	--	3.5
BLACK WALNUT	16.8	21.8	44.8	51.7
BLACK CHERRY	1.0	2.6	2.3	8.8
ELM	35.5	26.5	71.3	42.0
OTHER HARDWOODS	73.5	76.5	171.6	232.5
TOTAL HARDWOODS	1,311.5	1,294.1	3,486.7	3,546.9
ALL SPECIES	1,339.0	1,333.8	3,559.2	3,641.1

^{1/} FIGURES HAVE BEEN ADJUSTED FROM THOSE PUBLISHED PREVIOUSLY FOR 1959 TO CONFORM TO 1972 VOLUMES BECAUSE OF CHANGES IN SURVEY DEFINITIONS AND PROCEDURES.

^{2/} INTERNATIONAL 1/4-INCH RULE.

Table 21.--Net volume on commercial forest land for Missouri's River-border Survey Unit and for individual counties within Unit, by species and kind of material, 1972

ALL COUNTIES							
Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Pole timber	Saw timber	Total	In saw timber	Other	
	: trees	: trees	: trees	: stands	: stands	: stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	16.5	9.9	6.6	1.6	0.6	1.0	--
Cypress	94.3	1.0	93.3	34.4	31.7	2.7	39.7
Eastern redcedar	392.7	248.3	144.4	58.2	21.6	36.6	164.4
Total softwoods	503.5	259.2	244.3	94.2	53.9	40.3	204.1
Hardwoods:							
Select white oaks	5,839.5	2,170.4	3,669.1	1,362.6	1,052.2	310.4	1,492.2
Other white oaks	1,771.1	1,204.1	567.0	217.6	108.2	109.4	759.1
Select red oaks	1,197.4	271.4	926.0	366.6	299.5	67.1	370.1
Red oaks	2,067.1	935.0	1,132.1	436.5	295.3	141.2	583.5
Other red oaks	193.1	101.8	91.3	41.3	22.6	18.7	205.4
Hickory A	975.7	485.4	490.3	192.4	151.6	40.8	277.1
Hickory B	633.1	400.0	233.1	87.6	65.3	22.3	168.3
Hard maple	290.6	207.3	83.3	23.8	11.2	12.6	204.0
Soft maple	141.1	38.4	102.7	38.0	38.0	--	74.8
Beech	3.7	--	3.7	1.3	1.3	--	13.6
Sweetgum	57.4	13.5	43.9	19.1	15.3	3.8	21.6
Tupelo and blackgum	112.4	54.4	58.0	24.4	21.5	2.9	57.3
Ash	571.1	303.9	267.2	88.7	73.6	15.1	274.3
Sycamore	430.4	68.8	361.6	134.4	117.9	16.5	33.0
Cottonwood	426.3	50.4	375.9	159.7	152.8	6.9	32.9
River birch	31.9	9.5	22.4	9.8	9.8	--	11.9
Yellow-poplar	20.1	4.0	16.1	4.6	2.8	1.8	1.3
Basswood	8.5	--	8.5	3.5	3.5	--	1.3
Black walnut	275.7	119.6	156.1	51.7	37.8	13.9	128.0
Black cherry	32.2	6.6	25.6	8.8	5.7	3.1	25.8
Elm	334.1	202.0	132.1	42.0	35.0	7.0	353.3
Other hardwoods	967.9	354.0	613.9	232.5	184.5	48.0	383.2
Noncommercial species	--	--	--	--	--	--	10.4
Total hardwoods	16,380.4	7,000.5	9,379.9	3,546.9	2,705.4	841.5	5,482.4
All species	16,883.9	7,259.7	9,624.2	3,641.1	2,759.3	881.8	5,686.5
BOONE COUNTY							
Softwoods:							
Shortleaf pine	.3	--	.3	.1	--	.1	--
Eastern redcedar	20.7	13.3	7.4	2.9	1.0	1.9	8.7
Total softwoods	21.0	13.3	7.7	3.0	1.0	2.0	8.7
Hardwoods:							
Select white oaks	276.9	105.1	171.8	64.0	47.6	16.4	75.7
Other white oaks	94.1	65.5	28.6	10.9	5.0	5.9	41.7
Select red oaks	56.8	13.2	43.6	17.1	13.6	3.5	18.5
Red oaks	98.5	47.9	50.6	19.3	12.2	7.1	30.7
Other red oaks	9.5	5.4	4.1	1.8	.8	1.0	10.8
Hickory A	45.2	23.8	21.4	8.2	6.2	2.0	14.2
Hickory B	29.5	19.3	10.2	3.8	2.8	1.0	9.3
Hard maple	14.6	10.3	4.3	1.2	.5	.7	10.8
Soft maple	2.3	.5	1.8	.7	.7	--	2.3
Sweetgum	1.6	--	1.6	.7	.6	.1	.2
Tupelo and blackgum	2.6	1.3	1.3	.5	.5	--	.5
Ash	26.9	14.8	12.1	4.0	3.3	.7	14.1
Sycamore	23.0	3.8	19.2	7.1	6.2	.9	2.0
Cottonwood	20.8	3.3	17.5	7.7	7.5	.2	2.0
River birch	1.2	.4	.8	.4	.4	--	.8
Yellow-poplar	.4	--	.4	.1	.1	--	--
Basswood	.5	--	.5	.2	.2	--	.1
Black walnut	15.1	6.4	8.7	2.9	2.1	.8	6.9
Black cherry	1.7	.3	1.4	.5	.3	.2	1.4
Elm	16.2	9.7	6.5	1.9	1.7	.2	18.7
Other hardwoods	35.0	13.8	21.2	8.5	6.4	2.1	17.9
Noncommercial species	--	--	--	--	--	--	.5
Total hardwoods	772.4	344.8	427.6	161.5	118.7	42.8	279.1
All species	793.4	358.1	435.3	164.5	119.7	44.8	287.8

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

CALLAWAY COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Pole timber	Saw timber	Total	In saw timber	Other stands	
	Thousand cords	Thousand cords	Thousand cords	Million board feet ^{1/}	Million board feet ^{1/}	Million board feet ^{1/}	Thousand cords
Softwoods:							
Shortleaf pine	.3	--	.3	.1	--	.1	--
Eastern redcedar	30.6	19.9	10.7	4.3	1.6	2.7	12.5
Total softwoods	30.9	19.9	11.0	4.4	1.6	2.8	12.5
Hardwoods:							
Select white oaks	469.6	180.9	288.7	107.6	79.1	28.5	126.1
Other white oaks	162.6	114.5	48.1	18.4	8.0	10.4	69.9
Select red oaks	96.1	22.9	73.2	28.9	22.9	6.0	30.5
Red oaks	167.0	81.2	85.8	32.7	20.8	11.9	51.1
Other red oaks	16.3	9.3	7.0	3.2	1.4	1.8	18.0
Hickory A	76.2	40.4	35.8	13.7	10.3	3.4	23.7
Hickory B	49.9	33.3	16.6	6.2	4.5	1.7	14.5
Hard maple	24.0	17.1	6.9	2.0	.9	1.1	17.6
Soft maple	3.5	.8	2.7	1.1	1.1	--	3.0
Sweetgum	1.8	--	1.8	.7	.6	.1	.2
Tupelo and blackgum	4.4	2.1	2.3	.9	.9	--	.9
Ash	44.6	24.8	19.8	6.5	5.2	1.3	22.1
Sycamore	34.1	5.5	28.6	10.5	9.2	1.3	3.0
Cottonwood	27.8	3.9	23.9	10.3	10.1	.2	2.2
River birch	1.6	.6	1.0	.4	.4	--	1.2
Yellow-poplar	.7	--	.7	.1	.1	--	--
Basswood	.7	--	.7	.3	.3	--	.1
Black walnut	24.2	10.5	13.7	4.5	3.3	1.2	11.3
Black cherry	2.6	.5	2.1	.7	.4	.3	2.1
Elm	25.4	15.5	9.9	2.9	2.6	.3	28.5
Other hardwoods	42.1	15.8	26.3	10.5	9.0	1.5	26.0
Noncommercial species	--	--	--	--	--	--	.7
Total hardwoods	1,275.2	579.6	695.6	262.1	191.1	71.0	452.7
All species	1,306.1	599.5	706.6	266.5	192.7	73.8	465.2

CAPE GIRARDEAU COUNTY

Softwoods:							
Shortleaf pine	.2	--	.2	.1	--	.1	--
Eastern redcedar	15.5	9.6	5.9	2.4	1.2	1.2	7.1
Total softwoods	15.7	9.6	6.1	2.5	1.2	1.3	7.1
Hardwoods:							
Select white oaks	286.0	100.4	185.6	68.1	55.3	12.8	61.3
Other white oaks	72.2	48.7	23.5	9.0	5.1	3.9	29.6
Select red oaks	51.7	10.9	40.8	15.7	13.0	2.7	15.4
Red oaks	81.7	36.0	45.7	17.3	12.2	5.1	23.6
Other red oaks	7.6	4.0	3.6	1.7	1.0	.7	7.8
Hickory A	40.8	20.3	20.5	7.9	6.4	1.5	11.1
Hickory B	25.8	16.1	9.7	3.6	2.9	.7	6.7
Hard maple	14.5	10.6	3.9	1.1	.5	.6	9.0
Soft maple	1.9	.4	1.5	.6	.6	--	2.0
Sweetgum	1.3	--	1.3	.5	.5	--	.2
Tupelo and blackgum	1.9	.9	1.0	.4	.4	--	.5
Ash	24.5	12.3	12.2	4.0	3.4	.6	11.8
Sycamore	19.3	3.0	16.3	6.0	5.3	.7	1.6
Cottonwood	18.1	3.1	15.0	6.6	6.4	.2	1.7
River birch	1.1	.4	.7	.3	.3	--	.6
Yellow-poplar	.4	--	.4	.1	.1	--	--
Basswood	.4	--	.4	.2	.2	--	--
Black walnut	12.8	5.3	7.5	2.5	2.0	.5	5.6
Black cherry	1.7	.4	1.3	.5	.3	.2	1.1
Elm	13.8	8.5	5.3	1.6	1.4	.2	14.6
Other hardwoods	24.6	8.7	15.9	6.3	5.5	.8	14.5
Noncommercial species	--	--	--	--	--	--	.4
Total hardwoods	702.1	290.0	412.1	154.0	122.8	31.2	219.1
All species	717.8	299.6	418.2	156.5	124.0	32.5	226.2

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

COLE COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	0.1	--	0.1	--	--	--	--
Eastern redcedar	17.1	10.6	6.5	2.6	0.6	2.0	8.3
Total softwoods	17.2	10.6	6.6	2.6	.6	2.0	8.3
Hardwoods:							
Select white oaks	186.7	71.7	115.0	42.7	31.4	11.3	54.2
Other white oaks	69.1	48.2	20.9	7.9	3.2	4.7	31.1
Select red oaks	38.7	9.3	29.4	11.5	9.1	2.4	13.2
Red oaks	68.5	33.7	34.8	13.2	7.9	5.3	21.4
Other red oaks	6.5	3.8	2.7	1.2	.5	.7	7.9
Hickory A	30.6	16.5	14.1	5.4	4.0	1.4	10.4
Hickory B	20.0	13.4	6.6	2.4	1.7	.7	6.7
Hard maple	9.3	6.6	2.7	.8	.3	.5	7.1
Soft maple	1.2	.3	.9	.4	.4	--	1.1
Sweetgum	.8	--	.8	.3	.2	.1	.1
Tupelo and blackgum	1.8	.9	.9	.4	.4	--	.4
Ash	16.3	9.0	7.3	2.4	2.0	.4	9.4
Sycamore	13.0	2.5	10.5	3.9	3.1	.8	1.1
Cottonwood	9.5	1.6	7.9	3.4	3.3	.1	.9
River birch	.5	.2	.3	.2	.2	--	.4
Yellow-poplar	.3	--	.3	.1	.1	--	--
Basswood	.3	--	.3	.1	.1	--	--
Black walnut	9.5	4.3	5.2	1.7	1.2	.5	4.9
Black cherry	1.1	.2	.9	.3	.2	.1	.9
Elm	9.8	6.1	3.7	1.1	1.0	.1	11.8
Other hardwoods	24.3	11.3	13.0	5.2	2.9	2.3	11.0
Noncommercial species	--	--	--	--	--	--	.3
Total hardwoods	517.8	239.6	278.2	104.6	73.2	31.4	194.3
All species	535.0	250.2	284.8	107.2	73.8	33.4	202.6

DUNKLIN COUNTY

Softwoods:							
Cypress	24.1	0.2	23.9	8.7	8.3	0.4	7.3
Total softwoods	24.1	.2	23.9	8.7	8.3	.4	7.3
Hardwoods:							
Select white oaks	16.1	7.0	9.1	3.5	3.2	.3	8.2
Other white oaks	3.1	1.5	1.6	.7	.4	.3	2.6
Select red oaks	10.1	2.7	7.4	3.7	3.6	.1	4.3
Red oaks	21.5	6.8	14.7	6.3	5.2	1.1	1.8
Other red oaks	3.5	.7	2.8	1.2	.9	.3	1.9
Hickory A	14.3	4.1	10.2	4.6	4.0	.6	2.5
Hickory B	4.4	2.2	2.2	.9	.6	.3	.4
Hard maple	.2	.1	.1	--	--	--	.4
Soft maple	20.1	5.8	14.3	5.1	5.1	--	7.2
Beech	.1	--	.1	--	--	--	.7
Sweetgum	5.8	2.4	3.4	1.7	1.5	.2	5.2
Tupelo and blackgum	11.3	4.2	7.1	3.2	2.8	.4	10.8
Ash	14.9	8.6	6.3	2.2	1.9	.3	4.6
Sycamore	10.1	1.0	9.1	3.9	3.7	.2	.1
Cottonwood	18.5	.3	18.2	7.4	6.4	1.0	.8
River birch	2.3	.8	1.5	.7	.7	--	--
Yellow-poplar	.5	.1	.4	.2	--	.2	--
Black walnut	.7	.2	.5	.2	--	.2	--
Black cherry	--	--	--	--	--	--	.1
Elm	7.1	4.1	3.0	1.2	.8	.4	6.1
Other hardwoods	81.1	25.6	55.5	19.8	16.7	3.1	17.6
Noncommercial species	--	--	--	--	--	--	.2
Total hardwoods	245.7	78.2	167.5	66.5	57.5	9.0	75.5
All species	269.8	78.4	191.4	75.2	65.8	9.4	82.8

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

FRANKLIN COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Pole timber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	4.0	2.1	1.9	.4	.3	.1	--
Eastern redcedar	50.1	31.5	18.6	7.6	3.2	4.4	20.8
Total softwoods	54.1	33.6	20.5	8.0	3.5	4.5	20.8
Hardwoods:							
Select white oaks	761.8	274.9	486.9	179.5	143.0	36.5	176.2
Other white oaks	197.7	131.1	66.6	25.5	14.3	11.2	81.7
Select red oaks	144.8	31.9	112.9	44.0	36.1	7.9	43.9
Red oaks	232.6	101.6	131.0	49.9	35.3	14.6	67.5
Other red oaks	20.5	11.0	9.5	4.4	2.6	1.8	22.2
Hickory A	110.0	54.7	55.3	21.3	17.3	4.0	30.6
Hickory B	71.0	43.9	27.1	10.0	7.9	2.1	19.3
Hard maple	37.7	27.2	10.5	3.0	1.4	1.6	24.8
Soft maple	3.7	.8	2.9	1.1	1.1	--	4.1
Sweetgum	2.6	--	2.6	1.0	.8	.2	.2
Tupelo and blackgum	6.5	2.7	3.8	1.5	1.5	--	1.5
Ash	61.0	30.4	30.6	10.0	8.5	1.5	29.8
Sycamore	42.5	6.7	35.8	13.1	11.4	1.7	3.4
Cottonwood	30.0	4.7	25.3	11.0	10.8	.2	2.7
River birch	3.1	.6	2.5	1.0	1.0	--	1.4
Yellow-poplar	1.1	--	1.1	.2	.2	--	--
Basswood	1.0	--	1.0	.4	.4	--	.1
Black walnut	32.1	13.9	18.2	5.9	4.4	1.5	15.1
Black cherry	4.3	.9	3.4	1.2	.9	.3	3.0
Elm	33.3	20.9	12.4	3.8	3.3	.5	35.4
Other hardwoods	56.4	23.7	32.7	12.9	10.2	2.7	34.0
Noncommercial species	--	--	--	--	--	--	.9
Total hardwoods	1,853.7	781.6	1,072.1	400.7	312.4	88.3	507.8
All species	1,907.8	815.2	1,092.6	408.7	315.9	92.8	618.6

GASCONADE COUNTY

Softwoods:							
Shortleaf pine	.2	--	.2	.1	--	.1	--
Eastern redcedar	28.9	18.6	10.3	4.1	1.6	2.5	10.0
Total softwoods	29.1	18.6	10.5	4.2	1.6	2.6	10.0
Hardwoods:							
Select white oaks	475.3	179.0	296.3	109.5	83.4	26.1	118.2
Other white oaks	156.9	109.6	47.3	18.0	8.3	9.7	64.9
Select red oaks	93.1	21.4	71.7	27.9	22.2	5.7	28.6
Red oaks	155.8	73.7	82.1	31.1	20.7	10.4	45.9
Other red oaks	14.4	8.0	6.4	2.9	1.4	1.5	15.7
Hickory A	71.8	37.4	34.4	13.2	10.1	3.1	21.7
Hickory B	47.5	31.4	16.1	6.0	4.4	1.6	13.3
Hard maple	22.7	16.4	6.3	1.8	.8	1.0	15.8
Soft maple	2.0	.5	1.5	.6	.6	--	2.4
Sweetgum	1.7	--	1.7	.7	.6	.1	.2
Tupelo and blackgum	4.0	1.7	2.3	.9	.9	--	.9
Ash	38.0	20.0	18.0	5.9	4.9	1.0	19.5
Sycamore	24.0	4.0	20.0	7.2	6.2	1.0	1.9
Cottonwood	15.1	2.0	13.1	5.7	5.6	.1	1.6
River birch	1.6	.3	1.3	.5	.5	--	.7
Yellow-poplar	.7	--	.7	.1	.1	--	--
Basswood	.5	--	.5	.2	.2	--	.1
Black walnut	19.9	9.1	10.8	3.4	2.5	.9	10.6
Black cherry	2.6	.6	2.0	.7	.5	.2	1.7
Elm	20.0	13.1	6.9	2.1	1.8	.3	22.4
Other hardwoods	33.3	14.7	18.6	7.4	5.6	1.8	20.9
Noncommercial species	--	--	--	--	--	--	.8
Total hardwoods	1,200.9	542.9	658.0	245.8	181.3	64.5	407.8
All species	1,230.0	561.5	668.5	250.0	182.9	67.1	417.8

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

HOWARD COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	.2	--	.2	.1	--	.1	--
Eastern redcedar	13.1	8.4	4.7	1.9	.5	1.4	5.8
Total softwoods	13.3	8.4	4.9	2.0	.5	1.5	5.8
Hardwoods:							
Select white oaks	149.3	55.6	93.7	34.9	26.3	8.6	42.1
Other white oaks	46.9	32.0	14.9	5.7	2.7	3.0	21.7
Select red oaks	31.4	7.2	24.2	9.5	7.7	1.8	10.7
Red oaks	53.8	25.8	28.0	10.8	6.7	4.1	16.9
Other red oaks	5.0	2.9	2.1	1.0	.5	.5	6.1
Hickory A	24.3	12.6	11.7	4.5	3.5	1.0	7.8
Hickory B	15.7	10.0	5.7	2.1	1.6	.5	5.5
Hard maple	8.2	5.7	2.5	.7	.3	.4	6.1
Soft maple	1.2	.2	1.0	.4	.4	--	1.2
Sweetgum	.8	--	.8	.3	.2	.1	.1
Tupelo and blackgum	1.5	.7	.8	.3	.3	--	.3
Ash	14.3	7.8	6.5	2.2	1.8	.4	8.2
Sycamore	13.2	2.4	10.8	4.0	3.3	.7	1.1
Cottonwood	10.5	1.7	8.8	3.8	3.7	.1	1.1
River birch	.6	.2	.4	.2	.2	--	.4
Yellow-poplar	.2	--	.2	--	--	--	--
Basswood	.3	--	.3	.1	.1	--	--
Black walnut	8.4	3.6	4.8	1.6	1.2	.4	3.8
Black cherry	1.0	.2	.8	.3	.2	.1	.8
Elm	8.9	5.3	3.6	1.1	.9	.2	10.6
Other hardwoods	20.2	8.3	11.9	4.7	3.3	1.4	10.0
Noncommercial species	--	--	--	--	--	--	.2
Total hardwoods	415.7	182.2	233.5	88.2	64.9	23.3	154.7
All species	429.0	190.6	238.4	90.2	65.4	24.8	160.5

