

Missouri's Forests 2008: Statistics, Methods, and Quality Assurance



Forest Inventory Methods

Strategic Model

The Forest Inventory and Analysis program of the Northern Research Station (NRS-FIA) is part of the national enhanced FIA program that focuses on a six strategic objectives (McRoberts 2005):

- A standard set of variables with nationally consistent meanings and measurements
- Field inventories of all forested lands
- Nationally consistent estimation
- Adherence to national precision standards
- Consistent reporting and data distribution
- Credibility with users and stakeholders

To ensure that these objectives are achieved, 10 strategic approaches have been prescribed:

- A national set of prescribed core variables with a national field manual that describes measurement procedures and protocols for each variable
- A national plot configuration
- A nationally consistent sampling design
- Estimation using standardized formulae for sample-based estimators
- A national database of FIA data with core standards and user-friendly public access
- A national information management system
- A nationally consistent set of tables with estimates of prescribed core variables
- Publication of statewide tables with estimates of prescribed core variables at 5-year intervals
- Documentation of the technical aspects of the FIA program, including procedures, protocols, and techniques
- Peer review and publication of the technical documentation for general access

The result of this approach is an inventory program with new features and a nationally consistent plot configuration, a nationally consistent sampling design for all lands, annual measurement of a proportion of plots in each state, nationally consistent estimation techniques and algorithms, and integration of the ground-sampling components of the FIA inventory and detection monitoring by the USDA Forest Service's Forest Health Monitoring (FHM) program.

Plot Configuration

The national FIA plot design (Fig. 48) consists of four circular 24-ft-radius subplots ($1/24^{\text{th}}$ acre) configured as a central subplot and three peripheral subplots. Centers of the peripheral subplots are 120 ft from the central subplot and at azimuths of 360° , 120° , and 240° from the center of the central subplot. Trees with a diameter at breast height (d.b.h.) of 5 inches or greater are measured on these subplots. Each subplot contains a circular 6.8-ft-radius microplot ($1/300^{\text{th}}$ acre) centered 12 ft east of the subplot center on which each tree at least 1 inch but less than 5 inches d.b.h. is measured. Forest conditions that occur on any of the four subplots are identified and recorded; if the area of the condition is 1 acre or greater, the condition is mapped on the

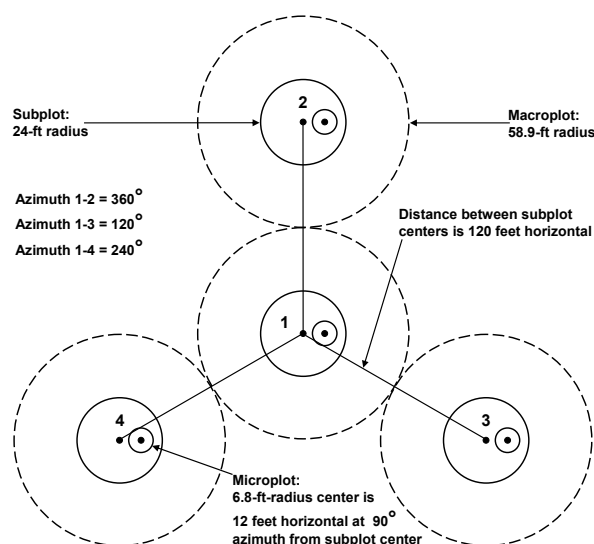


Figure 48.—National FIA plot design (adapted from Bechtold and Patterson 2005).

subplot. Factors that differentiate forest conditions include forest type, stand-size class, stand origin, land use, ownership, and density. Macroplots are not used by the NRS. They have a radius of 58.9 ft and are used for sampling intensification or for sampling relatively rare events. The ¼-acre macroplot currently is used by the Rocky Mountain and Pacific Northwest Stations' FIA programs to sample large trees.

Sample Design

On the basis of historical sampling errors, a sampling intensity of about one plot per 6,000 acres is necessary to satisfy national FIA precision guidelines. Therefore, FIA divided the area of the United States into nonoverlapping, 5,937-acre hexagons and has established a sample plot location in each hexagon. This array of field plots is designated the Federal base sample and is considered an equal probability sample; measurement of the Federal base sample is funded by the Federal Government.

The Federal base sample is divided into five interpenetrating, nonoverlapping panels or subsamples, each of which provides complete, systematic coverage of a state. Each year, plots in a single panel are measured; panels are selected on a 5-year, rotating basis (McRoberts 1999), i.e., the plots measured in 1999 were measured again in 2004 and the plots measured in 2000 were measured again in 2005. For estimation purposes, the measurement of each panel of plots is considered an independent, equal probability sample of all lands in a state, and the remeasurement of a panel is considered an equal probability sample of change occurring on all lands in a state. In many states inventoried by NRS, additional resources have been made available to intensify plot sampling. These resources allow additional sample plots to be measured. In Missouri, a single intensity sample was completed in 1999. In 2000 through 2003, sampling intensity was doubled for Forest Survey units 1 and 5 and for the Mark Twain National Forest. In 2004 through 2008, sampling intensity was doubled only for the Mark Twain National Forest.

Three-Phase Inventory

FIA conducts inventories in three phases. Remotely sensed data are used in Phase 1 to obtain initial plot land-cover observations to determine whether a field visit is required. Phase 1 data also are used to classify total area in the population of interest, for latter use in the post-stratification process, to increase the precision of estimates. In Phase 2, field crews visit the physical locations of permanent field plots to measure traditional inventory variables such as tree species, diameter, and height. All trees measured in the previous measurement of the plot are remeasured or otherwise accounted for and any new trees that have grown onto the plot are measured. In Phase 3, field crews visit a subset of Phase 2 plots to obtain measurements for an additional suite of variables associated with forest and ecosystem health. The three phases of the enhanced FIA program as implemented in this inventory are discussed in detail in the sections that follow.

Phase 1

Aerial photographs, digital orthoquads (DOQs: digitally scanned aerial photograph), and satellite imagery are used for initial plot measurement via remotely sensed data and stratification. P1 plot measurement consists of observations of conditions at the plot locations using aerial photographs or DOQs. Analysts determine a digitized geographic location for each field plot and a human interpreter assigns to the plot a land cover/use with primary focus on identifying forest land.¹ All plot locations that could contain forest land, plus any additional plots that contained forest land at the previous measurement are selected for further measurement via field-crew visits in P2.

¹ Lands satisfying FIA's definition of forest land include commercial timberland, some pastured land with trees, forest plantations, unproductive forested land, and reserved, noncommercial forested land. Forest land requires minimum stocking levels, a 1-acre minimum area, and a minimum bole-to-bole width of 120 ft with continuous canopy. Forest land excludes wooded strips and windbreaks less than 120 ft wide and idle farmland or other previously nonforest land that currently is below minimum stocking levels.

The combination of natural variability among plots and budgetary constraints prohibits measurement of a sufficient number of plots to satisfy national precision standards for most inventory variables unless the estimation process is enhanced using ancillary data. Thus, the land area is stratified using remotely sensed and other map-based data.

NRS-FIA uses canopy-density classes obtained from the 2001 National Land Cover Database (NLCD) to derive strata. The NLCD 2001 canopy density layer for the United States was produced through a cooperative project conducted by the Multi-Resolution Land Characteristics (MRLC) Consortium (<http://www.mrlc.gov/>). The layer characterizes subtle variations of forest canopy density as a percentage estimate of forest canopy cover (0–100) within every 30 meter pixel over the United States (Fig. 49). The method used to map canopy density for NLCD 2001 is described in Huang et al. (2001) and Homer et al. (2004).

Strata Construction

Strata construction methods used by NRS-FIA were developed to work well across the entire 24-state region. Using data on plot location (center of the center subplot), a percent canopy-density value was assigned to each plot. Plots were then aggregated into one of the five canopy cover classes based on the center of the center subplot. The canopy cover classification scheme consists of five groupings: 0 to 5, 6 to 50, 51 to 65, 66 to 80, and 81 to 100 percent. These groupings were based on observed natural clumping of pixel values.

In addition to the classification of every pixel into one of the five canopy cover classes, every pixel also was assigned to an ownership class (Fig. 50). In Missouri, ownership layers were derived from a combination of the Protected Areas Database of the United States (PAD-US v1) (<http://www.protectedlands.net/>); Missouri Spatial Data Information Service (MSDIS) (<http://www.msdis.missouri.edu/data/datasetlist.htm>); Missouri Department of Natural Resources (<http://www.dnr.mo.gov/gis/>); Missouri Department

of Conservation (<http://newmdcgis.mdc.mo.gov/>); and Mark Twain National Forest (<http://www.fs.fed.us/r9/forests/marktwain/>). The datasets were used to classify pixels into four ownership classes: other public, private, Mark Twain National Forest, and inland census water. The largest ownership class, based on pixel counts, was private ownership at more than 41 million acres (Fig. 51). Every pixel also was assigned to a county based on the location of the pixel center.

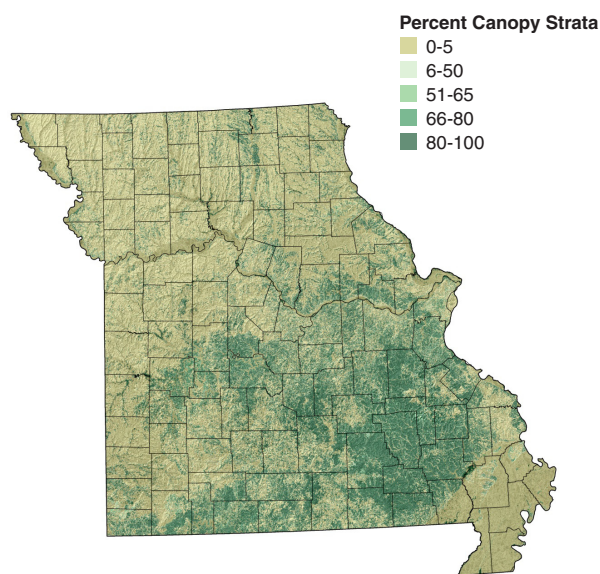


Figure 49.—Canopy density for Missouri, 2001.

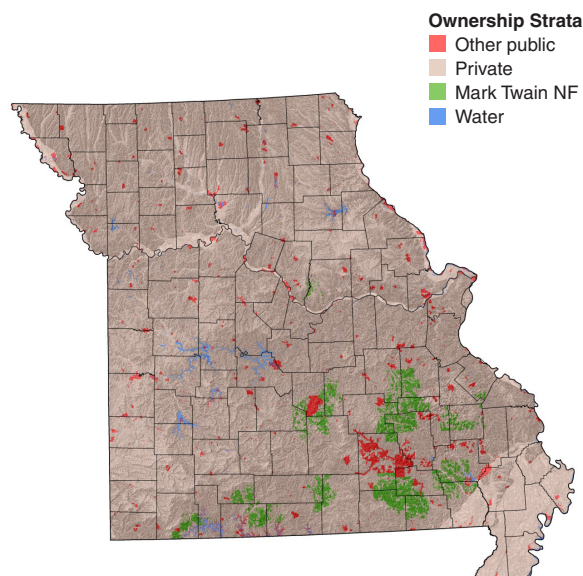


Figure 50.—Land ownership for Missouri.

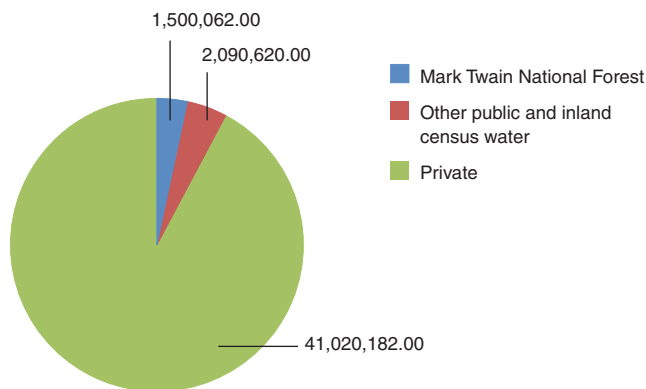


Figure 51.—Ownership class acreages based on pixel counts.

If the number of plots within a canopy cover class/ownership class/county was insufficient for valid estimation purposes, then specific collapsing rules were used to combine classes until sufficient sample sizes were obtained. These collapsed classes defined the strata used in estimation. NRS-FIA required a minimum of four plots per stratum for the 2008 inventory.

Stratified estimation requires that two tasks be accomplished. First, each plot must be assigned to a stratum. Next, the proportion of the total area in each stratum must be calculated. The first task is accomplished by assigning each plot to the stratum assigned for the pixel containing the center of the center subplot. The second task is accomplished by calculating the proportion of pixels in each stratum. The population estimate for a variable is calculated as the sum across all strata of the product of each stratum's observed proportion (from P1) and the variable's estimated mean per unit area for the stratum (from P2). The stratum assignments used in Missouri are discussed in the estimation section of this report.

Phase 2

In P2, field crews record a variety of data for plot locations determined in P1 to include accessible forest land. Before visiting plot locations, field crews consult county land records to determine the ownership of plots and then seek permission from private landowners to measure plots on their lands. At the plot field crews determine the location of the geographic center of

the center subplot using GPS receivers. They record condition-level observations that include land cover, forest type, stand origin, stand age, stand-size class, site-productivity class, history of forest disturbance, and land use for every condition (major land use of forest stand at least 1 acre in size) that occurs on the plot. They also record information on condition boundaries on plots with multiple conditions. For each tree, field crews record a variety of observations and measurements, including condition, species, live/dead status, lean, diameter, height, crown ratio (percentage of tree height represented by crown), crown class (dominant, codominant, suppressed), damage, and decay status. All trees measured in the previous measurement of the plot are remeasured or otherwise accounted for and any new trees that have grown onto the plot are measured. Office staff use statistical models based on field-crew measurements to calculate values for additional variables, including individual-tree volume, per-unit-area estimates of number of trees, volume, and biomass by plot, condition, species group, and live/dead status. The remeasurement of every tree enables the calculation of components of change including growth, mortality, and removals. Additional information on data collection procedures used in P2 is available at <http://www.nrs.fs.fed.us/fia/data-collection/>.

Phase 3

The third phase of the enhanced FIA program focuses on forest health. P3 is administered by the FIA program with consultation from other Forest Service programs, other Federal agencies, state natural resource agencies, universities, and the FHM program. The FHM program consists of four interrelated and complementary activities: detection, evaluation, intensive site-ecosystem monitoring, and research on monitoring techniques. Detection monitoring consists of systematic aerial and ground surveys designed to collect baseline information on the current condition of forest ecosystems and to detect changes from those baselines over time. Evaluation studies examine the extent, severity, and probable causes of changes in forest health identified through the detection-monitoring surveys. Intensive site-ecosystem

monitoring examines regionally specific ecological processes at a network of sites in representative forested ecosystems. Research on monitoring techniques focuses on developing and refining indicator measurements to improve the efficiency and reliability of data collection and analysis at all levels of the program.

The ground-survey portion of the detection-monitoring program was integrated into the FIA program as P3 in 1999. The P3 sample consists of a 1:16 subset of the P2 plots with one P3 plot for about every 95,000 acres. P3 measurements are obtained by field crews during the growing season and include an extended suite of ecological data: lichen diversity and abundance, soil quality (erosion, compaction, and chemistry), vegetation diversity and structure, and down woody material. The incidence and severity of ozone injury for selected bioindicator species also are monitored as part of an associated sampling scheme. All P2 measurements are collected on each P3 plot at the same time as the P3 measurements. Additional information on data-collection procedures used in P3 is available at <http://www.nrs.fs.fed.us/fia/topics/>.

P3 variables are selected to address specific criteria outlined by the Montreal Process Working Group for the conservation and sustainable management of temperate and boreal forests (Montreal Process 1995) and are based on the concept of indicator variables. Observations of an indicator variable represent an index of ecosystem functions that can be monitored over time to assess trends. Indicator variables are used in conjunction with each other, P2 data, data from FHM evaluation monitoring studies, and ancillary data to address ecological issues such as vegetation diversity, fuel loading, regional air-quality gradients, and carbon storage. The P2 and P3 data of the enhanced FIA program are a primary source of reporting data for the Montreal Process Criteria.

Estimation

Most of the estimates and analysis of forest resources in this report, including all of the estimates in Tables MO-1 to MO-32, MO-54 to MO-61a, and MO-65 are based

on data collected on the 7,787 P2 plots across Missouri (Fig. 52). The analysis of forest health issues that relate to down woody materials, soils, ozone damage, and crown condition are based on data collected on the 464 P3 plots (Fig 53).

About 20 percent of the P2 observations were acquired each year from October 1, 2003 to September 30, 2008. These observations, collectively called the 2008

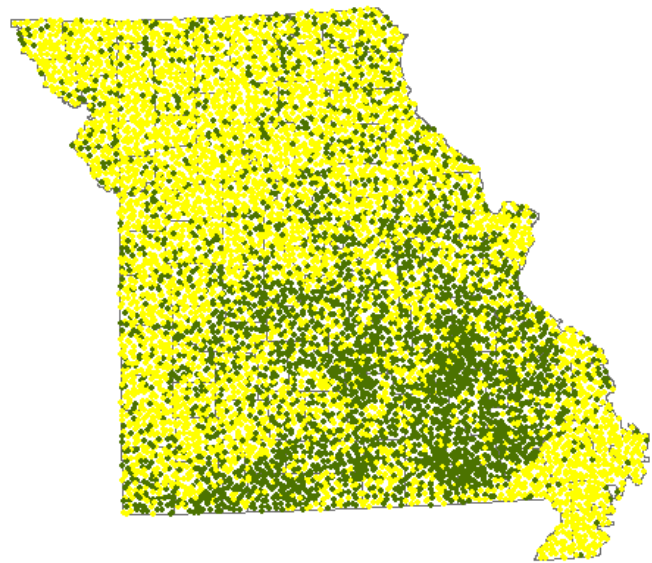


Figure 52.—Approximate location of forest-land (green dots) and nonforest land (yellow dots) Phase 2 plots, Missouri, 2008.

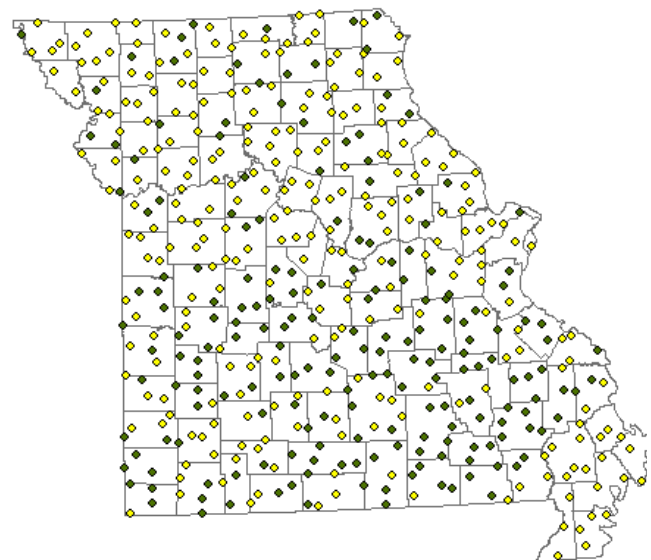


Figure 53.—Approximate location of forest-land (green dots) and nonforest land (yellow dots) Phase 3 plots, Missouri, 2008.

inventory, are within 428 estimation strata defined by five P1 canopy-cover classes (0 to 5, 6 to 50, 51 to 65, 66 to 80, 81 to 100) or collapsed canopy-cover classes, a land-ownership classification, and county groups. Procedures described in Bechtold and Patterson (2005) for stratified estimation with observed stratum areas were used in conjunction with the strata in Table A to produce all estimates. The total area and number of plots within each stratum is shown in Table A.

Integration with Previous Inventories

In 2008, FIA completed measurement of the fifth panel of inventory plots in Missouri. The 2008 panel along with those surveyed in 2004, 2005, 2006, and 2007 comprise the dataset for the sixth inventory of Missouri. For simplicity, the sixth inventory is often referred to as the 2008 inventory of Missouri. Previous inventories of Missouri's forest resources were completed in 1947, 1959, 1972, 1989, and 2003 (USDA For. Serv. 1948, Gansner 1965, Spencer and Essex 1976, Spencer et al. 1992, and Moser et al. 2005).

Data from new inventories often are compared with data from earlier inventories to determine trends in forest resources. However, for the comparisons to be valid, the procedures used in the two inventories must be similar. Identical classification procedures were used for the 2003 and 2008 inventories, so comparisons between these inventories is relatively simple. Comparisons with the earlier inventories (1947, 1959, 1972, and 1989) are more problematic as there were changes in plot design, measurements taken, and classification methods among these inventories.

For consistency, a new, national plot design was implemented by all five regional FIA units in 1999 in which fixed-radius subplots are used exclusively. Prior to the new plot design (during the 1972 and 1989 inventories) fixed and variable-radius subplots were used. Both designs have strong points but they often produce different classifications for condition characteristics. Procedures for assigning condition attributes such as forest type, stand age, and stocking changed significantly

with the introduction of the new annual plot design. However, FIA research (unpublished) comparing these plot designs, showed no noticeable difference in volume and tree-count estimates.

For additional information on the sample protocols and estimation procedures for the first two phases of the FIA program, see Bechtold and Patterson (2005). For additional information on P3 indicator sampling protocols, see USDA Forest Service (2005) and Woodall and Monleon (2008).

Quality of the Estimates

Two general types of error - random variability (precision) and estimation bias (accuracy) - are of interest to users. Random variability refers to the precision of the estimate, which would occur if the entire sampling and estimation process were repeated many times. Estimation bias refers to the difference between the estimate and the “true value” in the absence of this random variability, and to the overestimation or underestimation inherent in the entire estimation process.

Errors in the estimates in this report (both random variability and estimation bias) are affected by various sources. The four primary sources of error common to all sample-based estimates are sampling, measurement, prediction, and nonresponse error. The following sections provide a definition for each source of error in the context of the FIA inventory as well as a discussion of methods used to quantify and/or reduce that source of error. Measures of sampling, measurement, and prediction errors associated with various attributes are presented. Issues of possible bias related to nonresponse also are addressed.

Sampling Error

The process of sampling (selecting a random subset of a population and calculating estimates from this subset) causes estimates to contain error they would not have if every member of the population (e.g., every tree in Missouri) had been observed and included in the sample. The 2008 State inventory is based on a sample of 7,787 plots located randomly across Missouri (total area of 44.6 million acres), or a sampling rate of about one plot for every 5,729 acres.

The procedures for statistical estimation outlined in the previous section and described in detail in Bechtold and Patterson (2005) provide the estimates of the population totals and means in this report. Along with every estimate is an associated sampling error that is typically expressed as a percentage of the estimated value (the estimated value plus or minus the sampling error). This

sampling error is the primary measure of the reliability of an estimate. We use a sampling error based on one standard error, that is, the chances are two in three that the results would have been within the limits indicated had a 100-percent inventory been conducted using these methods.

Sampling errors for State-level estimates of the major attributes in this report are presented in Table B. Table 65 includes sampling errors for these estimates at the FIA survey-unit and county-group levels.

Estimates for classifications smaller than the State totals in Table B have larger sampling errors. For example, Table 65 shows that the sampling error for timberland area in any county is higher than that for total timberland area in Missouri. To compute an approximate sampling error for an estimate that is smaller than a State total, use the following formula:

$$E = \frac{(SE) \sqrt{(\text{State total estimate})}}{\sqrt{(\text{Smaller estimate})}} \quad (1)$$

where:

E = approximate sampling error for smaller estimate

SE = sampling error for State total estimate (percent)

For example, to compute the error on the area of forest land in the oak/hickory forest-type group for the State, proceed as follows:

The total area of the oak/hickory group in the State (from Table 3) is 12,676,400 acres.

The total area of all forest land in the State (from Table 3) is 15,396,900 acres.

The State total error for forest land area (from Table B) is 0.78 percent.

Using formula (1):

$$\text{Sampling error} = E = \frac{(0.78) \sqrt{(15,396,900)}}{\sqrt{(12,676,400)}} = 0.86 \text{ percent.}$$

This approximation works well for estimates of area, volume, number of trees, and biomass. It is less effective for estimates of growth, removals, or mortality. Individuals seeking more accurate sampling errors should use the estimation tools available at <http://fiatools.fs.fed.us>.

The estimators used by FIA are unbiased under the assumptions that the sample plots are a random sample of the total population, and that the observed value for any plot is the true value for that plot. Deviations from these basic assumptions are not reflected in the computation of sampling errors. The following sections on measurement, prediction, and nonresponse error address possible departures from these basic assumptions.

Measurement Error

Errors associated with the methods and instruments used to observe and record the sample attributes are called measurement errors. On FIA plots, attributes such as the diameter and height of a tree are measured with different instruments; other attributes such as species and crown class are observed without the aid of an instrument. On a typical FIA plot, 15 to 50 trees are observed with 15 to 20 attributes recorded on each tree. Also, many attributes that describe the plot and conditions on the plot are observed. Errors in any of these observations affect the quality of the estimates. If a measurement is biased (such as tree diameter consistently taken at an incorrect place on the tree) the estimates that use this observation (such as volume) will reflect this bias. Even if measurements are unbiased, high levels of random error in the measurements will add to the total random error of the estimation process.

To ensure that all FIA observations are made to the highest standards possible, a regular program of quality control and quality assurance is an integral part of all FIA data-collection efforts. This program begins with the documentation of protocols and procedures used in the inventory followed by extensive crew training. To assess the quality of the data collected by these trained crews, a random sample of at least 4 percent of all plots

is measured independently by a different qualified crew. These independent measurements are called blind checks. A second measurement on blind-check plots is made by a quality assurance (QA) crew. QA crews have as much or more experience and training in FIA field measurements as that of a standard FIA crew.

The quality of field measurements is assessed nationally through a set of measurement quality objectives (MQOs) that are set for every data item collected. Each MQO consists of two parts: a tolerance or acceptable level of measurement error and an objective in terms of the percentage of measurements within tolerance. Blind-check measurements are used to observe how often individual field crews are meeting these objectives and to assess the overall compliance among all crews. Table C shows the compliance rates for various measurements used to compute the estimates included in this and in other FIA reports. The column labeled “Missouri” is based on blind check measurements of plots used in this report. The columns labeled “All NRS States” includes measurements by FIA crews within the 24-state area (Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Vermont, West Virginia, and Wisconsin) where the NRS implemented the FIA program from 2000 through 2008. Training and supervision of crews is a regional effort and crews often work in more than one state. Regional data-quality observations reflect the overall measurement quality of all data collected by FIA in the Northern States.

In Missouri, variables such as d.b.h. have a low tolerance (± 0.1 inch) and a high percentage of data within the tolerance (92.4 percent). Measurements for determining tree-size class are precise. By contrast, variables such as stand age have a larger tolerance (± 10 years) and fewer data within the tolerance (77.3 percent). The estimate of stand age is based on the composition of all age classes within a stand. Often a stand is heterogeneous by age but a single value must be assigned to it. This can confound analysis of stand age over time.

Blind-check observations also were used to test for relative bias in the field-crew measurements. Relative bias is defined here as a tendency for standard measurements by field-crews to be higher or lower than measurements by QA crews. The estimated relative bias and limits of 95-percent confidence intervals (based on parametric bootstrap estimates) for the relative bias are presented in Table D. Relative bias is reported only for variables that are measurements of continuous attributes (e.g., diameter and height) and several coded variables that are ordinal in nature (e.g., crown position). Relative bias is not appropriate for most coded variables.

Blind-check measurements do not provide direct observations of true bias in field measurements (average difference between field measurements and true values) because they are paired observations of two field measurements. The QA crew in these blind checks typically has more training and experience with FIA field measurements than the first crew, but both crews use the same methods and instruments to obtain measurements. These methods have been identified as the best available and selected for nationwide use by FIA, and are commonly used by similar natural-resource inventories. A basic assumption is that when applied correctly, these methods provide unbiased observations of the attribute they are designed to measure. Under this assumption, relative bias observations in Table D provide observations of bias due to the difference in experience and training between the field and QA crews. In most cases, there is no significant bias.