JEFFERSON COUNTY

Softwoods:							
Shortleaf pine	.3	--	.3	.1	--	.1	--
Eastern redcedar	48.7	30.6	18.1	7.1	2.5	4.6	20.7
Total softwoods	49.0	30.6	18.4	7.2	2.5	4.7	20.7
Hardwoods:							
Select white oaks	673.2	245.8	427.4	157.5	123.3	34.2	165.2
Other white oaks	191.1	129.6	61.5	23.6	12.1	11.5	80.7
Select red oaks	131.3	29.6	101.7	39.8	32.4	7.4	40.9
Red oaks	212.7	96.3	116.4	44.3	30.0	14.3	63.0
Other red oaks	18.7	10.4	8.3	3.8	2.2	1.6	21.9
Hickory A	98.1	49.8	48.3	18.6	14.8	3.8	29.3
Hickory B	64.1	40.4	23.7	8.7	6.6	2.1	18.8
Hard maple	32.3	23.3	9.0	2.5	1.2	1.3	22.3
Soft maple	2.4	.5	1.9	.8	.8	--	2.8
Sweetgum	2.0	--	2.0	.7	.5	.2	.1
Tupelo and blackgum	5.6	2.5	3.1	1.2	1.2	--	1.2
Ash	49.9	24.8	25.1	8.1	6.9	1.2	26.4
Sycamore	32.1	5.6	26.5	9.7	8.2	1.5	2.7
Cottonwood	15.5	2.0	13.5	5.8	5.7	.1	1.7
River birch	2.1	.4	1.7	.8	.8	--	1.0
Yellow-poplar	.9	--	.9	.1	.1	--	--
Basswood	.8	--	.8	.3	.3	--	.1
Black walnut	27.3	12.3	15.0	4.8	3.4	1.4	14.1
Black cherry	3.5	.8	2.7	.9	.6	.3	2.5
Elm	26.9	17.0	9.9	3.1	2.6	.5	30.2
Other hardwoods	35.6	16.1	19.5	7.6	6.3	1.3	27.3
Noncommercial species	--	--	--	--	--	--	.9
Total hardwoods	1,626.1	707.2	918.9	342.7	260.0	82.7	553.1
All species	1,675.1	737.8	937.3	349.9	262.5	87.4	573.8

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

MISSISSIPPI COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Poletimber	Sawtimber	Total	In sawtimber	Other	
	Thousand cords	trees	trees	Thousand cords	stands	stands	
Softwoods:							
Cypress	11.0	0.2	10.8	4.1	3.5	0.6	5.0
Total softwoods	11.0	.2	10.8	4.1	3.5	.6	5.0
Hardwoods:							
Select white oaks	7.4	3.8	3.6	1.5	1.3	.2	4.4
Other white oaks	1.7	1.1	.6	.3	--	.3	.6
Select red oaks	2.0	1.1	.9	.5	.5	--	1.0
Red oaks	5.2	2.3	2.9	1.3	.9	.4	1.5
Other red oaks	2.0	.6	1.4	.6	.5	.1	1.5
Hickory A	4.8	1.0	3.8	1.9	.8	1.1	2.6
Hickory B	1.0	.1	.9	.3	.1	.2	.2
Hard maple	--	--	--	--	--	--	.2
Soft maple	18.4	5.2	13.2	4.7	4.7	--	5.9
Sweetgum	2.7	1.2	1.5	.7	.5	.2	.6
Tupelo and blackgum	7.0	3.9	3.1	1.4	.9	.5	5.3
Ash	12.9	6.9	6.0	2.1	1.7	.4	2.8
Sycamore	5.4	.8	4.6	1.7	1.4	.3	.1
Cottonwood	24.4	.2	24.2	9.4	8.7	.7	.7
River birch	1.4	.4	1.0	.4	.4	--	--
Black walnut	.8	.4	.4	.2	--	.2	--
Black cherry	--	--	--	--	--	--	.1
Elm	6.4	3.7	2.7	1.0	.6	.4	4.2
Other hardwoods	79.1	25.2	53.9	19.1	15.0	4.1	11.5
Noncommercial species	--	--	--	--	--	--	.4
Total hardwoods	182.6	57.9	124.7	47.1	38.0	9.1	42.6
All species	193.6	58.1	135.5	51.2	41.5	9.7	47.6

MONITEAU COUNTY

Softwoods:							
Shortleaf pine	0.2	--	0.2	--	--	--	--
Eastern redcedar	12.4	8.3	4.1	1.7	0.4	1.3	5.2
Total softwoods	12.6	8.3	4.3	1.7	.4	1.3	5.2
Hardwoods:							
Select white oaks	123.6	49.0	74.6	28.1	19.5	8.6	40.5
Other white oaks	50.8	36.3	14.5	5.5	1.9	3.6	23.9
Select red oaks	28.5	7.1	21.4	8.7	6.8	1.9	9.6
Red oaks	51.5	26.2	25.3	9.7	5.5	4.2	17.0
Other red oaks	5.0	3.1	1.9	.9	.3	.6	6.3
Hickory A	21.7	12.1	9.6	3.7	2.6	1.1	7.9
Hickory B	14.6	10.0	4.6	1.7	1.1	.6	5.5
Hard maple	6.5	4.4	2.1	.6	.2	.4	5.2
Soft maple	.8	.2	.6	.2	.2	--	.6
Sweetgum	.3	--	.3	.1	--	.1	--
Tupelo and blackgum	1.5	.7	.8	.4	.4	--	.2
Ash	11.7	6.9	4.8	1.5	1.2	.3	7.0
Sycamore	8.7	1.7	7.0	2.6	2.1	.5	.8
Cottonwood	4.5	.5	4.0	1.7	1.6	.1	.4
River birch	.4	.1	.3	.1	.1	--	.4
Yellow-poplar	.2	--	.2	--	--	--	--
Basswood	.2	--	.2	.1	.1	--	.1
Black walnut	7.1	3.3	3.8	1.2	.7	.5	3.7
Black cherry	.7	.1	.6	.2	.1	.1	.8
Elm	6.8	4.2	2.6	.8	.7	.1	9.0
Other hardwoods	11.4	5.4	6.0	2.4	1.7	.7	7.8
Noncommercial species	--	--	--	--	--	--	.2
Total hardwoods	356.5	171.3	185.2	70.2	46.8	23.4	146.9
All species	369.1	179.6	189.5	71.9	47.2	24.7	152.1

1/International 1/4-inch rule.

(Table 21 cont. on next page)

MONTGOMERY COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	0.2	--	0.2	--	--	--	--
Eastern redcedar	18.1	10.9	7.2	3.0	1.0	2.0	8.3
Total softwoods	18.3	10.9	7.4	3.0	1.0	2.0	8.3
Hardwoods:							
Select white oaks	250.1	96.4	153.7	57.5	42.4	15.1	68.7
Other white oaks	92.8	64.8	28.0	10.7	4.6	6.1	40.0
Select red oaks	52.3	12.7	39.6	15.7	12.6	3.1	16.7
Red oaks	93.0	45.2	47.8	18.1	11.4	6.7	28.4
Other red oaks	9.5	5.3	4.2	1.9	.8	1.1	10.4
Hickory A	43.1	23.0	20.1	7.7	5.9	1.8	13.3
Hickory B	27.5	18.3	9.2	3.4	2.5	.9	7.7
Hard maple	13.5	9.5	4.0	1.1	.5	.6	10.1
Soft maple	2.9	.6	2.3	.9	.9	--	2.7
Sweetgum	1.8	--	1.8	.8	.8	--	.2
Tupelo and blackgum	2.4	1.2	1.2	.5	.5	--	.5
Ash	27.7	15.4	12.3	4.1	3.3	.8	13.2
Sycamore	26.1	3.9	22.2	8.2	7.5	.7	2.2
Cottonwood	28.4	4.7	23.7	10.4	10.2	.2	2.4
River birch	1.1	.5	.6	.3	.3	--	.7
Yellow-poplar	.4	--	.4	.1	.1	--	--
Basswood	.5	--	.5	.2	.2	--	.1
Black walnut	15.6	6.6	9.0	3.1	2.4	.7	6.4
Black cherry	1.5	.3	1.2	.4	.2	.2	1.3
Elm	17.8	10.4	7.4	2.2	1.9	.3	19.2
Other hardwoods	34.5	11.5	23.0	9.3	8.2	1.1	18.4
Noncommercial species	--	--	--	--	--	--	.5
Total hardwoods	742.5	330.3	412.2	156.6	117.2	39.4	263.1
All species	760.8	341.2	419.6	159.6	118.2	41.4	271.4
NEW MADRID COUNTY							
Softwoods:							
Cypress	12.4	.2	12.2	4.5	4.1	.4	4.8
Total softwoods	12.4	.2	12.2	4.5	4.1	.4	4.8
Hardwoods:							
Select white oaks	9.2	4.5	4.7	1.8	1.8	--	4.6
Other white oaks	1.7	.9	.8	.4	--	.4	.5
Select red oaks	2.8	1.2	1.6	.8	.8	--	1.6
Red oaks	6.1	2.9	3.2	1.4	1.0	.4	.6
Other red oaks	2.5	.5	2.0	.9	.5	.4	1.3
Hickory A	6.4	1.6	4.8	2.2	1.2	1.0	3.1
Hickory B	1.1	.2	.9	.3	.1	.2	.2
Hard maple	--	--	--	--	--	--	.2
Soft maple	19.6	5.8	13.8	5.0	5.0	--	6.7
Sweetgum	3.4	1.4	2.0	.9	.7	.2	1.0
Tupelo and blackgum	6.2	2.9	3.3	1.4	1.0	.4	5.1
Ash	13.4	7.1	6.3	2.2	1.9	.3	3.4
Sycamore	7.4	1.0	6.4	2.5	2.1	.4	.2
Cottonwood	24.4	.3	24.1	9.5	8.3	1.2	.8
River birch	2.1	.7	1.4	.6	.6	--	--
Black walnut	.6	.3	.3	.1	--	.1	--
Elm	8.2	5.0	3.2	1.2	.6	.6	5.6
Other hardwoods	83.4	26.9	56.5	20.2	16.3	3.9	15.3
Noncommercial species	--	--	--	--	--	--	.4
Total hardwoods	198.5	63.2	135.3	51.4	41.9	9.5	50.6
All species	210.9	63.4	147.5	55.9	46.0	9.9	55.4

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

OSAGE COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Pole timber trees	Saw timber trees	Total	In saw timber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	0.2	--	0.2	--	--	--	--
Eastern redcedar	35.7	23.2	12.5	5.0	1.5	3.5	13.9
Total softwoods	35.9	23.2	12.7	5.0	1.5	3.5	13.9
Hardwoods:							
Select white oaks	431.5	164.8	266.7	99.4	73.7	25.7	123.7
Other white oaks	156.0	108.7	47.3	18.0	7.7	10.3	68.8
Select red oaks	92.5	22.2	70.3	28.2	22.6	5.6	30.7
Red oaks	159.4	78.2	81.2	31.1	19.3	11.8	49.5
Other red oaks	14.8	8.5	6.3	2.8	1.2	1.6	18.2
Hickory A	70.3	37.4	32.9	12.6	9.4	3.2	23.1
Hickory B	46.7	30.7	16.0	5.9	4.2	1.7	15.8
Hard maple	21.4	15.1	6.3	1.8	.8	1.0	16.8
Soft maple	2.9	.6	2.3	.9	.9	--	2.8
Sweetgum	2.2	--	2.2	.9	.7	.2	.2
Tupelo and blackgum	4.6	2.2	2.4	1.0	1.0	--	.8
Ash	38.1	20.6	17.5	5.7	4.7	1.0	20.4
Sycamore	29.8	5.0	24.8	9.1	7.9	1.2	2.6
Cottonwood	23.1	3.4	19.7	8.6	8.4	.2	2.1
River birch	1.5	.5	1.0	.5	.5	--	.9
Yellow-poplar	.6	--	.6	.1	.1	--	--
Basswood	.7	--	.7	.3	.3	--	.1
Black walnut	22.1	9.8	12.3	4.1	2.9	1.2	10.9
Black cherry	2.3	.5	1.8	.6	.4	.2	2.0
Elm	23.0	13.8	9.2	2.7	2.3	.4	26.8
Other hardwoods	40.4	16.5	23.9	9.5	7.6	1.9	24.2
Noncommercial species	--	--	--	--	--	--	.7
Total hardwoods	1,183.9	538.5	645.4	243.8	176.6	67.2	441.1
All species	1,219.8	561.7	658.1	248.8	178.1	70.7	455.0
PEMISCOT COUNTY							
Softwoods:							
Cypress	11.9	.1	11.8	4.3	4.1	.2	5.8
Total softwoods	11.9	.1	11.8	4.3	4.1	.2	5.8
Hardwoods:							
Select white oaks	9.6	5.7	3.9	1.5	1.3	.2	2.4
Other white oaks	.7	.5	.2	.1	--	.1	.2
Select red oaks	3.7	2.0	1.7	.8	.8	--	1.2
Red oaks	5.8	2.4	3.4	1.5	1.3	.2	.5
Other red oaks	1.9	.5	1.4	.6	.5	.1	.6
Hickory A	6.4	1.7	4.7	2.2	1.2	1.0	2.4
Hickory B	1.9	1.2	.7	.3	.1	.2	.3
Hard maple	--	--	--	--	--	--	.2
Soft maple	15.9	4.5	11.4	4.1	4.1	--	5.4
Sweetgum	3.0	1.4	1.6	.8	.6	.2	1.4
Tupelo and blackgum	5.7	2.5	3.2	1.4	1.2	.2	4.6
Ash	11.0	5.9	5.1	1.8	1.5	.3	3.0
Sycamore	6.1	.8	5.3	2.0	1.7	.3	.2
Cottonwood	20.7	.2	20.5	8.0	7.4	.6	.6
River birch	1.2	.3	.9	.4	.4	--	--
Yellow-poplar	1.6	.2	1.4	.5	--	.5	--
Black walnut	.6	.3	.3	.1	--	.1	--
Black cherry	--	--	--	--	--	--	.1
Elm	6.9	4.2	2.7	1.0	.5	.5	4.4
Other hardwoods	62.3	19.0	43.3	15.4	13.3	2.1	11.2
Noncommercial species	--	--	--	--	--	--	.3
Total hardwoods	165.0	53.3	111.7	42.5	35.9	6.6	39.0
All species	176.9	53.4	123.5	46.8	40.0	6.8	44.8

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

PERRY COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Pole timber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Shortleaf pine	1.2	.9	.3	.1	--	.1	--
Eastern redcedar	18.9	11.9	7.0	2.9	1.3	1.6	7.7
Total softwoods	20.1	12.8	7.3	3.0	1.3	1.7	7.7
Hardwoods:							
Select white oaks	325.3	117.7	207.6	76.4	60.3	16.1	76.2
Other white oaks	88.7	59.5	29.2	11.2	6.1	5.1	37.1
Select red oaks	62.4	13.9	48.5	19.0	15.6	3.4	19.0
Red oaks	101.6	45.3	56.3	21.4	14.8	6.6	29.8
Other red oaks	9.0	4.9	4.1	1.9	1.1	.8	9.8
Hickory A	47.8	24.1	23.7	9.1	7.3	1.8	13.5
Hickory B	31.2	19.8	11.4	4.2	3.3	.9	8.5
Hard maple	16.2	11.7	4.5	1.3	.6	.7	10.8
Soft maple	1.6	.3	1.3	.5	.5	--	1.9
Sweetgum	1.3	--	1.3	.5	.4	.1	.1
Tupelo and blackgum	3.3	1.9	1.4	.6	.6	--	.6
Ash	26.3	13.2	13.1	4.3	3.6	.7	13.3
Sycamore	19.0	3.2	15.8	5.8	5.0	.8	1.5
Cottonwood	14.6	2.6	12.0	5.3	5.2	.1	1.5
River birch	1.3	.3	1.0	.4	.4	--	.6
Yellow-poplar	.5	--	.5	.1	.1	--	--
Basswood	.4	--	.4	.2	.2	--	.1
Black walnut	14.2	6.3	7.9	2.6	1.9	.7	6.7
Black cherry	1.9	.4	1.5	.5	.3	.2	1.4
Elm	14.6	9.2	5.4	1.6	1.4	.2	16.3
Other hardwoods	29.5	12.9	16.6	6.5	4.6	1.9	15.7
Noncommercial species	--	--	--	--	--	--	.4
Total hardwoods	810.7	347.2	463.5	173.4	133.3	40.1	264.8
All species	830.8	360.0	470.8	176.4	134.6	41.8	272.5
ST. CHARLES COUNTY							
Softwoods:							
Shortleaf pine	.3	--	.3	--	--	--	--
Eastern redcedar	15.0	8.9	6.1	2.7	1.5	1.2	7.4
Total softwoods	15.3	8.9	6.4	2.7	1.5	1.2	7.4
Hardwoods:							
Select white oaks	270.2	95.6	174.6	64.7	51.8	12.9	56.9
Other white oaks	60.4	39.0	21.4	8.2	5.2	3.0	24.4
Select red oaks	50.0	11.0	39.0	15.2	12.7	2.5	14.2
Red oaks	77.0	34.3	42.7	16.2	11.5	4.7	22.0
Other red oaks	7.5	3.8	3.7	1.7	.9	.8	7.3
Hickory A	40.7	19.9	20.8	8.0	6.6	1.4	10.5
Hickory B	25.4	15.1	10.3	3.9	3.2	.7	5.9
Hard maple	15.3	11.1	4.2	1.2	.7	.5	9.9
Soft maple	4.2	.7	3.5	1.3	1.3	--	4.2
Sweetgum	2.9	--	2.9	1.3	1.3	--	.5
Tupelo and blackgum	1.9	1.0	.9	.3	.3	--	.4
Ash	30.9	15.9	15.0	5.2	4.3	.9	13.2
Sycamore	35.3	4.9	30.4	11.3	10.5	.8	2.8
Cottonwood	45.8	8.2	37.6	16.8	16.5	.3	4.0
River birch	1.9	.7	1.2	.6	.6	--	.8
Yellow-poplar	.3	--	.3	.1	.1	--	--
Basswood	.7	--	.7	.3	.3	--	.1
Black walnut	17.0	6.3	10.7	3.8	3.3	.5	5.5
Black cherry	1.8	.3	1.5	.5	.3	.2	1.4
Elm	21.0	11.6	9.4	2.7	2.5	.2	21.2
Other hardwoods	61.1	21.0	40.1	16.2	12.5	3.7	23.1
Noncommercial species	--	--	--	--	--	--	.5
Total hardwoods	771.3	300.4	470.9	179.5	146.4	33.1	228.8
All species	786.6	309.3	477.3	182.2	147.9	34.3	236.2

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

ST. LOUIS COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Pole timber	Saw timber	Total	In saw timber	Other	
	Thousand cords	Trees	Trees	Million board feet ^{1/}	stands	stands	Thousand cords
Softwoods:							
Shortleaf pine	.3	--	.3	.1	--	.1	--
Eastern redcedar	15.6	10.0	5.6	2.2	.9	1.3	6.1
Total softwoods	15.9	10.0	5.9	2.3	.9	1.4	6.1
Hardwoods:							
Select white oaks	172.5	61.5	111.0	41.2	32.5	8.7	42.9
Other white oaks	45.9	30.0	15.9	6.1	3.5	2.6	19.9
Select red oaks	34.8	7.5	27.3	10.7	8.8	1.9	10.5
Red oaks	57.2	25.5	31.7	12.1	8.3	3.8	17.4
Other red oaks	5.6	3.0	2.6	1.2	.7	.5	6.1
Hickory A	27.9	14.0	13.9	5.3	4.3	1.0	8.0
Hickory B	17.7	10.8	6.9	2.6	2.1	.5	5.4
Hard maple	10.1	7.1	3.0	.9	.4	.5	6.7
Soft maple	2.1	.4	1.7	.7	.7	--	1.9
Sweetgum	1.2	--	1.2	.5	.5	--	.2
Tupelo and blackgum	1.6	.8	.8	.3	.3	--	.3
Ash	19.0	10.1	8.9	3.0	2.4	.6	9.1
Sycamore	18.6	2.6	16.0	5.9	5.3	.6	1.6
Cottonwood	20.0	3.3	16.7	7.3	7.1	.2	1.7
River birch	1.1	.4	.7	.3	.3	--	.6
Yellow-poplar	.2	--	.2	--	--	--	--
Basswood	.4	--	.4	.2	.2	--	.1
Black walnut	10.7	4.2	6.5	2.3	1.8	.5	4.0
Black cherry	1.2	.2	1.0	.3	.2	.1	1.0
Elm	12.1	6.8	5.3	1.5	1.3	.2	13.1
Other hardwoods	24.9	8.3	16.6	6.7	5.9	.8	13.3
Noncommercial species	--	--	--	--	--	--	.3
Total hardwoods	484.8	196.5	288.3	109.1	86.6	22.5	164.1
All species	500.7	206.5	294.2	111.4	87.5	23.9	170.2

STE. GENEVIEVE COUNTY

Softwoods:							
Shortleaf pine	8.3	6.9	1.4	.3	.3	--	--
Eastern redcedar	27.2	18.0	9.2	3.7	1.3	2.4	10.4
Total softwoods	35.5	24.9	10.6	4.0	1.6	2.4	10.4
Hardwoods:							
Select white oaks	435.7	163.8	271.9	101.0	75.9	25.1	112.4
Other white oaks	144.7	101.4	43.3	16.6	7.3	9.3	61.2
Select red oaks	88.7	21.1	67.6	27.0	21.6	5.4	27.1
Red oaks	151.2	70.0	81.2	30.9	19.7	11.2	45.3
Other red oaks	13.7	8.0	5.7	2.6	1.3	1.3	15.5
Hickory A	67.9	36.8	31.1	12.0	9.1	2.9	20.5
Hickory B	47.2	32.4	14.8	5.5	4.0	1.5	12.9
Hard maple	21.0	15.0	6.0	1.7	.8	.9	14.9
Soft maple	1.5	.3	1.2	.5	.5	--	1.6
Sweetgum	1.0	--	1.0	.3	.2	.1	.1
Tupelo and blackgum	8.2	5.3	2.9	1.1	1.1	--	.9
Ash	32.9	17.5	15.4	5.0	4.1	.9	17.8
Sycamore	19.9	3.6	16.3	5.9	4.9	1.0	1.8
Cottonwood	7.4	.6	6.8	2.8	2.7	.1	.8
River birch	1.1	.2	.9	.3	.3	--	.7
Yellow-poplar	.6	--	.6	.1	.1	--	--
Basswood	.5	--	.5	.2	.2	--	.1
Black walnut	18.4	8.7	9.7	3.0	2.0	1.0	9.9
Black cherry	2.2	.5	1.7	.6	.4	.2	1.7
Elm	17.9	11.4	6.5	2.0	1.6	.4	20.9
Other hardwoods	22.9	11.3	11.6	4.5	3.5	1.0	18.6
Noncommercial species	--	--	--	--	--	--	.6
Total hardwoods	1,104.6	507.2	526.7	221.6	161.3	62.3	385.3
All species	1,140.1	532.8	607.3	227.6	162.9	64.7	395.7

^{1/} International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

SCOTT COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords			Million board feet ^{1/}			Thousand cords
Softwoods:							
Cypress	5.9	.1	5.8	2.2	1.9	.3	4.5
Total softwoods	5.9	.1	5.8	2.2	1.9	.3	4.5
Hardwoods:							
Select white oaks	45.2	15.5	29.7	12.0	11.0	1.0	10.8
Other white oaks	8.7	2.3	6.4	2.6	2.2	.4	4.1
Select red oaks	17.2	1.6	15.6	6.4	5.9	.5	2.5
Red oaks	46.2	13.5	32.7	13.8	11.3	2.5	5.2
Other red oaks	2.0	.5	1.5	.6	.6	--	.3
Hickory A	23.3	8.6	14.7	6.2	5.7	.5	1.4
Hickory B	19.6	10.5	9.1	3.8	2.9	.9	.7
Hard maple	1.6	.9	.7	.2	.2	--	.8
Soft maple	6.5	2.2	4.3	1.6	1.6	--	2.7
Beech	1.4	--	1.4	.5	.5	--	4.5
Sweetgum	4.4	1.9	2.5	1.2	.8	.4	2.2
Tupelo and blackgum	6.6	3.7	2.9	1.3	.9	.4	4.7
Ash	5.6	3.6	2.0	.7	.5	.2	2.5
Sycamore	3.4	.8	2.6	1.1	1.0	.1	--
Cottonwood	5.7	.1	5.6	2.2	2.0	.2	.2
River birch	.5	.2	.3	.1	.1	--	--
Yellow-poplar	4.3	1.5	2.8	1.1	.6	.5	.5
Black walnut	.3	.1	.2	.1	--	.1	--
Black cherry	--	--	--	--	--	--	.1
Elm	6.2	3.4	2.8	1.3	1.1	.2	3.9
Other hardwoods	26.5	8.9	17.6	6.3	4.7	1.6	4.7
Noncommercial species	--	--	--	--	--	--	.1
Total hardwoods	235.2	79.8	155.4	63.1	53.6	9.5	51.9
All species	241.1	79.9	161.2	65.3	55.5	9.8	56.4

STODDARD COUNTY

Softwoods:							
Cypress	29.0	.2	28.8	10.6	9.8	.8	12.3
Total softwoods	29.0	.2	28.8	10.6	9.8	.8	12.3
Hardwoods:							
Select white oaks	88.2	32.9	55.3	22.4	20.1	2.3	31.1
Other white oaks	18.6	5.8	12.8	5.3	4.0	1.3	10.5
Select red oaks	35.8	4.1	31.7	13.6	12.4	1.2	8.4
Red oaks	103.9	32.5	71.4	30.1	22.9	7.2	11.2
Other red oaks	6.7	1.6	5.1	2.1	1.7	.4	3.8
Hickory A	48.5	17.4	31.1	13.6	12.6	1.0	3.1
Hickory B	34.8	17.7	17.1	7.1	5.0	2.1	1.2
Hard maple	2.7	1.5	1.2	.4	.4	--	1.5
Soft maple	23.7	7.3	16.4	6.0	6.0	--	9.5
Beech	2.2	--	2.2	.8	.8	--	8.4
Sweetgum	12.9	5.2	7.7	3.7	2.6	1.1	8.4
Tupelo and blackgum	20.8	9.9	10.9	4.8	3.8	1.0	16.3
Ash	18.4	11.5	6.9	2.5	2.1	.4	6.9
Sycamore	12.6	1.9	10.7	4.6	4.5	.1	.1
Cottonwood	18.3	.3	18.0	7.3	6.6	.7	.8
River birch	2.6	.8	1.8	.8	.8	--	--
Yellow-poplar	5.7	2.2	3.5	1.4	.8	.6	.8
Black walnut	.7	.2	.5	.2	--	.2	.6
Black cherry	--	--	--	--	--	--	.8
Elm	12.8	6.7	6.1	2.9	2.4	.5	10.0
Other hardwoods	95.5	31.5	64.0	23.0	17.7	5.3	19.8
Noncommercial species	--	--	--	--	--	--	.5
Total hardwoods	565.4	191.0	374.4	152.6	127.2	25.4	153.7
All species	594.4	191.2	403.2	163.2	137.0	26.2	166.0

1/ International 1/4-inch rule.

(Table 21 cont. on next page)

(Table 21 cont.)

WARREN COUNTY

Species	Growing stock			Sawtimber			Rough and rotten trees
	Total	Poletimber trees	Sawtimber trees	Total	In sawtimber stands	Other stands	
	Thousand cords	Thousand cords	Thousand cords	Million board feet ^{1/}	Million board feet ^{1/}	Thousand cords	
Softwoods:							
Shortleaf pine	.2	--	.2	.1	--	.1	--
Eastern redcedar	25.1	14.6	10.5	4.1	1.5	2.6	11.5
Total softwoods	25.3	14.6	10.7	4.2	1.5	2.7	11.5
Hardwoods:							
Select white oaks	376.1	138.8	237.3	87.8	68.0	19.8	90.4
Other white oaks	106.7	73.1	33.6	12.9	6.6	6.3	44.0
Select red oaks	72.7	16.8	55.9	21.9	17.8	4.1	21.6
Red oaks	116.9	53.7	63.2	24.0	16.4	7.6	34.2
Other red oaks	10.9	6.0	4.9	2.3	1.2	1.1	12.0
Hickory A	55.6	28.2	27.4	10.5	8.3	2.2	16.4
Hickory B	36.5	23.2	13.3	4.9	3.7	1.2	9.5
Hard maple	18.8	13.7	5.1	1.5	.7	.8	12.8
Soft maple	2.7	.5	2.2	.8	.8	--	2.8
Sweetgum	1.9	--	1.9	.8	.7	.1	.2
Tupelo and blackgum	3.0	1.4	1.6	.6	.6	--	.6
Ash	32.8	16.8	16.0	5.3	4.4	.9	15.8
Sycamore	26.8	4.1	22.7	8.3	7.4	.9	2.2
Cottonwood	23.2	3.4	19.8	8.7	8.6	.1	2.2
River birch	1.6	.5	1.1	.5	.5	--	.7
Yellow-poplar	.5	--	.5	.1	.1	--	--
Basswood	.6	--	.6	.2	.2	--	.1
Black walnut	17.6	7.5	10.1	3.4	2.7	.7	8.0
Black cherry	2.1	.4	1.7	.6	.4	.2	1.5
Elm	19.0	11.4	7.6	2.3	2.0	.3	20.4
Other hardwoods	43.8	17.6	26.2	10.5	7.6	2.9	20.4
Noncommercial species	--	--	--	--	--	--	.6
Total hardwoods	969.8	417.1	552.7	207.9	158.7	49.2	316.4
All species	995.1	431.7	563.4	212.1	160.2	51.9	327.9

^{1/} International 1/4-inch rule.

Table 22.--*Net volume of timber on commercial forest land, by class of timber and softwoods and hardwoods, River-border, Missouri, 1972*

(Million cubic feet)

CLASS OF TIMBER	: ALL : SPECIES	: SOFTWOODS	: HARDWOODS
GROWING STOCK TREES:			
SAW LOG TREES:			
SAW LOG PORTION	515.7	14.5	501.2
UPPER STEM PORTION	244.5	4.7	239.8
TOTAL SAWTIMBER	760.2	19.2	741.0
POLETIMBER TREES	573.6	20.5	553.1
TOTAL GROWING STOCK	1,333.8	39.7	1,294.1
CULL TREES:			
ROUGH CULL TREES:			
SAWTIMBER	108.8	2.6	106.2
POLETIMBER	184.9	7.0	177.9
TOTAL ROUGH CULL	293.7	9.6	284.1
SHORT LOG CULL TREES:			
SAWTIMBER	76.2	3.7	72.5
POLETIMBER	.1	--	.1
TOTAL SHORT LOG	76.3	3.7	72.6
ROTTEN CULL TREES:			
SAWTIMBER	46.7	2.4	44.3
POLETIMBER	32.6	.4	32.2
TOTAL ROTTEN CULL	79.3	2.8	76.5
TOTAL CULL	449.3	16.1	433.2
SALVABLE DEAD TREES:			
SAWTIMBER	14.7	.9	13.8
POLETIMBER	5.3	--	5.3
TOTAL SALVABLE DEAD	20.0	.9	19.1
ALL CLASSES	1,803.1	56.7	1,746.4

Table 23.--Net volume of growing stock, sawtimber, and rough and rotten trees on commercial forest land, by individual species, Riverborder, Missouri, 1972

Species	Growing stock	Sawtimber	Rough and rotten trees
	Million cubic feet	Million board feet ¹	Million cubic feet
Softwoods:			
Shortleaf pine	1.3	1.6	--
Baldcypress	7.4	34.4	3.1
Eastern redcedar	31.0	58.2	13.0
Total softwoods	39.7	94.2	16.1
Hardwoods:			
Select white oak group			
White oak	423.3	1,261.2	94.4
Bur oak	2.9	6.8	.7
Chinkapin oak	25.8	68.4	18.2
Overcup oak	3.6	9.8	2.0
Swamp cheatnut oak	1.9	9.8	.7
Swamp white oak	3.7	6.6	1.9
Other white oak group			
Post oak	139.9	217.6	60.0
Select red oak group			
Cherrybark oak	3.5	15.5	1.1
Northern red oak	86.4	327.1	27.8
Shumard oak	4.6	24.0	.3
Red oak group			
Black oak	142.2	373.0	41.2
Scarlet oak	18.9	57.4	4.2
Southern red oak	2.2	6.1	.7
Other red oak group			
Blackjack oak	3.0	1.5	5.8
Pin oak	5.0	22.7	1.8
Shingle oak	6.8	15.1	8.1
Willow oak	.5	2.0	.5
Hickory A group			
Mockernut hickory	18.6	60.8	5.5
Pecan	2.7	13.9	.7
Shagbark hickory	44.6	100.3	11.7
Shellbark hickory	11.2	17.4	4.0
Hickory B group			
Bitternut hickory	7.7	10.6	2.3
Black hickory	17.2	28.7	3.6
Pignut hickory	25.2	48.3	7.4
Hard maple group			
Black maple	.2	--	--
Sugar maple	22.9	23.8	16.2

(Table 23 continued in next column)

(Table 23 cont.)

Species	Growing stock	Sawtimber	Rough and rotten trees
	Million cubic feet	Million board feet ¹	Million cubic feet
Hardwoods (cont.):			
Soft maple group			
Red maple	1.1	1.4	1.5
Silver maple	10.0	36.6	4.4
American beech	.3	1.3	1.1
Sweetgum	4.5	19.1	1.7
Tupelo and blackgum group			
Blackgum	5.6	14.4	1.7
Black tupelo	2.9	9.0	2.6
Water tupelo	.2	1.0	.2
Ash group			
White ash	24.9	45.3	12.7
Green ash	18.4	39.6	7.3
Blue ash	1.8	3.8	1.6
Sycamore	34.1	134.4	2.6
Eastern cottonwood	33.6	159.7	2.6
River birch	2.5	9.8	1.0
Yellow-poplar	1.6	4.6	.1
American basswood	.7	3.5	.1
Black walnut	21.8	51.7	10.2
Black cherry	2.6	8.8	2.0
Elm group			
American elm	17.5	23.3	21.5
Rock elm	.7	2.6	.6
Slippery elm	7.7	15.5	5.6
Winged elm	.6	.6	.2
Other hardwoods			
Boxelder	5.0	16.1	5.8
Ohio buckeye	.5	--	1.0
Sugarberry	1.9	8.9	1.1
Hackberry	9.5	25.1	3.5
Flowering dogwood	.2	--	.8
Common persimmon	2.1	1.3	.6
Honeylocust	3.7	13.3	6.0
Kentucky coffeetree	1.5	4.8	.2
Butternut	.8	1.6	1.0
Red mulberry	.8	1.6	3.5
Black locust	.4	1.8	.3
Sassafras	.3	--	1.0
Northern catalpa	--	--	.2
Black willow	49.8	158.0	5.2
Noncommercial	--	--	.9
Total hardwoods	1,294.1	3,546.9	433.2
All species	1,333.8	3,641.1	449.3

¹International 1/4-inch rule.

Table 24.--Net volume of growing stock and sawtimber on commercial forest land, by ownership class and species group, Riverborder, Missouri, 1972

GROWING STOCK

OWNERSHIP CLASS	: ALL	: SHORTLEAF	: OTHER	: SOFT	: HARD
	: SPECIES	: PINE	: SOFTWOODS	: HARDWOODS	: HARDWOODS
<u>THOUSAND CORDS</u>					
NATIONAL FOREST	62.1	16.5	--	--	45.6
OTHER FEDERAL	111.9	--	3.0	14.0	94.9
STATE, COUNTY, AND MUNICIPAL	263.4	--	28.3	69.9	165.2
FOREST INDUSTRY	222.3	--	--	208.2	14.1
FARMER AND MISCELLANEOUS PRIVATE	16,224.2	--	455.7	2,143.5	13,625.0
ALL OWNERSHIPS	16,883.9	16.5	487.0	2,435.6	13,944.8
<u>SAWTIMBER</u>					
<u>MILLION BOARD FEET</u> ^{1/}					
NATIONAL FOREST	10.3	1.6	--	--	8.7
OTHER FEDERAL	28.3	--	1.4	3.2	23.7
STATE, COUNTY, AND MUNICIPAL	63.6	--	9.9	14.4	39.3
FOREST INDUSTRY	57.7	--	--	36.3	21.4
FARMER AND MISCELLANEOUS PRIVATE	3,481.2	--	81.3	595.1	2,804.8
ALL OWNERSHIPS	3,641.1	1.6	92.6	649.0	2,897.9

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 25.--Net volume of growing stock on commercial forest land,
by species and diameter class, Riverborder, Missouri, 1972
(Thousand cords)

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT)												TOTAL				
	5.0-	6.9	7.0-	8.9	9.0-	10.9	12.9	13.0-	14.9	15.0-	16.9	18.9		19.0-	21.0-	23.0-	29.0-
ALL																	
CLASSES	5.0-	6.9	7.0-	8.9	9.0-	10.9	12.9	13.0-	14.9	15.0-	16.9	18.9	19.0-	21.0-	23.0-	29.0-	
SOFTWOODS:																	
SHORTLEAF PINE	16.5	4.6	5.3	--	--	5.1	1.5	--	--	--	--	--	--	--	--	--	--
CYPRESS	94.3	--	.9	--	--	--	6.8	9.3	18.0	11.4	15.2	15.9	13.3	3.5	--	--	--
EASTERN REDCEDAR	392.7	112.1	136.2	89.8	89.8	34.8	14.6	5.2	--	--	--	--	--	--	--	--	--
TOTAL SOFTWOODS	503.5	116.7	142.4	89.8	89.8	39.9	22.9	14.5	18.0	11.4	15.2	15.9	13.3	3.5	--	--	--
HARDWOODS:																	
SELECT WHITE OAKS	5839.5	364.8	777.3	1028.4	1339.9	1003.9	636.1	317.3	169.9	84.6	88.1	29.2	--	--	--	--	--
OTHER WHITE OAKS	1171.1	357.8	470.9	375.2	234.6	168.9	61.7	49.2	24.7	16.6	11.5	--	--	--	--	--	--
SELECT RED OAKS	1197.4	36.5	92.1	142.9	135.6	199.5	185.4	165.9	66.7	71.5	97.7	3.6	--	--	--	--	--
RED OAKS	2067.1	207.4	318.3	409.5	261.2	258.4	187.3	146.8	119.5	54.5	85.7	18.5	--	--	--	--	--
OTHER RED OAKS	193.1	36.4	45.9	19.4	23.2	12.0	--	33.0	13.4	4.3	2.2	3.3	--	--	--	--	--
HICKORY A	975.7	166.4	172.6	146.5	159.5	142.5	74.2	57.0	20.5	18.1	6.8	11.6	--	--	--	--	--
HICKORY B	633.1	101.2	151.6	147.2	97.9	55.7	27.9	17.6	14.5	5.7	13.8	--	--	--	--	--	--
HARD MAPLE	290.6	57.4	71.2	78.6	53.5	20.1	5.3	4.5	--	--	--	--	--	--	--	--	--
SOFT MAPLE	141.1	6.1	15.2	17.1	30.8	15.0	21.9	11.0	6.0	6.0	12.0	--	--	--	--	--	--
BEECH	3.7	--	--	--	--	--	3.7	--	--	--	--	--	--	--	--	--	--
SWEETGUM	57.4	2.9	2.2	8.2	10.9	2.4	19.3	8.8	--	--	2.7	--	--	--	--	--	--
TUPELO-BLACKGUM	112.4	10.0	13.5	30.9	15.6	11.1	23.1	7.0	--	--	1.2	--	--	--	--	--	--
ASH	571.1	79.5	108.0	116.6	105.4	54.4	30.9	19.7	5.6	10.7	26.0	14.3	--	--	--	--	--
SYCAMORE	470.4	14.8	20.1	33.9	39.3	57.7	36.8	53.4	34.0	49.6	70.8	20.0	--	--	--	--	--
COTTONWOOD	426.3	6.9	22.0	21.6	29.3	50.1	32.7	55.7	34.3	21.1	64.2	69.8	18.6	--	--	--	--
RIVER BIRCH	31.9	8.2	1.4	--	4.6	--	5.5	5.9	--	--	--	6.3	--	--	--	--	--
YELLOW-POPLAR	20.1	.7	1.4	1.8	5.4	1.2	--	--	1.6	--	--	8.0	--	--	--	--	--
BASSWOOD	8.5	--	--	--	3.5	--	5.0	--	--	--	--	--	--	--	--	--	--
BLACK WALNUT	275.7	18.2	63.7	37.7	48.0	55.3	34.9	7.4	10.5	--	--	--	--	--	--	--	--
BLACK CHERRY	32.2	6.8	--	--	7.8	12.7	4.9	--	--	--	--	--	--	--	--	--	--
ELM	334.1	70.1	63.7	68.2	57.9	13.2	16.0	19.8	5.0	--	5.5	6.8	7.9	--	--	--	--
OTHER HARDWOODS	967.9	76.0	97.6	180.2	197.1	189.4	109.7	69.6	25.7	11.7	10.9	--	--	--	--	--	--
TOTAL HARDWOODS	16380.4	1628.1	2508.7	2863.9	2861.0	2323.5	1522.3	1049.6	551.9	354.4	499.1	191.4	26.5	--	--	--	--
ALL SPECIES	16883.9	1744.8	2651.1	2953.7	2900.9	2346.4	1536.8	1067.6	563.3	369.6	515.0	204.7	30.0	--	--	--	--

Table 26.--Net volume of sawtimber on commercial forest land, by species and diameter class, Riverborder, Missouri, 1972 (Million board feet)^{1/}