Prediction Error

Errors associated with mathematical models (such as volume models) aimed at providing observations of the attributes of interest based on sample attributes are called prediction errors. Area, number of trees, volume, biomass, growth, removals, and mortality are the primary attributes of interest in this report. Estimates of area and number of trees are based on direct observation and do not rely on prediction models. Models are used to predict volume and biomass estimates for individual trees. Change estimates such as growth, mortality, and

removals are based on these model-based predictions of volume from both the current plot measurements and the measurements taken in the previous inventory.

Estimates of prediction errors associated with volume models used in this report are presented in Hahn and Hansen (1991) along with the model forms, methods used in model development, and model-parameter estimates. The estimated prediction errors are based on observations of 10,453 trees measured in the 1989 Missouri inventory. For gross cubic-foot volume in live trees, there was a 2.5 percent overprediction across all species, an underprediction of 4.3 percent in trees less than 10 inches in d.b.h., and an overprediction of 7.1 percent in trees 20 inches and larger in d.b.h. Prediction errors were similar for board foot estimates.

In comparing FIA estimates with those from other data sources, users should be aware of the prediction models used in both estimates. If both estimates are based on the same prediction models with matching fitted-parameter values, the prediction bias of one estimate should cancel out that of the other estimate. If the estimates are based on different prediction models, the prediction error of both models must be considered.

Nonresponse Error

Nonresponse error occurs when crews are unable to measure a plot (or a portion of a plot) at a selected location. Nonresponse falls into three classes:

Denied access – Entire plots or portions of plots where the field crew is unable to obtain permission from the landowner to measure trees on the plot.

Hazardous/inaccessible – Entire plots or portions of plots where conditions prevent a crew from safely accessing the plot or measuring trees on the plot.

Other – Plots on which the field crew is unable to obtain a valid measurement for reasons other than those stated.

Nonresponse has two effects on the sample: it reduces the sample size, which is reflected in the sampling errors, and it can bias the estimates if the portion of the population not being sampled differs from the portion being sampled.

In FIA, nonresponse rates are relatively low. In the 2008 Missouri inventory, 7,787 sample plots were selected for observation. Over 96 percent of these are included in the sample used to estimate current resources. On 302 plots, crews were unable to obtain owner permission to measure the plot or part of the plot; hazardous conditions on seven plots prevented the crew from measuring all or part of the plot.

Even an overall nonresponse rate of 1 percent can cause considerable bias if not properly accounted for. The major source of nonresponse is denied access to plots, which occurs primarily on lands in private ownership. Also, observations for plots on nonforest land and water classes rarely require crews to physically enter the area, and permission is not needed because the observation can be obtained from aerial photos or other sources of remotely sensed information.

The stratified estimation process used by FIA with strata defined by ownership classes and canopy cover class reduces the possible effects of bias caused by nonresponse. Under the stratified estimation process used by FIA, nonresponses are removed from the sample, and stratum estimates (means, totals, and sampling errors) are obtained only from plots with valid observations. The net effect in the estimates of means and totals is that the average of the observed plots within the stratum (ownership-canopy-cover class) becomes the estimate for all nonresponses within that stratum. The nonresponse rate in one stratum does not affect the estimate in other strata. The response rate by ownership is presented in Table E; response rates by ownership and strata are presented in Table A.

In Table 1 of this report, we acknowledge denied access and hazardous as two land classes in Missouri within which we are unable to provide estimates for variables

such as forest area and timber volume. However, we do report the total estimated area in each of these classes. In all other tables of this report, we do not acknowledge either of these classes, and in the estimation process we treat the sample where we do have observations as a random sample of the entire State.

The nonresponse plots in this inventory were not permanently removed from the FIA system of plots. We will attempt to measure these plots in future inventories. At that time we may be able to obtain permission to access these plots, hazardous conditions may have changed, and/or other circumstances that caused us to drop plots from a specific inventory cycle may well change.

Glossary

Average annual mortality: The average annual change in mortality of trees during the period between inventories. This estimate can be provided in cubic feet for live and growing-stock trees that died or in board feet for sawtimber trees that died.

Average annual net growth: The average annual change in the volume of trees during the period between inventories. Components include the change in volume of trees that have met the minimum size requirements over the inventory period, plus the volume of trees reaching the minimum size during the period (ingrowth), minus the volume of trees that died during the period, minus the volume of cull during the period. Mortality removals (trees killed in the harvesting process and left on site) and diversion removals (trees removed from the forest-land base due to a change from forest to nonforest land) are not included. This estimate can be provided in cubic feet for live and growing-stock trees or in board feet for sawtimber trees.

Average annual removals: The average annual change in removals of trees during the period between inventories. The estimate includes harvest removals, mortality removals (trees killed in the harvesting process and left on site), and diversion removals (trees removed from the forest-land base due to a change from forest to nonforest land). This estimate can be provided in cubic feet for live and growing-stock trees or in board feet for sawtimber trees.

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

Bioindicator species: A tree, woody shrub, or herb species that responds to ambient levels of ozone pollution with distinct visible foliar symptoms that are easy to diagnose.

Biomass: The aboveground volume of live trees (including bark but excluding foliage) reported in dry tons (dry weight). Biomass has four components:

Bole: Biomass of a tree from 1 foot above the ground to a 4-inch top outside bark or to a point where the central stem breaks into limbs.

Tops and limbs: Total biomass of a tree from a 1-foot stump minus the bole.

1-to 5-inch trees: Total aboveground biomass of a tree from 1 to 5 inches in d.b.h.

Stump: Biomass of a tree 5 inches d.b.h. and larger from the ground to a height of 1 foot.

Bulk density: The mass of soil per unit volume. A measure of the ratio of pore space to solid materials in a given soil. It is expressed in units of grams per cubic centimeter of oven dry soil.

Coarse woody debris (CWD): Dead branches, twigs, and wood splinters 3.0 inches in diameter and larger measured at the smallest end.

Commercial species: Tree species suitable for industrial wood products.

Compacted live crown ratio: The percent of the total length of the tree that supports a full, live crown. To determine compacted live crown ratio for trees that have uneven length crowns, lower branches are visually transferred to fill holes in the upper portions of the crown, until a full, even crown is created.

Corporate: An ownership class of private lands owned by corporations.

County and municipal: An ownership class of public lands owned by counties or local public agencies, or lands leased by these governmental units for more than 50 years. Also known as local government.

Cropland: Land under cultivation within the last 24 months, including cropland harvested, crop failures, cultivated summer fallow, idle cropland used only for pasture, orchards, active Christmas tree plantations indicated by annual shearing, nurseries, and land in soil improvement crops but excluding land cultivated in developing improved pasture.

Crown: The part of a tree or woody plant bearing live branches or foliage.

Crown dieback: Recent mortality of branches with fine twigs, which begins at the terminal portion of a branch and proceeds toward the trunk. Dieback is considered only when it occurs in the upper and outer portions of the tree. When whole branches are dead in the upper crown, without obvious signs of damage such as breaks or animal injury, it is assumed the branches died from the terminal portion of the branch. Dead branches in the lower portion of the live crown are assumed to have died from competition and shading.

Cull tree: A live tree, 5.0 inches in d.b.h. or larger, that is unmerchantable for saw logs now or prospectively because of rot, roughness, or species (see definitions for rotten and rough trees).

Decay class: Qualitative assessment of stage of decay (5 classes) of coarse woody debris based on visual assessments of color of wood, presence/absence of twigs and branches, texture of rotten portions, and structural integrity.

Diameter class: A classification of trees based on diameter outside bark measured at breast height (4-1/2 feet above ground). D.b.h. is the common abbreviation for “diameter at breast height.” With 2-inch diameter classes, the 6-inch class, for example, includes trees 5.0 through 6.9 inches d.b.h. A “diameter at root collar” or d.r.c. measurement is acquired for multi-stemmed woodland species (e.g., Rocky Mountain juniper).

Down woody material (DWM): Woody pieces of trees and shrubs that have been uprooted (no longer supporting growth) or severed from their root system, not self-supporting, and lying on the ground.

Duff: A soil layer dominated by organic material derived from the decomposition of plant and animal litter and deposited on either an organic or a mineral surface. This layer is distinguished from the litter layer in that the original organic material has undergone sufficient decomposition that the source of this material (e.g., individual plant parts) no longer can be identified.

Effective cation exchange capacity (ECEC): The sum of cations that a soil can adsorb in its natural pH. It is expressed in units of centimoles of positive charge per kilogram of soil.

Federal: An ownership class of public lands owned by the U.S. Government.

Fiber products: Products derived from wood and bark residues, such as pulp, composition board products, and wood chips.

Fine materials: Wood residues not suitable for chipping, such as planer shavings and sawdust.

Fine woody debris (FWD): Dead branches, twigs, and wood splinters 0.1 to 2.9 inches in diameter.

Forest land: Land at least 10-percent stocked by trees of any size, including land that formerly had such tree cover and that will be naturally or artificially regenerated. Forest land includes transition zones, such as areas between heavily forested and nonforested lands that are at least 10-percent stocked with trees and forest areas adjacent to urban and builtup lands. Also included are pinyon-juniper and chaparral areas in the West and afforested areas. The minimum area for classification of forest land is 1 acre and 120 feet wide measured stem-to-stem from the outer-most edge. Unimproved roads and trails, streams, and clearings in forest areas are classified as forest if less than 120 feet wide.

Forest type: A classification of forest land based on the species presently forming a plurality of the live-tree stocking. If softwoods predominate (50 percent or more), then the forest type will be one of the softwood types and vice versa for hardwoods. For the Eastern United States, there are mixed hardwood-pine forest types when the pine and/or redcedar (either eastern or southern) component is between 25 and 49 percent of the stocking. If the pine/redcedar component is less than 25 percent of the stocking, then one of the hardwood forest types is assigned.

Forest-type group: Combinations of forest types that share closely associated species or site requirements and are generally combined for brevity of reporting.

Growing stock: A classification of timber inventory that includes live trees of commercial species meeting specified standards of quality or vigor. Rough and rotten cull trees are excluded. When associated with volume, this includes only trees 5.0 inches d.b.h. and larger.

Hardwood: A dicotyledonous tree, usually broad-leaved and deciduous.

Soft hardwoods: A category of hardwood species with wood generally of low specific gravity (less than 0.5). Notable examples include red maple, paper birch, quaking aspen, and American elm.

Hard hardwoods: A category of hardwood species with wood generally of high specific gravity (greater than 0.5). Notable examples include sugar maple, yellow birch, black walnut, and oaks.

Industrial wood: All commercial roundwood products except fuelwood.

Land area: The area of dry land and land temporarily or partly covered by water, such as marshes, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than 200 feet wide; and lakes, reservoirs, and ponds less than 4.5 acres in area.

Litter: Undecomposed or only partially decomposed organic material that can be readily identified (e.g., plant leaves, twigs).

Live cull: A classification that includes live, cull trees. When associated with volume, it is the net volume in live, cull trees that are 5.0 inches d.b.h. and larger.

Local government: An ownership class of public lands owned by counties or local public agencies, or lands leased by these governmental units for more than 50 years. Also known as county and municipal.

Logging residues: The unused portions of growing-stock and nongrowing-stock trees cut or killed by logging and left in the woods.

Merchantable: Refers to a pulpwood or saw log section that meets pulpwood or saw log specifications, respectively.

National Forest: An ownership class of Federal lands, designated by executive order or statute as National Forests or purchase units, and other lands under the administration of the Forest Service, including experimental areas.

Net volume in cubic feet: The gross volume in cubic feet less deductions for rot, roughness, and poor form. Volume is computed for the central stem from a 1-foot stump to a minimum 4.0-inch top diameter outside bark, or to the point where the central stem breaks into limbs.

Noncommercial species: Tree species of typically small size, poor form, or inferior quality, which normally do not develop into trees suitable for industrial wood products.

Noncorporate private: Nongovernmental conservation and natural resource organizations; unincorporated local partnerships, associations, and clubs; and Native American communities.

Nonforest land: Land that has never supported forests and lands formerly forested where use of timber management is precluded by development for other uses. (Note: Includes area used for crops, improved pasture, residential areas, city parks, improved roads of any width and adjoining clearings, powerline clearings of any width, and 1- to 4.5-acre areas of water classified by the Bureau of the Census as land. If intermingled in forest areas, unimproved roads and nonforest strips must be more than 120 feet wide, and clearings, etc., must be more than 1 acre in area to qualify as nonforest land.)

Nonstocked areas: Timberland less than 10-percent stocked with live trees.

Other red oaks: A group of species in the genus *Quercus* that includes scarlet oak, northern pin oak, southern red oak, bear oak, shingle oak, laurel oak, blackjack oak, water oak, pin oak, willow oak, and black oak.

Other white oaks: A group of species in the genus *Quercus* that includes overcup oak, chestnut oak, and post oak.

Ownership: The property owned by one ownership unit.

Ownership unit: A classification of ownership encompassing all types of legal entities having an ownership interest in land, regardless of the number of people involved. A unit may be an individual, a combination of persons; a legal entity such as a corporation, partnership, club, or trust, or a public agency. An ownership unit has control of a parcel or group of parcels of land.

Ozone: A regional, gaseous air pollutant produced primarily through sunlight-driven chemical reactions of nitrogen dioxide and hydrocarbons in the atmosphere and causing foliar injury to deciduous trees, conifers, shrubs, and herbaceous species.

Ozone bioindicator site: An open area used for ozone injury evaluations on ozone-sensitive species. The area must meet certain site selection guidelines on size,

condition, and plant counts to be used for ozone injury evaluations in FIA.

Physiographic class: A measure of soil and water conditions that affect tree growth on a site. The physiographic classes are as follows:

Xeric: Very dry soils where excessive drainage seriously limits both growth and species occurrence. These sites are usually on upland and upper half slopes.

Xeromesic: Moderately dry soils where excessive drainage limits growth and species occurrence to some extent. These sites are usually on the lower half slopes.

Mesic: Deep, well-drained soils. Growth and species occurrence are limited only by climate. These include all cove sites (small sheltered bays) and bottomlands (low land) along intermittent streams.

Hydromesic: Moderately wet soils where insufficient drainage or infrequent flooding limits growth and species occurrence to some extent.

Hydric: Very wet sites where excess water seriously limits both growth and species occurrence.

Poletimber trees: Live trees at least 5.0 inches in d.b.h. but smaller than sawtimber trees.

Primary wood-using mill: A mill that converts roundwood products into other wood products. Common examples are sawmills that convert saw logs into lumber and pulpmills that convert pulpwood into wood pulp.

Productivity class: A classification of forest land in terms of potential annual cubic-foot volume growth per acre at culmination of mean annual increment in fully stocked natural stands.

Pulpwood: Roundwood, whole-tree chips, or wood residues used for the production of wood pulp.

Reserved forest land: Forest land withdrawn from timber utilization through statute, administrative regulation, or designation without regard to productive status.

Residues: Bark and woody materials that are generated in primary wood-using mills when roundwood products are converted to other products. Examples include slabs, edgings, trimmings, miscuts, sawdust, shavings, veneer cores and clippings, and pulp screenings. Includes bark residues and wood residues (both coarse and fine materials) but excludes logging residues.

Rotten tree: A live tree of commercial species that does not contain a saw log now or prospectively primarily because of rot (that is, when rot accounts for more than 50 percent of the total cull volume).

Rough tree: (a) A live tree of commercial species that does not contain a saw log now or prospectively primarily because of roughness (that is, when sound cull due to such factors as poor form, splits, or cracks accounts for more than 50 percent of the total cull volume) or (b) a live tree of noncommercial species.

Roundwood products: Logs, bolts, and other round timber generated from harvesting trees for industrial or consumer use.

Salvable dead tree: A downed or standing dead tree considered currently or potentially merchantable by regional standards.

Saplings: Live trees 1.0 inch through 4.9 inches d.b.h.

Saw log: A log meeting minimum standards of diameter, length, and defect, including logs at least 8 feet long, sound and straight, and with a minimum diameter inside bark of 6 inches for softwoods and 8 inches for hardwoods, or meeting other combinations of size and defect specified by regional standards.

Sawtimber tree: A live tree of commercial species containing at least a 12-foot saw log or two noncontiguous saw logs 8 feet or longer, and meeting

regional specifications for freedom from defect. Softwoods must be at least 9.0 inches d.b.h. Hardwoods must be at least 11.0 inches d.b.h.

Sawtimber volume: Net volume of the saw-log portion of live sawtimber in board feet, International 1/4-inch rule (unless specified otherwise), from stump to a minimum 7.0 inches top d.o.b. for softwoods and a minimum 9.0 inches top d.o.b. for hardwoods.

Seedlings: Live trees less than 1.0 inch d.b.h. and at least 1 foot in height.

Select red oaks: A group of species in the genus *Quercus* that includes cherrybark oak, northern red oak, and Shumard oak.

Select white oaks: A group of species in the genus *Quercus* that includes white oak, swamp white oak, bur oak, swamp chestnut oak, and chinkapin oak.

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.

Snag: A standing dead tree. In the current inventory, a snag must be 5.0 inches d.b.h./d.r.c. and 4.5 feet tall, and have a lean angle less than 45 degrees from vertical. A snag may be either self-supported by its roots, or supported by another tree or snag.

Softwood: A coniferous tree, usually evergreen, having needles or scale-like leaves.

Soil Order: The broadest category or class of soil based largely on the processes that formed the soil as indicated by the presence or absence of diagnostic horizons or layers.

Sound dead: The net volume in salvable dead trees.

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

Stand-size class: A classification of forest land based on the size class of live trees in the area. The classes are as follows:

Nonstocked: Forest land stocked with less than 10 percent of full stocking with live trees. Examples are recently cutover areas or recently reverted agricultural fields.

Seedling-sapling: Forest land stocked with at least 10 percent of full stocking with live trees with half or more of such stocking in seedlings or saplings or both.

Poletimber: Forest land stocked with at least 10 percent of full stocking with live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of poletimber exceeds that of sawtimber.

Sawtimber: Forest land stocked with at least 10 percent of full stocking with live trees with half or more of such stocking in poletimber or sawtimber trees or both, and in which the stocking of sawtimber is at least equal to that of poletimber.

State: An ownership class of public lands owned by states or lands leased by states for more than 50 years. Also a general reference to one of the political and geographic subdivisions of the United States.

Stocking: The degree of occupancy of land by trees, measured by basal area or number of trees by size and spacing, or both, compared to a stocking standard; that is, the basal area or number of trees, or both, required to fully utilize the growth potential of the land.

Timberland: Forest land that is producing or is capable of producing crops of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. (Note: Areas qualifying as timberland are capable of producing in excess of 20 cubic feet per acre per year of industrial wood in natural stands. Currently inaccessible and inoperable areas are included.)

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, edging, trimmings, miscuts, sawdust, shavings, veneer cores and clippings, and screenings of pulpmills that are used as pulpwood chips or other products.

Tree: A woody plant usually having one or more erect perennial stems, a stem diameter at breast height of at least 3.0 inches, a more or less definitely formed crown of foliage, and a height of at least 15 feet at maturity.

Tree size class: A classification of trees based on diameter at breast height, including sawtimber trees, poletimber trees, saplings, and seedlings.

Tops: The wood of a tree above the merchantable height (or above the point on the stem 4.0 inches diameter outside bark (d.o.b.) or to the point where the central stem breaks into limbs). It includes the usable material in the uppermost stem.

Urban forest land: Land that would otherwise meet the criteria for timberland but is in an urban-suburban area surrounded by commercial, industrial, or residential development and not likely to be managed for the production of industrial wood products on a continuing basis. Wood removed would be for land clearing, fuelwood, or esthetic purposes. Such forest land may be associated with industrial, commercial, residential subdivision, industrial parks, golf course perimeters, airport buffer strips, and public urban parks that qualify as forest land.

Unreserved forest land: Forest land not withdrawn from harvest by statute or administrative regulation. This includes forest lands that are not capable of producing in excess of 20 cubic feet per acre per year of industrial wood in natural stands.

Veneer log: A roundwood product from which veneer is sliced or sawn and that usually meets certain standards of minimum diameter and length and maximum defect.

Weight: The weight of wood and bark, oven-dry basis (approximately 12 percent moisture content).

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Table A.—Area and number of plots in each stratum, Missouri, 2008

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest measured for change ^j	Plots not measured ^k	Denied access	Hazardous
1	Inland Census Water Public Cnty. Grp. 1	Canopy cover 0 - 81	15,062	4	0	4	4	4	4	0	0	0
1	Inland Census Water Public Cnty. Grp. 10, 8, 2	Canopy cover 0 - 81	25,757	5	1	4	4	4	3	0	0	0
5	Inland Census Water Public Cnty. Grp. 100, 93	Canopy cover 0 - 81	30,475	6	1	5	5	5	3	0	0	0
5	Inland Census Water Public Cnty. Grp. 108, 102...	Canopy cover 0 - 81	41,007	5	3	2	2	2	2	0	0	0
5	Inland Census Water Public Cnty. Grp. 109	Canopy cover 0 - 81	44,126	6	4	2	2	2	2	0	0	0
5	Inland Census Water Public Cnty. Grp. 110	Canopy cover 0 - 81	12,124	6	2	4	4	4	4	0	0	0
5	Inland Census Water Public Cnty. Grp. 113	Canopy cover 0 - 81	24,179	6	2	4	4	4	4	0	0	0
5	Inland Census Water Public Cnty. Grp. 114, 94, ...	Canopy cover 0 - 66	39,680	4	4	0	0	0	0	0	0	0
5	Inland Census Water Public Cnty. Grp. 114, 94, ...	Canopy cover 81 - 100	21,534	4	0	4	4	4	3	0	0	0
5	Inland Census Water Public Cnty. Grp. 115, 101...	Canopy cover 0 - 81	37,862	7	3	4	4	4	4	0	0	0
1	Inland Census Water Public Cnty. Grp. 12	Canopy cover 0 - 66	28,750	5	1	4	4	4	3	0	0	0
1	Inland Census Water Public Cnty. Grp. 12	Canopy cover 81 - 100	159,059	27	0	27	27	27	27	0	0	0
1	Inland Census Water Public Cnty. Grp. 14	Canopy cover 0 - 66	28,613	4	2	2	2	2	2	0	0	0
1	Inland Census Water Public Cnty. Grp. 14	Canopy cover 81 - 100	54,225	6	0	6	6	6	6	0	0	0
2	Inland Census Water Public Cnty. Grp. 15, 19, 20	Canopy cover 0 - 81	30,513	6	2	4	4	4	3	0	0	0
2	Inland Census Water Public Cnty. Grp. 18, 17, ...	Canopy cover 0 - 81	35,118	7	0	7	7	7	7	0	0	0
2	Inland Census Water Public Cnty. Grp. 21	Canopy cover 0 - 81	29,405	6	1	5	5	5	5	0	0	0
2	Inland Census Water Public Cnty. Grp. 22	Canopy cover 0 - 81	48,079	5	3	2	2	2	2	0	0	0
2	Inland Census Water Public Cnty. Grp. 23	Canopy cover 0 - 81	37,980	5	1	4	4	4	3	0	0	0
3	Inland Census Water Public Cnty. Grp. 27	Canopy cover 0 - 5	39,458	6	6	0	0	0	0	0	0	0
3	Inland Census Water Public Cnty. Grp. 27	Canopy cover 6 - 81	33,026	5	2	3	3	3	3	0	0	0
3	Inland Census Water Public Cnty. Grp. 28	Canopy cover 0 - 81	50,728	8	5	3	3	3	3	0	0	0
3	Inland Census Water Public Cnty. Grp. 29	Canopy cover 0 - 81	29,424	5	4	1	1	1	1	0	0	0
1	Inland Census Water Public Cnty. Grp. 3	Canopy cover 0 - 81	42,671	10	0	10	10	10	10	0	0	0
3	Inland Census Water Public Cnty. Grp. 30, 32, 37	Canopy cover 0 - 81	34,592	4	1	3	3	3	3	0	0	0
3	Inland Census Water Public Cnty. Grp. 31	Canopy cover 0 - 81	25,452	7	1	6	6	6	6	0	0	0
3	Inland Census Water Public Cnty. Grp. 35, 33, ...	Canopy cover 0 - 66	23,907	4	2	2	2	2	2	0	0	0
3	Inland Census Water Public Cnty. Grp. 35, 33, ...	Canopy cover 81 - 100	15,689	5	0	5	5	5	5	0	0	0
3	Inland Census Water Public Cnty. Grp. 38	Canopy cover 0 - 66	18,932	6	1	5	5	5	4	0	0	0
3	Inland Census Water Public Cnty. Grp. 38	Canopy cover 81 - 100	44,417	8	0	8	7	7	7	1	0	1
3	Inland Census Water Public Cnty. Grp. 39	Canopy cover 0 - 5	32,159	7	5	2	2	1	0	0	0	0
3	Inland Census Water Public Cnty. Grp. 39	Canopy cover 6 - 81	47,591	7	0	7	7	7	6	0	0	0
1	Inland Census Water Public Cnty. Grp. 4, 13, 7...	Canopy cover 0 - 81	60,718	9	1	8	8	8	7	0	0	0
4	Inland Census Water Public Cnty. Grp. 42	Canopy cover 0 - 81	8,933	4	1	3	3	3	3	0	0	0
4	Inland Census Water Public Cnty. Grp. 45	Canopy cover 0 - 66	20,999	4	4	0	0	0	0	0	0	0

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(Table A continued)

Forest survey unit ^e	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest measured for change ^j	Plots not measured ^k	Denied access	Hazardous
4	Inland Census Water Public Cnty. Grp. 45	Canopy cover 81 - 100	8,527	4	0	4	4	4	4	0	0	0
4	Inland Census Water Public Cnty. Grp. 49, 64	Canopy cover 0 - 81	21,147	4	0	4	4	4	4	0	0	0
1	Inland Census Water Public Cnty. Grp. 5	Canopy cover 0 - 81	22,232	6	1	5	5	5	5	0	0	0
4	Inland Census Water Public Cnty. Grp. 52	Canopy cover 0 - 81	18,857	4	1	3	3	3	3	0	0	0
4	Inland Census Water Public Cnty. Grp. 55	Canopy cover 0 - 81	31,542	4	0	4	4	4	4	0	0	0
4	Inland Census Water Public Cnty. Grp. 59, 65, ...	Canopy cover 0 - 81	27,549	4	1	3	3	2	2	0	0	0
4	Inland Census Water Public Cnty. Grp. 62	Canopy cover 0 - 5	58,141	6	5	1	1	1	1	0	0	0
4	Inland Census Water Public Cnty. Grp. 62	Canopy cover 6 - 81	42,856	7	0	7	6	6	6	1	1	0
4	Inland Census Water Public Cnty. Grp. 66, 68, ...	Canopy cover 0 - 81	47,737	7	5	2	2	2	1	0	0	0
4	Inland Census Water Public Cnty. Grp. 70, 75, ...	Canopy cover 0 - 5	25,202	4	3	1	1	1	0	0	0	0
4	Inland Census Water Public Cnty. Grp. 70, 75, ...	Canopy cover 6 - 81	34,296	5	1	4	4	4	4	0	0	0
4	Inland Census Water Public Cnty. Grp. 71, 80	Canopy cover 0 - 81	47,176	7	5	2	2	2	1	0	0	0
4	Inland Census Water Public Cnty. Grp. 74	Canopy cover 0 - 81	19,793	5	3	2	2	2	2	0	0	0
4	Inland Census Water Public Cnty. Grp. 77	Canopy cover 0 - 81	41,316	9	5	4	4	4	3	0	0	0
4	Inland Census Water Public Cnty. Grp. 86	Canopy cover 0 - 81	17,717	5	3	2	2	2	2	0	0	0
1	Inland Census Water Public Cnty. Grp. 9	Canopy cover 0 - 81	70,804	9	0	9	9	9	9	0	0	0
4	Inland Census Water Public Cnty. Grp. 90, 83, ...	Canopy cover 0 - 5	105,898	9	8	1	1	0	0	0	0	0
4	Inland Census Water Public Cnty. Grp. 90, 83, ...	Canopy cover 6 - 66	37,750	4	2	2	2	2	2	0	0	0
4	Inland Census Water Public Cnty. Grp. 90, 83, ...	Canopy cover 81 - 100	39,236	4	0	4	4	4	4	0	0	0
4	Inland Census Water Public Cnty. Grp. 91	Canopy cover 0 - 81	36,628	5	4	1	1	1	1	0	0	0
5	Inland Census Water Public Cnty. Grp. 97, 107, ...	Canopy cover 0 - 81	43,812	6	5	1	1	1	0	0	0	0
5	Inland Census Water Public Cnty. Grp. 98	Canopy cover 0 - 81	20,160	5	2	3	3	3	3	0	0	0
1,2,3,5	Mark Twain NF	Canopy cover 0 - 5	16,569	5	2	3	3	3	1	0	0	0
1,2,3,5	Mark Twain NF	Canopy cover 51 - 65	37,456	16	0	16	16	15	12	0	0	0
1,2,3,5	Mark Twain NF	Canopy cover 6 - 50	20,350	4	0	4	4	4	3	0	0	0
1,2,3,5	Mark Twain NF	Canopy cover 66 - 80	97,708	33	0	33	33	33	29	0	0	0
1,2,3,5	Mark Twain NF	Canopy cover 81 - 100	1,327,979	418	0	418	418	418	359	1	1	0
1	Private Cnty. Grp. 1	Canopy cover 0 - 5	152,709	26	17	9	6	6	5	3	3	0
1	Private Cnty. Grp. 1	Canopy cover 6 - 66	54,096	8	0	8	7	7	7	1	1	0
1	Private Cnty. Grp. 1	Canopy cover 81 - 100	174,015	26	0	26	18	18	16	8	8	0
1	Private Cnty. Grp. 10	Canopy cover 0 - 5	86,103	14	11	3	2	1	1	1	1	0
1	Private Cnty. Grp. 10	Canopy cover 51 - 66	39,023	5	0	5	4	4	3	1	1	0
1	Private Cnty. Grp. 10	Canopy cover 6 - 50	24,694	6	2	4	3	2	2	1	1	0
1	Private Cnty. Grp. 10	Canopy cover 81 - 100	146,397	27	0	27	26	26	24	1	1	0
5	Private Cnty. Grp. 100	Canopy cover 0 - 5	182,770	29	26	3	3	2	2	0	0	0

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(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest measured for change ^j	Plots not measured ^k	Denied access	Hazardous
5	Private Cnty. Grp. 100	Canopy cover 6 - 66	53,834	9	1	8	8	6	4	0	0	0
5	Private Cnty. Grp. 100	Canopy cover 81 - 100	51,114	10	0	10	9	8	7	1	1	0
5	Private Cnty. Grp. 101	Canopy cover 0 - 5	90,739	15	12	3	3	3	3	0	0	0
5	Private Cnty. Grp. 101	Canopy cover 51 - 66	71,400	9	2	7	4	4	2	3	3	0
5	Private Cnty. Grp. 101	Canopy cover 6 - 50	43,624	14	5	9	9	8	7	0	0	0
5	Private Cnty. Grp. 101	Canopy cover 81 - 100	210,024	32	1	31	23	23	23	8	8	0
5	Private Cnty. Grp. 102	Canopy cover 0 - 5	238,735	43	42	1	1	1	1	0	0	0
5	Private Cnty. Grp. 102	Canopy cover 6 - 81	19,411	4	1	3	3	3	3	0	0	0
5	Private Cnty. Grp. 103	Canopy cover 0 - 5	172,279	32	29	3	3	3	3	0	0	0
5	Private Cnty. Grp. 103	Canopy cover 51 - 81	65,276	5	0	5	4	4	3	1	1	0
5	Private Cnty. Grp. 103	Canopy cover 6 - 50	23,738	4	1	3	3	3	3	0	0	0
5	Private Cnty. Grp. 104	Canopy cover 0 - 5	202,646	37	32	5	5	4	2	0	0	0
5	Private Cnty. Grp. 104	Canopy cover 6 - 81	137,166	17	0	17	13	13	11	4	4	0
5	Private Cnty. Grp. 105	Canopy cover 0 - 81	427,712	75	72	3	3	3	2	0	0	0
5	Private Cnty. Grp. 106	Canopy cover 0 - 5	155,378	30	22	8	5	2	1	3	3	0
5	Private Cnty. Grp. 106	Canopy cover 51 - 66	44,237	9	2	7	5	5	3	2	2	0
5	Private Cnty. Grp. 106	Canopy cover 6 - 50	41,242	6	2	4	3	2	1	1	1	0
5	Private Cnty. Grp. 106	Canopy cover 81 - 100	142,598	23	1	22	18	18	18	5	5	0
5	Private Cnty. Grp. 107	Canopy cover 0 - 81	311,375	55	53	2	2	2	0	0	0	0
5	Private Cnty. Grp. 108	Canopy cover 0 - 5	171,758	32	31	1	1	1	0	0	0	0
5	Private Cnty. Grp. 108	Canopy cover 6 - 66	35,067	4	1	3	3	2	2	0	0	0
5	Private Cnty. Grp. 108	Canopy cover 81 - 100	94,590	14	1	13	13	12	12	0	0	0
5	Private Cnty. Grp. 109	Canopy cover 0 - 5	216,305	41	36	5	4	3	2	2	1	1
5	Private Cnty. Grp. 109	Canopy cover 6 - 51	41,637	4	2	2	2	2	1	0	0	0
5	Private Cnty. Grp. 109	Canopy cover 66 - 80	17,378	5	1	4	4	4	3	0	0	0
5	Private Cnty. Grp. 109	Canopy cover 81 - 100	59,652	7	0	7	7	7	7	0	0	0
1	Private Cnty. Grp. 11	Canopy cover 0 - 5	86,651	15	12	3	2	2	2	1	1	0
1	Private Cnty. Grp. 11	Canopy cover 6 - 51	44,234	6	2	4	4	4	3	0	0	0
1	Private Cnty. Grp. 11	Canopy cover 66 - 80	19,798	4	0	4	4	4	4	0	0	0
1	Private Cnty. Grp. 11	Canopy cover 81 - 100	124,352	21	1	20	17	17	16	3	3	0
5	Private Cnty. Grp. 110	Canopy cover 0 - 5	103,349	18	13	5	5	5	5	0	0	0
5	Private Cnty. Grp. 110	Canopy cover 51 - 66	31,829	8	1	7	5	5	5	2	2	0
5	Private Cnty. Grp. 110	Canopy cover 6 - 50	23,403	5	1	4	4	3	2	0	0	0
5	Private Cnty. Grp. 110	Canopy cover 81 - 100	144,630	19	0	19	18	18	17	1	1	0
5	Private Cnty. Grp. 111	Canopy cover 0 - 5	156,131	30	29	1	1	1	0	0	0	0

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(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured for change ^j	Plots not measured ^k	Denied access	Hazardous
5	Private Cnty. Grp. 111	Canopy cover 6 - 51	65,507	6	4	2	2	2	0	0	0	0
5	Private Cnty. Grp. 111	Canopy cover 66 - 80	29,332	5	4	1	1	1	0	0	0	0
5	Private Cnty. Grp. 111	Canopy cover 81 - 100	58,346	11	2	9	9	9	8	0	0	0
5	Private Cnty. Grp. 112	Canopy cover 0 - 5	230,335	38	37	1	0	0	0	1	1	0
5	Private Cnty. Grp. 112	Canopy cover 6 - 81	37,640	7	2	5	5	4	4	0	0	0
5	Private Cnty. Grp. 113	Canopy cover 0 - 5	429,655	74	73	1	1	1	1	0	0	0
5	Private Cnty. Grp. 113	Canopy cover 51 - 81	45,822	5	0	5	5	5	3	0	0	0
5	Private Cnty. Grp. 113	Canopy cover 6 - 50	30,880	4	4	0	0	0	0	0	0	0
5	Private Cnty. Grp. 114	Canopy cover 0 - 5	106,323	13	13	0	0	0	0	0	0	0
5	Private Cnty. Grp. 114	Canopy cover 6 - 51	32,935	6	3	3	2	2	2	1	1	0
5	Private Cnty. Grp. 114	Canopy cover 66 - 80	18,524	6	1	5	5	5	5	0	0	0
5	Private Cnty. Grp. 114	Canopy cover 81 - 100	110,182	19	0	19	16	16	15	3	3	0
5	Private Cnty. Grp. 115	Canopy cover 0 - 81	39,554	6	6	0	0	0	0	0	0	0
1	Private Cnty. Grp. 12	Canopy cover 0 - 5	72,624	16	11	5	3	2	2	2	2	0
1	Private Cnty. Grp. 12	Canopy cover 6 - 51	57,671	6	1	5	5	5	5	0	0	0
1	Private Cnty. Grp. 12	Canopy cover 66 - 80	32,523	5	0	5	5	5	5	0	0	0
1	Private Cnty. Grp. 12	Canopy cover 81 - 100	207,584	40	0	40	36	36	36	4	4	0
1	Private Cnty. Grp. 13	Canopy cover 0 - 5	58,882	12	10	2	1	1	1	1	1	0
1	Private Cnty. Grp. 13	Canopy cover 51 - 66	55,594	5	0	5	4	4	2	2	2	0
1	Private Cnty. Grp. 13	Canopy cover 6 - 50	32,891	10	2	8	5	4	3	3	3	0
1	Private Cnty. Grp. 13	Canopy cover 81 - 100	240,987	43	0	43	34	33	32	10	9	1
1	Private Cnty. Grp. 14	Canopy cover 0 - 5	55,276	5	4	1	1	1	1	0	0	0
1	Private Cnty. Grp. 14	Canopy cover 6 - 51	30,040	6	1	5	3	2	2	2	2	0
1	Private Cnty. Grp. 14	Canopy cover 66 - 80	16,705	6	1	5	5	5	3	0	0	0
1	Private Cnty. Grp. 14	Canopy cover 81 - 100	220,994	44	0	44	33	33	31	11	11	0
2	Private Cnty. Grp. 15	Canopy cover 0 - 5	244,903	43	31	12	11	8	6	1	1	0
2	Private Cnty. Grp. 15	Canopy cover 51 - 66	53,491	7	2	5	5	5	5	0	0	0
2	Private Cnty. Grp. 15	Canopy cover 6 - 50	30,588	8	3	5	5	4	4	0	0	0
2	Private Cnty. Grp. 15	Canopy cover 81 - 100	102,879	14	0	14	14	14	14	0	0	0
2	Private Cnty. Grp. 16	Canopy cover 0 - 5	168,672	31	24	7	7	6	4	0	0	0
2	Private Cnty. Grp. 16	Canopy cover 6 - 66	57,263	8	3	5	4	3	3	1	1	0
2	Private Cnty. Grp. 16	Canopy cover 81 - 100	79,086	12	0	12	12	12	11	1	0	1
2	Private Cnty. Grp. 17	Canopy cover 0 - 5	169,947	31	14	17	17	13	11	0	0	0
2	Private Cnty. Grp. 17	Canopy cover 51 - 65	24,927	6	0	6	6	6	6	0	0	0
2	Private Cnty. Grp. 17	Canopy cover 6 - 50	38,899	6	1	5	5	5	3	0	0	0

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(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured for change ^j	Plots not measured ^k	Denied access	Hazardous
2	Private Cnty. Grp. 17	Canopy cover 66 - 80	33,142	7	1	6	6	5	4	0	0	0
2	Private Cnty. Grp. 17	Canopy cover 81 - 100	211,082	31	0	31	29	29	25	2	2	0
2	Private Cnty. Grp. 18	Canopy cover 0 - 5	238,294	45	38	7	7	5	4	0	0	0
2	Private Cnty. Grp. 18	Canopy cover 51 - 66	74,708	9	0	9	8	8	6	1	1	0
2	Private Cnty. Grp. 18	Canopy cover 6 - 50	53,226	8	4	4	4	4	4	0	0	0
2	Private Cnty. Grp. 18	Canopy cover 81 - 100	168,117	26	0	26	25	25	23	1	1	0
2	Private Cnty. Grp. 19	Canopy cover 0 - 5	131,563	20	18	2	2	2	1	0	0	0
2	Private Cnty. Grp. 19	Canopy cover 51 - 66	44,806	5	0	5	4	4	4	1	1	0
2	Private Cnty. Grp. 19	Canopy cover 6 - 50	38,056	8	3	5	5	3	3	0	0	0
2	Private Cnty. Grp. 19	Canopy cover 81 - 100	125,475	26	0	26	25	25	23	1	1	0
1	Private Cnty. Grp. 2	Canopy cover 0 - 5	264,333	47	46	1	0	0	0	1	1	0
1	Private Cnty. Grp. 2	Canopy cover 6 - 66	46,017	5	0	5	5	4	3	0	0	0
1	Private Cnty. Grp. 2	Canopy cover 81 - 100	73,511	12	0	12	11	11	9	1	1	0
2	Private Cnty. Grp. 20	Canopy cover 0 - 5	246,212	41	34	7	7	5	5	0	0	0
2	Private Cnty. Grp. 20	Canopy cover 6 - 51	49,655	5	2	3	2	1	1	1	1	0
2	Private Cnty. Grp. 20	Canopy cover 66 - 80	27,000	5	0	5	5	5	4	0	0	0
2	Private Cnty. Grp. 20	Canopy cover 81 - 100	72,828	14	1	13	12	12	11	1	1	0
2	Private Cnty. Grp. 21	Canopy cover 0 - 5	145,549	29	19	10	10	7	7	0	0	0
2	Private Cnty. Grp. 21	Canopy cover 51 - 65	22,220	4	1	3	3	2	2	0	0	0
2	Private Cnty. Grp. 21	Canopy cover 6 - 50	25,087	4	2	2	2	1	0	0	0	0
2	Private Cnty. Grp. 21	Canopy cover 66 - 80	31,340	6	1	5	5	5	5	0	0	0
2	Private Cnty. Grp. 21	Canopy cover 81 - 100	190,306	29	0	29	25	25	25	0	0	0
2	Private Cnty. Grp. 22	Canopy cover 0 - 5	96,090	16	13	3	3	2	2	1	1	0
2	Private Cnty. Grp. 22	Canopy cover 6 - 51	32,783	8	1	7	7	7	5	0	0	0
2	Private Cnty. Grp. 22	Canopy cover 66 - 80	22,138	4	0	4	4	3	3	0	0	0
2	Private Cnty. Grp. 22	Canopy cover 81 - 100	117,744	18	0	18	18	18	17	0	0	0
2	Private Cnty. Grp. 23	Canopy cover 0 - 5	81,415	17	9	8	7	7	7	1	1	0
2	Private Cnty. Grp. 23	Canopy cover 6 - 66	71,179	7	1	6	6	6	6	0	0	0

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Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest measured for change ^j	Plots not measured ^k	Denied access	Hazardous
2	Private Cnty. Grp. 25	Canopy cover 51 - 66	40,169	6	1	5	5	4	4	0	0	0
2	Private Cnty. Grp. 25	Canopy cover 6 - 50	33,071	5	0	5	4	4	4	1	1	0
2	Private Cnty. Grp. 25	Canopy cover 81 - 100	106,575	15	0	15	14	14	14	1	1	0
2	Private Cnty. Grp. 26	Canopy cover 0 - 5	205,197	38	32	6	6	5	5	0	0	0
2	Private Cnty. Grp. 26	Canopy cover 51 - 66	46,519	7	2	5	4	4	4	1	1	0
2	Private Cnty. Grp. 26	Canopy cover 6 - 50	34,739	4	0	4	4	3	3	1	1	0
2	Private Cnty. Grp. 26	Canopy cover 81 - 100	140,444	23	0	23	21	21	21	2	2	0
3	Private Cnty. Grp. 27	Canopy cover 0 - 5	185,001	28	20	8	7	4	2	1	1	0
3	Private Cnty. Grp. 27	Canopy cover 51 - 65	19,634	6	0	6	6	6	6	1	1	0
3	Private Cnty. Grp. 27	Canopy cover 6 - 50	42,941	5	1	4	3	3	2	1	1	0
3	Private Cnty. Grp. 27	Canopy cover 66 - 80	33,228	5	0	5	4	4	4	1	1	0
3	Private Cnty. Grp. 27	Canopy cover 81 - 100	128,320	25	0	25	24	24	24	1	1	0
3	Private Cnty. Grp. 28	Canopy cover 0 - 5	94,298	19	16	3	3	3	3	0	0	0
3	Private Cnty. Grp. 28	Canopy cover 6 - 51	68,715	11	2	9	8	8	8	1	1	0
3	Private Cnty. Grp. 28	Canopy cover 66 - 80	40,369	11	1	10	9	9	8	1	1	0
3	Private Cnty. Grp. 28	Canopy cover 81 - 100	199,561	26	0	26	25	25	24	1	1	0
3	Private Cnty. Grp. 29	Canopy cover 0 - 5	147,618	24	21	3	3	2	2	0	0	0
3	Private Cnty. Grp. 29	Canopy cover 51 - 66	39,247	8	2	6	6	5	5	0	0	0
3	Private Cnty. Grp. 29	Canopy cover 6 - 50	20,376	6	2	4	4	4	3	0	0	0
3	Private Cnty. Grp. 29	Canopy cover 81 - 100	82,391	11	0	11	11	10	9	0	0	0
1	Private Cnty. Grp. 3	Canopy cover 0 - 5	26,281	5	3	2	2	2	2	0	0	0
1	Private Cnty. Grp. 3	Canopy cover 6 - 66	32,094	5	1	4	4	4	3	0	0	0
1	Private Cnty. Grp. 3	Canopy cover 81 - 100	133,521	21	0	21	19	19	16	2	2	0
3	Private Cnty. Grp. 30	Canopy cover 0 - 5	156,027	24	21	3	2	2	2	1	1	0
3	Private Cnty. Grp. 30	Canopy cover 6 - 51	48,886	8	2	6	6	6	5	0	0	0
3	Private Cnty. Grp. 30	Canopy cover 66 - 80	22,533	6	2	4	4	4	4	0	0	0
3	Private Cnty. Grp. 30	Canopy cover 81 - 100	109,586	20	0	20	18	18	17	2	2	0
3	Private Cnty. Grp. 31	Canopy cover 0 - 5	101,433	17	15	2	2	1	0	0	0	0
3	Private Cnty. Grp. 31	Canopy cover 6 - 66	67,875	13	1	12	11	10	10	1	1	0
3	Private Cnty. Grp. 31	Canopy cover 81 - 100	68,765	9	0	9	9	9	6	0	0	0
3	Private Cnty. Grp. 32	Canopy cover 0 - 5	202,835	30	23	7	6	5	5	1	1	0
3	Private Cnty. Grp. 32	Canopy cover 51 - 65	23,390	5	0	5	5	5	3	0	0	0
3	Private Cnty. Grp. 32	Canopy cover 6 - 50	41,564	10	3	7	5	5	3	2	2	0
3	Private Cnty. Grp. 32	Canopy cover 66 - 80	28,856	4	0	4	4	4	4	0	0	0

(Table A continued on next page)

(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured ^j	Plots not measured ^k	Denied access	Hazardous
3	Private Cnty. Grp. 32	Canopy cover 81 - 100	158,502	28	0	28	26	26	26	2	2	0
3	Private Cnty. Grp. 33	Canopy cover 0 - 5	132,137	23	16	7	7	5	3	0	0	0
3	Private Cnty. Grp. 33	Canopy cover 51 - 66	47,138	8	0	8	8	8	7	0	0	0
3	Private Cnty. Grp. 33	Canopy cover 6 - 50	41,325	7	3	4	4	3	3	0	0	0
3	Private Cnty. Grp. 33	Canopy cover 81 - 100	114,540	17	0	17	16	16	13	1	1	0
3	Private Cnty. Grp. 34	Canopy cover 0 - 5	134,145	25	15	10	8	7	6	2	2	0
3	Private Cnty. Grp. 34	Canopy cover 51 - 66	44,516	6	1	5	4	3	2	1	1	0
3	Private Cnty. Grp. 34	Canopy cover 6 - 50	39,269	6	1	5	5	4	4	0	0	0
3	Private Cnty. Grp. 34	Canopy cover 81 - 100	147,645	23	0	23	21	21	19	2	2	0
3	Private Cnty. Grp. 35	Canopy cover 0 - 5	152,621	29	21	8	7	5	4	1	1	0
3	Private Cnty. Grp. 35	Canopy cover 6 - 66	67,095	7	1	6	4	4	3	2	2	0
3	Private Cnty. Grp. 35	Canopy cover 81 - 100	160,231	29	0	29	25	25	23	4	4	0
3	Private Cnty. Grp. 36	Canopy cover 0 - 5	106,869	17	14	3	3	3	2	0	0	0
3	Private Cnty. Grp. 36	Canopy cover 51 - 66	45,866	7	1	6	5	5	5	2	2	0
3	Private Cnty. Grp. 36	Canopy cover 6 - 50	39,996	8	1	7	7	6	3	0	0	0
3	Private Cnty. Grp. 36	Canopy cover 81 - 100	169,765	30	1	29	28	28	25	1	1	0
3	Private Cnty. Grp. 37	Canopy cover 0 - 5	240,046	43	37	6	6	5	4	0	0	0
3	Private Cnty. Grp. 37	Canopy cover 51 - 66	49,606	7	0	7	6	6	5	1	1	0
3	Private Cnty. Grp. 37	Canopy cover 6 - 50	39,224	9	4	5	4	4	2	1	1	0
3	Private Cnty. Grp. 37	Canopy cover 81 - 100	65,012	9	0	9	8	8	7	1	1	0
3	Private Cnty. Grp. 38	Canopy cover 0 - 5	70,552	12	8	4	2	2	1	2	2	0
3	Private Cnty. Grp. 38	Canopy cover 51 - 66	33,143	4	2	2	2	2	1	0	0	0
3	Private Cnty. Grp. 38	Canopy cover 6 - 50	26,201	4	2	2	2	2	1	0	0	0
3	Private Cnty. Grp. 38	Canopy cover 81 - 100	120,495	25	0	25	22	21	18	3	3	0
3	Private Cnty. Grp. 39	Canopy cover 0 - 5	186,006	30	29	1	1	1	1	0	0	0
3	Private Cnty. Grp. 39	Canopy cover 51 - 65	17,429	4	0	4	4	4	3	0	0	0
3	Private Cnty. Grp. 39	Canopy cover 6 - 50	22,208	4	1	3	3	2	2	0	0	0
3	Private Cnty. Grp. 39	Canopy cover 66 - 80	40,771	10	1	9	9	9	8	0	0	0
3	Private Cnty. Grp. 39	Canopy cover 81 - 100	103,044	14	0	14	13	12	12	1	1	0
1	Private Cnty. Grp. 4	Canopy cover 0 - 5	100,817	24	21	3	2	2	2	1	1	0
1	Private Cnty. Grp. 4	Canopy cover 51 - 65	29,237	6	2	4	4	4	4	0	0	0
1	Private Cnty. Grp. 4	Canopy cover 6 - 50	49,949	7	1	6	5	5	5	1	1	0
1	Private Cnty. Grp. 4	Canopy cover 66 - 80	37,155	7	0	7	6	5	4	1	1	0
1	Private Cnty. Grp. 4	Canopy cover 81 - 100	194,049	28	0	28	23	23	23	6	6	0
4	Private Cnty. Grp. 40	Canopy cover 0 - 5	229,460	37	35	2	1	1	1	1	1	0

(Table A continued on next page)

(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest measured for change ^j	Plots not measured ^k	Denied access	Hazardous
4	Private Cnty. Grp. 40	Canopy cover 6 - 66	49,520	8	3	5	4	3	3	1	1	0
4	Private Cnty. Grp. 40	Canopy cover 81 - 100	74,838	15	0	15	14	12	10	1	1	0
4	Private Cnty. Grp. 41	Canopy cover 0 - 5	220,194	38	28	10	10	7	3	0	0	0
4	Private Cnty. Grp. 41	Canopy cover 6 - 81	52,078	7	1	6	6	6	4	0	0	0
4	Private Cnty. Grp. 42	Canopy cover 0 - 5	313,798	53	50	3	3	1	1	0	0	0
4	Private Cnty. Grp. 42	Canopy cover 6 - 81	27,592	4	0	4	4	4	2	0	0	0
4	Private Cnty. Grp. 43	Canopy cover 0 - 5	380,337	65	61	4	4	2	2	0	0	0
4	Private Cnty. Grp. 43	Canopy cover 6 - 66	31,800	7	3	4	4	4	4	0	0	0
4	Private Cnty. Grp. 43	Canopy cover 81 - 100	29,302	7	0	7	7	7	7	0	0	0
4	Private Cnty. Grp. 44	Canopy cover 0 - 5	310,546	47	45	2	2	1	0	0	0	0
4	Private Cnty. Grp. 44	Canopy cover 6 - 66	28,703	6	1	5	4	3	3	1	1	0
4	Private Cnty. Grp. 44	Canopy cover 81 - 100	29,869	10	0	10	10	10	9	0	0	0
4	Private Cnty. Grp. 45	Canopy cover 0 - 5	436,075	68	62	6	6	4	3	0	0	0
4	Private Cnty. Grp. 45	Canopy cover 6 - 66	42,147	7	0	7	6	6	4	1	1	0
4	Private Cnty. Grp. 45	Canopy cover 81 - 100	37,140	11	0	11	11	11	10	0	0	0
4	Private Cnty. Grp. 46	Canopy cover 0 - 5	195,262	37	36	1	1	1	1	0	0	0
4	Private Cnty. Grp. 46	Canopy cover 6 - 66	34,345	7	1	6	6	6	6	0	0	0
4	Private Cnty. Grp. 46	Canopy cover 81 - 100	28,386	4	1	3	3	3	3	0	0	0
4	Private Cnty. Grp. 47	Canopy cover 0 - 81	272,887	49	44	5	4	4	4	1	1	0
4	Private Cnty. Grp. 48	Canopy cover 0 - 5	376,762	66	62	4	4	3	1	0	0	0
4	Private Cnty. Grp. 48	Canopy cover 6 - 81	63,758	7	3	4	4	4	2	0	0	0
4	Private Cnty. Grp. 49	Canopy cover 0 - 5	372,055	55	49	6	6	4	3	0	0	0
4	Private Cnty. Grp. 49	Canopy cover 51 - 66	23,854	6	0	6	6	6	6	0	0	0
4	Private Cnty. Grp. 49	Canopy cover 6 - 50	19,168	5	1	4	4	2	2	0	0	0
4	Private Cnty. Grp. 49	Canopy cover 81 - 100	26,859	8	0	8	8	8	8	0	0	0
1	Private Cnty. Grp. 5	Canopy cover 0 - 5	126,870	21	15	6	4	3	3	2	2	0
1	Private Cnty. Grp. 5	Canopy cover 51 - 66	57,971	7	0	7	5	5	5	2	2	0
1	Private Cnty. Grp. 5	Canopy cover 6 - 50	42,656	10	3	7	5	4	2	2	2	0
1	Private Cnty. Grp. 5	Canopy cover 81 - 100	159,212	30	0	30	21	21	19	9	8	1
4	Private Cnty. Grp. 50	Canopy cover 0 - 5	390,044	68	65	3	2	2	1	1	1	0
4	Private Cnty. Grp. 50	Canopy cover 51 - 81	63,691	11	0	11	9	9	7	2	2	0
4	Private Cnty. Grp. 50	Canopy cover 6 - 50	20,913	4	2	2	2	2	2	0	0	0
4	Private Cnty. Grp. 51	Canopy cover 0 - 5	226,247	43	38	5	5	4	4	0	0	0
4	Private Cnty. Grp. 51	Canopy cover 6 - 66	34,015	5	0	5	5	5	3	0	0	0
4	Private Cnty. Grp. 51	Canopy cover 81 - 100	55,675	8	0	8	7	6	5	1	1	0