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT)																		
	ALL	9.0-	10.9	11.0-	12.9	13.0-	14.9	15.0-	16.9	17.0-	18.9	19.0-	20.9	21.0-	22.9	23.0-	28.9	38.9	39.0+
SOFTWOODS:																			
SHORTLEAF PINE	1.6	--	1.1	.5	--	--	--	--	--	7.0	4.6	--	--	--	--	5.8	4.5	--	--
CYPRESS	34.4	--	--	2.3	3.5	7.0	4.6	--	--	5.7	--	--	--	--	--	--	--	4.5	1.0
EASTERN REDCEDAR	58.2	35.9	14.3	5.9	2.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL SOFTWOODS	94.2	35.9	15.4	8.7	5.6	7.0	4.6	4.6	5.7	5.7	5.8	4.5	4.5	5.8	4.5	4.5	4.5	4.5	1.0
HARDWOODS:																			
SELECT WHITE OAKS	1362.6	--	503.0	373.9	239.5	109.4	64.4	--	--	31.4	--	--	--	--	--	33.7	7.3	--	--
OTHER WHITE OAKS	217.6	--	90.5	67.6	24.8	19.1	7.4	--	--	5.0	--	--	--	--	--	3.2	--	--	--
SELECT RED OAKS	366.6	--	49.9	83.7	70.6	71.6	29.6	--	--	27.4	--	--	--	--	--	32.7	1.1	--	--
RED OAKS	436.5	--	103.6	100.8	71.2	59.5	41.6	--	--	23.6	--	--	--	--	--	30.5	5.7	--	--
OTHER RED OAKS	41.3	--	11.5	4.9	--	15.6	5.2	--	--	1.9	--	--	--	--	--	.9	1.3	--	--
HICKORY A	192.4	--	63.6	52.6	30.9	22.5	9.8	--	--	7.1	--	--	--	--	--	2.1	3.8	--	--
HICKORY B	87.6	--	36.6	20.0	11.2	5.8	5.4	--	--	2.7	--	--	--	--	--	5.9	--	--	--
HARD MAPLE	23.8	--	15.5	5.4	1.7	1.2	--	--	--	--	--	--	--	--	--	--	--	--	--
SOFT MAPLE	38.0	--	11.3	5.7	8.3	3.9	2.5	--	--	2.4	--	--	--	--	--	3.9	--	--	--
BEECH	1.3	--	--	--	--	1.3	--	--	--	--	--	--	--	--	--	--	--	--	--
SWFETGUM	19.1	--	4.4	1.2	7.3	5.0	--	--	--	--	--	--	--	--	--	1.2	--	--	--
TUPELO+BLACKGUM	24.4	--	5.8	4.7	10.2	2.7	--	--	--	--	--	--	--	--	--	1.0	--	--	--
ASH	88.7	--	30.5	17.5	11.0	6.9	1.1	--	--	2.4	--	--	--	--	--	13.0	6.3	--	--
SYCAMOPE	134.4	--	12.8	19.6	13.4	20.1	11.5	--	--	21.3	--	--	--	--	--	28.6	7.1	--	--
COTTONWOOD	159.7	--	14.6	22.9	14.9	24.5	13.9	--	--	9.4	--	--	--	--	--	26.4	26.5	6.6	--
RIVER BIRCH	9.8	--	1.9	--	1.9	3.5	--	--	--	--	--	--	--	--	--	--	2.5	--	--
YELLOW-POPLAR	4.6	--	2.0	.5	--	--	.7	--	--	--	--	--	--	--	--	--	1.4	--	--
BASSWOOD	3.5	--	2.0	--	--	1.5	--	--	--	--	--	--	--	--	--	--	--	--	--
BLACK WALNUT	51.7	--	14.5	18.9	12.4	3.2	2.7	--	--	--	--	--	--	--	--	--	--	--	--
BLACK CHERRY	8.8	--	2.7	4.4	1.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ELM	42.0	--	21.0	4.5	5.7	5.6	1.4	--	--	--	--	--	--	--	--	1.3	1.9	--	6.6
OTHER HARDWOODS	232.5	--	70.0	70.3	45.8	25.1	11.3	--	--	5.2	--	--	--	--	--	4.8	--	--	--
TOTAL HARDWOODS	3546.9	--	1067.7	879.1	585.3	405.2	208.5	139.8	189.2	64.9	7.2	64.9	64.9	189.2	64.9	64.9	64.9	64.9	7.2
ALL SPECIES	3641.1	35.9	1083.1	887.8	590.9	412.2	213.1	145.5	195.0	69.4	8.2	69.4	69.4	195.0	69.4	69.4	69.4	69.4	8.2

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 27.--Net volume of growing stock on commercial forest land,
by species and forest type, Riverborder, Missouri, 1972
(Million cubic feet)

SPECIES	: ALL :		: EASTERN :		: POST- :		: BLACK- :		: ELM-ASH- :		: MAPLE- :		: NON- :		
	: FOREST :	: PINE :	: REDCEDAR :	: EASTERN :	: SHORTLEAF :	: PINE-OAK :	: OAK :	: OAK :	: WHITE-OAK :	: GUM- :	: COTTON- :	: COTTON- :	: WOOD :	: WOOD :	: STOCKED :
SOFTWOODS:															
SHORTLEAF PINE	1.3	--	--	--	1.0	--	--	--	--	--	--	--	--	--	.3
CYPRESS	7.4	--	--	--	--	--	--	--	5.3	2.1	--	--	--	--	--
EASTERN REDCEDAR	31.0	--	11.7	7.5	--	1.8	2.1	4.9	--	.9	--	--	--	1.0	1.1
TOTAL SOFTWOODS	39.7	--	11.7	7.5	1.0	1.8	2.1	4.9	5.3	3.0	--	--	--	1.3	1.1
HARDWOODS:															
SELECT WHITE OAKS	461.2	--	1.8	5.9	.5	9.2	54.6	368.2	4.5	8.3	--	--	--	8.0	.2
OTHER WHITE OAKS	139.9	--	.5	3.1	--	86.3	15.2	30.1	1.1	1.0	--	--	--	1.5	1.1
SELECT RED OAKS	94.5	--	.3	2.1	--	5.6	29.7	44.7	6.0	.8	--	--	--	5.3	--
RED OAKS	163.3	--	1.4	2.4	.4	15.4	92.7	39.3	4.7	3.5	--	--	--	3.5	--
OTHER RED OAKS	15.3	--	--	--	--	2.5	6.3	2.3	2.6	1.6	--	--	--	--	--
HICKORY A	77.1	--	.3	1.4	.2	3.3	25.4	31.5	3.4	6.2	--	--	--	5.1	.3
HICKORY B	50.1	--	--	.5	.3	6.4	14.8	19.0	2.6	1.6	--	--	--	4.7	.2
HARD MAPLE	23.1	--	--	--	--	--	2.5	12.3	--	--	--	--	--	8.3	--
SOFT MAPLE	11.1	--	--	--	--	--	--	.2	.6	9.5	--	--	--	.8	--
BEECH	.3	--	--	--	--	--	.1	--	--	--	--	--	--	.2	--
SWEETGUM	4.5	--	--	--	--	--	1.6	--	.6	2.0	--	--	--	.3	--
TUPELO+BLACKGUM	8.7	--	--	--	.4	--	1.9	1.5	4.2	.4	--	--	--	.3	--
ASH	45.1	--	--	1.3	--	1.5	6.3	12.2	2.4	20.5	.1	--	--	.8	--
SYCAMORE	34.1	--	.2	.7	--	--	4.8	1.3	1.0	19.8	--	--	--	6.3	--
COTTONWOOD	33.6	--	--	--	--	--	--	--	--	23.7	9.0	--	--	--	.9
RIVER BIRCH	2.5	--	--	--	--	--	--	--	.9	1.6	--	--	--	--	--
YELLOW-POPLAR	1.6	--	--	--	--	--	.6	.5	--	--	--	--	--	.5	--
BASSWOOD	.7	--	--	--	--	--	--	--	--	--	--	--	--	.7	--
BLACK WALNUT	21.8	--	.1	--	--	2.0	4.4	5.8	.5	5.5	--	--	--	3.5	--
BLACK CHERRY	2.6	--	--	--	--	.5	.7	.6	.8	.8	--	--	--	--	--
ELM	26.5	--	--	1.2	--	1.2	3.2	5.7	.6	7.4	--	--	--	7.2	--
OTHER HARDWOODS	76.5	--	.2	.5	--	1.1	1.0	2.9	2.6	65.0	.2	--	--	3.0	--
TOTAL HARDWOODS	1294.1	--	4.8	19.1	1.8	135.0	265.8	578.1	38.3	179.2	9.3	60.0	2.7	61.3	3.8
ALL SPECIES	1333.8	--	16.5	26.6	2.8	136.8	267.9	583.0	43.6	182.2	9.3	61.3	2.7	61.3	3.8

Table 28.--Net volume of sawtimber on commercial forest land, by species and forest type, Riverborder, Missouri, 1972 (Million board feet)

SPECIES	ALL :		EASTERN :		POST- :		BLACK- :		WHIT/OAK-GUM- :		ELM-A-SH- :		MAPLE- :		NON- :	
	FOREST :	SHORTLEAF :	REDCEDAR :	SHORTLEAF :	BLACKJACK :	SCARLET :	OAK :	OAK :	OAK :	CYPRESS :	WOOD :	COTTON- :	WOOD :	COTTON- :	REFCH :	STOCKED :
	TYPE :	PINE :	REDCEDAR :	HARDWOOD :	PINE-OAK :	OAK :	OAK :	OAK :	OAK :	CYPRESS :	WOOD :	WOOD :	WOOD :	WOOD :	REFCH :	STOCKED :
SOFTWOODS:																
SHORTLEAF PINE	1.6	--	--	--	.6	--	--	--	--	--	--	--	--	--	1.0	--
CYPRESS	34.4	--	--	--	--	--	--	--	--	24.7	9.7	--	--	--	--	--
EASTERN REDCEDAR	58.2	--	21.2	13.4	--	4.0	4.4	9.6	9.6	--	3.0	--	--	--	--	2.6
TOTAL SOFTWOODS	94.2	--	21.2	13.4	.6	4.0	4.4	9.6	24.7	12.7	--	--	--	1.0	2.6	
HARDWOODS:																
SELECT WHITE OAKS	1362.6	--	4.3	17.0	2.3	26.4	176.8	1061.5	15.2	30.8	--	--	--	26.3	2.0	
OTHER WHITE OAKS	217.6	--	.7	7.6	--	105.0	46.0	55.4	1.7	--	--	--	--	--	1.2	
SELECT RED OAKS	366.6	--	.9	7.1	--	23.5	113.1	159.9	29.7	6.3	--	--	--	26.1	--	
RED OAKS	436.5	--	2.4	8.6	1.6	32.5	242.6	105.6	24.3	8.1	--	--	--	10.8	--	
OTHER RED OAKS	41.3	--	--	--	--	1.6	16.7	7.2	10.0	5.8	--	--	--	--	--	
HICKORY A	192.4	--	--	1.1	--	.9	65.4	77.9	13.6	15.8	--	--	--	15.1	2.6	
HICKORY B	87.6	--	--	.7	--	7.9	22.9	35.1	5.4	.8	--	--	--	14.8	--	
HARD MAPLE	23.8	--	--	--	--	--	2.7	10.5	--	--	--	--	--	10.6	--	
SOFT MAPLE	38.0	--	--	--	--	--	--	--	2.8	31.0	--	--	--	4.2	--	
REECH	1.3	--	--	--	--	--	.6	--	--	--	--	--	--	.7	--	
SWEETGUM	19.1	--	--	--	--	--	5.2	--	2.9	10.3	--	--	--	.7	--	
TUPELO+BLACKGUM	28.4	--	--	--	.4	--	7.5	1.3	14.4	.8	--	--	--	--	--	
ASH	88.7	--	--	.5	--	2.0	14.4	26.5	1.8	42.5	--	--	--	1.0	--	
SYCAMORE	134.4	--	--	2.1	--	--	14.9	4.1	6.2	80.6	--	--	--	26.5	--	
COTTONWOOD	159.7	--	--	--	--	--	--	--	--	118.2	38.4	--	--	--	3.1	
RIVER BIRCH	9.8	--	--	--	--	--	1.4	1.8	4.4	5.4	--	--	--	--	--	
YELLOW-POPLAR	4.6	--	--	--	--	--	--	--	--	--	--	--	--	1.4	--	
BASSWOOD	3.5	--	--	--	--	--	--	--	--	--	--	--	--	3.5	--	
BLACK WALNUT	51.7	--	.7	--	--	2.0	9.8	11.5	1.3	18.8	--	--	--	7.6	--	
BLACK CHERRY	8.8	--	--	--	--	2.6	1.8	1.3	--	3.1	--	--	--	--	--	
ELM	42.0	--	--	--	--	.7	5.2	4.2	1.6	11.2	--	--	--	19.1	--	
OTHER HARDWOODS	232.5	--	.8	.8	--	1.0	--	5.1	5.0	212.5	--	--	--	7.3	--	
TOTAL HARDWOODS	3546.9	--	9.8	45.5	4.3	206.1	747.0	1568.9	140.3	602.0	38.4	175.7	8.9			
ALL SPECIES	3641.1	--	31.0	58.9	4.9	210.1	751.4	1578.5	165.0	614.7	38.4	176.7	11.5			

1/ INTERNATIONAL 1/4-INCH RULE.

Table 29.--Net volume of timber in cull trees on commercial forest land, by species and cull tree class, Riverborder, Missouri, 1972

(Million cubic feet)

SPFCIFS	: ALL : : CULL : : TREFS :	: SHORT-LOG : : TREES ✓ :	: ROUGH : : TREES :	: ROTTEN : : TREES
SOFTWOODS:				
CYPRESS	3.1	.6	.3	2.2
EASTERN REDCEDAR	13.0	3.1	9.3	.6
TOTAL SOFTWOODS	16.1	3.7	9.6	2.8
HARDWOODS:				
SELECT WHITE OAKS	117.9	25.2	76.9	15.8
OTHER WHITE OAKS	60.0	7.3	43.5	9.2
SELECT RED OAKS	29.2	6.1	13.7	9.4
RED OAKS	46.1	8.7	27.1	10.3
OTHER RED OAKS	16.2	2.5	12.1	1.6
HICKORY A	21.9	3.8	15.7	2.4
HICKORY R	13.3	2.1	9.6	1.6
HARD MAPLE	16.2	.7	12.1	3.4
SOFT MAPLE	5.9	1.4	2.6	1.9
BEECH	1.1	--	.8	.3
SWEETGUM	1.7	--	1.2	.5
TUPFLO+BLACKGUM	4.5	1.5	1.8	1.2
ASH	21.6	2.9	15.1	3.6
SYCAMORE	2.6	.6	1.6	.4
COTTONWOOD	2.6	.5	1.9	.2
RIVER PIRCH	1.0	--	.5	.5
YELLOW-POPLAR	.1	--	.1	--
BASSWOOD	.1	--	--	.1
BLACK WALNUT	10.2	2.6	6.3	1.3
BLACK CHERRY	2.0	.4	1.2	.4
FLM	27.9	3.5	19.6	4.8
OTHER HARDWOODS	30.2	2.8	19.8	7.6
NONCOMMERCIAL SPP.	.9	--	.9	--
TOTAL HARDWOODS	433.2	72.6	284.1	76.5
ALL SPECIES	449.3	76.3	293.7	79.3

1/ VOLUMES ARE FOR TREES 9.0 INCHES D.B.H AND LARGER FOR SOFTWOODS AND 11.0 INCHES D.B.H. AND LARGER FOR HARDWOODS.
VOLUMES FOR ROUGH AND ROTTEN TREES ARE FOR TREES 5.0 INCHES D.B.H. AND LARGER

Table 30.--Net volume of short-log trees on commercial forest land, by species and diameter class, Riverbender, Missouri, 1972 (Million board feet)

SPECIES	DIAMETER CLASS (INCHES AT BREAST HEIGHT)										
	ALL	9.0-	11.0-	13.0-	15.0-	17.0-	19.0-	21.0-	23.0-	29.0-	39.0+
SOFTWOODS:											
CYPRESS	2.6	1.4	--	--	--	--	--	--	.4	.8	--
EASTERN REDCEDAR	16.1	10.4	5.4	--	.3	--	--	--	--	--	--
TOTAL SOFTWOODS	18.7	11.8	5.4	--	.3	--	--	.4	.8	--	--
HARDWOODS:											
SELECT WHITE OAKS	76.6	--	17.2	23.0	15.9	5.5	4.9	4.8	4.0	1.3	--
OTHER WHITE OAKS	26.3	--	12.5	7.0	2.5	4.3	--	--	--	--	--
SELECT RED OAKS	18.1	--	1.4	3.4	1.5	--	2.7	2.5	4.1	2.5	--
RED OAKS	30.4	--	7.6	7.8	5.1	2.6	1.9	1.7	1.4	2.1	.2
OTHER RED OAKS	8.7	--	3.3	3.5	--	.9	--	--	1.0	--	--
HICKORY A	13.1	--	5.4	2.2	5.3	.2	--	--	--	--	--
HICKORY B	6.0	--	4.4	1.3	--	--	--	--	--	.3	--
HARD MAPLE	.5	--	--	--	.2	--	.3	--	--	--	--
SOFT MAPLE	2.0	--	.3	.3	--	.4	.4	--	.6	--	--
TUPELO+BLACKGUM	1.4	--	1.4	--	--	--	--	--	--	--	--
ASH	2.4	--	1.1	.6	--	.2	.2	.3	--	--	--
SYCAMORE	.6	--	--	--	.2	--	.4	--	--	--	--
COTTONWOOD	.8	--	--	--	--	--	.3	--	--	.5	--
BLACK WALNUT	2.6	--	.2	.9	1.5	--	--	--	--	--	--
BLACK CHERRY	.3	--	--	.3	--	--	--	--	--	--	--
ELM	6.2	--	.6	.4	.5	.7	.4	.5	1.0	1.2	.9
OTHER HARDWOODS	3.8	--	1.1	.7	.1	.6	.4	.3	.3	.3	--
TOTAL HARDWOODS	199.8	--	56.5	51.4	32.8	15.4	11.9	10.1	12.4	8.2	1.1
ALL SPECIES	218.5	11.8	61.9	51.4	33.1	15.4	11.9	10.5	13.2	8.2	1.1

1/ INTERNATIONAL 1/4-INCH RULE.