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(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured for change ^j	Plots not measured ^k	Denied access	Hazardous
4	Private Cnty. Grp. 52	Canopy cover 0 - 5	200,580	33	31	2	2	0	0	0	0	0
4	Private Cnty. Grp. 52	Canopy cover 6 - 81	42,219	8	4	4	4	3	3	0	0	0
4	Private Cnty. Grp. 53	Canopy cover 0 - 81	262,125	44	40	4	4	2	1	0	0	0
4	Private Cnty. Grp. 54	Canopy cover 0 - 5	249,177	43	38	5	4	3	3	1	1	0
4	Private Cnty. Grp. 54	Canopy cover 6 - 51	40,601	12	2	10	7	7	6	3	3	0
4	Private Cnty. Grp. 54	Canopy cover 66 - 81	61,161	7	1	6	5	5	5	1	1	0
4	Private Cnty. Grp. 55	Canopy cover 0 - 5	217,091	38	34	4	4	4	2	0	0	0
4	Private Cnty. Grp. 55	Canopy cover 6 - 81	75,405	8	1	7	7	5	5	0	0	0
4	Private Cnty. Grp. 56	Canopy cover 0 - 5	290,537	46	41	5	5	2	1	0	0	0
4	Private Cnty. Grp. 56	Canopy cover 6 - 66	38,161	7	1	6	6	6	4	0	0	0
4	Private Cnty. Grp. 56	Canopy cover 81 - 100	33,245	8	0	8	8	6	6	0	0	0
4	Private Cnty. Grp. 57	Canopy cover 0 - 5	231,749	36	33	3	3	2	2	0	0	0
4	Private Cnty. Grp. 57	Canopy cover 6 - 81	35,789	6	4	2	2	2	2	0	0	0
4	Private Cnty. Grp. 58	Canopy cover 0 - 5	247,623	42	40	2	2	1	1	0	0	0
4	Private Cnty. Grp. 58	Canopy cover 6 - 81	64,782	10	0	10	10	10	9	0	0	0
4	Private Cnty. Grp. 59	Canopy cover 0 - 5	289,634	49	42	7	7	3	2	0	0	0
4	Private Cnty. Grp. 59	Canopy cover 51 - 66	39,685	7	1	6	5	5	3	1	1	0
4	Private Cnty. Grp. 59	Canopy cover 6 - 50	39,430	8	5	3	3	3	3	0	0	0
4	Private Cnty. Grp. 59	Canopy cover 81 - 100	56,780	10	0	10	10	9	8	1	1	0
1	Private Cnty. Grp. 6	Canopy cover 0 - 5	37,075	8	6	2	1	1	1	1	1	0
1	Private Cnty. Grp. 6	Canopy cover 6 - 66	52,959	6	0	6	6	5	5	0	0	0
1	Private Cnty. Grp. 6	Canopy cover 81 - 100	153,076	36	0	36	32	32	29	4	4	0
4	Private Cnty. Grp. 60	Canopy cover 0 - 5	228,765	39	37	2	2	1	1	0	0	0
4	Private Cnty. Grp. 60	Canopy cover 6 - 51	17,866	4	2	2	2	2	2	0	0	0
4	Private Cnty. Grp. 60	Canopy cover 66 - 81	30,203	6	1	5	5	4	4	0	0	0
4	Private Cnty. Grp. 61	Canopy cover 0 - 5	367,270	62	57	5	5	4	2	0	0	0
4	Private Cnty. Grp. 61	Canopy cover 6 - 66	51,588	7	1	6	6	5	5	0	0	0
4	Private Cnty. Grp. 61	Canopy cover 81 - 100	40,602	8	0	8	8	8	8	0	0	0
4	Private Cnty. Grp. 62	Canopy cover 0 - 5	285,613	44	40	4	4	4	3	0	0	0
4	Private Cnty. Grp. 62	Canopy cover 6 - 66	37,669	11	3	8	7	6	4	1	1	0
4	Private Cnty. Grp. 62	Canopy cover 81 - 100	44,591	11	0	11	10	10	9	1	1	0
4	Private Cnty. Grp. 63	Canopy cover 0 - 5	237,601	46	44	2	2	2	2	0	0	0
4	Private Cnty. Grp. 63	Canopy cover 6 - 81	35,686	5	0	5	5	4	4	0	0	0
4	Private Cnty. Grp. 64	Canopy cover 0 - 5	294,374	52	47	5	5	3	3	0	0	0
4	Private Cnty. Grp. 64	Canopy cover 6 - 81	86,813	12	1	11	11	9	9	0	0	0

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(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured for change ^j	Plots not measured ^k	Denied access	Hazardous
4	Private Cnty. Grp. 65	Canopy cover 0 - 5	314,785	50	45	5	5	3	1	0	0	0
4	Private Cnty. Grp. 65	Canopy cover 6 - 66	48,363	7	2	5	5	4	1	0	0	0
4	Private Cnty. Grp. 65	Canopy cover 81 - 100	46,104	10	0	10	10	9	9	0	0	0
4	Private Cnty. Grp. 66	Canopy cover 0 - 5	396,463	72	67	5	4	3	3	1	1	0
4	Private Cnty. Grp. 66	Canopy cover 6 - 66	56,809	8	2	6	5	5	4	1	1	0
4	Private Cnty. Grp. 66	Canopy cover 81 - 100	65,322	12	0	12	12	11	11	0	0	0
4	Private Cnty. Grp. 67	Canopy cover 0 - 5	254,131	45	40	5	4	3	3	1	1	0
4	Private Cnty. Grp. 67	Canopy cover 6 - 66	33,282	4	1	3	3	2	2	0	0	0
4	Private Cnty. Grp. 67	Canopy cover 81 - 100	35,080	5	0	5	5	5	5	0	0	0
4	Private Cnty. Grp. 68	Canopy cover 0 - 5	341,052	56	52	4	2	2	1	2	2	0
4	Private Cnty. Grp. 68	Canopy cover 6 - 81	57,586	9	1	8	7	4	3	2	1	1
4	Private Cnty. Grp. 69	Canopy cover 0 - 5	292,727	49	44	5	5	3	3	0	0	0
4	Private Cnty. Grp. 69	Canopy cover 51 - 65	11,520	7	0	7	6	6	6	1	1	0
4	Private Cnty. Grp. 69	Canopy cover 6 - 50	21,829	6	1	5	5	4	4	0	0	0
4	Private Cnty. Grp. 69	Canopy cover 66 - 81	61,151	5	0	5	5	5	5	0	0	0
1	Private Cnty. Grp. 7	Canopy cover 0 - 5	56,994	9	7	2	2	2	2	0	0	0
1	Private Cnty. Grp. 7	Canopy cover 6 - 66	42,393	6	2	4	4	4	3	0	0	0
1	Private Cnty. Grp. 7	Canopy cover 81 - 100	163,074	32	1	31	27	27	26	4	4	0
4	Private Cnty. Grp. 70	Canopy cover 0 - 5	240,403	38	32	6	5	5	1	1	1	0
4	Private Cnty. Grp. 70	Canopy cover 6 - 66	33,961	4	1	3	3	3	2	0	0	0
4	Private Cnty. Grp. 70	Canopy cover 81 - 100	39,816	9	1	8	8	8	8	0	0	0
4	Private Cnty. Grp. 71	Canopy cover 0 - 5	233,127	41	39	2	2	2	2	0	0	0
4	Private Cnty. Grp. 71	Canopy cover 6 - 66	73,682	8	3	5	4	4	4	1	1	0
4	Private Cnty. Grp. 71	Canopy cover 81 - 100	79,361	20	0	20	20	20	15	0	0	0
4	Private Cnty. Grp. 72	Canopy cover 0 - 5	309,521	56	53	3	2	2	2	1	1	0
4	Private Cnty. Grp. 72	Canopy cover 6 - 51	31,609	6	2	4	4	2	2	0	0	0
4	Private Cnty. Grp. 72	Canopy cover 66 - 81	46,237	7	1	6	6	5	4	0	0	0
4	Private Cnty. Grp. 73	Canopy cover 0 - 5	271,371	44	42	2	2	1	1	0	0	0
4	Private Cnty. Grp. 73	Canopy cover 6 - 81	62,462	11	0	11	10	9	8	1	1	0
4	Private Cnty. Grp. 74	Canopy cover 0 - 5	355,865	56	48	8	5	3	3	3	3	0
4	Private Cnty. Grp. 74	Canopy cover 51 - 66	38,519	5	1	4	4	4	3	0	0	0
4	Private Cnty. Grp. 74	Canopy cover 6 - 50	34,729	7	3	4	4	3	2	0	0	0
4	Private Cnty. Grp. 74	Canopy cover 81 - 100	71,125	10	1	9	7	7	6	2	2	0
4	Private Cnty. Grp. 75	Canopy cover 0 - 5	204,083	35	32	3	3	3	2	0	0	0
4	Private Cnty. Grp. 75	Canopy cover 6 - 81	72,796	13	1	12	9	9	9	3	3	0

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(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured for change ^j	Plots not measured ^k	Denied access	Hazardous
4	Private Cnty. Grp. 76	Canopy cover 0 - 5	208,178	41	32	9	8	6	4	1	1	0
4	Private Cnty. Grp. 76	Canopy cover 6 - 81	79,892	7	0	7	7	6	5	0	0	0
4	Private Cnty. Grp. 77	Canopy cover 0 - 5	294,980	44	42	2	2	2	1	0	0	0
4	Private Cnty. Grp. 77	Canopy cover 6 - 66	47,582	11	1	10	10	10	8	0	0	0
4	Private Cnty. Grp. 77	Canopy cover 81 - 100	45,078	9	0	9	9	9	9	0	0	0
4	Private Cnty. Grp. 78	Canopy cover 0 - 5	483,856	88	78	10	10	9	5	0	0	0
4	Private Cnty. Grp. 78	Canopy cover 6 - 81	71,816	8	3	5	5	4	3	0	0	0
4	Private Cnty. Grp. 79	Canopy cover 0 - 5	342,132	62	51	11	9	8	7	2	2	0
4	Private Cnty. Grp. 79	Canopy cover 6 - 66	51,781	5	2	3	3	3	2	0	0	0
4	Private Cnty. Grp. 79	Canopy cover 81 - 100	41,432	4	0	4	4	4	4	0	0	0
1	Private Cnty. Grp. 8	Canopy cover 0 - 5	136,580	21	14	7	6	3	2	1	1	0
1	Private Cnty. Grp. 8	Canopy cover 51 - 65	23,318	4	0	4	4	4	4	0	0	0
1	Private Cnty. Grp. 8	Canopy cover 6 - 50	35,691	8	2	6	2	1	1	4	4	0
1	Private Cnty. Grp. 8	Canopy cover 66 - 80	34,996	8	0	8	7	6	6	1	1	0
1	Private Cnty. Grp. 8	Canopy cover 81 - 100	169,024	28	0	28	24	24	20	4	4	0
4	Private Cnty. Grp. 80	Canopy cover 0 - 5	256,838	44	41	3	3	3	3	0	0	0
4	Private Cnty. Grp. 80	Canopy cover 51 - 66	36,339	6	1	5	3	3	3	2	2	0
4	Private Cnty. Grp. 80	Canopy cover 6 - 50	31,810	4	2	2	2	2	1	0	0	0
4	Private Cnty. Grp. 80	Canopy cover 81 - 100	89,807	18	0	18	16	16	13	2	2	0
4	Private Cnty. Grp. 81	Canopy cover 0 - 5	192,946	31	30	1	1	1	0	0	0	0
4	Private Cnty. Grp. 81	Canopy cover 51 - 65	10,664	5	2	3	3	3	3	0	0	0
4	Private Cnty. Grp. 81	Canopy cover 6 - 50	16,234	4	2	2	2	2	1	0	0	0
4	Private Cnty. Grp. 81	Canopy cover 66 - 81	43,833	5	0	5	4	4	4	1	1	0
4	Private Cnty. Grp. 82	Canopy cover 0 - 5	212,353	34	31	3	2	0	0	1	1	0
4	Private Cnty. Grp. 82	Canopy cover 6 - 66	48,879	8	4	4	3	3	2	1	1	0
4	Private Cnty. Grp. 82	Canopy cover 81 - 100	64,862	12	1	11	9	9	7	2	2	0
4	Private Cnty. Grp. 83	Canopy cover 0 - 5	207,797	37	37	0	0	0	0	0	0	0
4	Private Cnty. Grp. 83	Canopy cover 6 - 81	83,217	11	1	10	10	10	9	0	0	0
4	Private Cnty. Grp. 84	Canopy cover 0 - 5	212,690	38	33	5	5	4	3	0	0	0
4	Private Cnty. Grp. 84	Canopy cover 6 - 66	45,811	5	3	2	2	2	1	0	0	0
4	Private Cnty. Grp. 84	Canopy cover 81 - 100	44,199	8	0	8	7	6	5	1	1	0
4	Private Cnty. Grp. 85	Canopy cover 0 - 5	282,751	50	47	3	3	0	0	0	0	0
4	Private Cnty. Grp. 85	Canopy cover 51 - 81	61,007	7	0	7	4	4	4	3	3	0
4	Private Cnty. Grp. 85	Canopy cover 6 - 50	18,247	4	0	4	4	4	4	0	0	0
4	Private Cnty. Grp. 86	Canopy cover 0 - 5	389,650	64	61	3	3	2	2	0	0	0

(Table A continued on next page)

(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest measured for change ^j	Plots not measured ^k	Denied access	Hazardous
4	Private Cnty. Grp. 86	Canopy cover 6 - 66	41,725	7	2	5	5	3	1	0	0	0
4	Private Cnty. Grp. 86	Canopy cover 81 - 100	40,225	10	0	10	10	10	9	0	0	0
4	Private Cnty. Grp. 87	Canopy cover 0 - 5	133,645	24	22	2	1	1	0	1	1	0
4	Private Cnty. Grp. 87	Canopy cover 6 - 81	62,221	10	3	7	7	7	6	0	0	0
4	Private Cnty. Grp. 88	Canopy cover 0 - 5	218,288	31	25	6	6	4	4	0	0	0
4	Private Cnty. Grp. 88	Canopy cover 51 - 81	43,450	11	0	11	8	8	6	3	3	0
4	Private Cnty. Grp. 88	Canopy cover 6 - 50	14,813	6	3	3	3	3	3	0	0	0
4	Private Cnty. Grp. 89	Canopy cover 0 - 5	257,125	43	38	5	4	2	1	1	1	0
4	Private Cnty. Grp. 89	Canopy cover 6 - 81	61,486	10	0	10	9	9	8	1	1	0
1	Private Cnty. Grp. 9	Canopy cover 0 - 5	40,473	6	5	1	1	0	0	0	0	0
1	Private Cnty. Grp. 9	Canopy cover 6 - 66	59,151	6	1	5	5	5	3	0	0	0
1	Private Cnty. Grp. 9	Canopy cover 81 - 100	261,255	46	0	46	40	39	34	6	6	0
4	Private Cnty. Grp. 90	Canopy cover 0 - 5	286,951	53	45	8	7	3	3	1	1	0
4	Private Cnty. Grp. 90	Canopy cover 6 - 66	59,856	6	4	2	2	2	2	0	0	0
4	Private Cnty. Grp. 90	Canopy cover 81 - 100	60,324	8	0	8	8	7	7	0	0	0
4	Private Cnty. Grp. 91	Canopy cover 0 - 5	381,980	60	53	7	5	2	1	2	2	0
4	Private Cnty. Grp. 91	Canopy cover 51 - 66	29,958	4	0	4	4	3	3	0	0	0
4	Private Cnty. Grp. 91	Canopy cover 6 - 50	25,187	7	4	3	3	2	2	0	0	0
4	Private Cnty. Grp. 91	Canopy cover 81 - 100	61,929	11	0	11	11	11	11	0	0	0
4	Private Cnty. Grp. 92	Canopy cover 0 - 81	167,185	28	25	3	3	3	2	0	0	0
5	Private Cnty. Grp. 93	Canopy cover 0 - 5	234,279	39	36	3	3	2	1	0	0	0
5	Private Cnty. Grp. 93	Canopy cover 51 - 66	38,131	5	0	5	5	5	4	0	0	0
5	Private Cnty. Grp. 93	Canopy cover 6 - 50	44,424	9	2	7	6	6	5	1	1	0
5	Private Cnty. Grp. 93	Canopy cover 81 - 100	104,362	16	1	15	13	13	12	2	2	0
5	Private Cnty. Grp. 94	Canopy cover 0 - 5	261,293	42	36	6	6	6	5	0	0	0
5	Private Cnty. Grp. 94	Canopy cover 51 - 65	18,286	4	2	2	2	2	2	0	0	0
5	Private Cnty. Grp. 94	Canopy cover 6 - 50	42,767	4	2	2	2	2	2	0	0	0
5	Private Cnty. Grp. 94	Canopy cover 66 - 80	28,290	9	2	7	6	4	4	1	1	0
5	Private Cnty. Grp. 94	Canopy cover 81 - 100	165,972	28	1	27	20	20	20	8	7	1
5	Private Cnty. Grp. 95	Canopy cover 0 - 5	243,585	45	40	5	4	2	2	1	1	0
5	Private Cnty. Grp. 95	Canopy cover 6 - 66	43,306	4	0	4	4	4	4	0	0	0
5	Private Cnty. Grp. 95	Canopy cover 81 - 100	76,890	14	0	14	13	13	13	1	1	0
5	Private Cnty. Grp. 96	Canopy cover 0 - 5	125,611	19	16	3	1	1	1	2	2	0
5	Private Cnty. Grp. 96	Canopy cover 6 - 66	52,780	8	3	5	4	4	4	1	1	0
5	Private Cnty. Grp. 96	Canopy cover 81 - 100	67,694	16	0	16	16	15	13	0	0	0

(Table A continued on next page)

(Table A continued)

Forest survey unit ^a	Estimation unit ^b	Strata ^c	Area ^d (acres)	Selected ^e	Nonforest office plots ^f	Field check plots ^g	Field check plots measured ^h	Forest plots measured ⁱ	Forest plots measured for change ^j	Plots not measured ^k	Denied access	Hazardous
5	Private Cnty. Grp. 97	Canopy cover 0 - 81	341,930	57	51	6	4	2	2	2	2	0
5	Private Cnty. Grp. 98	Canopy cover 0 - 5	222,027	34	30	4	4	4	3	0	0	0
5	Private Cnty. Grp. 98	Canopy cover 51 - 65	37,168	7	1	6	6	6	4	0	0	0
5	Private Cnty. Grp. 98	Canopy cover 6 - 50	63,735	16	8	8	7	7	7	1	1	0
5	Private Cnty. Grp. 98	Canopy cover 66 - 80	47,663	6	0	6	6	6	3	0	0	0
5	Private Cnty. Grp. 98	Canopy cover 81 - 100	204,863	35	2	33	32	32	26	1	1	0
5	Private Cnty. Grp. 99	Canopy cover 0 - 5	111,058	23	15	8	8	6	4	0	0	0
5	Private Cnty. Grp. 99	Canopy cover 6 - 66	71,874	9	3	6	6	5	5	0	0	0
5	Private Cnty. Grp. 99	Canopy cover 81 - 100	148,820	22	0	22	22	22	20	0	0	0
All ownerships		All strata	53,984,183	18,127	11,004	7,123	6,823	6,139	4,921	334	266	68

^aForest Survey Unit - 1) Eastern Ozarks, 2) Southwestern Ozarks, 3) Northwestern Ozarks, 4) Prairie, 5) Riverborder.

^bEstimation unit – Classification based on ownership layers, county groups, and canopy density.

^cCanopy cover class. Obtained from the MRLC.

^dTotal area based on pixel counts.

^eSelected – Total number of plots selected to be sampled.

^fNonforest office plots – Selected plots whose observed classification as nonforest based on examination of aerial photographs and/or digital orthoquads.

^gField check plots – Selected plots that required field measurement.

^hField check plots measured – Field check plots where measurement was completed successfully. Excludes plots that were denied access, hazardous, or lost and measurement was not possible.

ⁱForest plots measured – Field check plots where forest condition was present on plot and measurement was completed in 2004 inventory. These plots are used to estimate current conditions, e.g., area, volume, number of trees, and biomass.

^jForest plots measured for change – Field check plots measured in both 1999-2003 inventory and 2004-2008 inventory where a forest condition was found on plot and measurement was completed. These plots are used to estimate change between inventories, e.g., growth, removals, mortality, and area change.

^kPlots not measured – Plots selected for field measurement but not measured due to denied access, hazardous condition, or other complications.

(Table A continued on next page)

Table A.—County Group Guide

Unit	County group	County group name	County
1	2	Butler	Butler
1	3	Carter	Carter
1	4	Crawford	Crawford
1	5	Dent	Dent
1	6	Iron	Iron
1	7	Madison	Madison
1	8	Oregon	Oregon
1	9	Reynolds	Reynolds
1	10	Ripley	Ripley
1	11	St. Francois	St. Francois
1	12	Shannon	Shannon
1	13	Washington	Washington
1	14	Wayne	Wayne
2	15	Barry	Barry
2	16	Christian	Christian
2	17	Douglas	Douglas
2	18	Howell	Howell
2	19	McDonald	McDonald
2	20	Newton	Newton
2	21	Ozark	Ozark
2	22	Stone	Stone
2	23	Taney	Taney
2	24	Texas	Texas
2	25	Webster	Webster
2	26	Wright	Wright
3	27	Benton	Benton
3	28	Camden	Camden
3	29	Cedar	Cedar
3	30	Dallas	Dallas
3	31	Hickory	Hickory
3	32	Laclede	Laclede
3	33	Maries	Maries
3	34	Miller	Miller
3	35	Morgan	Morgan
3	36	Phelps	Phelps
3	37	Polk	Polk
3	38	Pulaski	Pulaski

(Table A continued on next page)

(Table A Group Guide continued)

Unit	County group	County group name	County
3	39	St. Clair	St. Clair
4	40	Adair	Adair
4	41	Andrew	Andrew
4	42	Atchison	Atchison
4	43	Audrain	Audrain
4	44	Barton	Barton
4	45	Bates	Bates
4	46	Buchanan	Buchanan
4	47	Caldwell	Caldwell
4	48	Carroll	Carroll
4	49	Cass	Cass
4	50	Chariton	Chariton
4	51	Clark	Clark
4	52	Clay	Clay
4	53	Clinton	Clinton
4	54	Cooper	Cooper
4	55	Dade	Dade
4	56	Daviess	Daviess
4	57	DeKalb	DeKalb
4	58	Gentry	Gentry
4	59	Greene	Greene
4	60	Grundy	Grundy
4	61	Harrison	Harrison
4	62	Henry	Henry
4	63	Holt	Holt
4	64	Jackson	Jackson
4	65	Jasper	Jasper
4	66	Johnson	Johnson
4	67	Knox	Knox
4	68	Lafayette	Lafayette
4	69	Lawrence	Lawrence
4	70	Lewis	Lewis
4	71	Lincoln	Lincoln
4	72	Linn	Linn
4	73	Livingston	Livingston
4	74	Macon	Macon
4	75	Marion	Marion

(Table A continued on next page)

(Table A Group Guide continued)

Unit	County group	County group name	County
4	76	Mercer	Mercer
4	77	Monroe	Monroe
4	78	Nodaway	Nodaway
4	79	Pettis	Pettis
4	80	Pike	Pike
4	81	Platte	Platte
4	82	Putnam	Putnam
4	83	Ralls	Ralls
4	84	Randolph	Randolph
4	85	Ray	Ray
4	86	Saline	Saline
4	87	Schuyler	Schuyler
4	88	Scotland	Scotland
4	89	Shelby	Shelby
4	90	Sullivan	Sullivan
4	91	Vernon	Vernon
4	92	Worth	Worth
5	93	Boone	Boone
5	94	Callaway	Callaway
5	95	Cape Girardeau	Cape Girardeau
5	96	Cole	Cole
5	97	Dunklin	Dunklin
5	98	Franklin	Franklin
5	99	Gasconade	Gasconade
5	100	Howard	Howard
5	101	Jefferson	Jefferson
5	102	Mississippi	Mississippi
5	103	Moniteau	Moniteau
5	104	Montgomery	Montgomery
5	105	New Madrid	New Madrid
5	106	Osage	Osage
5	107	Pemiscot	Pemiscot
5	108	Perry	Perry
5	109	St. Charles	St. Charles
5	110	Ste. Genevieve	Ste. Genevieve
5	111	St. Louis	St. Louis
5	112	Scott	Scott

(Table A continued on next page)

(Table A Group Guide continued)

Unit	County group	County group name	County
5	113	Stoddard	Stoddard
5	114	Warren	Warren
5	115	St. Louis city	St. Louis city

Note: This ownership determination is used for stratification purposes only. Ownership stored in the FIADB is based on field crew information.

Table B.—State-level estimates of major forest resource attributes and their sampling errors, Missouri, 2008

Item	State total	Sampling error
Growing stock on timberland		
Volume	<i>million cubic feet</i> 16,809	<i>percent</i> 1.34
Average annual net growth	510	3.30
Average annual removals	175	8.94
Average annual mortality	129	5.21
Sawtimber on timberland		
Volume	<i>million board feet^a</i> 55,166	1.76
Average annual net growth	2,034	3.38
Average annual removals	665	9.79
Average annual mortality	371	7.68
Area	<i>thousand acres</i>	
Forest land	15,397	0.78
Timberland	15,048	0.83
Biomass (aboveground live trees)	<i>million dry tons</i>	
Forest land	620	1.05
Timberland	606	1.10

^a International ¼-inch rule.

Table C. Measurement quality objective (MQO) tolerance compliance based on blind check plots, Missouri, 2008

Variable	Tolerance	Objective	Missouri		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
Plot Level						
National Variables						
Distance to Road	No Tolerance	90.0%	76.8%	138	83.3%	1,903
Water on Plot	No Tolerance	90.0%	86.2%	138	87.1%	1,903
Regional Variables						
ELEVATION_GPS	±50 ft	99.0%	91.4%	128	86.5%	1,805
LAT_DECIMAL_DEG	±0.0001 dg	99.0%	90.6%	128	92.4%	1,811
LON_DECIMAL_DEG	±0.0001 dg	99.0%	93.0%	128	90.3%	1,811
LAT_FEET	±140 ft		100.0%	128	99.3%	1,811
LON_FEET	±140 ft		99.2%	128	98.4%	1,811
Results for 141 Plots						
Results for 1970 Plots						
Condition Level						
National Variables						
Condition Status	No Tolerance	99.0%	99.7%	291	99.1%	3,586
Reserve Status	No Tolerance	99.0%	100.0%	291	99.6%	3,586
Owner Group	No Tolerance	99.0%	100.0%	141	98.3%	1,921
Forest Type (Type)	No Tolerance	95.0%	79.4%	141	85.2%	1,921
Forest Type (Group)	No Tolerance	99.0%	94.3%	141	91.5%	1,921
Stand Size	No Tolerance	99.0%	81.6%	141	88.8%	1,921
Regeneration Status	No Tolerance	99.0%	99.3%	141	98.0%	1,921
Tree Density	No Tolerance	99.0%	97.9%	141	97.1%	1,921
Owner Class	No Tolerance	99.0%	97.2%	141	95.1%	1,921
Owner Status	No Tolerance	99.0%	99.3%	141	96.5%	1,921
Regeneration Species	No Tolerance	99.0%	99.3%	141	98.1%	1,921
Stand Age	±10 %	95.0%	77.3%	141	77.5%	1,921
Disturbance 1	No Tolerance	99.0%	75.9%	141	88.0%	1,905
Disturbance Year 1	±1 yr	99.0%	57.1%	7	50.0%	26
Disturbance 2	No Tolerance	99.0%	97.4%	39	88.1%	244
Disturbance Year 2	±1 yr	99.0%	.	.	.	.
Disturbance 3	No Tolerance	99.0%	100.0%	1	96.6%	29

(Table C continued on next page)

(Table C Continued)

Variable	Missouri			All NRS States	
	Tolerance	Objective	Data within tolerance	Records	Data within tolerance Records
Disturbance Year 3	±1 yr	99.0%	.	.	.
Treatment 1	No Tolerance	99.0%	95.7%	141	96.3% 1,905
Treatment Year 1	±1 yr	99.0%	81.8%	11	95.8% 119
Treatment 2	No Tolerance	99.0%	94.1%	17	84.0% 188
Treatment Year 2	±1 yr	99.0%	.	.	100.0% 12
Treatment 3	No Tolerance	99.0%	100.0%	1	97.6% 41
Treatment Year 3	±1 yr	99.0%	.	.	100.0% 1
Physiographic Class	No Tolerance	80.0%	76.6%	141	80.2% 1,921
Present Nonforest Use	No Tolerance	99.0%	90.7%	291	92.9% 3,586
Regional Variables					
NC_LAND_USE	No Tolerance	99.0%	85.6%	291	93.0% 3,586
Results for 291 Conditions					
Boundary Level					
National Variables					
Boundary Change	No Tolerance	99.0%	80.0%	50	79.2% 562
Constrasting Condition	No Tolerance	99.0%	92.0%	50	92.5% 562
Left Azimuth	±10 degrees	90.0%	82.0%	50	82.7% 562
Corner Mapped	No Tolerance	90.0%	98.0%	50	96.3% 562
Corner Azimuth	±10 degrees	90.0%	75.0%	4	91.7% 36
Corner Distance	±1 ft	90.0%	75.0%	4	86.1% 36
Right Azimuth	±10 degrees	90.0%	84.0%	50	83.6% 562
Results for 50 Boundaries					
Subplot Level					
National Variables					
Subplot Center Cond	No Tolerance	99.0%	96.0%	520	97.4% 7,488
Microplot Center Cond	No Tolerance	99.0%	95.4%	520	97.2% 7,488
Slope	±10 %	90.0%	96.2%	502	98.1% 7,067
Aspect	±10 °	90.0%	71.5%	473	89.4% 6,659
Snow/Water Depth	±0.5 ft		94.4%	520	69.1% 7,488
Results for 520 Subplots					
Results for 7488 Subplots					

(Table C continued on next page)

(Table C Continued)

Variable	Tolerance	Objective	Missouri		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
Tree Level						
National Variables						
DBH	±0.1 /20 in.	95.0%	92.4%	2,291	93.7%	31,293
DRC	±0.1 /20 in.	95.0%	.	.	91.7%	24
Azimuth	±10 °	90.0%	98.9%	2,380	99.1%	32,900
Horizontal Distance	±0.2 /1.0 ft	90.0%	98.3%	2,380	98.5%	32,900
Species	No Tolerance	95.0%	96.8%	2,380	97.5%	32,900
Tree Genus	No Tolerance	99.0%	99.5%	2,380	99.5%	32,855
Tree Status	No Tolerance	95.0%	97.4%	2,380	98.9%	32,900
Rotten/Missing Cull	±10 %	90.0%	98.7%	1,639	98.6%	21,153
Total Length	±10 %	90.0%	72.9%	1,617	81.1%	20,703
Actual Length	±10 %	90.0%	76.4%	144	76.0%	2,375
Compacted Crown Ratio	±10 %	80.0%	82.0%	1,984	84.2%	26,967
Uncompacted Crown Ratio (P3)	±10 %	90.0%	76.7%	86	80.9%	1,027
Crown Class	No Tolerance	85.0%	74.3%	1,984	82.1%	26,967
Decay Class	±1 class	90.0%	95.8%	284	94.5%	4,191
Cause of Death	No Tolerance	80.0%	78.9%	284	86.2%	4,191
Condition	No Tolerance	99.0%	94.7%	2,380	97.7%	32,900
Mortality Year	±1 yr	70.0%	88.9%	99	95.5%	1,372
Crown position	No Tolerance		61.6%	73	86.9%	834
Crown light exposure	±1 class	85.0%	88.4%	86	91.3%	1,027
Sapling crown vigor class	No Tolerance	85.0%	84.6%	13	77.7%	193
Crown density	±10 %	90.0%	84.9%	73	79.7%	834
Crown dieback	±10 %	90.0%	98.6%	73	97.2%	834
Transparency	±10 %	90.0%	94.5%	73	91.7%	834
Regional Variables						
NC Tree Class	No Tolerance	90.0%	87.5%	2,190	91.1%	29,985
NC Damage Agent 1	No Tolerance	90.0%	90.1%	1,984	90.9%	26,967
NC Damage Agent 2	No Tolerance	90.0%	89.7%	349	86.1%	4,920
Missouri damage code	No Tolerance		.	.	.	.
Utilization	No Tolerance	99.0%	100.0%	33	100.0%	1,003

(Table C continued on next page)

(Table C Continued)

Variable	Tolerance	Objective	Missouri		All NRS States	
			Data within tolerance	Records	Data within tolerance	Records
NC Tree Grade	No Tolerance	90.0%	51.1%	237	68.5%	2,747
DBH-live & decay code 1-2 trees	±0.1 /20 in.	95.0%	93.3%	2,120	93.8%	28,413
DBH-decay code 3-4-5 trees	±1 /20 in.	95.0%	100.0%	58	99.2%	1,300
Total length trees 40 ft plus	±10 %	90.0%	72.5%	1,234	82.5%	16,832
Total length trees less than 40 ft	±10 %	90.0%	73.9%	383	74.8%	3,871
Total Length trees lt 5 inch	±10 %	90.0%	61.5%	13	64.3%	277
Results for 2380 Trees						
Seedling Level						
National Variables						
Species	No Tolerance	85.0%	82.0%	678	91.0%	5,518
Genus	No Tolerance	90.0%	94.1%	678	96.7%	5,518
Seedling Count	±20 %	90.0%	58.8%	678	67.7%	5,518
Seedling Count coded	No Tolerance	90.0%	62.1%	678	72.5%	5,518
Results for 234 Microplots						
Site Tree Level						
National Variables						
Condition list	No Tolerance	99.0%	95.8%	212	93.2%	2,976
Diameter	±0.1 /20 in.	95.0%	90.1%	212	91.6%	2,935
Species	No Tolerance	95.0%	98.1%	212	98.1%	2,976
Genus	No Tolerance	99.0%	100.0%	212	99.8%	2,976
Azimuth	±10 degrees	90.0%	98.6%	212	98.7%	2,935
Distance	±5 feet	90.0%	99.1%	212	99.5%	2,935
Total Length	±10 percent	90.0%	93.4%	212	92.7%	2,935
Diameter_age	±5 years	95.0%	91.0%	212	92.3%	2,935
Regional Variables						
Site_index_method	No Tolerance	99.0%	100.0%	212	99.9%	2,976
Field_site_index	No Tolerance	99.0%	100.0%	212	99.8%	2,976
Results for 212 Site Index Trees						
Results for 2976 Site Index Trees						

Table D. Observed relative bias values (Average [field crew - QA crew]) for measurement variables on blind check plots, Missouri, 2008

Variable	Units of measure	Missouri				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Plot Level									
National Variables									
Distance to Road	code	-0.07	-0.20	0.06	138	-0.04	-0.07	-0.01	1,903
Water on Plot	code	0.00	-0.22	0.25	138	0.12	0.05	0.20	1,903
Regional Variables									
ELEVATION_GPS	feet	-0.73	-6.82	4.79	128	60.26	1.35	196.53	1,809
LAT_DECIMAL_DEG	degree	0.00	0.00	0.00	128	0.00	0.00	0.00	1,811
LON_DECIMAL_DEG	degree	6.57	0.00	19.72	128	0.46	0.00	1.39	1,811
LAT_FEET	feet	-4.18	-8.29	-0.18	128	-77.01	-225.30	-1.00	1,811
LON_FEET	feet	4.88	-0.04	10.48	128	54.04	4.26	152.43	1,811
Results for 141 Plots									
Results for 1970 Plots									
Condition Level									
National Variables									
Condition Status	code	0.00	-0.01	0.00	291	-0.01	-0.01	0.00	3,586
Reserve Status	code	0.00	0.00	0.00	291	0.00	0.00	0.00	3,586
Owner Group	code	0.00	0.00	0.00	141	0.24	0.07	0.45	1,921
Forest Type (Type)	code	2.09	-4.07	8.06	141	10.41	5.64	15.85	1,921
Forest Type (Group)	code	2.13	-3.55	7.80	141	10.57	5.67	16.03	1,921
Stand Size	code	-0.04	-0.11	0.02	141	0.00	-0.01	0.02	1,921
Regeneration Status	code	-0.01	-0.02	0.00	141	0.00	-0.01	0.01	1,921
Tree Density	code	0.01	-0.01	0.03	141	0.00	-0.01	0.01	1,921
Owner Class	code	0.04	-0.02	0.14	141	0.24	0.04	0.47	1,921
Owner Status	code	0.01	0.00	0.02	141	0.03	0.02	0.04	1,921
Regeneration Species	code	-0.78	-2.73	0.00	141	0.14	-2.02	2.06	1,921
Stand Age	years	-0.01	-1.34	1.33	141	-0.56	-1.60	0.19	1,921
Disturbance 1	code	4.90	1.69	8.76	141	1.38	0.81	1.95	1,905
Disturbance Year 1	year	3,426.57	1,142.14	6,853.00	7	3,382.54	1,844.37	5,227.62	26
Disturbance 2	code	-1.03	-3.59	0.00	39	-2.25	-4.01	-0.72	244
Disturbance Year 2	year								

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Missouri				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Disturbance 3	code	0.00	0.00	0.00	1	-2.76	-8.28	0.00	29
Disturbance Year 3	year								
Treatment 1	code	0.21	-0.35	0.99	141	0.15	0.01	0.30	1,905
Treatment Year 1	year	-0.18	-0.73	0.36	11	0.01	-0.11	0.12	119
Treatment 2	code	-2.35	-7.06	0.00	17	2.29	-0.05	4.68	188
Treatment Year 2	year					0.25	0.00	0.50	12
Treatment 3	code	0.00	0.00	0.00	1	0.24	0.00	0.73	41
Treatment Year 3	year					0.00	0.00	0.00	1
Physiographic Class	code	-0.62	-1.22	-0.01	141	0.15	-0.01	0.33	1,921
Present Nonforest Use	code	0.12	-0.12	0.45	291	0.17	0.03	0.30	3,586
Regional Variables									
NC_LAND_USE	code	-0.26	-0.53	0.01	291	-0.12	-0.24	-0.01	3,586
Results for 291 Conditions									
Boundary Level									
National Variables									
Boundary Change	code	0.10	-0.06	0.29	50	0.15	0.10	0.21	562
Constrasting Condition	cond	0.04	-0.04	0.11	50	0.01	-0.01	0.03	562
Left Azimuth	degrees	-7.00	-20.77	6.02	50	1.51	-1.94	5.10	562
Corner Mapped	code	-0.02	-0.06	0.00	50	0.00	-0.02	0.01	562
Corner Azimuth	degrees	-8.25	-23.50	-0.25	4	-10.36	-26.85	0.38	36
Corner Distance	feet	-1.25	-3.25	0.00	4	-0.19	-1.13	0.51	36
Right Azimuth	degrees	14.08	-4.05	34.70	50	-1.73	-5.47	2.42	562
Results for 50 Boundaries									
Subplot Level									
National Variables									
Subplot Center Cond	code	0.00	-0.02	0.01	520	0.00	0.00	0.01	7,488
Microplot Center Cond	code	0.00	-0.03	0.01	520	0.00	0.00	0.01	7,488
Slope	percent	0.35	-0.08	0.73	502	0.06	-0.08	0.17	7,067

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Missouri				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Aspect	degrees	-5.00	-10.20	-0.13	473	0.42	-0.62	1.47	6,659
Snow/Water Depth	feet	-0.27	-0.40	-0.16	520	-0.11	-0.22	0.01	7,488
Results for 520 Subplots									
Tree Level									
National Variables									
DBH	inches	-0.05	-0.10	-0.01	2,291	-0.07	-0.08	-0.06	31,293
DRC	inches					-0.04	-0.16	0.04	24
Azimuth	degrees	0.14	-0.12	0.42	2,380	0.10	0.02	0.17	32,900
Horizontal Distance	feet	-0.01	-0.03	0.01	2,380	0.00	-0.01	0.01	32,900
Species	code	0.04	-0.92	0.91	2,380	0.11	-0.22	0.39	32,900
Tree Genus	code	0.02	-0.92	0.86	2,380	0.09	-0.17	0.37	32,855
Tree Status	code	0.00	-0.01	0.00	2,380	0.00	0.00	0.00	32,900
Rotten/Missing Cull	percent	-0.12	-0.27	0.03	1,639	-0.06	-0.10	-0.01	21,153
Total Length	feet	-0.68	-2.98	1.30	1,617	0.16	-0.07	0.38	20,703
Actual Length	feet	-2.16	-4.93	0.65	144	-2.55	-3.87	-1.26	2,375
Compacted Crown Ratio	percent	-0.57	-1.04	-0.06	1,984	-0.13	-0.25	-0.01	26,967
Uncompacted Crown Ratio (P3)	percent	-1.15	-4.24	1.34	86	-0.15	-1.01	0.61	1,027
Crown Class	code	-0.01	-0.04	0.02	1,984	-0.04	-0.04	-0.03	26,967
Decay Class	code	-0.02	-0.11	0.07	284	0.01	-0.02	0.03	4,191
Cause of Death	code	-0.32	-2.98	1.83	284	2.38	1.89	2.80	4,191
Condition	code	-0.02	-0.03	-0.01	2,380	-0.01	-0.01	-0.01	32,900
Mortality Year	year	0.07	-0.11	0.30	99	0.08	0.04	0.12	1,372
Crown position	code	-0.25	-0.38	-0.12	73	-0.09	-0.11	-0.06	834
Crown light exposure	code	0.33	0.12	0.52	86	0.02	-0.04	0.06	1,027
Sapling crown vigor class	code	-0.15	-0.38	0.00	13	-0.10	-0.18	-0.02	193
Crown density	percent	-0.21	-2.19	2.36	73	0.91	0.30	1.68	834
Crown dieback	percent	-0.88	-4.26	1.10	73	-0.57	-0.97	-0.11	834
Transparency	percent	-2.03	-6.09	0.63	73	-1.09	-1.65	-0.52	834

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Missouri				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Regional Variables									
NC Tree Class	code	-0.22	-0.43	-0.02	2,190	-0.09	-0.12	-0.05	29,985
NC Damage Agent 1	code	3.05	-1.50	7.86	1,984	4.42	3.24	5.68	26,967
NC Damage Agent 2	code	9.65	-3.22	25.48	349	11.34	7.57	15.56	4,920
Missouri damage code	code								
Utilization	code	0.00	0.00	0.00	33	0.00	0.00	0.00	1,003
NC Tree Grade	code	8.82	-10.99	30.42	237	3.49	-1.67	7.90	2,747
DBH-live & decay code 1-2 trees	inches	-0.04	-0.08	-0.01	2,120	-0.06	-0.08	-0.06	28,413
DBH-decay code 3-4-5 trees	inches	-0.03	-0.06	0.00	58	-0.03	-0.06	-0.02	1,300
Total length trees 40 ft plus	feet	1.54	1.03	2.09	1,234	0.71	0.58	0.86	16,832
Total length trees less than 40 ft	feet	-7.83	-19.28	0.11	383	-2.22	-3.32	-1.12	3,871
Total Length trees lt 5 inch	feet	3.50	-1.86	9.02	13	2.44	0.65	4.14	277
Results for 2380 Trees									
Seedling Level									
National Variables									
Species	code	-0.03	-0.07	0.00	678	0.00	-0.01	0.01	5,518
Genus	code	-0.02	-0.04	0.00	678	0.00	-0.01	0.00	5,518
Seedling Count	number	-14.08	-19.32	-9.04	678	-15.57	-23.17	-10.43	5,518
Seedling Count coded	number	-0.04	-0.13	0.04	678	0.00	-0.02	0.02	5,518
Results for 234 Microplots									
Site Tree Level									
National Variables									
Condition list	code	-0.26	-0.49	-0.05	212	-1.62	-4.12	0.13	2,976
Diameter	inches	0.00	-0.02	0.02	212	0.00	-0.01	0.00	2,935
Species	code	-0.17	-0.52	0.01	212	-0.14	-0.30	-0.01	2,976
Genus	code	0.00	0.00	0.00	212	-0.15	-0.32	-0.02	2,976
Azimuth	degrees	-1.30	-3.79	0.46	212	0.03	-0.36	0.43	2,935
Distance	feet	-0.04	-0.34	0.23	212	0.00	-0.04	0.04	2,935

(Table D continued on next page)

(Table D Continued)

Variable	Units of measure	Missouri				All NRS States			
		Relative bias	95% CI limits		Number of observations	Relative bias	95% CI limits		Number of observations
			Lower	Upper			Lower	Upper	
Total_length	feet	-0.66	-1.37	0.19	212	-0.15	-0.37	0.06	2,935
Diameter_age	years	-0.61	-1.28	-0.02	212	0.08	-0.06	0.23	2,935
Regional Variables									
Site_index_method	code	0.00	0.00	0.00	212	0.00	0.00	0.00	2,976
Field_site_index	feet	0.00	0.00	0.00	212	0.07	0.01	0.16	2,976
Results for 212 Site Index Trees									
Results for 2976 Site Index Trees									

Table E.—FIA nonresponse by ownership, Missouri, 2008

Owner and strata	Number of plots selected	Observed	Denied access	Hazardous	Percent response rate
----- <i>number of plots</i> -----					
Inland census water	346	344	1	1	99.4%
Mark Twain	476	476	1	0	100.0%
Private	6,965	6,673	300	6	95.8%
Total	7,787	7,493	302	7	96.2%

Note: Ownership is based on information from layers used in stratification and not from information collected by field crews.

Table MO-1.—Percentage of area by land status, Missouri, 2008

Land status	Percentage of area
Accessible forest land	
Unreserved forest land	
Timberland	31.1
Unproductive	0.4
Total unreserved forest land	31.5
Reserved forest land	
Productive	0.4
Unproductive	0.0
Total reserved forest land	0.4
All accessible forest land	31.9
Nonforest and other land	
Nonforest land	62.2
Water	
Census	1.3
Non-Census	0.6
All nonforest and other land	64.1
Nonsampled land	
Access denied	3.9
Hazardous conditions	0.0
Other	--
All land	100.0
Total area (thousands of acres)	44,611

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the percentage rounds to less than 0.1 percent. Columns and rows may not add to their totals due to rounding.

Table MO-2.—Area of forest land, in thousand acres, by owner class and forest-land status, Missouri, 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	1,426.1	6.7	1,432.8	76.1	3.2	79.3	1,512.0
Other Federal							
National Park Service	--	--	--	60.3	--	60.3	60.3
Fish and Wildlife Service	22.2	--	22.2	--	--	--	22.2
Department of Defense or Energy	141.8	6.8	148.6	--	--	--	148.6
Other Federal	131.5	--	131.5	--	--	--	131.5
State and local government							
State	682.6	1.7	684.3	45.1	--	45.1	729.4
Local (county, municipal, etc.)	65.6	--	65.6	--	--	--	65.6
Private							
Undifferentiated private	12,577.9	149.3	12,727.2	--	--	--	12,727.2
All owners	15,047.7	164.5	15,212.2	181.5	3.2	184.6	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-3.—Area of forest land, in thousand acres, by forest-type group and productivity class, Missouri, 2008

Forest-type group	Site productivity class (cubic feet/acre/year)							All classes
	0-19	20-49	50-84	85-119	120-164	165-224	225+	
White / red / jack pine group	--	--	--	2.7	--	--	--	2.7
Loblolly / shortleaf pine group	3.2	15.1	58.3	112.4	21.2	6.4	--	216.6
Other eastern softwoods group	5.1	301.1	38.8	21.5	--	--	--	366.5
Exotic softwoods group	--	--	4.8	--	--	--	--	4.8
Oak / pine group	9.6	404.2	316.0	183.9	33.3	--	3.2	950.3
Oak / hickory group	144.7	3,555.9	6,103.1	2,625.3	236.4	10.0	1.0	12,676.4
Oak / gum / cypress group	--	9.2	17.4	33.5	--	--	--	60.0
Elm / ash / cottonwood group	5.1	266.9	428.2	256.5	29.5	5.3	--	991.5
Maple / beech / birch group	--	34.3	24.8	12.3	--	--	--	71.4
Other hardwoods group	--	6.6	3.3	--	--	--	--	9.9
Nonstocked	--	14.9	24.4	5.9	1.7	--	--	46.9
All forest-type groups	167.7	4,608.2	7,019.2	3,253.9	322.1	21.7	4.2	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-4.—Area of forest land, in thousand acres, by forest-type group, ownership group, and forest-land status, Missouri, 2008

Forest-type group	Forest Service			Other Federal			State and local government			Undifferentiated private		
	Timber-land	Other forest land		Timber-land	Other forest land		Timber-land	Other forest land		Timber-land	Other forest land	All forest land
White / red / jack pine group	--	--	--	--	--	--	2.7	--	--	--	--	2.7
Loblolly / shortleaf pine group	115.4	3.6	--	--	4.4	--	12.0	--	--	77.9	3.2	216.6
Other eastern softwoods group	17.5	3.2	--	10.8	--	--	1.0	--	--	328.8	5.1	366.5
Exotic softwoods group	--	--	--	--	--	--	--	--	--	4.8	--	4.8
Oak / pine group	192.3	13.8	--	9.3	5.8	--	34.8	--	--	684.7	9.6	950.3
Oak / hickory group	1,085.5	65.4	--	222.3	52.1	--	596.2	42.2	--	10,486.4	126.3	12,676.4
Oak / gum / cypress group	--	--	--	13.4	--	--	--	--	--	46.6	--	60.0
Elm / ash / cottonwood group	10.5	--	--	38.3	4.8	--	96.0	4.5	--	832.2	5.1	991.5
Maple / beech / birch group	4.8	--	--	--	--	--	1.5	--	--	65.1	--	71.4
Other hardwoods group	--	--	--	--	--	--	--	--	--	9.9	--	9.9
Nonstocked	--	--	--	1.4	--	--	4.0	--	--	41.4	--	46.9
All forest-type groups	1,426.1	86.0		295.5	67.1		748.2	46.8		12,577.9	149.3	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-5.—Area of forest land, in thousand acres, by forest-type group and stand-size class, Missouri, 2008

Forest-type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
White / red / jack pine group	2.7	--	--	--	--	2.7
Loblolly / shortleaf pine group	157.2	53.4	6.0	--	--	216.6
Other eastern softwoods group	58.6	165.2	142.6	--	--	366.5
Exotic softwoods group	4.8	--	--	--	--	4.8
Oak / pine group	444.3	364.6	141.3	--	--	950.3
Oak / hickory group	7,244.4	4,334.5	1,097.5	--	--	12,676.4
Oak / gum / cypress group	39.8	18.6	1.6	--	--	60.0
Elm / ash / cottonwood group	642.6	214.0	134.9	--	--	991.5
Maple / beech / birch group	46.4	19.4	5.6	--	--	71.4
Other hardwoods group	--	--	9.9	--	--	9.9
Nonstocked	--	--	--	--	46.9	46.9
All forest-type groups	8,640.9	5,169.7	1,539.4	--	46.9	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-6.—Area of forest land, in thousand acres, by forest-type group and stand-age class, Missouri, 2008

Forest type group	Nonstocked	0-20	21-40	41-60	61-80	81-100	100-120	121-140	141-160	161-180	181-200	All classes
White / red / jack pine group	0.0	--	--	2.7	--	--	--	--	--	--	--	--
Loblolly / shortleaf pine group	0.0	20.6	31.6	94.3	46.9	23.2	--	--	--	--	--	216.6
Other eastern softwoods group	0.0	60.8	125.0	111.9	31.9	36.9	--	--	--	--	--	--
Exotic softwoods group	0.0	--	--	4.8	--	--	--	--	--	--	--	4.8
Oak / pine group	0.0	96.2	151.0	341.9	271.8	85.0	4.4	--	--	--	--	--
Oak / hickory group	0.0	664.6	1,653.8	3,658.2	4,406.1	1,567.4	501.8	202.2	19.4	--	2.9	12,676.4
Oak / gum / cypress group	0.0	10.8	15.8	15.6	12.5	5.4	--	--	--	--	--	--
Elm / ash / cottonwood group	0.0	113.1	184.9	429.3	199.6	55.4	3.5	5.5	--	--	--	991.5
Maple / beech / birch group	0.0	--	2.8	22.7	17.7	28.1	--	--	--	--	--	--
Other hardwoods group	0.0	9.9	--	--	--	--	--	--	--	--	--	9.9
Nonstocked	46.9	--	--	--	--	--	--	--	--	--	--	46.9
Total	46.9	976.0	2,165.0	4,681.4	4,986.4	1,801.4	509.8	207.7	19.4	--	2.9	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-7.—Area of forest land, in thousand acres, by forest-type group and stand origin, Missouri, 2008

Forest-type group	Stand origin		All forest land
	Natural stands	Artificial regeneration	
White / red / jack pine group	--	2.7	2.7
Loblolly / shortleaf pine group	152.7	63.9	216.6
Other eastern softwoods group	364.1	2.3	366.5
Exotic softwoods group	4.8	--	4.8
Oak / pine group	942.2	8.1	950.3
Oak / hickory group	12,664.3	12.1	12,676.4
Oak / gum / cypress group	60.0	--	60.0
Elm / ash / cottonwood group	980.1	11.4	991.5
Maple / beech / birch group	71.4	--	71.4
Other hardwoods group	9.9	--	9.9
Nonstocked	46.9	--	46.9
All forest-type groups	15,296.3	100.5	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-8.—Area of forest land, in thousand acres, by forest-type group and primary disturbance class, Missouri, 2008

Forest-type group	Disturbance class								All forest land
	None	Insects	Disease	Weather	Fire	Domestic animals	Wild animals	Human	
White / red / jack pine group	2.7	--	--	--	--	--	--	--	2.7
Loblolly / shortleaf pine group	179.5	--	--	7.3	2.9	19.5	--	7.3	216.6
Other eastern softwoods group	274.4	--	--	10.3	--	59.1	--	22.7	366.5
Exotic softwoods group	--	--	--	--	--	--	--	--	4.8
Oak / pine group	746.3	--	--	20.8	25.3	119.7	11.3	27.0	950.3
Oak / hickory group	9,605.6	13.4	35.4	552.6	184.7	2,042.2	21.9	204.9	12,676.4
Oak / gum / cypress group	35.7	--	--	23.1	--	1.2	--	--	60.0
Elm / ash / cottonwood group	539.7	--	--	327.0	10.0	81.4	4.9	26.0	991.5
Maple / beech / birch group	53.3	--	--	7.9	--	--	--	--	71.4
Other hardwoods group	9.9	--	--	--	--	--	--	--	9.9
Nonstocked	19.8	--	--	2.5	--	23.4	--	1.1	46.9
All forest-type groups	11,466.8	13.4	35.4	951.5	222.9	2,346.5	38.1	288.9	15,396.9

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-9.—Area of timberland, in thousand acres, by forest-type group and stand-size class, Missouri, 2008