Table 31.--Net volume of sawtimber on commercial forest land, by species and log grade class, Riverborder, Missouri, 1972

(Million board feet)^{1/}

SPECIES	ALL GRADES	LOG GRADE 1	LOG GRADE 2	LOG GRADE 3	TIE AND TIMBER
SOFTWOODS:					
SHORTLEAF PINE	1.6	.1	.3	1.2	--
CYPRESS	34.4	5.0	6.7	22.7	--
EASTERN REDCEDAR	58.2	.1	.9	56.5	.7
TOTAL SOFTWOODS	94.2	5.2	7.9	80.4	.7
HARDWOODS:					
SELECT WHITE OAKS	1,362.6	138.4	318.2	645.3	260.7
OTHER WHITE OAKS	217.6	7.8	24.9	127.0	57.9
SELECT RED OAKS	366.6	82.9	103.9	154.7	25.1
RED OAKS	436.5	34.3	120.1	189.4	92.7
OTHER RED OAKS	41.3	1.8	3.4	8.8	27.3
HICKORY A	192.4	23.7	35.0	71.9	61.8
HICKORY B	87.6	2.4	14.1	37.4	33.7
HARD MAPLE	23.8	--	1.8	11.5	10.5
SOFT MAPLE	38.0	1.3	20.4	7.5	8.8
BEECH	1.3	--	--	--	1.3
SWEETGUM	19.1	3.7	3.7	4.5	7.2
TUPELO AND BLACKGUM	24.4	4.9	5.7	7.3	6.5
ASH	88.7	3.8	39.3	44.5	1.1
SYCAMORE	134.4	46.8	34.3	46.5	6.8
COTTONWOOD	159.7	28.0	26.9	88.2	16.6
RIVER BIRCH	9.8	3.4	2.4	1.8	2.2
YELLOW-POPLAR	4.6	.6	1.6	1.7	.7
BASSWOOD	3.5	--	1.0	2.3	.2
BLACK WALNUT	51.7	5.8	16.3	28.4	1.2
BLACK CHERRY	8.8	--	--	7.2	1.6
ELM	42.0	3.3	9.4	21.7	7.6
OTHER HARDWOODS	232.5	26.9	35.6	67.8	102.2
TOTAL HARDWOODS	3,546.9	419.8	818.0	1,575.4	733.7
ALL SPECIES*	3,641.1	425.0	825.9	1,655.8	734.4

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 32.--Walnut volume on nonforest land, by diameter class and class of timber, Riverborder, Missouri, 1972

DIAMETER CLASS (INCHES AT BREAST HEIGHT)	GROWING STOCK TREES	SAWTIMBER TREES	ROUGH TREES	SHORT-LOG TREES	ROTTEN TREES
	THOUSAND CUBIC FEET	THOUSAND BOARD FEET ^{1/}	THOUSAND CUBIC FEET	THOUSAND BOARD FEET ^{1/}	THOUSAND CUBIC FEET
5.0-6.9	--	--	288.9	--	--
7.0-8.9	721.1	--	658.4	--	--
9.0-10.9	755.2	--	--	--	--
11.0-12.9	271.0	2,018.8	198.3	--	161.1
13.0-14.9	728.1	3,849.9	375.7	--	--
15.0-16.9	1,065.2	6,050.6	112.9	416.8	47.3
17.0-18.9	--	--	--	--	319.2
19.0-20.9	314.8	1,639.7	--	--	--
21.0-22.9	--	--	--	--	47.0
23.0-28.9	--	--	--	--	111.9
29.0-38.9	--	--	--	900.1	--
ALL DIAMETERS	3,855.4	13,559.0	1,634.2	1,316.9	686.5

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 33.--Net annual growth of growing stock and sawtimber on commercial forest land, by species and county, Riverborder, Missouri, 1971

SPECIES	ALL COUNTIES		BOONE		CALLAWAY		CAPE GIRARDEAU		COLE	
	GROWING : THOUSAND	SAW- : THOUSAND	GROWING : THOUSAND	SAW- : THOUSAND	GROWING : THOUSAND	SAW- : THOUSAND	GROWING : THOUSAND	SAW- : THOUSAND	GROWING : THOUSAND	SAW- : THOUSAND
	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/	BD. FT. 1/
SOFTWOODS:										
SHORTLEAF PINE	1,004	142	6	6	23	7	17	5	9	3
CYPRESS	2,598	996	--	--	--	--	--	--	--	--
EASTERN REDCEDAR	15,079	2,269	842	124	1,152	165	531	80	739	123
TOTAL SOFTWOODS	18,681	3,407	859	130	1,175	172	548	85	748	126
HARDWOODS:										
SELECT WHITE OAKS	111,832	21,846	5,306	1,025	8,999	1,720	5,326	1,063	3,595	686
OTHER WHITE OAKS	23,718	2,437	1,269	124	2,197	211	966	101	938	92
SELECT RED OAKS	35,847	8,690	1,693	405	2,888	687	1,455	341	1,167	275
RED OAKS	55,040	10,856	2,532	466	4,286	788	2,081	409	1,760	321
OTHER RED OAKS	6,153	752	313	34	543	64	245	29	213	23
HICKORY A	27,458	4,431	1,244	177	2,109	297	1,100	170	844	117
HICKORY B	13,090	1,529	578	59	981	97	487	55	397	39
HARD MAPLE	4,936	411	248	21	409	34	244	19	158	13
SOFT MAPLE	6,267	1,496	56	17	85	25	46	14	29	9
BEECH	117	42	--	--	--	--	--	--	--	--
SWEETGUM	3,159	650	38	24	36	22	34	22	14	8
TUPELO AND BLACKGUM	3,184	515	70	12	112	21	50	8	47	7
ASH	19,857	2,203	956	99	1,623	156	785	100	604	54
SYCAMORE	24,043	7,257	1,248	374	1,803	545	1,046	314	672	196
COTTONWOOD	20,143	6,575	894	279	1,144	348	798	248	412	126
RIVER BIRCH	1,450	471	39	15	50	15	35	13	17	5
YELLOW-POPLAR	815	198	2	1	4	1	2	1	1	1
BASSWOOD	269	127	15	7	23	11	12	6	9	4
BLACK WALNUT	6,131	479	333	26	541	41	269	22	217	14
BLACK CHERRY	158	152	9	8	21	12	5	8	11	5
ELM	6,168	544	290	28	466	39	219	14	179	17
OTHER HARDWOODS	44,099	10,108	1,612	379	1,818	432	1,070	267	1,198	248
TOTAL HARDWOODS	413,934	81,769	18,745	3,580	30,138	5,566	16,275	3,224	12,482	2,260
ALL SPECIES	432,615	85,176	19,604	3,710	31,313	5,738	16,823	3,309	13,230	2,386

(Table 33 cont. on next page)

(Table 33 cont.)

SPECIES	DUNKLIN		FRANKLIN		GASCONADE		HOWARD		JEFFERSON	
	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :
	THOUSAND BD. FT. 1/	CORDS THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	CORDS THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	CORDS THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	CORDS THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	CORDS THOUSAND BD. FT. 1/
SOFTWOODS:										
SHORTLEAF PINE	--	231	42	17	5	4	23	7		
CYPRESS	642	--	--	--	--	--	--	--		
EASTERN REDCEDAR	--	1,798	270	1,093	158	82	1,835	275		
TOTAL SOFTWOODS	642	2,029	312	1,110	163	86	1,858	282		
HARDWOODS:										
SELECT WHITE OAKS	408	74	14,330	2,817	9,008	1,727	2,865	561	12,699	2,480
OTHER WHITE OAKS	34	7	2,651	287	2,117	205	634	65	2,575	268
SELECT RED OAKS	422	117	4,170	993	2,725	640	938	228	3,849	925
RED OAKS	829	205	5,953	1,191	3,957	742	1,396	263	5,450	1,065
OTHER RED OAKS	74	19	656	70	465	52	164	17	599	62
HICKORY A	431	120	2,990	461	1,959	286	674	97	2,682	401
HICKORY B	149	25	1,353	159	924	95	307	33	1,233	140
HARD MAPLE	4	1	639	51	386	30	138	12	549	44
SOFT MAPLE	1,011	224	96	29	51	15	31	10	69	21
BEECH	3	1	--	--	--	--	--	--	--	--
SWEETGUM	273	57	54	34	36	23	17	11	34	21
TUPELO AND BLACKGUM	285	57	169	33	99	19	39	6	142	28
ASH	415	70	2,112	230	1,399	134	521	51	1,831	177
SYCAMORE	801	271	2,199	660	1,204	356	709	211	1,586	469
COTTONWOOD	1,083	399	1,326	404	646	200	453	140	669	201
RIVER BIRCH	177	52	82	28	45	16	19	7	55	18
YELLOW-POPLAR	39	11	5	2	4	1	1	--	5	2
BASSWOOD	--	--	30	14	15	7	10	5	26	12
BLACK WALNUT	30	8	676	51	438	31	185	12	587	34
BLACK CHERRY	--	--	10	20	16	12	7	5	20	16
ELM	189	6	559	37	356	23	165	17	481	32
OTHER HARDWOODS	3,770	873	2,519	541	1,512	316	952	214	1,548	301
TOTAL HARDWOODS	10,427	2,597	42,579	8,112	27,362	4,930	10,225	1,965	36,689	6,717
ALL SPECIES	11,069	2,841	44,608	8,424	28,472	5,093	10,792	2,051	38,547	6,999

(Table 33 cont. on next page)

(Table 33 cont.)

SPECIES	MISSISSIPPI			MONITEAU			MONTGOMERY			NEW MADRID			OSAGE		
	GROWING : STOCK :	SAW- : TIMBER :	THOUSAND :	GROWING : STOCK :	SAW- : TIMBER :	THOUSAND :	GROWING : STOCK :	SAW- : TIMBER :	THOUSAND :	GROWING : STOCK :	SAW- : TIMBER :	THOUSAND :	GROWING : STOCK :	SAW- : TIMBER :	THOUSAND :
	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /	BD. FT. /
SOFTWOODS:															
SHORTLEAF PINE	--	--	9	3	14	5	--	--	14	5	14	5	14	5	5
CYPRESS	321	125	--	--	--	--	345	133	--	--	--	--	--	--	--
EASTERN RECEDAR	--	--	550	78	699	125	--	--	1,490	215	--	--	1,490	215	--
TOTAL SOFTWOODS	321	125	559	81	713	130	345	133	1,504	220	133	1,504	1,504	220	220
HARDWOODS:															
SELECT WHITE OAKS	206	32	2,414	460	4,817	926	252	40	8,295	1,601	40	8,295	1,601	1,601	1,601
OTHER WHITE OAKS	16	2	692	64	1,256	123	16	3	2,108	206	3	2,108	206	206	206
SELECT RED OAKS	93	11	902	226	1,585	375	121	18	2,828	697	18	2,828	697	697	697
RED OAKS	214	44	1,339	243	2,388	438	250	48	4,101	759	48	4,101	759	759	759
OTHER RED OAKS	45	10	170	18	319	40	67	20	488	52	20	488	52	52	52
HICKORY A	156	57	611	79	1,197	167	200	66	1,953	273	66	1,953	273	273	273
HICKORY B	32	10	296	27	537	53	36	10	924	94	10	924	94	94	94
HARD MAPLE	--	--	110	10	229	20	--	--	365	31	--	365	31	31	31
SOFT MAPLE	971	231	20	6	67	20	1,013	228	72	22	228	72	22	22	22
BEECH	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWEETGUM	88	20	1	1	49	32	114	28	43	27	28	43	27	27	27
TUPELO AND BLACKGUM	183	28	40	8	62	11	148	26	122	23	26	122	23	23	23
ASH	365	67	478	34	987	108	379	70	1,485	133	70	1,485	133	133	133
SYCAMORE	451	125	437	128	1,460	444	631	178	1,564	470	178	1,564	470	470	470
COTTONWOOD	1,430	508	169	48	1,226	384	1,420	513	984	306	513	984	306	306	306
RIVER BIRCH	112	34	10	2	43	17	165	47	48	17	47	48	17	17	17
YELLOW-POPLAR	--	--	1	--	2	1	--	--	3	1	--	3	1	1	1
BASSWOOD	--	--	6	3	17	8	--	--	23	11	--	23	11	11	11
BLACK WALNUT	43	9	170	10	351	30	35	7	498	33	7	498	33	33	33
BLACK CHERRY	--	--	11	4	5	7	--	--	15	11	--	15	11	11	11
ELM	169	-3	144	12	314	33	228	2	429	42	2	429	42	42	42
OTHER HARDWOODS	3,651	830	524	101	1,502	393	3,870	887	1,822	409	887	1,822	409	409	409
TOTAL HARDWOODS	8,225	2,015	8,545	1,484	18,413	3,630	8,945	2,191	28,170	5,218	2,191	28,170	5,218	5,218	5,218
ALL SPECIES	8,546	2,140	9,104	1,565	19,126	3,760	9,290	2,324	29,674	5,438	2,324	29,674	5,438	5,438	5,438

(Table 33 cont. on next page)

(Table 33 cont.)

SPECIES	PEMISCOT		PERRY		ST. CHARLES		ST. LOUIS		STE. GENEVIEVE	
	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :
	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/	THOUSAND BD. FT. 1/
SOFTWOODS:										
SHORTLEAF PINE	--	--	76	5	17	5	17	5	494	30
CYPRESS	325	124	--	--	--	--	--	--	--	--
EASTERN REDCEDAR	--	--	663	100	528	85	632	86	1,011	141
TOTAL SOFTWOODS	325	124	739	105	545	90	649	91	1,505	171
HARDWOODS:										
SELECT WHITE OAKS	273	32	6,124	1,202	5,070	1,022	3,266	657	8,294	1,605
OTHER WHITE OAKS	7	1	1,189	126	800	90	613	68	1,952	189
SELECT RED OAKS	166	22	1,807	432	1,414	334	1,013	250	2,689	654
RED OAKS	238	51	2,603	513	1,970	387	1,484	292	3,891	749
OTHER RED OAKS	40	9	289	30	248	33	186	22	447	48
HICKORY A	198	64	1,301	197	1,100	172	763	115	1,880	257
HICKORY B	71	8	605	67	471	58	341	40	961	87
HARD MAPLE	--	--	274	22	261	22	170	15	356	29
SOFT MAPLE	814	186	41	12	91	28	48	14	44	14
BEECH	--	--	--	--	--	--	--	--	--	--
SWEETGUM	104	25	30	19	91	60	33	21	13	7
TUPELO AND BLACKGUM	172	31	75	12	55	7	42	7	164	27
ASH	309	56	935	100	926	147	626	79	1,329	108
SYCAMORE	509	147	989	294	2,074	637	1,048	321	951	280
COTTONWOOD	1,221	435	679	210	2,049	651	860	268	291	84
RIVER BIRCH	95	30	36	14	73	32	36	13	27	7
YELLOW-POPLAR	117	34	2	1	1	1	1	--	3	1
BASSWOOD	--	--	13	6	22	10	12	6	17	8
BLACK WALNUT	35	7	305	22	351	37	231	22	415	22
BLACK CHERRY	--	--	6	9	-5	9	-1	6	18	10
ELM	195	5	235	18	307	39	211	21	347	24
OTHER HARDWOODS	2,850	676	1,378	292	2,836	738	1,089	283	1,014	180
TOTAL HARDWOODS	7,414	1,819	18,916	3,598	20,205	4,514	12,072	2,520	25,103	4,390
ALL SPECIES	7,739	1,943	19,655	3,703	20,750	4,604	12,721	2,611	26,608	4,561

(Table 33 cont. on next page)

(Table 33 cont.)

SPECIES	SCOTT		STODDARD		WARREN	
	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :	GROWING : STOCK :	SAW- TIMBER :
	CORDS THOUSAND BD. FT. 1/		CORDS THOUSAND BD. FT. 1/		CORDS THOUSAND BD. FT. 1/	
SOFTWOODS:						
SHORTLEAF PINE	--	--	--	--	14	5
CYPRESS	168	64	797	306	--	--
EASTERN REDCEDAR	--	--	--	--	961	162
TOTAL SOFTWOODS	168	64	797	306	975	167
HARDWOODS:						
SELECT WHITE OAKS	1,064	255	2,117	477	7,104	1,384
OTHER WHITE OAKS	74	18	176	41	1,438	146
SELECT RED OAKS	551	167	1,238	390	2,133	503
RED OAKS	1,632	415	3,699	891	2,987	576
OTHER RED OAKS	53	13	173	45	356	42
HICKORY A	851	210	1,689	422	1,526	226
HICKORY B	611	101	1,101	195	695	77
HARD MAPLE	27	4	46	7	323	26
SOFT MAPLE	340	76	1,207	275	65	20
BEECH	44	16	70	25	--	--
SWEETGUM	680	39	1,327	117	50	32
TUPELO AND BLACKGUM	306	30	724	100	78	14
ASH	149	22	497	77	1,146	131
SYCAMORE	259	76	948	321	1,454	440
COTTONWOOD	331	119	1,066	391	992	313
RIVER BIRCH	35	9	200	60	51	20
YELLOW-POPLAR	271	62	348	76	3	1
BASSWOOD	--	--	--	--	19	9
BLACK WALNUT	12	3	33	9	376	29
BLACK CHERRY	--	--	--	--	10	10
ELM	107	40	249	70	329	28
OTHER HARDWOODS	1,151	274	4,367	1,000	2,046	474
TOTAL HARDWOODS	8,548	1,949	21,275	4,989	23,181	4,501
ALL SPECIES	8,716	2,013	22,072	5,295	24,156	4,668

1/ INTERNATIONAL 1/4-INCH RULE.

Table 34.--Timber removals from growing stock and sawtimber on commercial forest land, by item and species group, Riverborder, Missouri, 1971^{1/}

ITEM	GROWING STOCK						SAWTIMBER					
	ALL : SPECIES:	SHORTLEAF : PINE:	OTHER : PINE:	SOFT : PINE:	HARD : HARWOODS:	ALL : SPECIES:	SHORTLEAF : PINE:	OTHER : PINE:	SOFT : HARWOODS:	OTHER : HARWOODS:	SOFT : HARWOODS:	HARD : HARWOODS:
	CORDS						THOUSAND BOARD FEET ^{2/}					
ROUNDWOOD PRODUCTS:												
SAW LOGS	91,171	962	963	60,611	28,635	42,504	439	382	30,700	10,983		
COOPERAGE LOGS	41,051	--	--	316	40,735	19,491	--	--	126	19,365		
VENEER LOGS	3,278	--	--	1,772	1,506	1,182	--	--	619	563		
PULPWOOD	3,291	--	--	2,354	937	1,158	--	--	820	338		
POSTS	975	51	76	266	582	218	3	5	67	143		
CHARCOAL WOOD	6,266	--	--	25	6,241	732	--	--	2	730		
FUELWOOD	18,417	--	203	1,924	16,290	3,438	--	37	339	3,062		
MINE TIMBERS	418	--	--	--	418	37	--	--	--	37		
HANDLE BOLTS	1,126	--	--	--	1,126	435	--	--	6	429		
MISCELLANEOUS ^{3/}	811	--	--	13	798	349	--	--	5	344		
ALL PRODUCTS	166,804	1,013	1,242	67,281	97,268	69,544	442	424	32,684	35,994		
LOGGING RESIDUES	29,911	101	25	8,417	21,368	4,159	12	4	1,266	2,877		
OTHER REMOVAL	253,367	--	8,456	65,764	179,147	41,689	--	1,784	11,746	28,159		
TOTAL REMOVALS	450,082	1,114	9,723	141,462	297,783	115,392	454	2,212	45,696	67,030		

^{1/} See glossary for timber removals from growing stock (page 5).

^{2/} International 1/4-inch rule.

^{3/} Includes shaving wood, heading bolts, etc.

Table 35.--Timber removals from growing stock and sawtimber on commercial forest land, by species and county, Riverborder, Missouri, 1971

SPECIES	ALL COUNTIES		BOONE		CALLAWAY		CAPE GIRARDEAU		COLE	
	GROWING STOCK	SAWTIMBER	GROWING STOCK	SAWTIMBER	GROWING STOCK	SAWTIMBER	GROWING STOCK	SAWTIMBER	GROWING STOCK	SAWTIMBER
	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/
SOFTWOODS:										
SHORTLEAF PINE	1,114	454	--	--	--	--	--	--	--	--
CYPRESS	8,887	1,965	--	--	--	--	--	--	--	--
EASTERN REDCEDAR	836	247	--	--	51	17	--	--	63	19
TOTAL SOFTWOODS	10,837	2,666	--	--	51	17	--	--	63	19
HARDWOODS:										
SELECT WHITE OAKS	122,466	33,057	4,509	1,072	8,396	2,541	7,347	2,260	3,419	855
OTHER WHITE OAKS	6,954	1,666	198	46	370	108	291	92	155	38
SELECT RED OAKS	44,135	7,582	1,707	255	2,593	369	2,780	610	1,270	206
RED OAKS	55,212	9,439	2,368	343	3,618	499	3,633	814	1,786	281
OTHER RED OAKS	18,563	3,352	177	26	276	38	265	61	132	20
HICKORY A	15,802	3,350	371	61	511	78	1,838	554	340	79
HICKORY B	5,523	1,164	190	31	264	40	918	276	173	39
HARD MAPLE	3,152	698	138	27	226	45	327	99	88	18
SOFT MAPLE	7,986	3,552	873	377	38	20	392	179	304	145
BEECH	7,759	278	--	--	--	--	253	97	--	--
SWEETGUM	7,190	2,294	--	--	--	--	544	250	--	--
TUPELO AND BLACKGUM	760	351	--	--	--	--	139	62	--	--
ASH	21,699	4,659	1,121	272	1,272	214	1,082	283	822	220
SYCAMORE	14,584	5,881	557	257	127	48	658	277	1,000	464
COTTONWOOD	44,253	20,190	1,291	534	1,835	858	759	356	608	288
RIVER BIRCH	306	145	13	8	--	--	51	26	--	--
YELLOW-POPLAR	1,734	803	--	--	--	--	506	231	--	--
BASSWOOD	38	19	--	1	--	--	--	--	--	--
BLACK WALNUT	2,620	935	114	36	152	51	101	37	139	53
BLACK CHERRY	13	8	--	--	--	--	--	3	--	--
ELM	16,280	4,000	467	93	714	137	986	343	311	58
OTHER HARDWOODS	49,216	9,303	1,503	235	1,801	282	1,182	211	1,106	153
TOTAL HARDWOODS	439,245	112,726	15,597	3,674	22,193	5,328	24,052	7,121	11,653	2,917
ALL SPECIES	450,082	115,392	15,597	3,674	22,244	5,345	24,052	7,121	11,716	2,936

(Table 35 cont. on next page)

(Table 35 cont.)