Forest-type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
White / red / jack pine group	2.7	--	--	--	--	2.7
Loblolly / shortleaf pine group	149.1	53.4	2.8	--	--	205.3
Other eastern softwoods group	58.6	162.1	137.5	--	--	358.2
Exotic softwoods group	4.8	--	--	--	--	4.8
Oak / pine group	438.0	347.0	136.1	--	--	921.1
Oak / hickory group	7,060.6	4,252.7	1,077.1	--	--	12,390.4
Oak / gum / cypress group	39.8	18.6	1.6	--	--	60.0
Elm / ash / cottonwood group	638.5	209.5	129.1	--	--	977.0
Maple / beech / birch group	46.4	19.4	5.6	--	--	71.4
Other hardwoods group	--	--	9.9	--	--	9.9
Nonstocked	--	--	--	--	46.9	46.9
All forest-type groups	8,438.6	5,062.6	1,499.6	--	46.9	15,047.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-10.—Number of live trees (at least 1 inch d.b.h./d.r.c.), in thousand trees, on forest land by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)																All classes
	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- 24.9	25.0- 28.9	29.0- 32.9	33.0- 36.9	37.0+		
Softwood species groups																	
Eastern softwood species groups																	
Loblolly and shortleaf pines	43,027	26,328	20,887	20,616	17,180	12,782	7,038	3,355	1,093	763	253	--	--	--	--	--	153,321
Other yellow pines	452	--	--	143	37	--	72	--	72	--	--	--	--	--	--	--	775
Eastern white and red pines	--	--	--	101	--	194	231	36	--	--	--	--	--	--	--	--	562
Other eastern softwoods	397,270	193,004	88,479	44,720	20,080	7,577	2,999	914	207	93	--	--	--	--	--	--	755,341
All softwoods	440,748	219,332	109,366	65,580	37,296	20,563	10,339	4,305	1,371	856	253	--	--	--	--	--	909,999
Hardwood species groups																	
Eastern hardwood species groups																	
Select white oaks	304,778	186,851	110,284	80,137	66,295	49,792	34,871	20,350	12,679	6,466	4,801	1,772	695	154	44	44	879,969
Select red oaks	61,354	28,001	17,557	13,558	9,776	8,780	6,034	4,764	3,085	2,516	1,877	807	230	154	--	--	158,492
Other white oaks	164,193	108,383	80,069	66,536	44,664	26,648	16,239	9,536	4,847	2,303	1,523	174	127	83	--	--	525,325
Other red oaks	353,234	164,088	98,622	79,807	61,852	46,663	32,714	19,833	11,370	6,570	4,594	1,261	263	166	19	19	881,056
Hickory	639,311	223,451	101,733	60,949	37,065	21,958	11,367	6,200	2,976	1,124	439	244	36	--	--	--	1,106,852
Hard maple	145,673	50,966	17,363	8,438	5,459	2,738	1,608	888	442	254	256	106	--	--	--	--	234,193
Soft maple	155,886	25,622	8,036	5,264	4,080	2,055	1,921	908	983	567	614	211	152	113	--	--	206,413
Beech	1,230	--	117	49	--	--	73	37	37	--	--	--	--	--	49	49	1,692
Sweetgum	8,199	2,453	1,195	504	604	163	110	96	95	51	54	--	--	--	--	--	13,525
Tupelo and blackgum	149,188	32,565	10,288	3,547	1,962	921	759	329	338	214	214	--	--	--	--	--	200,324
Ash	180,757	46,685	21,228	12,086	8,957	4,430	3,401	1,709	942	688	206	174	--	--	--	--	281,264
Cottonwood and aspen	5,463	1,642	1,006	1,044	423	597	255	610	252	433	397	183	111	96	122	122	12,632
Basswood	6,217	860	996	831	554	484	138	231	43	84	72	--	48	--	--	--	10,568
Yellow-poplar	2,217	403	270	122	76	85	--	140	99	36	--	--	--	--	--	--	3,447
Black walnut	27,038	19,198	14,042	12,272	9,339	6,744	5,718	3,358	1,523	995	498	194	43	25	--	--	100,988
Other eastern soft hardwoods	1,027,644	286,391	109,187	54,792	25,839	13,956	7,748	5,118	2,873	1,838	1,376	492	256	70	--	--	1,537,580
Other eastern hard hardwoods	666,659	147,043	31,538	17,150	9,983	5,693	3,322	1,293	1,069	628	461	142	88	--	--	--	885,069
Eastern noncommercial hardwoods	468,237	79,874	20,579	8,439	3,505	2,024	785	523	274	66	87	85	--	--	--	--	584,495
All hardwoods	4,367,278	1,404,475	644,110	425,524	290,483	193,732	127,065	75,921	43,925	24,835	17,518	5,845	2,048	861	251	251	7,623,873
All species groups	4,808,026	1,623,808	753,476	491,104	327,780	214,286	137,404	80,226	45,296	25,692	17,772	5,845	2,048	861	251	251	8,533,872

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Table MO-11.—Number of growing-stock trees (at least 5 inches d.b.h.) , in thousand trees, on timberland by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)															33.0- 36.9	37.0+ classes
	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- 24.9	25.0- 28.9	29.0- 32.9						
Softwood species groups																	
Eastern softwood species groups																	
Loblolly and shortleaf pines	20,314	20,056	16,425	12,366	6,791	3,275	1,093	744	253	--	--	--	--	--	--	81,317	--
Other yellow pines	--	72	--	--	72	--	72	--	--	--	--	--	--	--	--	215	--
Eastern white and red pines	--	101	--	194	231	36	--	--	--	--	--	--	--	--	--	562	--
Other eastern softwoods	67,236	30,564	12,454	4,303	1,537	405	98	48	--	--	--	--	--	--	--	116,645	--
All softwoods	87,549	50,794	28,879	16,863	8,631	3,716	1,262	792	253	--	--	--	--	--	--	198,739	--
Hardwood species groups																	
Eastern hardwood species groups																	
Select white oaks	95,007	71,064	59,583	44,370	31,193	18,114	10,818	5,152	3,505	1,212	219	128	--	--	--	340,366	--
Select red oaks	14,952	11,957	8,868	7,559	5,278	3,777	2,830	2,226	1,725	633	56	117	--	--	--	59,978	--
Other white oaks	68,261	57,727	38,432	21,175	12,594	7,185	2,904	1,201	879	84	97	--	--	--	--	210,539	--
Other red oaks	82,642	69,956	55,266	41,201	28,289	17,290	9,836	5,235	3,475	749	128	92	--	--	--	314,161	--
Hickory	87,814	53,931	33,508	19,686	9,740	5,346	2,652	822	367	141	--	--	--	--	--	214,007	--
Hard maple	14,356	7,159	4,759	1,940	1,356	665	404	156	192	--	--	--	--	--	--	30,988	--
Soft maple	6,071	3,983	2,882	1,476	1,317	709	811	375	482	113	98	32	--	--	--	18,347	--
Beech	82	49	--	--	73	--	37	--	--	--	--	--	--	--	--	241	--
Sweetgum	1,195	434	549	163	110	96	95	51	--	--	--	--	--	--	--	2,693	--
Tupelo and blackgum	8,329	3,160	1,700	777	656	309	299	103	107	--	--	--	--	--	--	15,442	--
Ash	14,687	8,697	6,864	3,153	2,544	1,346	837	575	118	100	--	--	--	--	--	38,922	--
Cottonwood and aspen	939	1,044	423	564	212	610	229	433	374	149	77	61	122	5,237	--	5,237	--
Basswood	543	734	440	358	138	196	--	84	72	--	--	--	--	--	--	2,565	--
Yellow-poplar	270	122	76	85	--	140	99	36	--	--	--	--	--	--	--	827	--
Black walnut	10,031	8,762	6,883	4,522	4,687	2,778	1,217	781	479	168	43	--	--	--	--	40,352	--
Other eastern soft hardwoods	72,462	37,606	18,408	8,556	5,555	3,768	2,092	1,410	1,146	417	212	45	--	--	--	151,677	--
Other eastern hard hardwoods	15,967	9,292	5,396	2,799	2,103	705	408	116	117	--	--	--	--	--	--	36,903	--
All hardwoods	493,607	345,677	244,037	158,385	105,846	63,034	35,569	18,755	13,039	3,766	931	475	122	1,483,244	122	1,483,244	--
All species groups	581,157	396,471	272,916	175,248	114,477	66,750	36,831	19,547	13,292	3,766	931	475	122	1,681,982	122	1,681,982	--
All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the number of trees rounds to less than 1 thousand trees. Columns and rows may not add to their totals due to rounding.																	

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Table MO-12.—Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, by owner class and forest-land status, Missouri, 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	2,138.8	5.3	2,144.1	110.9	2.1	113.0	2,257.1
Other Federal							
National Park Service	--	--	--	92.3	--	92.3	92.3
Fish and Wildlife Service	40.2	--	40.2	--	--	--	40.2
Department of Defense or Energy	138.2	2.6	140.8	--	--	--	140.8
Other Federal	174.2	--	174.2	--	--	--	174.2
State and local government							
State	1,005.7	3.0	1,008.7	80.5	--	80.5	1,089.2
Local (county, municipal, etc.)	105.7	--	105.7	--	--	--	105.7
Private							
Undifferentiated private	16,101.0	142.8	16,243.8	--	--	--	16,243.8
All owners	19,703.9	153.6	19,857.5	283.7	2.1	285.8	20,143.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-13.—Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by forest-type group and stand-size class, Missouri, 2008

Forest-type group	Stand-size class				All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked
White / red / jack pine group	9.6	--	--	--	--
Loblolly / shortleaf pine group	367.7	87.1	2.8	--	--
Other eastern softwoods group	73.4	124.9	21.0	--	--
Exotic softwoods group	5.8	--	--	--	--
Oak / pine group	720.0	348.7	32.2	--	--
Oak / hickory group	11,893.6	4,284.0	259.8	--	--
Oak / gum / cypress group	78.2	23.3	--	--	--
Elm / ash / cottonwood group	1,432.6	236.7	33.5	--	--
Maple / beech / birch group	80.0	22.1	2.0	--	--
Other hardwoods group	--	--	1.3	--	--
Nonstocked	--	--	--	--	--
All forest-type groups	14,660.9	5,126.7	352.5	--	3.2
					20,143.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-14.—Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and ownership group, Missouri, 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	452.3	10.2	57.9	380.2	900.6
Other yellow pines	--	--	--	5.4	5.4
Eastern white and red pines	--	--	10.0	--	10.0
Other eastern softwoods	46.3	10.4	12.4	603.5	672.6
All softwoods	498.6	20.6	80.3	989.1	1,588.7
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	587.8	119.9	280.6	3,656.0	4,644.3
Select red oaks	104.5	42.1	68.5	897.1	1,112.3
Other white oaks	151.9	39.7	61.4	1,851.4	2,104.3
Other red oaks	649.6	71.3	270.1	3,337.0	4,328.0
Hickory	128.2	51.6	102.2	1,636.3	1,918.3
Hard maple	18.0	3.6	16.2	269.9	307.7
Soft maple	4.4	3.7	75.0	296.6	379.8
Beech	--	--	12.9	4.9	17.8
Sweetgum	1.9	8.0	5.0	14.1	29.0
Tupelo and blackgum	21.6	1.2	5.7	96.6	125.0
Ash	11.5	10.8	19.0	421.2	462.5
Cottonwood and aspen	--	4.1	57.2	160.6	221.9
Basswood	3.6	1.6	0.9	41.2	47.2
Yellow-poplar	--	--	10.4	7.2	17.5
Black walnut	19.0	17.5	33.8	547.4	617.6
Other eastern soft hardwoods	49.2	38.0	67.6	1,437.2	1,592.0
Other eastern hard hardwoods	5.5	12.3	24.5	427.6	469.9
Eastern noncommercial hardwoods	1.9	1.5	3.7	152.4	159.4
All hardwoods	1,758.5	426.9	1,114.6	15,254.7	18,554.7
All species groups	2,257.1	447.5	1,194.9	16,243.8	20,143.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-15.—Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)														All classes
	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	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+		
Softwood species groups															
Eastern softwood species groups															
Loblolly and shortleaf pines	49	107	161	197	163	110	48	44	20	--	--	--	--	90	5
Other yellow pines	--	1	0	--	2	--	3	--	--	--	--	--	--	--	10
Eastern white and red pines	--	1	--	3	5	1	--	--	--	--	--	--	--	--	673
Other eastern softwoods	175	184	146	87	50	21	6	3	--	--	--	--	--	--	1,589
All softwoods	224	292	308	287	220	132	58	48	20	--	--	--	--	--	
Hardwood species groups															
Eastern hardwood species groups															
Select white oaks	250	388	579	695	726	589	493	325	321	167	79	25	9	4,644	
Select red oaks	42	68	87	125	131	136	125	130	133	80	27	29	--	1,112	
Other white oaks	169	295	352	335	304	253	164	100	89	16	16	12	--	2,104	
Other red oaks	218	382	542	653	680	579	447	332	314	118	35	26	3	4,328	
Hickory	219	298	338	336	259	208	131	66	35	24	4	--	--	1,918	
Hard maple	42	44	53	42	37	29	20	13	17	10	--	--	--	308	
Soft maple	19	27	39	31	44	29	43	31	48	24	23	22	--	380	
Beech	0	0	0	--	2	1	2	--	2	--	--	--	10	18	
Sweetgum	2	2	6	2	2	3	5	3	4	--	--	--	--	29	
Tupelo and blackgum	18	15	16	13	16	10	14	9	14	--	--	--	--	125	
Ash	43	55	77	63	70	53	39	36	13	15	--	--	--	463	
Cottonwood and aspen	3	6	4	10	6	21	12	27	32	24	18	23	36	222	
Basswood	2	4	5	7	3	7	2	5	6	--	5	--	--	47	
Yellow-poplar	1	1	1	1	--	6	6	3	--	--	--	--	--	18	
Black walnut	30	56	76	87	112	93	55	47	34	19	6	3	--	618	
Other eastern soft hardwoods	207	232	208	181	159	154	117	104	114	61	41	14	--	1,592	
Other eastern hard hardwoods	56	70	76	70	66	34	37	24	23	8	7	--	--	470	
Eastern noncommercial hardwoods	34	31	25	22	13	12	8	3	4	6	--	--	2	159	
All hardwoods	1,353	1,973	2,484	2,675	2,629	2,216	1,718	1,257	1,203	571	261	154	59	18,555	
All species groups	1,578	2,266	2,791	2,962	2,849	2,348	1,775	1,304	1,224	571	261	154	59	20,143	

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-16.—Net volume of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by forest-type group and stand origin, Missouri, 2008

Forest-type group	Stand origin		All forest land
	Natural stands	Artificial regeneration	
White / red / jack pine group	--	9.6	9.6
Loblolly / shortleaf pine group	318.7	138.9	457.6
Other eastern softwoods group	219.0	0.3	219.2
Exotic softwoods group	5.8	--	5.8
Oak / pine group	1,088.3	12.6	1,100.9
Oak / hickory group	16,435.1	2.3	16,437.4
Oak / gum / cypress group	101.5	--	101.5
Elm / ash / cottonwood group	1,699.6	3.1	1,702.8
Maple / beech / birch group	104.1	--	104.1
Other hardwoods group	1.3	--	1.3
Nonstocked	3.2	--	3.2
All forest-type groups	19,976.5	166.8	20,143.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-17.—Net volume of growing-stock trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on timberland by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)														All classes
	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	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+		
Softwood species groups															
Eastern softwood species groups															
Loblolly and shortleaf pines	48	104	154	192	157	107	48	43	20	--	--	--	--	--	875
Other yellow pines	--	0	--	--	2	--	3	--	--	--	--	--	--	--	5
Eastern white and red pines	--	1	--	3	5	1	--	--	--	--	--	--	--	--	10
Other eastern softwoods	135	129	95	52	28	10	3	2	--	--	--	--	--	--	454
All softwoods	183	235	249	246	192	119	54	45	20	--	--	--	--	--	1,344
Hardwood species groups															
Eastern hardwood species groups															
Select white oaks	220	351	528	631	658	533	430	266	244	118	28	22	--	--	4,029
Select red oaks	37	61	81	112	118	114	118	119	124	67	8	24	--	--	982
Other white oaks	148	262	309	276	245	198	105	58	57	8	13	--	--	--	1,679
Other red oaks	189	344	496	592	606	518	400	278	252	80	18	17	--	--	3,791
Hickory	194	270	310	307	228	184	119	51	30	16	--	--	--	--	1,710
Hard maple	35	38	48	31	32	23	18	9	14	--	--	--	--	--	247
Soft maple	15	22	29	24	32	24	36	22	39	14	15	7	--	--	279
Beech	0	0	--	--	2	--	2	--	--	--	--	--	--	--	4
Sweetgum	2	2	5	2	2	3	5	3	--	--	--	--	--	--	25
Tupelo and blackgum	15	14	14	11	15	10	12	6	8	--	--	--	--	--	105
Ash	32	42	62	49	56	44	35	31	9	10	--	--	--	--	371
Cottonwood and aspen	3	6	4	9	5	21	11	27	31	20	14	15	36	203	36
Basswood	1	4	4	5	3	6	--	5	6	--	--	--	--	--	35
Yellow-poplar	1	1	1	1	--	6	6	3	--	--	--	--	--	--	18
Black walnut	23	42	59	63	96	81	48	40	33	17	6	--	--	--	508
Other eastern soft hardwoods	147	170	159	122	123	124	92	86	100	55	37	12	--	--	1,228
Other eastern hard hardwoods	30	41	45	39	46	22	18	6	8	--	--	--	--	--	254
All hardwoods	1,091	1,670	2,155	2,275	2,266	1,910	1,456	1,010	955	406	139	97	36	15,466	36
All species groups	1,274	1,905	2,403	2,522	2,458	2,029	1,510	1,055	975	406	139	97	36	16,809	36

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-18.—Net volume of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on timberland by species group and ownership group, Missouri, 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	439.1	1.7	57.3	376.7	874.9
Other yellow pines	--	--	--	4.8	4.8
Eastern white and red pines	--	--	10.0	--	10.0
Other eastern softwoods	28.4	6.0	8.5	411.0	453.9
All softwoods	467.5	7.8	75.8	792.5	1,343.6
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	520.6	86.1	234.1	3,188.1	4,029.0
Select red oaks	87.9	39.7	59.3	794.6	981.5
Other white oaks	117.4	31.3	53.9	1,476.7	1,679.2
Other red oaks	572.3	44.0	232.2	2,942.1	3,790.6
Hickory	110.6	32.7	84.1	1,482.2	1,709.6
Hard maple	14.1	3.4	12.1	217.9	247.5
Soft maple	3.1	2.9	52.5	220.1	278.6
Beech	--	--	0.4	3.9	4.3
Sweetgum	1.9	8.0	1.2	13.5	24.7
Tupelo and blackgum	17.2	0.6	3.0	84.6	105.3
Ash	6.8	5.8	11.9	346.1	370.5
Cottonwood and aspen	--	3.2	57.2	142.5	203.0
Basswood	3.6	0.4	0.4	30.9	35.3
Yellow-poplar	--	--	10.4	7.2	17.5
Black walnut	15.9	10.8	25.9	454.9	507.5
Other eastern soft hardwoods	41.2	28.0	44.6	1,114.1	1,227.9
Other eastern hard hardwoods	2.9	7.4	13.1	230.4	253.8
All hardwoods	1,515.5	304.4	896.2	12,749.7	15,465.8
All species groups	1,983.0	312.2	972.0	13,542.2	16,809.4

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-19.—Net volume of sawtimber trees (International 1/4-inch rule), in million board feet, on timberland by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)												33.0-36.9	37.0+	All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9						
Softwood species groups															
Eastern softwood species groups															
Loblolly and shortleaf pines	767	983	823	573	261	235	111	--	--	--	--	--	--	3,753	--
Other yellow pines	--	--	8	--	14	--	--	--	--	--	--	--	--	22	--
Eastern white and red pines	--	13	27	6	--	--	--	--	--	--	--	--	--	46	--
Other eastern softwoods	524	268	135	46	14	8	--	--	--	--	--	--	--	995	--
All softwoods	1,291	1,265	993	624	290	243	111	--	--	--	--	--	--	4,817	--
Hardwood species groups															
Eastern hardwood species groups															
Select white oaks	--	3,082	3,160	2,516	1,992	1,208	1,069	496	113	80	--	--	--	13,716	--
Select red oaks	--	555	588	574	587	590	604	312	35	98	--	--	--	3,943	--
Other white oaks	--	1,342	1,188	958	503	274	267	37	55	--	--	--	--	4,623	--
Other red oaks	--	2,936	3,016	2,574	1,971	1,358	1,204	368	80	69	--	--	--	13,574	--
Hickory	--	1,503	1,118	904	584	251	145	78	--	--	--	--	--	4,584	--
Hard maple	--	147	152	107	84	41	63	--	--	--	--	--	--	594	--
Soft maple	--	105	138	104	160	95	167	58	62	26	--	--	--	916	--
Beech	--	--	10	--	10	--	--	--	--	--	--	--	--	19	--
Sweetgum	--	11	11	14	20	12	--	--	--	--	--	--	--	69	--
Tupelo and blackgum	--	52	67	44	56	26	36	--	--	--	--	--	--	281	--
Ash	--	221	260	207	168	149	42	47	--	--	--	--	--	1,094	--
Cottonwood and aspen	--	44	24	103	57	138	153	101	64	69	154	154	154	908	--
Basswood	--	27	15	32	--	25	30	--	--	--	--	--	--	128	--
Yellow-poplar	--	7	--	29	32	13	--	--	--	--	--	--	--	81	--
Black walnut	--	302	457	383	224	182	147	72	22	--	--	--	--	1,788	--
Other eastern soft hardwoods	--	563	560	564	412	390	449	248	160	50	--	--	--	3,395	--
Other eastern hard hardwoods	--	179	211	99	80	28	36	--	--	--	--	--	--	634	--
All hardwoods	--	11,076	10,976	9,211	6,940	4,780	4,413	1,817	591	391	154	154	154	50,349	--
All species groups	1,291	12,341	11,969	9,836	7,229	5,024	4,524	1,817	591	391	154	154	154	55,166	--

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million board feet. Columns and rows may not add to their totals due to rounding.

Table MO-19a.—Net volume of sawtimber trees (Doyle rule), in million board feet, on timberland by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)												All classes
	9.0-10.9	11.0-12.9	13.0-14.9	15.0-16.9	17.0-18.9	19.0-20.9	21.0-24.9	25.0-28.9	29.0-32.9	33.0-36.9	37.0+		
Softwood species groups													
Eastern softwood species groups													
Loblolly and shortleaf pines	265	470	493	396	201	202	98	--	--	--	--	2,125	
Other yellow pines	--	--	5	--	11	--	--	--	--	--	--	16	
Eastern white and red pines	--	6	16	4	--	--	--	--	--	--	--	27	
Other eastern softwoods	181	128	81	32	11	7	--	--	--	--	--	439	
All softwoods	446	604	595	431	223	209	98	--	--	--	--	2,606	
Hardwood species groups													
Eastern hardwood species groups													
Select white oaks	--	1,286	1,617	1,480	1,308	868	857	445	128	91	--	8,080	
Select red oaks	--	232	301	337	386	424	483	280	40	111	--	2,593	
Other white oaks	--	560	608	563	330	197	213	34	62	--	--	2,568	
Other red oaks	--	1,225	1,543	1,514	1,295	975	966	332	91	78	--	8,018	
Hickory	--	627	572	532	384	180	115	69	--	--	--	2,480	
Hard maple	--	61	78	63	55	30	50	--	--	--	--	337	
Soft maple	--	44	71	61	105	69	134	53	70	30	--	636	
Beech	--	--	5	--	6	--	--	--	--	--	--	11	
Sweetgum	--	5	6	8	13	9	--	--	--	--	--	41	
Tupelo and blackgum	--	22	34	26	37	18	29	--	--	--	--	167	
Ash	--	92	133	122	110	107	33	42	--	--	--	640	
Cottonwood and aspen	--	18	12	60	38	99	122	94	73	78	175	770	
Basswood	--	11	7	19	--	18	24	--	--	--	--	79	
Yellow-poplar	--	3	--	17	21	9	--	--	--	--	--	50	
Black walnut	--	126	234	225	147	130	119	66	24	--	--	1,073	
Other eastern soft hardwoods	--	235	286	332	270	280	363	221	182	56	--	2,225	
Other eastern hard hardwoods	--	75	108	58	53	20	28	--	--	--	--	342	
All hardwoods	--	4,621	5,617	5,418	4,559	3,432	3,538	1,636	670	444	175	30,110	
All species groups	446	5,225	6,212	5,849	4,781	3,641	3,636	1,636	670	444	175	32,717	

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the volume rounds to less than 1 million board feet. Columns and rows may not add to their totals due to rounding.

Table MO-20.—Net volume of saw-log portion of sawtimber trees, in million cubic feet, on timberland by species group and ownership group, Missouri, 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	329.0	1.3	42.3	277.6	650.1
Other yellow pines	--	--	--	4.1	4.1
Eastern white and red pines	--	--	8.6	--	8.6
Other eastern softwoods	9.7	2.7	2.7	146.8	161.9
All softwoods	338.8	4.0	53.6	428.5	824.8
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	283.9	65.6	142.9	1,988.3	2,480.6
Select red oaks	61.8	30.5	44.3	576.4	713.0
Other white oaks	56.1	16.4	27.8	675.2	775.5
Other red oaks	389.1	27.6	150.3	1,782.7	2,349.6
Hickory	42.6	12.1	46.5	659.7	760.9
Hard maple	5.7	0.6	4.2	95.1	105.7
Soft maple	0.2	0.6	35.1	154.1	190.1
Beech	--	--	--	3.4	3.4
Sweetgum	1.5	3.6	--	7.8	12.8
Tupelo and blackgum	6.8	--	1.0	44.0	51.7
Ash	1.9	3.5	5.0	187.8	198.1
Cottonwood and aspen	--	0.6	53.1	125.9	179.6
Basswood	2.0	--	--	20.8	22.8
Yellow-poplar	--	--	9.0	5.0	14.0
Black walnut	9.9	5.1	19.5	286.7	321.2
Other eastern soft hardwoods	23.4	16.3	17.7	595.4	652.9
Other eastern hard hardwoods	0.4	3.2	6.5	99.8	110.0
All hardwoods	885.3	185.8	562.8	7,308.0	8,941.9
All species groups					
	1,224.1	189.8	616.4	7,736.5	9,766.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-21.—Average annual net growth of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, by owner class and forest-land status, Missouri, 2003 to 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	40.1	0.3	40.3	0.0	--	0.0	40.3
Other Federal							
National Park Service	--	--	--	-0.6	--	-0.6	-0.6
Fish and Wildlife Service	0.3	--	0.3	--	--	--	0.3
Department of Defense or Energy	2.4	0.1	2.5	--	--	--	2.5
Other Federal	2.5	0.0	2.5	1.1	--	1.1	3.6
State and local government							
State	23.7	0.1	23.8	-0.3	--	-0.3	23.4
Local (county, municipal, etc.)	7.6	--	7.6	0.3	--	0.3	7.9
Other non-Federal lands	0.1	--	0.1	--	--	--	0.1
Private							
Undifferentiated private	455.4	3.2	458.7	0.0	--	0.0	458.7
All owners	532.1	3.7	535.8	0.5	--	0.5	536.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-22.—Average annual net growth of live trees (at least 5 inches d.b.h./d.r.c), in million cubic feet, on forest land by forest-type group and stand-size class, Missouri, 2003 to 2008

Forest-type group	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Non stocked	
White / red / jack pine group	0.2	--	--	--	--	0.2
Loblolly / shortleaf pine group	5.3	6.2	--	--	--	11.5
Other eastern softwoods group	2.0	4.3	4.7	--	--	11.0
Exotic softwoods group	1.1	--	--	--	--	1.1
Oak / pine group	19.5	12.5	3.6	--	--	35.6
Oak / hickory group	210.1	148.6	29.9	--	--	388.5
Oak / gum / cypress group	1.5	1.9	0.1	--	--	3.5
Elm / ash / cottonwood group	50.6	21.2	3.4	--	--	75.2
Maple / beech / birch group	1.0	0.9	0.3	--	--	2.2
Other hardwoods group	--	0.0	0.3	--	--	0.3
Nonstocked	--	--	--	--	7.2	7.2
All forest-type groups	291.4	195.6	42.1	--	7.2	536.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-23.—Average annual net growth of all live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and ownership group, Missouri, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	11.1	0.1	0.7	13.4	25.3
Other yellow pines	--	--	-0.1	1.0	0.9
Eastern white and red pines	--	--	0.1	0.2	0.3
Other eastern softwoods	1.5	1.0	0.5	28.8	31.7
All softwoods	12.6	1.1	1.2	43.4	58.2
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	13.4	1.1	5.9	86.3	106.7
Select red oaks	1.3	-2.0	1.0	17.1	17.4
Other white oaks	0.3	0.8	0.8	36.1	38.0
Other red oaks	6.1	1.3	4.9	74.5	86.8
Hickory	2.5	1.3	2.1	41.4	47.4
Hard maple	0.3	-0.4	0.6	9.3	9.8
Soft maple	0.2	0.1	1.9	7.9	10.1
Beech	--	--	0.0	0.1	0.1
Sweetgum	0.1	0.4	0.2	0.7	1.3
Tupelo and blackgum	0.6	0.0	0.1	2.0	2.8
Ash	0.1	0.3	1.2	12.7	14.2
Cottonwood and aspen	--	0.5	4.7	8.8	14.0
Basswood	0.2	0.0	0.0	0.2	0.4
Yellow-poplar	--	--	0.6	0.5	1.2
Black walnut	-0.2	0.8	1.6	26.2	28.5
Other eastern soft hardwoods	2.8	-0.1	3.1	62.2	68.0
Other eastern hard hardwoods	0.1	0.6	1.0	19.6	21.3
Eastern noncommercial hardwoods	0.0	0.1	0.3	9.7	10.1
All hardwoods	27.7	4.7	30.2	415.3	478.0
All species groups	40.3	5.8	31.4	458.7	536.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-24.—Average annual net growth of growing-stock trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on timberland by species group and ownership group, Missouri, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	11.5	0.7	2.8	13.3	28.3
Other yellow pines	--	--	-0.1	0.9	0.9
Eastern white and red pines	--	--	0.1	0.2	0.3
Other eastern softwoods	1.4	0.6	0.7	19.4	22.1
All softwoods	12.8	1.3	3.6	33.8	51.6
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	12.5	3.6	6.5	78.4	101.0
Select red oaks	1.6	1.0	1.0	18.1	21.8
Other white oaks	1.2	3.0	1.0	39.4	44.6
Other red oaks	8.9	1.6	7.8	74.3	92.6
Hickory	2.1	1.6	2.1	40.9	46.8
Hard maple	0.3	-0.5	0.5	9.0	9.3
Soft maple	0.2	0.2	4.8	9.9	15.0
Beech	--	--	0.0	0.1	0.2
Sweetgum	0.1	0.3	0.0	0.6	1.1
Tupelo and blackgum	0.5	0.0	0.1	1.8	2.4
Ash	0.1	0.4	1.1	10.8	12.3
Cottonwood and aspen	--	0.5	4.7	7.8	12.9
Basswood	0.2	0.0	--	0.3	0.4
Yellow-poplar	--	--	0.6	0.6	1.2
Black walnut	-0.1	0.7	3.0	21.8	25.4
Other eastern soft hardwoods	2.6	-0.3	2.3	52.4	57.0
Other eastern hard hardwoods	0.1	0.9	0.4	12.7	14.0
All hardwoods	30.3	13.1	36.0	378.8	458.1
All species groups					
	43.1	14.4	39.6	412.6	509.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-25.—Average annual mortality of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, by owner class and forest-land status, Missouri, 2003 to 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	19.2	0.1	19.3	2.5	--	2.5	21.8
Other Federal							
National Park Service	--	--	--	2.7	--	2.7	2.7
Department of Defense or Energy	0.4	--	0.4	--	--	--	0.4
Other Federal	5.9	--	5.9	0.3	--	0.3	6.2
State and local government							
State	9.0	--	9.0	2.9	--	2.9	11.8
Local (county, municipal, etc.)	0.5	--	0.5	0.1	--	0.1	0.6
Private							
Undifferentiated private	167.5	3.1	170.6	--	--	--	170.6
All owners	202.4	3.2	205.6	8.6	--	8.6	214.1

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-26.—Average annual mortality of trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by forest-type group and stand-size class, Missouri, 2003 to 2008

Forest-type group	Stand-size class				All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Non stocked
White / red / jack pine group	0.0	--	--	--	--
Loblolly / shortleaf pine group	1.4	0.1	--	--	--
Other eastern softwoods group	0.3	0.5	0.1	--	--
Exotic softwoods group	0.1	--	--	--	--
Oak / pine group	4.1	3.3	0.3	--	--
Oak / hickory group	125.5	51.6	3.1	--	--
Oak / gum / cypress group	0.4	0.0	--	--	--
Elm / ash / cottonwood group	18.8	3.5	0.3	--	--
Maple / beech / birch group	0.3	0.3	--	--	--
Nonstocked	--	--	--	--	0.1
All forest-type groups	150.9	59.5	3.8	--	0.1
					214.1

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-27.—Average annual mortality of trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and ownership group, Missouri, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	1.0	0.1	0.9	1.2	3.2
Other yellow pines	--	--	0.1	0.0	0.1
Eastern white and red pines	--	--	0.0	--	0.0
Other eastern softwoods	0.0	--	--	1.1	1.1
All softwoods	1.0	0.1	1.0	2.3	4.5
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	2.3	1.7	1.0	19.2	24.2
Select red oaks	2.0	2.9	0.9	14.3	20.1
Other white oaks	1.5	0.3	0.5	10.9	13.2
Other red oaks	12.8	1.3	5.3	58.4	77.8
Hickory	0.8	0.2	0.1	10.1	11.2
Hard maple	0.1	0.7	0.1	0.8	1.6
Soft maple	0.0	0.1	0.7	7.2	8.1
Sweetgum	--	--	0.1	0.1	0.1
Tupelo and blackgum	0.1	--	--	0.3	0.4
Ash	0.2	0.2	0.3	7.3	8.0
Cottonwood and aspen	--	0.0	--	1.2	1.2
Basswood	--	--	--	1.1	1.1
Yellow-poplar	--	--	--	0.0	0.0
Black walnut	0.5	0.0	--	3.1	3.7
Other eastern soft hardwoods	0.3	1.4	1.8	27.1	30.6
Other eastern hard hardwoods	0.1	0.2	0.7	6.2	7.3
Eastern noncommercial hardwoods	0.1	--	0.0	1.0	1.1
All hardwoods	20.8	9.2	11.4	168.3	209.7
All species groups	21.8	9.3	12.4	170.6	214.1

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-28.—Average annual mortality of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on timberland by species group and ownership group, Missouri, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	0.9	--	0.3	1.1	2.2
Other yellow pines	--	--	0.1	--	0.1
Eastern white and red pines	--	--	0.0	--	0.0
Other eastern softwoods	0.0	--	--	0.9	0.9
All softwoods	0.9	--	0.4	2.0	3.3
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	2.0	0.1	0.7	12.6	15.4
Select red oaks	1.2	0.4	0.7	9.0	11.3
Other white oaks	0.7	0.1	0.4	5.0	6.1
Other red oaks	8.5	0.6	3.3	42.7	55.1
Hickory	0.7	0.1	0.1	6.1	7.1
Hard maple	0.1	0.6	0.0	0.1	0.9
Soft maple	0.0	0.0	0.2	2.2	2.4
Sweetgum	--	--	0.1	0.0	0.1
Tupelo and blackgum	0.0	--	--	0.3	0.3
Ash	0.0	--	0.1	4.6	4.7
Cottonwood and aspen	--	--	--	0.7	0.7
Basswood	--	--	--	1.0	1.0
Black walnut	0.4	--	--	1.3	1.7
Other eastern soft hardwoods	0.2	1.3	1.1	13.1	15.8
Other eastern hard hardwoods	0.0	--	0.6	2.2	2.8
All hardwoods	13.9	3.2	7.3	101.0	125.4
All species groups					
	14.7	3.2	7.7	102.9	128.6

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-29.—Average annual removals of live trees (at least 5 inches d.b.h./d.r.c.), in million cubic feet, on forest land by species group and ownership group, Missouri, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	0.1	--	0.1	3.2	3.4
Other eastern softwoods	0.1	--	--	3.7	3.8
All softwoods	0.1	--	0.1	7.0	7.2
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	0.3	--	0.2	39.4	39.9
Select red oaks	0.2	--	--	10.0	10.2
Other white oaks	0.1	--	--	13.5	13.6
Other red oaks	2.8	--	1.2	52.4	56.5
Hickory	0.1	--	--	15.6	15.7
Hard maple	0.1	--	--	2.6	2.6
Soft maple	0.0	--	0.2	1.5	1.7
Sweetgum	--	--	--	1.7	1.7
Tupelo and blackgum	0.0	--	--	0.0	0.1
Ash	--	--	--	3.4	3.4
Cottonwood and aspen	--	--	--	4.6	4.6
Basswood	--	--	--	0.2	0.2
Black walnut	--	--	0.3	10.9	11.2
Other eastern soft hardwoods	0.0	--	0.9	20.4	21.3
Other eastern hard hardwoods	--	--	0.1	8.1	8.2
Eastern noncommercial hardwoods	--	--	0.5	1.3	1.8
All hardwoods	3.7	--	3.3	185.6	192.6
All species groups	3.8	--	3.4	192.5	199.8

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-30.—Average annual removals of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, on timberland by species group and ownership group, Missouri, 2003 to 2008

Species group	Ownership group				All owners
	Forest Service	Other Federal	State and local government	Undifferentiated private	
Softwood species groups					
Eastern softwood species groups					
Loblolly and shortleaf pines	0.1	--	0.2	3.4	3.7
Other eastern softwoods	0.3	--	--	3.1	3.4
All softwoods	0.4	--	0.2	6.5	7.1
Hardwood species groups					
Eastern hardwood species groups					
Select white oaks	0.4	--	1.5	36.1	37.9
Select red oaks	0.2	--	0.9	7.1	8.2
Other white oaks	0.2	--	0.0	12.5	12.7
Other red oaks	2.4	--	1.7	44.0	48.1
Hickory	0.2	--	0.8	13.4	14.4
Hard maple	0.1	--	0.0	2.5	2.6
Soft maple	0.0	--	0.2	1.2	1.4
Sweetgum	--	--	--	1.4	1.4
Tupelo and blackgum	0.0	--	0.6	0.0	0.7
Ash	--	--	--	3.2	3.2
Cottonwood and aspen	--	--	--	6.3	6.3
Basswood	--	--	--	0.2	0.2
Black walnut	--	--	0.7	8.0	8.7
Other eastern soft hardwoods	0.0	--	1.8	16.0	17.8
Other eastern hard hardwoods	--	--	0.1	3.9	4.0
All hardwoods	3.5	--	8.4	155.7	167.6
All species groups	3.9	--	8.6	162.2	174.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic feet. Columns and rows may not add to their totals due to rounding.

Table MO-31. – Aboveground dry weight of live trees (at least 1 inch d.b.h./d.r.c.), in thousand dry short tons, by owner class and forest-land status, Missouri, 2008

Owner class	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Forest Service							
National forest	64,826	207	65,033	3,398	84	3,482	68,515
Other Federal							
National Park Service	--	--	--	2,785	--	2,785	2,785
Fish and Wildlife Service	1,178	--	1,178	--	--	--	1,178
Department of Defense or Energy	4,424	90	4,515	--	--	--	4,515
Other Federal	5,313	--	5,313	--	--	--	5,313
State and local government							
State	30,060	109	30,169	2,351	--	2,351	32,520
Local (county, municipal, etc.)	2,956	--	2,956	--	--	--	2,956
Private							
Undifferentiated private	497,687	4,767	502,454	--	--	--	502,454
All owners	606,444	5,173	611,618	8,534	84	8,618	620,235

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the aboveground tree biomass rounds to less than 1 thousand dry tons. Columns and rows may not add to their totals due to rounding.

Table MO-32. – Aboveground dry weight of live trees (at least 1 inch d.b.h./d.r.c.), in thousand dry short tons, on forest land by species group and diameter class, Missouri, 2008

Species group	Diameter class (inches)																All classes	
	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	29.0+			
Softwood species groups																		
Eastern softwood species groups																		
Loblolly and shortleaf pines	120	459	1,041	2,214	3,285	3,983	3,259	2,196	961	876	260	140	--	--	--	18,795		
Other yellow pines	2	--	--	16	7	--	31	--	51	--	--	--	--	--	--	107		
Eastern white and red pines	--	--	--	8	--	44	87	20	--	--	--	--	--	--	--	159		
Other eastern softwoods	1,174	2,949	3,491	3,626	2,882	1,711	1,002	412	129	68	--	--	--	--	--	17,443		
All softwoods	1,297	3,409	4,532	5,864	6,173	5,738	4,379	2,628	1,141	944	260	140	--	--	--	36,505		
Hardwood species groups																		
Eastern hardwood species groups																		
Select white oaks	1,620	5,504	8,432	12,127	17,289	20,134	20,551	16,433	13,650	8,915	5,332	3,512	3,067	1,479	3,146	141,192		
Select red oaks	305	874	1,433	2,150	2,636	3,706	3,776	3,927	3,488	3,588	2,372	1,265	1,360	868	1,615	33,364		
Other white oaks	838	3,204	5,891	9,551	10,896	10,138	9,027	7,426	4,833	2,955	1,746	847	79	377	808	68,617		
Other red oaks	1,834	4,843	7,435	12,059	16,251	19,080	19,517	16,370	12,472	9,294	4,888	3,789	1,970	1,324	1,826	132,954		
Hickory	2,873	6,184	7,903	9,948	10,807	10,419	7,921	6,237	3,886	1,956	770	261	613	104	139	70,022		
Hard maple	648	1,626	1,322	1,298	1,493	1,185	984	772	505	357	377	80	161	143	--	10,952		
Soft maple	572	600	482	644	863	676	920	594	881	631	610	344	250	253	919	9,238		
Beech	5	--	8	7	8	--	47	25	46	--	62	--	--	--	253	462		
Sweetgum	40	42	60	56	126	54	53	65	94	56	76	--	--	--	--	722		
Tupelo and blackgum	514	714	482	369	366	286	359	219	294	195	210	101	--	--	--	4,109		
Ash	666	1,079	1,362	1,599	2,123	1,705	1,848	1,345	967	896	197	123	158	227	--	14,296		
Cottonwood and aspen	26	30	59	118	87	188	111	385	226	479	414	153	88	343	1,336	4,045		
Basswood	16	9	44	72	84	113	44	111	31	74	43	48	--	--	81	770		
Yellow-poplar	6	16	15	13	15	27	--	105	110	47	--	--	--	--	--	354		
Black walnut	119	492	844	1,477	1,933	2,182	2,678	2,184	1,287	1,087	312	440	139	296	201	15,670		
Other eastern soft hardwoods	3,388	6,016	5,600	5,801	4,919	4,264	3,597	3,372	2,529	2,194	1,123	1,241	1,033	219	1,172	46,470		
Other eastern hard hardwoods	2,432	3,420	1,934	2,221	2,331	2,137	1,913	1,021	1,125	786	581	202	181	106	322	20,712		
Eastern noncommercial hardwoods	1,401	1,576	1,397	1,291	1,034	957	550	523	347	123	--	216	142	153	72	9,782		
All hardwoods	17,305	36,229	44,701	60,803	73,260	77,251	73,898	61,115	46,773	33,634	19,115	12,621	9,242	5,891	11,892	583,730		
All species groups	18,601	39,638	49,234	66,667	79,433	82,989	78,277	63,743	47,913	34,578	19,375	12,761	9,242	5,891	11,892	620,235		

All table cells without observations in the inventory sample are indicated by --. Table value of 0 indicates the aboveground tree biomass rounds to less than 1 thousand dry tons. Columns and rows may not add to their totals due to rounding.

Table MO-54.—Area of forest land, in thousand acres, by inventory unit, county, and forest-land status, Missouri, 2008

Inventory unit and county	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Eastern Ozarks							
Butler	155.5	--	155.5	--	--	--	155.5
Carter	269.9	--	269.9	12.8	--	12.8	282.7
Crawford	319.5	--	319.5	--	--	--	319.5
Dent	321.8	--	321.8	--	--	--	321.8
Iron	257.0	3.2	260.2	6.4	3.2	9.5	269.7
Madison	227.2	--	227.2	3.2	--	3.2	230.3
Oregon	305.8	--	305.8	25.2	--	25.2	331.0
Reynolds	443.1	--	443.1	--	--	--	443.1
Ripley	283.8	--	283.8	--	--	--	283.8
St. Francois	156.6	--	156.6	6.7	--	6.7	163.3
Shannon	456.5	--	456.5	44.3	--	44.3	500.8
Washington	405.5	--	405.5	--	--	--	405.5
Wayne	387.5	8.0	395.5	4.5	--	4.5	400.0
Total	3,989.6	11.2	4,000.8	103.1	3.2	106.3	4,107.1
Southwestern Ozarks							
Barry	210.3	4.8	215.1	9.5	--	9.5	224.6
Christian	161.0	4.4	165.4	--	--	--	165.4
Douglas	315.4	--	315.4	--	--	--	315.4
Howell	281.3	--	281.3	3.2	--	3.2	284.5
McDonald	176.7	--	176.7	--	--	--	176.7
Newton	100.2	--	100.2	--	--	--	100.2
Ozark	293.2	--	293.2	6.4	--	6.4	299.5
Stone	183.2	--	183.2	3.2	--	3.2	186.4
Taney	266.0	10.0	276.0	19.1	--	19.1	295.0
Texas	438.1	3.2	441.4	3.2	--	3.2	444.5
Webster	149.3	--	149.3	--	--	--	149.3
Wright	193.8	7.2	201.1	--	--	--	201.1
Total	2,768.4	29.6	2,798.1	44.5	--	44.5	2,842.6

(Table MO-54 continued on next page)

(Table MO-54 continued)

Inventory unit and county	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Northwestern Ozarks							
Benton	235.8	--	235.8	--	--	--	235.8
Camden	254.2	10.2	264.4	6.3	--	6.3	270.7
Cedar	90.4	--	90.4	--	--	--	90.4
Dallas	159.0	--	159.0	--	--	--	159.0
Hickory	135.4	5.7	141.0	--	--	--	141.0
Laclede	234.5	4.7	239.2	--	--	--	239.2
Maries	160.6	4.4	165.0	--	--	--	165.0
Miller	199.8	5.9	205.6	3.1	--	3.1	208.7
Morgan	187.7	--	187.7	--	--	--	187.7
Phelps	269.3	5.9	275.1	--	--	--	275.1
Polk	139.9	--	139.9	--	--	--	139.9
Pulaski	234.0	--	234.0	--	--	--	234.0
St. Clair	171.3	24.4	195.6	--	--	--	195.6
Total	2,471.9	61.0	2,532.9	9.4	--	9.4	2,542.3

(Table MO-54 continued on next page)

(Table MO-54 continued)

Inventory unit and county	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Prairie							
Adair	77.7	--	77.7	--	--	--	77.7
Andrew	38.5	2.6	41.1	--	--	--	41.1
Atchison	27.6	--	27.6	--	--	--	27.6
Audrain	41.3	--	41.3	--	--	--	41.3
Barton	40.0	--	40.0	5.2	--	5.2	45.2
Bates	77.6	--	77.6	--	--	--	77.6
Buchanan	51.9	--	51.9	--	--	--	51.9
Caldwell	14.8	--	14.8	--	--	--	14.8
Carroll	44.0	--	44.0	--	--	--	44.0
Cass	75.2	--	75.2	--	--	--	75.2
Chariton	58.4	--	58.4	--	--	--	58.4
Clark	70.5	8.0	78.4	--	--	--	78.4
Clay	21.6	--	21.6	--	--	--	21.6
Clinton	4.3	--	4.3	--	--	--	4.3
Cooper	76.4	--	76.4	--	--	--	76.4
Dade	77.4	--	77.4	--	--	--	77.4
Daviess	46.6	--	46.6	--	--	--	46.6
DeKalb	23.2	--	23.2	--	--	--	23.2
Gentry	62.3	--	62.3	--	--	--	62.3
Greene	93.7	--	93.7	--	--	--	93.7
Grundy	27.2	--	27.2	9.8	--	9.8	37.0
Harrison	84.8	--	84.8	--	--	--	84.8
Henry	92.9	--	92.9	--	--	--	92.9
Holt	33.2	--	33.2	--	--	--	33.2
Jackson	67.8	--	67.8	--	--	--	67.8
Jasper	61.2	--	61.2	--	--	--	61.2
Johnson	93.8	--	93.8	--	--	--	93.8
Knox	49.1	--	49.1	--	--	--	49.1
Lafayette	22.8	--	22.8	--	--	--	22.8
Lawrence	84.2	--	84.2	--	--	--	84.2
Lewis	76.3	--	76.3	--	--	--	76.3
Lincoln	120.8	--	120.8	--	--	--	120.8
Linn	36.0	--	36.0	--	--	--	36.0

(Table MO-54 continued on next page)

(Table MO-54 continued)

Inventory unit and county	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Prairie							
Livingston	48.1	--	48.1	--	--	--	48.1
Macon	102.0	2.5	104.5	--	--	--	104.5
Marion	52.9	1.8	54.8	--	--	--	54.8
Mercer	74.8	--	74.8	--	--	--	74.8
Monroe	95.5	--	95.5	--	--	--	95.5
Nodaway	39.6	--	39.6	--	--	--	39.6
Pettis	82.7	--	82.7	--	--	--	82.7
Pike	128.8	--	128.8	--	--	--	128.8
Platte	59.4	--	59.4	--	--	--	59.4
Putnam	78.3	--	78.3	--	--	--	78.3
Ralls	70.3	--	70.3	--	--	--	70.3
Randolph	61.8	--	61.8	--	--	--	61.8
Ray	55.6	--	55.6	--	--	--	55.6
Saline	57.1	--	57.1	--	--	--	57.1
Schuyler	42.9	--	42.9	--	--	--	42.9
Scotland	52.0	--	52.0	--	--	--	52.0
Shelby	72.1	--	72.1	--	--	--	72.1
Sullivan	102.4	--	102.4	--	--	--	102.4
Vernon	91.5	--	91.5	--	--	--	91.5
Worth	9.0	--	9.0	--	--	--	9.0
Total	3,249.9	14.8	3,264.7	15.0	--	15.0	3,279.7

(Table MO-54 continued on next page)

(Table MO-54 continued)

Inventory unit and county Riverborder	Unreserved forests			Reserved forests			All forest land
	Timberland	Unproductive	Total	Productive	Unproductive	Total	
Boone	172.7	--	172.7	--	--	--	172.7
Callaway	192.8	2.3	195.2	--	--	--	195.2
Cape Girardeau	96.4	--	96.4	--	--	--	96.4
Cole	77.6	4.2	81.9	--	--	--	81.9
Dunklin	7.8	--	7.8	--	--	--	7.8
Franklin	272.2	--	272.2	4.0	--	4.0	276.2
Gasconade	163.1	6.8	169.9	--	--	--	169.9
Howard	71.2	--	71.2	--	--	--	71.2
Jefferson	232.1	--	232.1	--	--	--	232.1
Mississippi	12.3	--	12.3	--	--	--	12.3
Moniteau	83.3	--	83.3	--	--	--	83.3
Montgomery	132.9	--	132.9	--	--	--	132.9
New Madrid	22.5	--	22.5	--	--	--	22.5
Osage	146.7	7.4	154.1	--	--	--	154.1
Pemiscot	5.7	--	5.7	--	--	--	5.7
Perry	87.2	5.1	92.2	--	--	--	92.2
St. Charles	88.7	--	88.7	--	--	--	88.7
Ste. Genevieve	178.3	22.1	200.4	--	--	--	200.4
St. Louis	72.5	--	72.5	5.4	--	5.4	77.9
Scott	25.7	--	25.7	--	--	--	25.7
Stoddard	59.1	--	59.1	--	--	--	59.1
Warren	133.1	--	133.1	--	--	--	133.1
Total	2,333.8	47.9	2,381.6	9.4	--	9.4	2,391.1
All counties	14,813.6	164.5	14,978.1	181.5	3.2	184.6	15,162.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-55.—Area of forest land, in thousand acres, by inventory unit, county, ownership group and forest-land status, Missouri, 2008

Inventory unit and county	Forest Service				Other Federal				State and local government				Undifferentiated private			
	Timber-		Other forest		Timber-		Other forest		Timber-		Other forest		Timber-		Other forest	
	land	land	land	land	land	land	land	land	land	land	land	land	land	land	land	land
Eastern Ozarks																
Butler	46.3		--	--	--		15.5	--	--	93.8	--	--		155.5	--	--
Carter	81.2		--	--	12.8		25.6	--	--	163.1	--	--		282.7	--	--
Crawford	44.0		--	--	--		14.7	--	--	260.7	--	--		319.5	--	--
Dent	77.6		--	--	--		26.7	--	--	217.5	--	--		321.8	--	--
Iron	61.7	12.7	--	--	--		7.1	--	--	188.2	--	--		269.7	--	--
Madison	58.7	3.2	--	--	--		--	--	--	168.5	--	--		230.3	--	--
Oregon	88.8	22.0	--	--	3.2		--	--	--	217.0	--	--		331.0	--	--
Reynolds	88.9	--	--	14.4	--		55.1	--	--	284.8	--	--		443.1	--	--
Ripley	102.1	--	--	--	--		10.8	--	--	170.9	--	--		283.8	--	--
St. Francois	3.2	--	--	--	--		--	--	6.7	153.4	--	--		163.3	--	--
Shannon	69.4	--	--	--	44.3		126.1	--	--	261.0	--	--		500.8	--	--
Washington	95.3	--	--	--	--		23.5	--	--	286.7	--	--		405.5	--	--
Wayne	99.2	--	--	45.2	--		17.8	--	4.5	225.3	8.0	--		400.0	--	--
Total	916.4	37.9	59.6	60.3	322.8	11.3	2,690.9	8.0	4,107.1							
Southwestern Ozarks																
Barry	44.7	13.1	--	--	10.2	--	--	--	--	155.4	1.2	--		224.6	--	--
Christian	55.6	--	--	--	--		--	--	--	105.4	4.4	--		165.4	--	--
Douglas	38.0	--	--	--	5.0	--	--	--	--	272.4	--	--		315.4	--	--
Howell	50.3	3.2	--	--	5.0	--	--	--	--	226.0	--	--		284.5	--	--
McDonald	--	--	--	--	8.1	--	--	--	--	168.5	--	--		176.7	--	--
Newton	--	--	5.5	--	5.1	--	--	--	--	89.7	--	--		100.2	--	--
Ozark	43.9	6.4	13.5	--	4.9	--	--	--	--	230.9	--	--		299.5	--	--
Stone	16.8	3.2	3.2	--	9.6	--	--	--	--	153.6	--	--		186.4	--	--
Taney	45.3	19.1	1.9	--	19.0	--	--	--	--	199.8	10.0	--		295.0	--	--
Texas	45.2	3.2	--	--	10.0	--	--	--	--	382.9	3.2	--		444.5	--	--
Webster	--	--	--	--	3.8	--	--	--	--	145.5	--	--		149.3	--	--
Wright	6.4	--	--	--	--		--	--	1.7	187.5	5.6	--		201.1	--	--
Total	346.1	48.0	24.0	--	80.7	1.7	2,317.6	24.4	2,842.6							

(Table MO-55 continued on next page)

(Table MO-55 continued)

Inventory unit and county	Forest Service			Other Federal			State and local government			Undifferentiated private			All forest land
	Timber-land	Other forest land		Timber-land	Other forest land		Timber-land	Other forest land		Timber-land	Other forest land		
Northwestern Ozarks													
Benton	--	--		21.7	--	--	--	--	--	214.1	--	--	235.8
Camden	--	--		--	--	--	--	--	6.3	254.2	10.2	--	270.7
Cedar	--	--		5.9	--	--	--	--	--	84.5	--	--	90.4
Dallas	--	--		--	--	--	8.6	--	--	150.4	--	--	159.0
Hickory	--	--		9.3	--	--	7.3	--	--	118.8	5.7	--	141.0
Laclede	34.3	--		--	--	--	8.6	--	--	191.6	4.7	--	239.2
Maries	--	--		--	--	--	--	--	--	160.6	4.4	--	165.0
Miller	--	--		--	--	--	8.7	--	3.1	191.1	5.9	--	208.7
Morgan	--	--		--	--	--	--	--	--	187.7	--	--	187.7
Phelps	54.0	--		--	--	--	4.6	--	--	210.6	5.9	--	275.1
Polk	--	--		6.5	--	--	--	--	--	133.5	--	--	139.9
Pulaski	47.3	--		51.8	--	--	--	--	--	134.9	--	--	234.0
St. Clair	--	--		6.8	6.8	--	4.7	--	--	159.7	17.6	--	195.6
Total	135.6	--		101.9	6.8	--	42.6	--	9.4	2,191.7	54.2	--	2,542.3

(Table MO-55 continued on next page)

(Table MO-55 continued)