SPECIES	DUNKLIN		FRANKLIN		GASCONADE		HOWARD		JEFFERSON	
	GROWING : STOCK	SAWTIMBER : THOUSAND BD. FT. 2/	GROWING : STOCK	SAWTIMBER : THOUSAND BD. FT. 2/	GROWING : STOCK	SAWTIMBER : THOUSAND BD. FT. 2/	GROWING : STOCK	SAWTIMBER : THOUSAND BD. FT. 2/	GROWING : STOCK	SAWTIMBER : THOUSAND BD. FT. 2/
SOFTWOODS:										
SHORTLEAF PINE	--	--	--	--	--	--	--	--	--	--
CYPRESS	2,179	454	--	--	--	--	--	--	--	--
EASTERN REDCEDAR	--	--	215	68	25	11	--	--	203	64
TOTAL SOFTWOODS	2,179	454	215	68	25	11	--	--	203	64
HARDWOODS:										
SELECT WHITE OAKS	1,114	149	8,170	1,694	8,099	2,153	2,961	930	21,723	7,405
OTHER WHITE OAKS	27	209	305	66	349	90	124	38	890	307
SELECT RED OAKS	769	132	4,132	614	3,056	459	848	125	5,003	942
RED OAKS	431	76	5,358	831	4,109	615	1,167	170	6,580	1,260
OTHER RED OAKS	2,450	425	371	58	297	45	85	12	461	88
HICKORY A	736	139	828	147	535	82	159	27	806	166
HICKORY B	54	9	421	75	277	42	81	14	413	85
HARD MAPLE	--	--	355	67	214	41	77	17	380	84
SOFT MAPLE	50	17	177	81	63	32	772	327	392	183
BEECH	--	--	--	--	--	--	--	--	38	12
SWEETGUM	859	209	--	--	--	--	--	--	13	6
TUPELO AND BLACKGUM	13	6	--	--	--	--	--	--	25	13
ASH	793	145	1,692	322	1,081	195	553	124	1,467	287
SYCAMORE	853	230	114	54	25	15	466	466	608	281
COTTONWOOD	13	10	2,886	1,342	2,051	951	1,367	575	987	459
RIVER BIRCH	--	3	--	--	--	1	76	30	13	3
YELLOW-POPLAR	--	--	--	--	--	--	--	--	215	101
BASSWOOD	--	--	--	--	--	--	--	9	13	8
BLACK WALNUT	--	--	266	93	51	18	253	85	114	42
BLACK CHERRY	--	--	--	--	--	--	--	--	13	3
ELM	773	157	1,199	281	619	116	400	125	903	207
OTHER HARDWOODS	4,586	964	2,500	373	1,521	221	973	177	1,567	224
TOTAL HARDWOODS	13,703	2,698	28,774	6,098	22,347	5,076	10,934	3,251	42,624	12,166
ALL SPECIES	15,882	3,152	28,989	6,166	22,372	5,087	10,934	3,251	42,827	12,230

(Table 35 cont. on next page)

(Table 35 cont.)

SPECIES	MISSISSIPPI		MONITEAU		MONTGOMERY		NEW MADRID		OSAGE	
	GROWING : STOCK	SAWTIMBER	GROWING : STOCK	SAWTIMBER	GROWING : STOCK	SAWTIMBER	GROWING : STOCK	SAWTIMBER	GROWING : STOCK	SAWTIMBER
	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/	CORDS	THOUSAND BD. FT. 2/
SOFTWOODS:										
SHORTLEAF PINE	--	--	--	--	--	--	--	--	--	--
CYPRESS	1,308	356	--	--	--	--	1,157	257	--	--
EASTERN REDCEDAR	--	--	--	--	--	--	--	--	127	39
TOTAL SOFTWOODS	1,308	356	--	--	--	--	1,157	257	127	39
HARDWOODS:										
SELECT WHITE OAKS	1,406	337	2,601	742	7,143	1,626	768	117	8,056	1,977
OTHER WHITE OAKS	280	64	121	32	314	71	141	22	360	86
SELECT RED OAKS	338	77	934	158	1,762	246	337	68	3,040	500
RED OAKS	224	54	1,336	210	2,483	336	204	43	4,184	664
OTHER RED OAKS	1,736	326	1,000	15	194	27	1,908	363	303	47
HICKORY A	648	205	151	22	551	76	538	146	610	111
HICKORY B	67	24	79	11	278	37	42	15	316	57
HARD MAPLE	--	--	61	14	127	25	--	--	202	40
SOFT MAPLE	286	115	190	63	38	22	871	389	937	438
BEECH	--	--	--	--	--	--	--	--	--	--
SWEETGUM	873	315	--	--	--	--	821	273	--	--
TUPELO AND BLACKGUM	76	32	--	--	--	--	38	23	--	--
ASH	983	248	659	180	827	146	920	218	1,438	330
SYCAMORE	740	238	1,000	457	127	59	1,103	373	1,013	467
COTTONWOOD	6,823	3,172	987	414	2,696	1,259	6,785	2,946	1,076	502
RIVER BIRCH	13	6	13	6	--	1	--	--	--	--
YELLOW-POPLAR	--	--	--	--	--	--	--	--	--	--
BASSWOOD	--	--	--	--	--	--	--	--	--	--
BLACK WALNUT	--	--	165	61	89	33	--	--	278	101
BLACK CHERRY	--	--	--	--	--	--	--	--	--	--
ELM	695	147	205	41	637	157	1,042	245	775	148
OTHER HARDWOODS	4,904	1,138	528	79	1,469	252	4,943	1,096	1,868	284
TOTAL HARDWOODS	20,092	6,498	9,130	2,505	18,735	4,374	20,461	6,337	24,456	5,752
ALL SPECIES	21,400	6,854	9,130	2,505	18,735	4,374	21,618	6,594	24,583	5,791

(Table 35 cont. on next page)

(Table 35 cont.)

SPECIES	PEMISCOT		PERRY		ST. CHARLES		ST. LOUIS		STE. GENEVIEVE	
	GROWING: SAWTIMBER STOCK	THOUSAND BD. FT. 2/	GROWING: SAWTIMBER STOCK	THOUSAND BD. FT. 2/	GROWING: SAWTIMBER STOCK	THOUSAND BD. FT. 2/	GROWING: SAWTIMBER STOCK	THOUSAND BD. FT. 2/	GROWING: SAWTIMBER STOCK	THOUSAND BD. FT. 2/
SOFTWOODS:										
SHORTLEAF PINE	--	--	--	--	--	--	--	--	1,114	454
CYPRESS	1,069	223	--	--	--	--	--	--	25	10
EASTERN REDCEDAR	--	--	--	--	--	--	25	4	127	25
TOTAL SOFTWOODS	1,069	223	--	--	--	25	4	4	1,266	489
HARDWOODS:										
SELECT WHITE OAKS	693	78	8,244	2,579	3,391	858	1,819	390	7,662	2,108
OTHER WHITE OAKS	70	9	333	107	119	33	69	16	330	89
SELECT RED OAKS	246	25	2,718	548	1,432	216	1,315	249	3,594	702
RED OAKS	102	15	3,595	737	1,789	280	1,746	335	4,891	950
OTHER RED OAKS	1,183	176	254	53	136	23	132	25	350	66
HICKORY A	337	65	530	120	267	42	189	28	974	262
HICKORY B	24	3	269	61	131	23	94	16	509	133
HARD MAPLE	--	--	229	57	144	27	95	20	211	44
SOFT MAPLE	29	10	494	228	962	440	291	135	114	50
BEECH	--	--	177	67	--	--	--	--	51	19
SWEETGUM	493	134	152	69	--	--	--	--	25	10
TUPELO AND BLACKGUM	114	54	76	33	--	--	13	6	38	18
ASH	582	111	903	198	990	210	591	123	1,133	242
SYCAMORE	544	133	253	115	1,000	462	962	441	1,228	562
COTTONWOOD	278	106	1,228	569	6,544	3,048	1,443	673	899	424
RIVER BIRCH	--	--	38	19	--	3	13	5	13	5
YELLOW-POPLAR	--	3	266	124	--	--	--	--	51	25
BASSWOOD	--	--	--	--	--	--	--	--	--	--
BLACK WALNUT	--	--	38	16	392	141	215	78	76	28
BLACK CHERRY	--	--	--	--	--	--	--	--	--	--
ELM	704	121	564	139	670	160	473	124	752	196
OTHER HARDWOODS	3,555	759	1,298	188	2,786	518	1,182	234	997	127
TOTAL HARDWOODS	8,954	1,802	21,659	6,027	20,753	6,484	10,642	2,898	23,898	6,060
ALL SPECIES	10,023	2,025	21,659	6,027	20,753	6,484	10,667	2,902	25,164	6,549

(Table 35 cont. on next page)

(Table 35 cont.)

SPECIES	SCOTT		STODDARD		WARREN	
	GROWING: SAWTIMBER	STOCK	GROWING: SAWTIMBER	STOCK	GROWING: SAWTIMBER	STOCK
	THOUSAND BD. FT. 2/	THOUSAND BD. FT. 2/	THOUSAND BD. FT. 2/	THOUSAND BD. FT. 2/	THOUSAND BD. FT. 2/	THOUSAND BD. FT. 2/
SOFTWOODS:						
SHORTLEAF PINE	--	--	--	--	--	--
CYPRESS	526	114	2,623	551	--	--
EASTERN REDCEDAR	--	--	--	--	--	--
TOTAL SOFTWOODS	526	114	2,623	551	--	--
HARDWOODS:						
SELECT WHITE OAKS	2,934	471	5,506	782	6,505	1,933
OTHER WHITE OAKS	549	89	1,115	157	262	79
SELECT RED OAKS	1,688	349	2,559	437	2,014	295
RED OAKS	1,138	235	1,858	302	2,612	389
OTHER RED OAKS	2,731	629	4,832	800	190	29
HICKORY A	1,424	273	3,099	618	360	55
HICKORY B	255	48	483	97	185	28
HARD MAPLE	76	30	25	9	177	34
SOFT MAPLE	227	97	359	142	127	62
BEECH	139	52	101	31	--	--
SWEETGUM	1,441	530	1,969	498	--	--
TUPELO AND BLACKGUM	89	37	139	67	--	--
ASH	474	116	1,375	298	941	177
SYCAMORE	553	193	1,106	289	--	--
COTTONWOOD	494	224	1,190	77	3,013	1,403
RIVER BIRCH	25	15	38	14	--	--
YELLOW-POPLAR	468	213	228	106	--	--
BASSWOOD	--	--	--	--	--	--
BLACK WALNUT	--	--	--	--	177	62
BLACK CHERRY	--	--	--	2	--	--
ELM	1,359	486	1,415	380	617	139
OTHER HARDWOODS	1,553	332	5,433	1,131	1,961	325
TOTAL HARDWOODS	17,617	4,419	31,830	6,231	19,141	5,010
ALL SPECIES	18,143	4,533	34,453	6,782	19,141	5,010

1/ See glossary for timber removals from growing stock (page 5).

2/ International 1/4-inch rule.

Table 36.--Annual mortality of growing stock and sawtimber on commercial forest land, by cause and softwoods and hardwoods, Riverborder, Missouri, 1971

CAUSE	GROWING STOCK			SAWTIMBER		
	ALL	SOFTWOODS	HARDWOODS	ALL	SOFTWOODS	HARDWOODS
	SPECIES	SPECIES	SPECIES	SPECIES	SPECIES	SPECIES
	THOUSAND CUBIC FEET			THOUSAND BOARD FEET ^{1/}		
DISEASE	952	--	952	2,127	--	2,127
WEATHER	446	--	446	1,670	--	1,670
SUPPRESSION	45	--	45	--	--	--
UNKNOWN AND OTHER	758	--	758	2,296	--	2,296
LOGGING	165	--	165	849	--	849
ALL CAUSES	2,366	--	2,366	6,942	--	6,942

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 37.--Annual mortality of growing stock and sawtimber on commercial forest land, by species, Riverborder, Missouri, 1971

SPECIES	GROWING STOCK	SAWTIMBER
	THOUSAND CUBIC FEET	THOUSAND BOARD FEET ^{1/}
HARDWOODS:		
SELECT WHITE OAKS	159	126
OTHER WHITE OAKS	79	88
SELECT RED OAKS	147	527
RED OAKS	71	375
OTHER RED OAKS	109	483
SOFT MAPLE	104	159
ASH	164	477
COTTONWOOD	435	2,385
BLACK WALNUT	147	705
BLACK CHERRY	52	--
ELM	457	694
OTHER HARDWOODS	442	923
TOTAL HARDWOODS	2,366	6,942

^{1/} INTERNATIONAL 1/4-INCH RULE.

Table 38.--Output of timber products by source of material and softwoods and hardwoods, Riverborder, Missouri, 1969

PRODUCT AND SPECIES GROUP	STANDARD UNIT ^{1/}	TOTAL		ROUNDWOOD PRODUCTS				PLANT BYPRODUCTS	
				GROWING STOCK		NONGROWING STOCK			
				NO. OF UNITS	M CU. FT.	NO. OF UNITS	M CU. FT.		
SAW LOGS:	M 8D. FT.								
SOFTWOOD		829	152	829	152	--	--	--	--
HARDWOOD		51,056	8,393	42,827	7,050	8,229	1,343	--	--
TOTAL		51,885	8,545	43,656	7,202	8,229	1,343	--	--
VENEER LOGS:	M 8D. FT.								
SOFTWOOD		--	--	--	--	--	--	--	--
HARDWOOD		1,520	336	1,168	259	352	77	--	--
TOTAL		1,520	336	1,168	259	352	77	--	--
COOPERAGE LOGS:	M 8D. FT.								
SOFTWOOD		--	--	--	--	--	--	--	--
HARDWOOD		21,758	3,581	19,703	3,243	2,055	338	--	--
TOTAL		21,758	3,581	19,703	3,243	2,055	338	--	--
PULPWOOD:	STD. CORDS								
SOFTWOOD		32,737	2,570	3,428	260	1,688	128	27,621	2,182
HARDWOOD		--	--	--	--	--	--	--	--
TOTAL		32,737	2,570	3,428	260	1,688	128	27,621	2,182
MINE TIMBERS:	M CU. FT.								
SOFTWOOD		--	--	--	--	--	--	--	--
HARDWOOD		45	45	33	33	12	12	--	--
TOTAL		45	45	33	33	12	12	--	--
POSTS:	M PIECES								
SOFTWOOD		26	14	18	10	8	4	--	--
HARDWOOD		187	89	140	67	47	22	--	--
TOTAL		213	103	158	77	55	26	--	--
CHARCOAL WOOD:	STD. CORDS								
SOFTWOOD		14	1	--	--	--	--	14	1
HARDWOOD		22,899	1,586	7,148	495	15,365	1,064	386	27
TOTAL		22,913	1,587	7,148	495	15,365	1,064	400	28
OTHER: ^{2/}	M CU. FT.								
SOFTWOOD		27	27	--	--	--	--	27	27
HARDWOOD		1,029	1,029	153	153	9	9	867	867
TOTAL		1,056	1,056	153	153	9	9	894	894
FUELWOOD:	STD. CORDS								
SOFTWOOD		845	51	268	16	516	31	61	4
HARDWOOD		85,562	5,559	22,150	1,439	47,166	3,064	16,246	1,056
TOTAL		86,407	5,610	22,418	1,455	47,682	3,095	16,307	1,060
ALL PRODUCTS:	M CU. FT.								
SOFTWOOD		245	245	178	178	35	35	32	32
HARDWOOD		23,188	23,188	12,999	12,999	6,057	6,057	4,132	4,132
TOTAL		23,433	23,433	13,177	13,177	6,092	6,092	4,164	4,164

^{1/} M (MEANING THOUSAND) BOARD FEET BY INTERNATIONAL 1/4-INCH RULE. CORDS ARE ON ROUGH WOOD, 128-CUBIC-FOOT BASIS.

^{2/} OTHER (INDUSTRIAL PRODUCTION) INCLUDES HANDLE 8OLTS, SHAVING 8OLTS, HEADING STOCK, ETC.

Table 39.--Forest products harvested by ownership class and product, Riverborder, Missouri, 1969

OWNERSHIP CLASS	SAW LOGS	COOPERAGE LOGS	VENEER LOGS	PULP- WOOD	CHARCOAL: WDDD	POSTS	FUEL- WDDD	MINE TIMBERS	HANDLE BOLTS	MISCEL- LANEOUS
	M BD.FT. ^{1/}	M BD.FT. ^{1/}	M 8D.FT. ^{1/}	CORDS ^{2/}	CDRDS ^{2/}	M PIECES	CDRDS ^{2/}	M CU.FT.	M 8D.FT. ^{1/}	M CU.FT.
FEDERAL:										
NATIONAL FOREST:										
SOFTWOODS	4	--	--	--	--	--	--	--	--	--
HARDWOODS	89	--	--	--	--	--	--	--	--	--
TOTAL	93	--	--	--	--	--	--	--	--	--
STATE:										
SOFTWOODS	--	--	--	--	--	8	--	--	--	--
HARDWOODS	224	43	--	--	40	--	--	--	--	--
TOTAL	224	43	--	--	40	8	--	--	--	--
PRIVATE:										
FARM AND OTHER:										
SOFTWOODS	825	--	--	--	--	18	784	--	--	--
HARDWOODS	50,743	21,715	1,520	5,116	22,473	187	69,316	45	622	64
TOTAL	51,568	21,715	1,520	5,116	22,473	205	70,100	45	622	64
ALL OWNERS:										
SOFTWOODS	829	--	--	--	--	26	784	--	--	--
HARDWOODS	51,056	21,758	1,520	5,116	22,513	187	69,316	45	622	64
TOTAL	51,885	21,758	1,520	5,116	22,513	213	70,100	45	622	64

1/ INTERNATIONAL 1/4-INCH RULE.
2/ STANDARD CORDS, ROUGH WOOD BASIS.

Table 40.--Volume of primary plant residue, by kind of material and type of use, Riverborder, Missouri, 1969 (Thousand cubic feet)

SOURCE INDUSTRY AND KIND OF RESIDUE	VOLUME BY TYPE OF USE									
	FIBER ^{1/}		CHARCOAL		FUEL ^{2/}		OTHER ^{3/}		NOT USED ^{4/}	
	HARD- WOODS	SOFT- WOODS	HARD- WOODS	SOFT- WOODS	HARD- WOODS	SOFT- WOODS	HARD- WOODS	SOFT- WOODS	HARD- WOODS	SOFT- WOODS
LUMBER:										
COARSE	1,497	1	6	2	265	2	10	13	544	
FINE	--	--	--	2	267	25	475	4	881	
TOTAL	1,497	1	6	4	532	27	485	17	1,425	
ALL OTHER:										
COARSE	479	--	21	--	515	--	--	--	97	
FINE	206	--	--	--	9	--	382	--	1,212	
TOTAL	685	--	21	--	524	--	382	--	1,309	
ALL INDUSTRIES:										
COARSE	1,976	1	27	2	780	2	10	13	641	
FINE	206	--	--	2	276	25	857	4	2,093	
TOTAL	2,182	1	27	4	1,056	27	867	17	2,734	

1/ FOR MANUFACTURE OF PULP, HARDBOARD, OR ROOFING FELT.
2/ ALL RESIDUE USED FOR INDUSTRIAL OR DOMESTIC FUEL WHETHER SOLD OR GIVEN AWAY.
3/ INCLUDES USES SUCH AS LIVESTOCK BEDDING, MULCH, SMALL DIMENSION, AND SPECIALTY ITEMS.
4/ INCLUDES RESIDUE BURNED AS WASTE.

Table 41.--Timber products output from roundwood, by species and product, Riverborder, Missouri, 1969

SPECIES	SAW LOGS		VENEER LOGS		COOPERAGE LOGS		CHARCOAL WOOD		OTHER PRODUCTS ^{3/}		ALL PRODUCTS	
	M BD. FT. 1/	M CU. FT.	M BD. FT. 1/	M CU. FT.	M BD. FT. 1/	M CU. FT.	M CORDS ^{2/}	M CU. FT.	M CU. FT.	M CU. FT.	M CU. FT.	
SOFTWOODS:												
SHORTLEAF PINE	439	76	--	--	--	--	--	--	6	82		
CYPRESS	135	24	--	--	--	--	--	--	1	25		
EASTERN REDCEDAR	214	45	--	--	--	--	--	--	54	99		
OTHER SOFTWOODS	41	7	--	--	--	--	--	--	--	7		
TOTAL SOFTWOODS	829	152	--	--	--	--	--	--	61	213		
HARDWOODS:												
WHITE OAKS	2,541	455	45	10	21,568	3,552	14,005	978	3,167	8,162		
RED OAKS	4,884	870	--	--	--	--	2,492	171	306	1,347		
BLACK OAK	6,744	1,203	--	--	--	--	3,838	266	481	1,950		
HICKORY	1,169	196	213	48	--	--	1,927	132	314	690		
HARD MAPLE	167	26	--	--	--	--	8	--	--	26		
SOFT MAPLE	3,639	574	26	6	10	1	5	--	92	673		
BEECH	245	42	--	--	--	--	--	--	3	45		
SWEETGUM	1,453	230	28	6	101	17	--	--	--	253		
TUPELO AND BLACKGUM	1,390	60	--	--	--	--	25	1	--	61		
ASH	1,333	229	--	--	10	1	92	4	160	394		
SYCAMORE	5,513	871	80	18	9	1	15	1	15	906		
COTTONWOOD	18,295	2,821	465	106	10	1	--	--	206	3,134		
RIVER BIRCH	133	19	--	--	10	1	--	--	4	24		
YELLOW-POPLAR	879	138	20	4	--	--	--	--	--	142		
BASSWOOD	22	3	--	--	--	--	--	--	--	3		
BLACK WALNUT	1,313	289	643	138	--	--	--	--	--	427		
BLACK CHERRY	9	1	--	--	--	--	12	--	--	1		
ELM	1,609	253	--	--	40	7	82	6	221	487		
OTHER HARDWOODS	718	113	--	--	--	--	--	--	218	331		
TOTAL HARDWOODS	51,056	8,393	1,520	336	21,758	3,581	22,513	1,559	5,187	19,056		
ALL SPECIES	51,885	8,545	1,520	336	21,758	3,581	22,513	1,559	5,248	19,269		

1/ INTERNATIONAL 1/4-INCH RULE.

2/ STANDARD CORDS, ROUGH WOOD BASIS.

3/ INCLUDES POSTS, FUELWOOD, SHAVING BOLTS, HEADING BOLTS, ETC.

Table 42.--Average annual managed harvest for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and kind of material, Riverborder, Missouri

Species	Growing stock ¹			Saw	Rough and rotten trees		
	Total	Pole timber	Saw timber	timber ¹	Total	Short-log	Other
		trees	trees	Total		trees	
		Cords		Thousand board feet ²		Cords	
Softwoods							
Shortleaf pine	139	--	139	35	--	--	--
Cypress	7,012	25	6,987	2,563	2,228	494	1,734
Eastern redcedar	8,456	5,329	3,127	1,289	3,506	772	2,734
Total softwoods	15,607	5,354	10,253	3,887	5,734	1,266	4,468
Hardwoods							
Select white oak	164,013	40,089	123,924	40,644	35,392	8,215	27,177
Other white oak	45,240	29,658	15,582	5,451	15,898	3,101	12,797
Select red oak	41,038	3,671	37,367	13,975	12,265	3,025	9,240
Red oak	34,456	5,937	28,519	10,263	9,937	2,671	7,266
Other red oak	2,659	1,013	1,646	685	3,936	949	2,987
Hickory A	30,266	9,114	21,152	8,121	8,696	1,418	7,278
Hickory B	15,367	8,013	7,354	2,530	2,519	127	2,392
Hard maple	6,785	4,633	2,152	544	8,735	532	8,203
Soft maple	7,949	1,962	5,987	2,184	4,316	519	3,797
Beech	25	--	25	11	722	--	722
Sweetgum	3,102	13	3,089	1,364	975	--	975
Tupelo and blackgum	3,962	1,987	1,975	888	4,012	1,468	2,544
Ash	20,000	7,266	12,734	4,708	10,215	2,063	8,152
Sycamore	13,861	1,215	12,646	4,781	1,393	203	1,190
Cottonwood	20,456	2,089	18,367	7,608	1,380	329	1,051
River birch	3,114	392	2,722	1,225	278	--	278
Yellow poplar	1,279	114	1,165	266	127	--	127
Basswood	519	--	519	162	--	--	--
Black walnut	5,304	1,190	4,114	1,151	2,392	696	1,696
Black cherry	848	557	291	108	418	--	418
Elm	11,266	4,810	6,456	1,772	11,354	2,405	8,949
Other hardwoods	46,608	15,570	31,038	11,790	14,355	2,456	11,899
Noncommercial species	--	--	--	--	203	--	203
Total hardwoods	478,117	139,293	338,824	120,231	149,518	30,177	119,341
All species	493,724	144,647	349,077	124,118	155,252	31,443	123,809

¹Cuttings of less than 3 cords per acre are excluded.

²International 1/4-inch rule.

Table 43.--Average annual managed harvest of growing stock for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and forest type, Riverborder, Missouri^{1/}
(Thousand cubic feet)

SPECIES GROUP	TOTAL	SHORTLEAF:		PINE:	OAK:	POST:	BLACK:	WHITE:		OAK-GUM:	FLM-ASH:		COTTON:	MAPLE:
		PINE:	EASTERN:					HARDWD:	OAK:		OAK:	CYPRESS:		
SOFTWOODS														
SHORTLEAF PINE	11	--	--	--	--	--	--	--	--	--	--	--	--	11
CYPRESS	554	--	--	--	--	--	--	--	--	443	111	--	--	--
EASTERN REDCFDAR	668	--	346	105	--	24	--	165	--	--	24	--	--	--
TOTAL SOFTWOODS	1233	--	346	105	--	24	--	165	443	139	--	--	--	11
HARDWOODS														
SELECT WHITE OAK	12957	--	142	309	--	251	1632	9910	71	453	--	--	--	189
OTHER WHITE OAK	3574	--	--	51	--	2441	398	670	--	8	--	--	--	6
SELECT RED OAK	3242	--	40	45	--	309	1725	871	--	22	--	--	--	230
RED OAK	2722	--	63	112	--	67	1452	799	--	147	--	--	--	82
OTHER RED OAK	210	--	--	--	--	27	54	6	--	86	--	--	--	--
HICKORY A	2391	--	--	--	--	7	1005	660	--	257	--	--	--	28
HICKORY B	1214	--	--	14	--	150	129	452	--	204	--	--	--	246
HARD MAPLE	536	--	--	--	--	--	94	282	--	--	--	--	--	160
SOFT MAPLE	628	--	--	--	--	--	--	8	--	62	--	--	--	--
BEECH	2	--	--	--	--	--	--	--	--	--	--	--	--	--
SWEETGUM	245	--	--	--	--	--	48	--	--	--	192	--	--	5
TUPFLO AND BLACKGUM	313	--	--	--	--	--	72	22	--	161	19	--	--	39
ASH	1580	--	--	65	--	--	166	313	--	96	937	--	--	--
SYCAMORE	1095	--	--	--	--	--	9	--	--	127	728	--	--	231
COTTENWOOD	1616	--	--	--	--	--	--	--	--	102	1223	--	--	--
RIVER FIRCH	246	--	--	--	--	--	65	26	--	--	144	--	--	10
YELLOW POPLAR	101	--	--	--	--	--	--	--	--	--	--	--	--	41
BASSWOOD	41	--	--	--	--	--	--	--	--	--	--	--	--	68
BLACK WALNUT	419	--	14	--	--	7	22	200	--	--	108	--	--	--
BLACK CHERRY	67	--	--	--	--	7	35	9	--	--	16	--	--	--
FLM	890	--	--	78	--	78	90	68	--	20	224	--	--	332
OTHER HARDWOODS	3682	--	--	32	--	98	42	169	109	3220	--	--	9	3
TOTAL HARDWOODS	37771	--	259	706	--	3442	7038	14465	1295	8489	405	1672	--	1683
TOTAL ALL SPECIES	39004	--	605	811	--	3466	7038	14630	1738	8628	405	1683	--	1683

^{1/} CUTTINGS OF LESS THAN 240 CUBIC FEET PER ACRE ARE EXCLUDED.

Table 44.--Average annual managed harvest of growing stock for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and stand-volume class, Riverborder, Missouri (Thousand cubic feet)

SPECIES GROUP	STAND VOLUME CLASS (CU.FT. PER ACRE)					
	TOTAL	240-399	400-799	800-1199	1200-1599	1600+
SOFTWOODS						
SHORTLEAF PINE	11	11	--	--	--	--
CYPRESS	554	32	45	7	143	327
EASTERN REDCEDAR	668	99	78	465	26	--
TOTAL SOFTWOODS	1233	142	123	472	169	327
HARDWOODS						
SELECT WHITE OAK	12957	398	2704	5677	2593	1585
OTHER WHITE OAK	3574	137	813	1199	1277	148
SELECT RED OAK	3242	82	822	1330	732	276
RED OAK	2722	234	582	575	632	699
OTHER RED OAK	210	29	61	113	7	--
HICKORY A	2391	53	909	653	145	631
HICKORY B	1214	49	165	786	214	--
HARD MAPLE	536	81	41	149	120	145
SOFT MAPLE	628	--	29	23	270	306
BEECH	2	--	2	--	--	--
SWEETGUM	245	1	5	141	51	47
TUPELO AND BLACKGUM	313	15	33	44	151	70
ASH	1580	49	550	358	431	192
SYCAMORE	1095	30	201	273	220	371
COTTENWOOD	1616	--	437	405	27	747
RIVER BIRCH	246	--	16	139	91	--
YELLOW POPLAR	101	--	10	26	--	65
BASSWOOD	41	--	--	--	--	41
BLACK WALNUT	419	40	161	61	115	42
BLACK CHERRY	67	7	25	--	35	--
PINE	890	47	65	314	240	224
OTHER HARDWOODS	3682	11	329	1481	820	1041
TOTAL HARDWOODS	37771	1263	7960	13747	8171	6630
TOTAL ALL SPECIES	39004	1405	8083	14219	8340	6957

1/ CUTTINGS OF LESS THAN 240 CUBIC FEET PER ACRE ARE EXCLUDED.

Table 45.--Average annual managed harvest for 1972-1981, by harvest cuttings of growing stock on commercial forest land, by species and stand-volume class, Riverborder, Missouri
(Thousand cubic feet)

SPECIES GROUP	STAND VOLUME CLASS ^{1/} (CU.FT. PER ACRE)					
	TOTAL	240-399	400-799	800-1199	1200-1599	1600+
SOFTWOODS						
CYPRESS	393	29	--	--	37	327
EASTERN REDCEDAR	648	94	63	465	26	--
TOTAL SOFTWOODS	1041	123	63	465	63	327
HARDWOODS						
SFLECT WHITE OAK	12093	227	2072	5616	2593	1585
OTHER WHITE OAK	3529	104	801	1199	1277	148
SFLECT RED OAK	3157	45	790	1314	732	276
RED OAK	2409	139	369	570	632	699
OTHER RED OAK	155	--	61	87	7	--
HICKORY A	2181	14	743	648	145	631
HICKORY B	1070	30	55	771	214	--
HARD MAPLE	473	18	41	149	120	145
SOFT MAPLE	420	--	8	--	133	279
SWEETGUM	244	--	5	141	51	47
TUPELO AND BLACKGUM	140	3	28	39	--	70
ASH	1377	11	437	358	379	192
SYCAMORE	699	21	180	115	220	163
COTTENWOOD	612	--	290	254	--	68
RIVER BIRCH	246	--	16	139	91	--
YFELLOW POPLAR	65	--	--	--	--	65
BASSWOOD	41	--	--	--	--	41
BLACK WALNUT	389	15	161	56	115	42
BLACK CHERRY	58	7	16	--	35	--
ELM	774	32	55	269	233	185
OTHER HARDWOODS	1033	8	285	277	231	232
TOTAL HARDWOODS	31165	674	6413	12002	7208	4868
TOTAL ALL SPECIES	32206	797	6476	12467	7271	5195

^{1/} CUTTINGS OF LESS THAN 240 CUBIC FEET PER ACRE ARE EXCLUDED.

Table 46.--Average annual managed harvest for 1972-1981, by thinnings of growing stock on commercial forest land, by species and stand-volume class, Riverborder, Missouri
(Thousand cubic feet)

SPECIES GROUP	STAND VOLUME CLASS ^{1/} (CU.FT. PER ACRE)					
	TOTAL	240-399	400-799	800-1199	1200-1599	1600+
SOFTWOODS						
SHORTLEAF PINE	11	11	--	--	--	--
CYPRESS	161	3	45	7	106	--
EASTERN REDCEDAR	20	5	15	--	--	--
TOTAL SOFTWOODS	192	19	60	7	106	--
HARDWOODS						
SELECT WHITE OAK	864	171	632	61	--	--
OTHER WHITE OAK	45	33	12	--	--	--
SELECT RED OAK	85	37	32	16	--	--
RED OAK	313	95	213	5	--	--
OTHER RED OAK	55	29	--	26	--	--
HICKORY A	210	39	166	5	--	--
HICKORY B	144	19	110	15	--	--
HARD MAPLE	63	63	--	--	--	--
SOFT MAPLE	208	--	21	23	137	27
BEECH	2	--	2	--	--	--
SWEETGUM	1	1	--	--	--	--
TUPELO AND BLACKGUM	173	12	5	5	151	--
ASH	203	38	113	--	52	--
SYCAMORE	396	9	21	158	--	208
COTTENWOOD	1004	--	147	151	27	679
YELLOW POPLAR	36	--	10	26	--	--
BLACK WALNUT	30	25	--	5	--	--
BLACK CHERRY	9	--	9	--	--	--
ELM	116	15	10	45	7	39
OTHER HARDWOODS	2649	3	44	1204	589	809
TOTAL HARDWOODS	6606	589	1547	1745	963	1762
TOTAL ALL SPECIES	6798	608	1607	1752	1069	1762

^{1/} CUTTINGS OF LESS THAN 240 CUBIC FEET PER ACRE ARE EXCLUDED.

Table 47.--Average annual managed harvest of sawtimber^{1/} for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and forest type, Riverborder, Missouri (Thousand board feet)^{2/}

SPECIES GROUP	TOTAL	S. LEAF: PINE	EASTERN: RED CEDAR: HARDWOOD	PINE: OAK	POST: OAK	BLACK: OAK	WHITE: OAK	OAK: CYPRESS	FLM-ASH: CTNWD	COTTON: WOOD	MAPLE: BEECH
SOFTWOODS											
SHORTLEAF PINE	43	--	--	R	--	--	--	--	--	--	35
CYPRESS	2570	--	--	--	--	--	--	2070	500	--	--
EASTERN RED CEDAR	1360	--	791	197	--	--	251	--	121	--	--
TOTAL SOFTWOODS	3973	--	791	197	R	--	251	2070	621	--	35
HARDWOODS											
SELECT WHITE OAK	41705	--	331	987	32	6247	36438	409	1444	--	842
OTHER WHITE OAK	5734	--	286	286	--	1228	1536	--	--	--	--
SELECT PEE OAK	14544	--	113	193	--	8252	2151	324	145	--	909
RED OAK	11091	--	110	412	26	4357	2930	188	390	--	208
OTHER RED OAK	767	--	--	--	--	252	72	297	146	--	--
HICKORY A	8269	--	--	18	--	3348	2420	1156	1227	--	62
HICKORY B	2607	--	--	74	--	50	717	586	89	--	1005
HARD MAPLE	544	--	--	--	--	--	359	--	--	--	145
SOFT MAPLE	2184	--	--	--	--	--	--	313	1871	--	--
BEECH	11	--	--	--	--	--	--	--	--	--	11
SWETGUM	1373	--	--	--	--	161	--	9	1169	--	34
TUPELO AND BLACKGUM	942	--	--	--	3	415	--	491	33	--	--
ASH	4727	--	--	51	--	700	675	135	3166	--	--
SYCAMORE	4869	--	--	71	--	30	17	798	3150	--	803
COTTENWOOD	7608	--	--	--	--	--	--	489	5960	1648	--
RIVER FIRCH	1225	--	--	--	--	--	--	--	736	--	--
YELLOW POPLAR	266	--	--	--	--	135	104	--	--	--	25
BASSWOOD	162	--	--	--	--	--	--	--	--	--	162
BLACK WALNUT	1169	--	77	--	--	134	522	--	334	--	100
BLACK CHERRY	108	--	--	--	--	35	--	--	73	--	--
ELM	1772	--	--	--	--	146	54	54	525	--	454
OTHER HARDWOODS	11790	--	--	96	--	--	264	356	11024	--	14
TOTAL HARDWOODS	123467	--	631	2188	61	5782	43270	5605	31484	1648	5314
TOTAL ALL SPECIES	127440	--	1422	2385	69	5782	43530	7675	32105	1648	5349

^{1/} CUTTINGS OF LESS THAN 3 CORDS PER ACRE OR THE EQUIVALENT IN BOARD FEET ARE INCLUDED.

^{2/} INTERNATIONAL 1/4-INCH RULE.

Table 48.--Average annual managed harvest of sawtimber^{1/} for 1972-1981 from harvest cuttings and thinnings, on commercial forest land, by species and stand-volume class, Riverborder, Missouri (Thousand board feet)^{2/}

SPECIES GROUP	STAND VOLUME CLASS (HD. FT. PER ACRE)						
	0-	1500-	2500-	5000-	7500-	10000+	
TOTAL	1499	2499	4999	7499	9999	10000+	
SOFTWOODS							
SHORTLEAF PINE	43	43	--	--	--	--	--
CYPRESS	2570	348	169	550	416	--	1087
EASTERN REDCEDAR	1360	647	713	--	--	--	--
TOTAL SOFTWOODS	3973	1038	882	550	416	--	1087
HARDWOODS							
SELECT WHITE OAK	41705	4919	8650	19139	3116	656	225
OTHER WHITE OAK	5734	2315	1775	961	--	683	--
SELECT RED OAK	14544	3519	3445	4629	2951	--	--
RED OAK	11091	2439	1428	3330	1623	2279	--
OTHER RED OAK	767	292	223	252	--	--	--
HICKORY A	2269	853	2235	1763	2025	237	1156
HICKORY B	2607	352	1580	675	--	--	--
HARD MAPLE	544	341	106	97	--	--	--
SOFT MAPLE	2184	--	31	894	362	--	907
BEECH	11	11	--	--	--	--	--
SWEETGUM	1373	10	34	1169	--	160	--
TUPELO AND BLACKGUM	942	95	120	320	407	--	--
ASH	4727	960	497	1071	1734	--	465
SYCAMORE	4869	1027	546	598	811	--	1897
COTTENWOOD	7608	437	1236	2217	--	--	3718
RIVER BIRCH	1225	--	--	1225	--	--	--
YELLOW POPLAR	266	131	--	--	135	--	--
BASSWOOD	162	--	--	162	--	--	--
BLACK WALNUT	1164	575	197	397	--	--	--
BLACK CHERRY	198	108	--	--	--	--	--
ELM	1772	168	472	807	293	--	32
OTHER HARDWOODS	11790	359	2256	4557	236	--	4382
TOTAL HARDWOODS	123467	23911	24823	44243	13693	4015	12782
TOTAL ALL SPECIES	127440	24949	25705	44793	14109	4015	13869

^{1/} CUTTINGS OF LESS THAN 3 CORDS PER ACRE, OR THE EQUIVALENT IN BOARD FEET, ARE INCLUDED.

^{2/} INTERNATIONAL 1/4-INCH RULE.

Table 49.--Average annual managed harvest for 1972-1981, by harvest cuttings of sawtimber^{1/} on commercial forest land, by species and stand-volume class, Riverborder, Missouri (Thousand board feet)^{2/}

SPECIES GROUP	STAND VOLUME CLASS (BO. FT. PER ACPF)						
	0-	1500-	2500-	5000-	7500-	10000+	
TOTAL	1499	2499	4999	7499	9999	10000+	
SOFTWOODS							
SHORTLEAF PINE	--	--	--	--	--	--	--
CYPRESS	1803	120	--	180	416	--	1087
EASTERN REDCEDAR	1217	614	603	--	--	--	--
TOTAL SOFTWOODS	3028	742	603	180	416	--	1087
HARDWOODS							
SELECT WHITE OAK	38291	8438	8138	17718	3116	656	225
OTHER WHITE OAK	5658	2315	1775	885	--	683	--
SELECT RED OAK	14353	3375	3398	4629	2951	--	--
RED OAK	9901	2042	1284	2673	1623	2279	--
OTHER RED OAK	582	185	145	252	--	--	--
HICKORY A	7569	613	1775	1763	2025	237	1156
HICKORY B	2318	222	1421	675	--	--	--
HARD MAPLE	454	251	106	97	--	--	--
SOFT MAPLE	1338	--	--	181	362	--	795
SWEETGUM	1372	9	34	1169	--	160	--
TUPELO AND BLACKGUM	461	54	--	--	407	--	--
ASH	4345	960	115	1071	1734	--	465
SYCAMOPE	3248	997	--	474	811	--	966
COTTENWOOD	2791	437	761	1253	--	--	340
RIVER BIRCH	1225	--	--	1225	--	--	--
YELLOW POPLAR	135	--	--	--	135	--	--
BASSWOOD	162	--	--	162	--	--	--
BLACK WALNUT	1108	551	160	397	--	--	--
BLACK CHEPPEY	108	108	--	--	--	--	--
ELM	1547	168	359	727	293	--	--
OTHER HARDWOODS	3187	306	96	1721	236	--	828
TOTAL HARDWOODS	100153	21031	19567	37072	13693	4015	4775
TOTAL ALL SPECIES	103181	21773	20170	37252	14109	4015	5862

^{1/} CUTTINGS OF LESS THAN 3 CORDS PER ACRE, OR THE EQUIVALENT IN BOARD FEET, ARE INCLUDED.

^{2/} INTERNATIONAL 1/4-INCH RULE.

Table 50.--Average annual managed harvest for 1972-1981, by thinnings of sawtimber^{1/} on commercial forest land, by species and stand-volume class, Riverborder, Missouri (Thousand board feet)^{2/}

SPECIES GROUP	STAND VOLUME CLASS (BO. FT. PER ACRE)						
	TOTAL	0-	1500-	2500-	5000-	7500-	10000+
SOFTWOODS							
SHORTLEAF PINE	35	35	--	--	--	--	--
CYPRESS	767	228	169	370	--	--	--
EASTERN REDCEDAR	143	33	110	--	--	--	--
TOTAL SOFTWOODS	945	296	279	370	--	--	--
HARDWOODS							
SELECT WHITE OAK	3414	1481	512	1421	--	--	--
OTHER WHITE OAK	76	--	--	76	--	--	--
SELECT RED OAK	191	144	47	--	--	--	--
RED OAK	1190	397	136	657	--	--	--
OTHER RED OAK	185	107	78	--	--	--	--
HICKORY A	700	240	460	--	--	--	--
HICKORY B	289	130	159	--	--	--	--
HARD MAPLE	90	90	--	--	--	--	--
SOFT MAPLE	846	--	31	703	--	--	112
REFCH	11	11	--	--	--	--	--
SWFTGUM	1	1	--	--	--	--	--
TUPELO AND BLACKGUM	481	41	120	320	--	--	--
ASH	382	--	382	--	--	--	--
SYCAMORE	1621	30	546	114	--	--	431
COTTENWOOD	4817	--	475	964	--	--	3378
YELLOW POPLAR	131	131	--	--	--	--	--
BLACK WALNUT	61	24	37	--	--	--	--
ELM	225	--	113	80	--	--	32
OTHER HARDWOODS	8603	53	2160	2836	--	--	3554
TOTAL HARDWOODS	23314	2880	5256	7171	--	--	8007
TOTAL ALL SPECIES	24259	3176	5535	7541	--	--	8007

1/ CUTTINGS OF LESS THAN 3 CORDS PER ACRE, OR THE EQUIVALENT IN BOARD FEET, ARE INCLUDED.

2/ INTERNATIONAL 1/4-INCH RULE.

Table 51.--Area of managed harvest^{1/} for 1972-1981, by harvest cuttings on commercial forest land, by forest type and stand-age class, Riverborder, Missouri (Thousand acres)

FOREST TYPE	STAND AGE (YEARS)												
	1-10:	11-20:	21-30:	31-40:	41-50:	51-60:	61-70:	71-80:	81-90:	91-100:	101-120:	121-140:	141+
ALL TYPES	367.0	--	6.6	--	1.2	1.9	18.5	9.4	42.5	48.1	165.5	73.3	--
EASTERN REDCEDAR	9.6	--	--	--	--	--	1.8	3.4	4.4	--	--	--	--
E-PEDCEDAR-HARDWOODS	20.6	--	5.6	--	--	--	4.6	--	--	2.6	7.8	--	--
SHORTLEAF PINE-OAK	.7	--	--	--	.6	--	--	--	--	.1	--	--	--
POST-BLACKJACK OAK	56.5	--	--	--	--	.5	--	--	9.3	16.0	15.9	14.8	--
BLACK-SCARLET OAK	83.6	--	--	--	--	--	--	.4	19.4	15.5	27.3	21.0	--
WHITE OAK	131.7	--	--	--	--	.6	--	1.4	1.0	--	99.2	29.5	--
OAK-GUM-CYPRESS	9.4	--	--	--	--	--	.7	--	--	.3	7.0	1.4	--
ELM-ASH-COTTONWOOD	38.6	--	--	--	--	.8	11.4	4.2	8.4	--	3.7	2.0	--
COTTONWOOD	1.6	--	1.0	--	--	.6	--	--	--	--	--	--	--
MAPLE-BEECH	14.7	--	--	--	--	--	--	--	--	5.5	4.6	4.6	--

^{1/} FOR A 10-YEAR PERIOD

Table 52.--Area of managed harvest^{1/} by thinnings on commercial forest land for 1972-1981, by forest type and stand-age class, Riverborder, Missouri (Thousand acres)

FOREST TYPE	STAND AGE (YEARS)												
	1-10:	11-20:	21-30:	31-40:	41-50:	51-60:	61-70:	71-80:	81-90:	91-100:	101-120:	121-140:	141+
ALL TYPES	164.2	10.3	10.9	33.2	46.5	18.4	19.7	6.5	9.7	--	--	--	--
E-REDCEDAR-HARDWOODS	5.7	5.7	--	--	--	--	--	--	--	--	--	--	--
BLACK-SCARLET OAK	42.0	10.7	5.5	4.9	7.3	6.8	--	1.9	4.9	--	--	--	--
WHITE OAK	41.5	--	5.4	--	12.3	4.8	14.2	--	4.8	--	--	--	--
OAK-GUM-CYPRESS	7.8	2.0	--	3.3	2.5	--	--	--	--	--	--	--	--
ELM-ASH-COTTONWOOD	46.1	.9	--	25.0	14.6	1.9	3.7	--	--	--	--	--	--
MAPLE-BEECH	21.1	--	--	--	9.8	4.9	1.8	4.6	--	--	--	--	--

^{1/} FOR A 10-YEAR PERIOD

PRINCIPAL TREE SPECIES IN MISSOURI'S RIVERBORDER UNIT⁴

SOFTWOOD SPECIES

- Shortleaf pine *Pinus echinata*
 Baldcypress . *Taxodium distichum* var. *distichum*
 Eastern redcedar *Juniperus virginiana*

HARD HARDWOOD SPECIES

- Ashes:
 White ash *Fraxinus americana*
 Green ash *Fraxinus pennsylvanica*
 Blue ash *Fraxinus quadrangulata*
- American beech *Fagus grandifolia*
 Black walnut *Juglans nigra*

- Hard maples:
 Black maple *Acer nigrum*
 Sugar maple *Acer saccharum*

- Hickory group A:
 Pecan *Carya illinoensis*
 Shellbark hickory *Carya laciniosa*
 Shagbark hickory *Carya ovata*
 Mockernut hickory *Carya tomentosa*

- Hickory group B:
 Bitternut hickory *Carya cordiformis*
 Pignut hickory *Carya glabra* var. *glabra*
 Black hickory *Carya texana*

- River birch *Betula nigra*

- Select white oaks:
 White oak *Quercus alba*
 Bur oak *Quercus macrocarpa*
 Swamp chestnut oak *Quercus michauxii*
 Chinkapin oak *Quercus muehlenbergii*

- White oaks:
 Swamp white oak *Quercus bicolor*
 Overcup oak *Quercus lyrata*

- Other white oaks:
 Post oak *Quercus stellata* var. *stellata*

- Select red oaks:
 Cherrybark oak *Quercus falcata* var. *pagodaefolia*
 Northern red oak *Quercus rubra*
 Shumard oak . *Quercus shumardii* var. *shumardii*

- Red oaks:
 Scarlet oak *Quercus coccinea*

- Southern red oak . *Quercus falcata* var. *falcata*
 Black oak *Quercus velutina*

- Other red oaks:
 Shingle oak *Quercus imbricaria*
 Blackjack oak *Quercus marilandica*
 Pin oak *Quercus palustris*
 Willow oak *Quercus phellos*

- Other hard hardwoods:
 Black locust *Robinia pseudoacacia*
 Common persimmon *Diospyros virginiana*
 Flowering dogwood *Cornus florida*
 Honeylocust *Gleditsia triacanthos*
 Red mulberry *Morus rubra*
 Sugarberry *Celtis laevigata*

SOFT HARDWOOD SPECIES

- American basswood *Tilia americana*
 American sycamore *Platanus occidentalis*
 Black cherry *Prunus serotina*
 Butternut *Juglans cinerea*

- Cottonwoods:
 Eastern cottonwood *Populus deltoides*

- Elms:
 Winged elm *Ulmus alata*
 American elm *Ulmus americana*
 Slippery elm *Ulmus rubra*
 Rock elm *Ulmus thomasii*

- Soft maples:
 Red maple *Acer rubrum* var. *rubrum*
 Silver maple *Acer saccharinum*

- Sweetgum *Liquidambar styraciflua*

- Tupelo and blackgum:
 Blackgum *Nyssa sylvatica* var. *biflora*
 Black tupelo . *Nyssa sylvatica* var. *sylvatica*
 Water tupelo *Nyssa aquatica*

- Yellow-poplar *Liriodendron tulipifera*

- Other soft hardwoods:
 Black willow *Salix nigra*
 Boxelder *Acer negundo*
 Hackberry *Celtis occidentalis*
 Kentucky coffeetree *Gymnocladus dioica*
 Northern catalpa *Catalpa speciosa*
 Ohio buckeye *Aesculus glabra*
 Sassafras *Sassafras albidum*

⁴The common and scientific names are based on "Check List of Native and Naturalized Trees of the United States (In-

cluding Alaska)," by Elbert L. Little, Jr., U.S. Dep. Agric., Agric. Handb. 41, 472 p. 1953.

APPENDIX

ACCURACY OF SURVEY

Forest survey information is based on a sampling procedure designed to provide reliable statistics at the State and Survey Unit levels. Consequently, the reported figures are estimates only. However, a measure of reliability of these figures is given by sampling errors. These sampling errors may be interpreted as meaning that the chances are two out of three that the results for the sample differ by no more than the amount indicated, from the results that would have been obtained if all trees in the Unit had been measured (a 100-percent inventory), using the same tree measurements.

For example, the estimated area of commercial forest land in the Riverborder Unit in 1972, 2,108.9 thousand acres, has a sampling error of ± 1.9 percent (± 40.1 thousand acres). The chances are two out of three, then, that the commercial forest area falls between 2,068.8 and 2,149.0 thousand acres ($2,108.9 \pm 40.1$), the limits within which the results of a 100-percent inventory would occur.

Following are sampling errors for total estimated volume, net growth, and removals for both growing stock and sawtimber, and for area of commercial forest land during the 1972 Riverborder Survey:

Item	Riverborder Unit totals	Sampling error (Percent)
Growing stock:		
Volume	16,883.9 M cords	3.5
Growth	432.6 M cords	4.4
Removals	450.1 M cords	10.0
Sawtimber:		
Volume	3,641.1 MM bd. ft.	5.0
Growth	85.2 MM bd. ft.	6.0
Removals	115.4 MM bd. ft.	8.1
Commercial forest land		
	2,108.9 M acres	1.9

As survey data are broken down into units smaller than State or Survey Unit totals, the sampling error increases. The smaller the breakdown, the larger the sampling error. For example, the sampling error for area of commercial forest land in a particular county is higher than that for total commercial forest area in the Survey Unit. An approximation of the increasing sampling error can be obtained from table 53, which shows the sampling errors associated with estimates smaller than totals in the Riverborder Unit.

Table 53.--Sampling errors^{1/} for estimates smaller than unit totals of volume, net growth, and removals, and of area of commercial forest land, Riverborder, Missouri, 1972

SAMPLING ERROR (PERCENT)	COMMERCIAL FOREST THOUSAND ACRES	GROWING STOCK THOUSAND CORDS			SAWTIMBER MILLION BOARD FEET ^{2/}		
		INVENTORY	GROWTH	REMOVALS	INVENTORY	GROWTH	REMOVALS
1	7,784.1						
2	1,946.0						
3	864.9	23,447.6					
4	486.5	13,189.3	515.8		5,668.1		
5	311.4	8,441.1	330.1	1,793.7	3,627.6	123.6	301.3
10	77.8	2,110.3	82.5	448.1	906.9	30.9	75.3
15	34.6	937.9	36.7	198.7	403.1	13.7	33.5
20	19.5	527.6	20.6	112.6	226.7	7.7	18.8
25	12.5	337.7	13.2	72.2	145.1	4.9	12.1
50	3.1	84.4	3.3	17.7	36.3	1.2	3.0
100	.8	21.1	.8	5.1	9.1	.3	.8

^{1/} AT THE 68-PERCENT PROBABILITY LEVEL.

^{2/} INTERNATIONAL 1/4-INCH RULE.

SURVEY PROCEDURE

The major steps in the survey of the Riverborder Unit were as follows:

1. A total of 38,778 1-acre points distributed systematically across aerial photos of the entire area were observed. These points were classified as either forest land (11,042) or nonforest land (27,736) in order to make a preliminary estimate of forest area. Next, 4,292 of the forest points were stereoclassified as to forest type, stand-size class, and density. Then 590 points classed as forest and 1,903 points classed as nonforest were examined on the ground to correct the preliminary area estimate for errors in classification and for actual changes in land use since the photos were taken. Some of the points examined were locations of permanent sample plots (each of which contained one variable-radius plot with basal area factor five) established during the 1959 survey. Of the 483 points determined to be on commercial forest land from ground examination, 206 were at previously unsampled locations and 10-point variable-radius plots (basal area factor 37.5) were established uniformly over the sample acres. The remaining 277 points were at formerly established permanent plot locations and were re-measured by superimposing 10-point variable-radius plots (basal area factor 37.5) over the existing plot in addition to re-measuring the basal area factor five plot. Tree measurements made on new and re-measured plots were the basis for estimates of timber volume, growth, mortality, number of trees, and other forest classifications.

2. Statistics on timber utilization in 1969 were obtained from mill surveys and from re-measurement of permanent sample plots. The Missouri Department of Conservation conducted a canvass of resident sawmills, veneer mills, and other primary wood-using plants. The North Central Forest Experiment Station canvassed resident pulpmills, and the underground mining industry in Missouri, as well as out-of-State sawmills, pulpmills, and veneer mills to determine their use of timber from Missouri. Fuelwood and fencepost output was based on U.S. Census of Agriculture and Housing figures, a canvass of public and industrial timber owners, and a canvass

of resident wood-treating plants. Estimates of primary mill residue used for fuelwood were obtained from the canvass of primary wood-using plants in Missouri. Timber cut for products by owner class was determined by a canvass of all public and industrial timber owners. The portion of timber cut unaccounted for by the latter owners was grouped under "farmer and other owners."

3. To develop wood utilization factors used in converting timber products output to timber removals for saw logs, veneer logs, cooperage logs, pulpwood, and charcoal wood, 486 felled trees throughout the State were measured. Factors for all other products were obtained during the 1959-1960 Missouri utilization study.

4. Field data were sent to St. Paul where they were edited, punched on cards, and stored on magnetic tape for later machine sorting, computing, and tabulation.

MANAGED HARVEST

Managed harvest is the estimated volume of timber on commercial forest land that could be cut annually for the next 10 years, while improving tree stocking and bringing about a more even distribution of age classes. In Missouri, annual managed harvest is shown separately as that from harvest cutting and from thinnings, and was determined by computer using an area control system for determining the number of acres to be cut annually.

The harvest cut of sawtimber was calculated from stands of forest types normally managed for sawtimber whose site index and age indicated they were ready for harvest, or would be within the next 10 years. Table 54 shows the site index used in these calculations for each forest type to determine whether the objective of management would be to grow sawtimber or pulpwood. Included also is the rotation age for each.

Stands that did not qualify for harvest during that period were checked to see if they were overstocked by basal area standards, or would be within the next 10 years. Stands determined to be overstocked were "thinned" by the computer

Table 54.--Forest type, site index, and rotation age, by management objective, used in calculation of annual managed harvest, Missouri, 1972

Forest type	Site index	Rotation age	Management
		Years	objective
Shortleaf pine	50 or higher	60	Sawtimber
	Less than 50	40	Pulpwood
Shortleaf pine-oak	60 or higher	80	Sawtimber
	Less than 60	50	Pulpwood
Eastern redcedar	35 or higher	55	Sawtimber
	Less than 35	70	Sawtimber
Eastern recedar-hardwood	45 or higher	50	Sawtimber
	Less than 45	60	Sawtimber
Black-scarlet oak	60 or higher	80	Sawtimber
	Less than 60	50	Pulpwood
White oak	60 or higher	80	Sawtimber
	Less than 60	50	Pulpwood
Post-blackjack oak	All sites	50	Pulpwood
Oak-gum-cypress	All sites	60	Sawtimber
Cottonwood	All sites	30	Sawtimber
Elm-ash-cottonwood	All sites	50	Sawtimber
Maple-beech	All sites	90	Sawtimber

back to their recommended basal-area stocking level, and the volume of sawtimber trees "thinned" was added to the volume of managed harvest by thinnings of growing stock and sawtimber. The volume of poletimber trees "thinned" was added to the growing-stock managed harvest by thinnings. In scheduling thinnings, the computer program first "removes" rough and rotten trees, then short-log trees, and finally, growing-stock trees. The volume of managed harvest from rough, rotten, and short-log (rough) trees is kept separate from that from growing-stock trees.

The harvest cut of growing stock included that of sawtimber in addition to the volume from stands of forest types normally managed for pulpwood that were or would be rotation age within the next 10 years.

Managed harvest is based on the assumptions that all timber will be available and accessible when needed, and that a ready market will exist for every species, size, and grade of material harvested. Further, it assumes that the proper sequence of cutting is known and will be followed, and that logging practices employed will result

in an improved forest. Because there is no way of guaranteeing that these assumptions will be carried out during the next 10 years, the managed harvest estimates should be compared with timber removals figures only in a general way.

LOG GRADE

The butt log of every sawtimber tree (2,164 trees) on every permanent sample plot in the Riverborder Unit and all of the logs in a smaller sample of trees throughout the State (265 trees) were log-graded. The volume yield by log grade for each tree in the smaller sample was used to distribute the volume of trees in the permanent plot sample into log-grade classes. The resulting volumes were expanded to provide an estimate for the entire Unit.

Logs are graded on the basis of external characteristics as indicators of quality. Hardwood species were graded according to "Hardwood Log Grades for Standard Lumber and How to Use Them" published by the Forest Products Laboratory under the designation D1737A, 1961, and USDA Forest Service standards for hardwood tie and timber logs. The best 12-foot section of the lowest 16-foot hardwood log, or the best 12-foot

upper section if the butt log did not meet minimum log grade standards, was graded.

Shortleaf pine was graded according to "Interim Southern Pine Log Grades," USDA Forest Service, 1953. All other

softwoods were graded according to "Specifications for Log Grades of Hardwoods and Softwoods," Northern Hemlock and Hardwood Association, 1947. The lowest 16-foot log in softwood trees or a shorter log down to 12 feet if a 16-foot butt log was not present, was graded.

Spencer, John S., Jr., and Arnold J. Ostrom.

1975. Timber resource of Missouri's Riverborder, 1972. North Cent. For. Exp. Stn., St. Paul, Minn. 74 p. (USDA For. Serv. Resour. Bull. NC-25)

The third timber inventory of Missouri's Riverborder Forest Survey Unit shows that neither the total volume of growing stock nor of sawtimber changed significantly between 1959 and 1972. Area of commercial forest land declined slightly. Presents statistics on forest area and timber volume, growth, mortality, ownership, and use in 1972.

OXFORD: 524.1:905.2(778). KEY WORDS: timber volume, growth, utilization, forest areas.

Spencer, John S., Jr., and Arnold J. Ostrom.

1975. Timber resource of Missouri's Riverborder, 1972. North Cent. For. Exp. Stn., St. Paul, Minn. 74 p. (USDA For. Serv. Resour. Bull. NC-25)

The third timber inventory of Missouri's Riverborder Forest Survey Unit shows that neither the total volume of growing stock nor of sawtimber changed significantly between 1959 and 1972. Area of commercial forest land declined slightly. Presents statistics on forest area and timber volume, growth, mortality, ownership, and use in 1972.

OXFORD: 524.1:905.2(778). KEY WORDS: timber volume, growth, utilization, forest areas.

Some Recent Forest Survey Reports Published by
the North Central Forest Experiment Station

- Primary forest products industry and industrial roundwood production, Michigan, 1969, by James E. Blyth and Allen H. Boelter. USDA For. Serv. Resour. Bull. NC-12, 12 p., illus. 1971.
- Kansas saw-log production jumps 38 percent from 1964 to 1969, by James E. Blyth and Leonard K. Gould. USDA For. Serv. Res. Note NC-128, 2 p., illus. 1971.
- Wisconsin's 1968 timber resource--a perspective, by John S. Spencer, Jr. and Harry W. Thorne. USDA For. Serv. Resour. Bull. NC-15, 80 p., illus. 1972.
- Missouri's primary forest products output and industries, 1969, by James E. Blyth and Robert Massengale. USDA For. Serv. Resour. Bull. NC-16, 15 p., illus. 1972.
- Forest area in Wisconsin counties, 1968, by Burton L. Essex. USDA For. Serv. Res. Note NC-135, 4 p., illus. 1972.
- Iowa saw-log production and sawmill industry, 1969, by James E. Blyth and William A. Farris. USDA For. Serv. Res. Note NC-136, 4 p., illus. 1972.
- Timber volume in Wisconsin counties, by Arnold J. Ostrom. USDA For. Serv. Res. Note NC-145, 4 p., illus. 1972.
- Pulpwood production in the North Central Region by county, 1971, by James E. Blyth. USDA For. Serv. Resour. Bull. NC-17, 21 p., illus. 1973.
- Pulpwood production in the North Central Region by county, 1972, by James E. Blyth. USDA For. Serv. Resour. Bull. NC-18, 16 p., illus. 1973.
- Lake States pulpwood production dips to 4 million cords in 1971, by James E. Blyth. USDA For. Serv. Res. Note NC-148, 3 p. 1973.
- Local net timber volume equations for Wisconsin, by Jerold T. Hahn. USDA For. Serv. Res. Note NC-149, 4 p., illus. 1973.
- Pulpwood production in the Lake States by county, 1972, by James E. Blyth. USDA For. Serv. Res. Note NC-152, 4 p. 1973.



Leave parks and forests clean . . . or cleaner.