Inventory unit and county	Forest Service		Other Federal		State and local government		Undifferentiated private		All forest land
	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	
Prairie									
Adair	--	--	--	--	2.9	--	74.7	--	77.7
Andrew	--	--	--	--	--	--	38.5	2.6	41.1
Atchison	--	--	2.8	--	2.2	--	22.6	--	27.6
Audrain	--	--	--	--	--	--	41.3	--	41.3
Barton	--	--	--	--	--	5.2	40.0	--	45.2
Bates	--	--	--	--	--	--	77.6	--	77.6
Buchanan	--	--	--	--	--	--	51.9	--	51.9
Caldwell	--	--	--	--	--	--	14.8	--	14.8
Carroll	--	--	--	--	7.1	--	36.9	--	44.0
Cass	--	--	--	--	9.6	--	65.6	--	75.2
Chariton	--	--	--	--	--	--	58.4	--	58.4
Clark	--	--	--	--	--	--	70.5	8.0	78.4
Clay	--	--	1.2	--	5.9	--	14.5	--	21.6
Clinton	--	--	--	--	--	--	4.3	--	4.3
Cooper	--	--	--	--	--	--	76.4	--	76.4
Dade	--	--	23.7	--	--	--	53.7	--	77.4
Daviess	--	--	--	--	4.2	--	42.4	--	46.6
DeKalb	--	--	--	--	--	--	23.2	--	23.2
Gentry	--	--	--	--	--	--	62.3	--	62.3
Greene	--	--	--	--	6.9	--	86.8	--	93.7
Grundy	--	--	--	--	--	9.8	27.2	--	37.0
Harrison	--	--	--	--	--	--	84.8	--	84.8
Henry	--	--	24.5	--	5.4	--	63.1	--	92.9
Holt	--	--	--	--	--	--	33.2	--	33.2
Jackson	--	--	7.5	--	16.1	--	44.1	--	67.8
Jasper	--	--	--	--	--	--	61.2	--	61.2
Johnson	--	--	6.8	--	6.8	--	80.1	--	93.8
Knox	--	--	--	--	--	--	49.1	--	49.1
Lafayette	--	--	--	--	--	--	22.8	--	22.8
Lawrence	--	--	--	--	--	--	84.2	--	84.2
Lewis	--	--	--	--	8.5	--	67.8	--	76.3
Lincoln	--	--	--	--	4.4	--	116.4	--	120.8
Linn	--	--	--	--	--	--	36.0	--	36.0

(Table MO-55 continued on next page)

(Table MO-55 continued)

Inventory unit and county	Forest Service		Other Federal		State and local government		Undifferentiated private		All forest land
	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	
Prairie									
Livingston	--	--	--	--	--	--	48.1	--	48.1
Macon	--	--	3.7	--	4.0	--	94.4	2.5	104.5
Marion	--	--	--	--	--	--	52.9	1.8	54.8
Mercer	--	--	--	--	--	--	74.8	--	74.8
Monroe	--	--	18.9	--	--	--	76.6	--	95.5
Nodaway	--	--	--	--	--	--	39.6	--	39.6
Pettis	--	--	--	--	--	--	82.7	--	82.7
Pike	--	--	--	--	2.7	--	126.1	--	128.8
Platte	--	--	--	--	3.7	--	55.8	--	59.4
Putnam	--	--	--	--	6.9	--	71.4	--	78.3
Ralls	--	--	--	--	--	--	70.3	--	70.3
Randolph	--	--	--	--	--	--	61.8	--	61.8
Ray	--	--	--	--	3.4	--	52.2	--	55.6
Saline	--	--	--	--	11.1	--	46.0	--	57.1
Schuyler	--	--	--	--	--	--	42.9	--	42.9
Scotland	--	--	--	--	6.7	--	45.3	--	52.0
Shelby	--	--	--	--	6.9	--	65.2	--	72.1
Sullivan	--	--	--	--	19.6	--	82.7	--	102.4
Vernon	--	--	--	--	--	--	91.5	--	91.5
Worth	--	--	--	--	--	--	9.0	--	9.0
Total	--	--	89.1	--	144.8	15.0	3,016.0	14.8	3,279.7

(Table MO-55 continued on next page)

(Table MO-55 continued)

Inventory unit and county	Forest Service		Other Federal		State and local government		Undifferentiated private		
	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	Timber-land	Other forest land	All forest land
Riverborder									
Boone	4.8	--	--	--	19.9	--	148.1	--	172.7
Callaway	8.7	--	2.5	--	--	--	181.6	2.3	195.2
Cape Girardeau	--	--	--	--	9.6	--	86.8	--	96.4
Cole	--	--	--	--	--	--	77.6	4.2	81.9
Dunklin	--	--	--	--	--	--	7.8	--	7.8
Franklin	--	--	--	--	19.1	4.0	253.0	--	276.2
Gasconade	--	--	--	--	--	--	163.1	6.8	169.9
Howard	--	--	5.1	--	4.9	--	61.2	--	71.2
Jefferson	--	--	--	--	1.4	--	230.7	--	232.1
Mississippi	--	--	--	--	--	--	12.3	--	12.3
Moniteau	--	--	--	--	5.4	--	77.9	--	83.3
Montgomery	--	--	--	--	--	--	132.9	--	132.9
New Madrid	--	--	4.3	--	7.3	--	10.9	--	22.5
Osage	--	--	--	--	--	--	146.7	7.4	154.1
Pemiscot	--	--	--	--	--	--	5.7	--	5.7
Perry	--	--	--	--	--	--	87.2	5.1	92.2
St. Charles	--	--	--	--	15.9	--	72.9	--	88.7
Ste. Genevieve	14.5	--	--	--	7.5	--	156.4	22.1	200.4
St. Louis	--	--	--	--	26.8	5.4	45.7	--	77.9
Scott	--	--	--	--	8.2	--	17.5	--	25.7
Stoddard	--	--	9.1	--	4.0	--	46.0	--	59.1
Warren	--	--	--	--	14.8	--	118.3	--	133.1
Total	27.9	--	20.9	--	144.8	9.4	2,140.1	47.9	2,391.1
All counties	1,426.1	86.0	295.5	67.1	735.7	46.8	12,356.2	149.3	15,162.7

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-56.—Area of forest land, in thousand acres, by inventory unit, county, and forest-type group, Missouri, 2008

Forest type group																
Forest Survey Unit	County	White-red-jack pine	Loblolly-shortleaf pine	Other		Oak				Elm-ash-cottonwood		Maple-beech-birch		Other hardwoods	Nonstocked	All classes
				eastern softwoods	Exotic softwoods	pine	hickory	cypress	oak-gum	elm-ash-cottonwood	birch					
Eastern Ozarks																
	Bollinger	--	4.4	--	--	--	224.8	--	--	5.0	--	--	--	--	234.1	
	Butler	--	2.4	--	--	22.6	102.7	8.4	--	19.5	--	--	--	--	155.5	
	Carter	--	23.9	--	--	22.5	236.3	--	--	--	--	--	--	--	282.7	
	Crawford	--	--	2.2	--	11.2	290.1	--	--	16.0	--	--	--	--	319.5	
	Dent	--	3.5	5.3	--	26.5	283.6	--	--	2.9	--	--	--	--	321.8	
	Iron	--	3.2	11.0	--	1.2	247.7	--	--	--	6.6	--	--	--	269.7	
	Madison	--	8.7	--	--	29.4	187.2	--	--	5.0	--	--	--	--	230.3	
	Oregon	--	3.2	--	--	35.1	292.7	--	--	--	--	--	--	--	331.0	
	Reynolds	--	7.4	6.5	--	39.7	367.3	--	--	22.3	--	--	--	--	443.1	
	Ripley	--	13.3	--	--	16.7	233.5	--	--	14.6	5.6	--	--	--	283.8	
	St. Francois	--	3.2	15.4	--	16.5	124.5	--	--	3.8	--	--	--	--	163.3	
	Shannon	--	23.2	--	--	36.9	432.0	--	--	8.6	--	--	--	--	500.8	
	Washington	--	12.6	10.0	--	67.6	305.7	--	--	9.5	--	--	--	--	405.5	
	Wayne	--	12.9	4.5	--	27.8	347.9	--	--	6.9	--	--	--	--	400.0	
	Total	--	122.0	54.9	--	353.6	3,676.1	8.4	--	114.1	12.3	--	--	--	4,341.3	
Southwestern Ozarks																
	Barry	--	6.3	15.5	--	28.0	173.3	--	--	--	--	--	--	1.6	224.6	
	Christian	--	--	4.8	--	34.8	118.6	--	--	0.5	--	6.6	--	--	165.4	
	Douglas	--	9.4	5.3	--	14.2	281.0	--	--	5.5	--	--	--	--	315.4	
	Howell	--	14.4	--	--	9.6	253.7	6.7	--	--	--	--	--	--	284.5	
	McDonald	--	--	--	--	--	173.8	--	--	2.9	--	--	--	--	176.7	
	Newton	--	--	3.1	--	--	97.1	--	--	--	--	--	--	--	100.2	
	Ozark	--	1.3	12.4	--	30.3	243.6	--	--	10.7	--	--	1.3	--	299.5	
	Stone	--	--	10.8	--	35.8	136.6	--	--	--	--	--	3.2	--	186.4	
	Taney	--	--	33.3	--	60.3	196.6	--	--	4.7	--	--	--	--	295.0	
	Texas	--	39.9	3.1	--	28.6	369.0	--	--	3.9	--	--	--	--	444.5	
	Webster	--	--	3.3	--	8.3	137.7	--	--	--	--	--	--	--	149.3	
	Wright	--	--	12.4	--	16.6	163.6	--	--	8.4	--	--	--	--	201.1	
	Total	--	71.2	104.0	--	266.5	2,344.8	6.7	--	36.6	--	6.6	6.1	--	2,842.6	
Northwestern Ozarks																
	Benton	--	--	0.5	--	13.7	218.0	--	--	3.6	--	--	--	--	235.8	
	Camden	--	--	7.9	--	6.9	250.4	--	--	4.0	1.6	--	--	--	270.7	
	Cedar	--	--	9.9	--	1.6	65.8	--	--	13.1	--	--	--	--	90.4	
	Dallas	--	--	5.3	--	3.8	139.3	4.6	--	6.1	--	--	--	--	159.0	
	Hickory	--	--	9.5	--	14.1	117.4	--	--	--	--	--	--	--	141.0	

(Table MO-56 continued on next page)

(Table MO-56 continued)

Forest Survey Unit	County	Forest type group											
		White-red-jack pine	Loblolly-shortleaf pine	Other eastern softwoods	Exotic softwoods	Oak-pine	Oak-hickory	Oak-gum cypress	Elm-ash-cottonwood	Maple-beech-birch	Other hardwoods	Nonstocked	All classes
Laclede	--	--	1.6	3.3	--	11.7	221.4	--	1.3	--	--	--	239.2
Maries	--	--	--	5.9	--	14.5	137.5	--	--	7.2	--	--	165.0
Miller	--	--	--	--	--	1.8	192.4	--	14.4	--	--	--	208.7
Morgan	--	--	--	--	--	--	176.5	--	6.4	--	--	4.7	187.7
Phelps	--	--	3.2	1.6	--	23.7	238.5	1.3	5.4	1.5	--	--	275.1
Polk	--	--	--	8.1	--	0.1	125.5	--	6.2	--	--	--	139.9
Pulaski	--	--	--	--	--	15.1	202.0	1.6	10.4	4.8	--	--	234.0
St. Clair	--	--	--	2.5	--	3.6	171.9	--	14.4	--	3.3	--	195.6
Total	--	--	4.8	54.5	--	110.6	2,256.6	7.5	85.4	15.1	3.3	4.7	2,542.3
Prairie													
Adair	--	--	--	--	--	6.4	71.3	--	--	--	--	--	77.7
Andrew	--	--	--	--	--	5.6	16.1	--	12.0	--	--	7.4	41.1
Atchison	--	--	--	--	--	--	21.2	--	6.4	--	--	--	27.6
Audrain	--	--	--	--	--	--	25.0	5.0	11.3	--	--	--	41.3
Barton	--	--	--	5.0	--	--	24.3	--	14.7	--	--	1.2	45.2
Bates	--	--	--	--	--	--	62.5	2.1	13.0	--	--	--	77.6
Buchanan	--	--	--	--	--	--	26.7	--	25.3	--	--	--	51.9
Caldwell	--	--	--	--	--	--	14.8	--	--	--	--	--	14.8
Carroll	--	--	--	6.8	--	--	37.2	--	--	--	--	--	44.0
Cass	--	--	--	--	--	--	50.0	--	25.2	--	--	--	75.2
Chariton	--	--	--	--	--	--	33.8	--	24.6	--	--	--	58.4
Clark	--	--	--	--	--	3.9	68.5	--	6.0	--	--	--	78.4
Clay	--	--	--	--	--	--	11.6	--	10.0	--	--	--	21.6
Clinton	--	--	--	--	--	--	4.3	--	--	--	--	--	4.3
Cooper	--	--	--	--	--	9.0	35.4	--	20.5	11.5	--	--	76.4
Dade	--	--	--	3.9	--	--	73.5	--	--	--	--	--	77.4
Daviess	--	--	--	2.5	--	--	35.8	--	6.1	2.2	--	--	46.6
DeKalb	--	--	--	--	--	--	15.6	--	7.6	--	--	--	23.2
Gentry	--	--	--	--	--	--	57.2	--	5.1	--	--	--	62.3
Greene	--	--	--	1.2	--	--	86.0	--	6.4	--	--	--	93.7
Grundy	--	--	--	--	--	0.7	30.0	--	6.4	--	--	--	37.0
Harrison	--	--	--	1.3	--	5.1	67.9	--	10.5	--	--	--	84.8
Henry	--	--	--	--	--	2.8	65.1	5.4	19.6	--	--	--	92.9
Holt	--	--	--	--	--	--	24.8	--	8.4	--	--	--	33.2
Jackson	--	--	--	--	--	--	51.2	--	15.1	--	--	1.4	67.8
Jasper	--	--	--	--	--	--	45.8	--	15.4	--	--	--	61.2

(Table MO-56 continued on next page)

(Table MO-56 continued)

Forest Survey Unit	County	Forest type group											All classes
		White-red-jack pine	Loblolly-shortleaf pine	Other eastern softwoods	Exotic softwoods	Oak-pine	Oak-hickory	Oak-gum cypress	Elm-ash-cottonwood	Maple-beech-birch	Other hardwoods	Nonstocked	
Johnson		--	--	11.0	--	--	73.4	--	9.4	--	--	--	93.8
Knox		--	--	--	--	--	30.5	--	18.6	--	--	--	49.1
Lafayette		--	--	--	--	--	17.5	--	5.3	--	--	--	22.8
Lawrence		--	--	--	--	--	83.8	--	--	--	--	0.5	84.2
Lewis		--	--	8.5	--	6.5	50.2	--	11.1	--	--	--	76.3
Lincoln		--	--	--	--	--	106.8	--	6.1	7.9	--	--	120.8
Linn		--	--	--	--	--	28.2	--	7.8	--	--	--	36.0
Livingston		--	--	--	--	6.2	30.6	--	11.2	--	--	--	48.1
Macon		--	--	--	--	--	92.8	--	11.7	--	--	--	104.5
Marion		--	--	1.8	--	--	45.2	--	7.7	--	--	--	54.8
Mercer		--	--	--	--	--	73.5	--	--	--	--	1.3	74.8
Monroe		--	--	--	--	7.2	67.8	--	20.5	--	--	--	95.5
Nodaway		--	--	--	--	--	30.3	--	9.3	--	--	--	39.6
Pettis		--	--	--	--	--	78.7	--	4.0	--	--	--	82.7
Pike		--	--	--	--	--	114.9	--	14.0	--	--	--	128.8
Platte		--	--	--	--	--	52.6	--	6.9	--	--	--	59.4
Putnam		--	--	--	--	--	73.4	--	4.9	--	--	--	78.3
Ralls		--	--	--	--	7.6	55.2	--	7.6	--	--	--	70.3
Randolph		--	--	--	--	--	61.8	--	--	--	--	--	61.8
Ray		--	--	--	--	--	40.6	--	15.0	--	--	--	55.6
Saline		--	--	--	--	--	41.8	--	15.3	--	--	--	57.1
Schuyler		--	--	1.6	--	--	41.3	--	--	--	--	--	42.9
Scotland		--	--	--	--	--	40.4	--	11.6	--	--	--	52.0
Shelby		--	--	--	--	--	46.3	--	20.7	--	--	5.1	72.1
Sullivan		--	--	7.5	--	--	74.7	--	20.1	--	--	--	102.4
Vernon		--	--	--	--	--	48.4	--	43.1	--	--	--	91.5
Worth		--	--	--	--	--	9.0	--	--	--	--	--	9.0
Total		--	--	51.2	--	61.0	2,565.1	12.5	551.4	21.6	--	16.9	3,279.7
Riverborder													
Boone		--	--	6.8	--	21.2	115.7	--	29.1	--	--	--	172.7
Callaway		--	--	3.9	--	9.6	158.8	2.4	17.0	--	--	3.4	195.2
Cape Girarde		--	--	--	--	--	81.9	--	9.1	5.4	--	--	96.4
Cole		--	--	15.7	--	11.0	50.3	--	3.8	--	--	1.1	81.9
Dunklin		--	--	--	--	--	6.2	--	1.6	--	--	--	7.8
Franklin		--	--	13.6	--	32.8	212.7	--	14.5	--	--	2.7	276.2
Gasconade		--	--	9.2	--	8.1	142.6	--	8.3	--	--	1.7	169.9

(Table MO-56 continued on next page)

(Table MO-56 continued)

Forest type group																
Forest Survey Unit	County	White-red- jack pine	Loblolly- shortleaf pine		Other eastern softwoods		Exotic softwoods	Oak- pine	Oak- hickory	Oak-gum cypress	Elm-ash- cottonwood	Maple- beech- birch		Other hardwoods	Nonstocked	All classes
	Howard	--	--	--	--	--	--	--	53.0	--	18.2	--	--	--	--	71.2
	Jefferson	--	7.4	25.2	4.8	20.5	168.4	--	168.4	--	5.9	--	--	--	--	232.1
	Mississippi	--	--	--	--	--	--	--	--	--	12.3	--	--	--	--	12.3
	Moniteau	--	--	--	--	5.4	72.5	--	72.5	--	5.4	--	--	--	--	83.3
	Montgomery	--	--	7.9	--	11.9	103.6	--	103.6	--	9.4	--	--	--	--	132.9
	New Madrid	--	--	--	--	--	4.3	--	4.3	--	18.2	--	--	--	--	22.5
	Osage	--	--	7.6	--	5.4	133.4	--	133.4	--	7.6	--	--	--	--	154.1
	Pemiscot	--	--	--	--	--	--	--	--	--	1.4	--	--	--	4.2	5.7
	Perry	--	--	1.7	--	0.8	83.0	--	83.0	--	6.8	--	--	--	--	92.2
	St. Charles	--	--	8.3	--	--	50.6	--	50.6	--	12.8	17.0	--	--	--	88.7
	Ste. Genevieve	--	2.0	2.0	--	32.0	162.5	--	162.5	--	--	--	--	--	2.0	200.4
	St. Louis	--	--	--	--	--	64.7	--	64.7	--	13.2	--	--	--	--	77.9
	Scott	--	--	--	--	--	20.3	5.4	20.3	5.4	--	--	--	--	--	25.7
	Stoddard	--	9.2	--	--	--	27.5	17.2	27.5	17.2	1.2	--	--	--	4.0	59.1
	Warren	2.7	--	--	--	--	122.0	--	122.0	--	8.3	--	--	--	--	133.1
	Total	2.7	18.5	101.9	4.8	158.6	1,833.9	25.0	1,833.9	25.0	204.0	22.5	--	--	19.1	2,391.1
State total		2.7	216.6	366.5	4.8	950.3	12,676.4	60.0	12,676.4	60.0	991.5	71.4	9.9	46.9	15,396.9	

All table cells without observations in the inventory sample are indicated by --. Columns and rows may not add to their totals due to rounding.

Table MO-57.—Area of timberland, in thousand acres, by inventory unit, county, and stand-size class, Missouri, 2008

Inventory unit and county	Stand-size class				All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	
Eastern Ozarks					
Butler	109.6	40.2	5.7	--	155.5
Carter	129.0	102.6	38.4	--	269.9
Crawford	192.1	95.6	31.7	--	319.5
Dent	170.5	108.8	42.5	--	321.8
Iron	153.2	78.9	24.9	--	257.0
Madison	110.0	99.2	18.0	--	227.2
Oregon	171.6	108.0	26.2	--	305.8
Reynolds	253.4	145.0	44.7	--	443.1
Ripley	126.5	118.9	38.4	--	283.8
St. Francois	81.2	62.5	12.9	--	156.6
Shannon	280.6	123.7	52.1	--	456.5
Washington	220.9	123.6	61.0	--	405.5
Wayne	213.3	166.4	7.8	--	387.5
Total	2,211.9	1,373.5	404.3	--	3,989.6
Southwestern Ozarks					
Barry	118.5	80.7	9.6	--	210.3
Christian	67.6	56.3	37.1	--	161.0
Douglas	139.3	111.1	65.0	--	315.4
Howell	131.9	129.0	20.4	--	281.3
McDonald	137.7	29.2	9.8	--	176.7
Newton	67.7	28.9	3.6	--	100.2
Ozark	132.8	125.0	34.0	--	293.2
Stone	70.5	88.1	21.3	--	183.2
Taney	133.0	119.5	13.4	--	266.0
Texas	204.1	184.7	49.4	--	438.1
Webster	100.1	38.1	11.1	--	149.3
Wright	98.3	76.2	19.4	--	193.8
Total	1,401.6	1,066.8	294.0	--	2,768.4

(Table MO-57 continued on next page)

(Table MO-57 continued)

Inventory unit and county	Stand-size class				All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	
Northwestern Ozarks					
Benton	125.1	99.9	10.8	--	235.8
Camden	140.5	89.4	24.4	--	254.2
Cedar	38.4	50.1	1.9	--	90.4
Dallas	89.4	60.7	8.9	--	159.0
Hickory	49.8	80.0	5.5	--	135.4
Laclede	109.8	106.1	18.7	--	234.5
Maries	52.1	99.8	8.6	--	160.6
Miller	103.7	74.5	21.6	--	199.8
Morgan	139.1	42.9	1.0	--	187.7
Phelps	129.1	123.0	17.2	--	269.3
Polk	55.0	50.8	34.2	--	139.9
Pulaski	83.2	127.6	23.1	--	234.0
St. Clair	89.1	76.4	5.7	--	171.3
Total	1,204.4	1,081.1	181.6	4.7	2,471.9

(Table MO-57 continued on next page)

(Table MO-57 continued)

Inventory unit and county	Stand-size class				All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	
Prairie					
Adair	27.3	29.4	21.0	--	77.7
Andrew	4.0	11.9	15.2	--	38.5
Atchison	16.6	6.0	5.0	--	27.6
Audrain	32.3	9.0	--	--	41.3
Barton	14.1	17.7	7.0	1.2	40.0
Bates	42.3	28.5	6.8	--	77.6
Buchanan	34.0	15.7	2.3	--	51.9
Caldwell	6.2	4.3	4.3	--	14.8
Carroll	8.3	26.1	9.7	--	44.0
Cass	32.0	37.4	5.9	--	75.2
Chariton	28.2	21.2	8.9	--	58.4
Clark	35.9	20.7	13.8	--	70.5
Clay	12.5	5.3	3.8	--	21.6
Clinton	1.5	--	2.8	--	4.3
Cooper	32.6	30.6	13.2	--	76.4
Dade	55.6	21.8	--	--	77.4
Daviess	35.6	7.1	3.9	--	46.6
DeKalb	6.0	12.4	4.8	--	23.2
Gentry	44.2	13.2	4.9	--	62.3
Greene	74.5	14.2	4.9	--	93.7
Grundy	15.0	11.5	0.7	--	27.2
Harrison	39.3	25.3	20.1	--	84.8
Henry	37.3	46.4	9.1	--	92.9
Holt	17.8	8.4	6.9	--	33.2
Jackson	36.8	20.3	9.2	1.4	67.8
Jasper	34.4	10.2	16.6	--	61.2
Johnson	51.4	23.0	19.4	--	93.8
Knox	33.6	15.5	--	--	49.1
Lafayette	16.4	6.4	--	--	22.8
Lawrence	52.8	16.0	15.0	0.5	84.2
Lewis	41.5	17.1	17.7	--	76.3
Lincoln	72.3	27.5	21.0	--	120.8
Linn	17.8	11.6	6.6	--	36.0

(Table MO-57 continued on next page)

(Table MO-57 continued)

Inventory unit and county	Stand-size class				All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	
Prairie					
Livingston	34.7	13.5	--	--	48.1
Macon	27.3	56.4	18.4	--	102.0
Marion	49.3	1.8	1.8	--	52.9
Mercer	57.9	10.3	5.2	--	74.8
Monroe	43.8	37.6	14.0	--	95.5
Nodaway	25.7	12.3	1.6	--	39.6
Pettis	45.9	20.2	16.6	--	82.7
Pike	85.5	38.9	4.4	--	128.8
Platte	23.8	27.4	8.2	--	59.4
Putnam	28.5	31.7	18.1	--	78.3
Ralls	35.9	21.2	13.2	--	70.3
Randolph	30.6	22.1	9.2	--	61.8
Ray	30.8	22.5	2.3	--	55.6
Saline	46.8	4.4	6.0	--	57.1
Schuyler	18.7	24.2	--	--	42.9
Scotland	35.0	11.1	5.8	--	52.0
Shelby	37.8	11.9	17.2	--	72.1
Sullivan	58.1	26.4	17.9	--	102.4
Vernon	62.2	6.4	22.9	--	91.5
Worth	6.0	3.0	--	--	9.0
Total	1,794.4	975.1	463.4	--	3,249.9

(Table MO-57 continued on next page)

(Table MO-57 continued)

Inventory unit and county	Stand-size class					All size classes
	Large diameter	Medium diameter	Small diameter	Chaparral	Nonstocked	
Riverborder						
Boone	86.6	67.7	18.4	--	--	172.7
Callaway	146.3	34.9	8.2	--	3.4	192.8
Cape Girardeau	88.6	7.8	--	--	--	96.4
Cole	56.4	12.3	7.8	--	1.1	77.6
Dunklin	7.8	--	--	--	--	7.8
Franklin	219.9	36.9	12.7	--	2.7	272.2
Gasconade	94.6	45.1	21.7	--	1.7	163.1
Howard	43.2	22.9	5.1	--	--	71.2
Jefferson	155.7	75.7	0.7	--	--	232.1
Mississippi	7.5	4.9	--	--	--	12.3
Moniteau	55.3	17.8	10.2	--	--	83.3
Montgomery	105.8	17.8	9.3	--	--	132.9
New Madrid	9.5	5.7	7.3	--	--	22.5
Osage	111.9	27.2	7.6	--	--	146.7
Pemiscot	1.4	--	--	--	4.2	5.7
Perry	61.8	15.2	10.1	--	--	87.2
St. Charles	75.4	9.8	3.5	--	--	88.7
Ste. Genevieve	107.6	57.4	11.4	--	2.0	178.3
St. Louis	64.0	8.6	--	--	--	72.5
Scott	20.3	5.4	--	--	--	25.7
Stoddard	33.8	14.4	6.9	--	4.0	59.1
Warren	124.1	1.6	7.4	--	--	133.1
Total	1,677.4	489.1	148.2	--	19.1	2,333.8
All counties	8,289.7	4,985.7	1,491.4	--	46.9	14,813.6

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-58.—Area of timberland, in thousand acres, by inventory unit, county, and stocking class, Missouri, 2008

Inventory unit and county	Stocking class of growing-stock trees					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Overstocked	
Eastern Ozarks						
Butler	--	24.0	74.2	54.4	3.0	155.5
Carter	--	42.8	123.9	99.4	3.8	269.9
Crawford	--	28.9	156.3	130.3	4.1	319.5
Dent	0.1	37.2	163.6	114.1	6.8	321.8
Iron	1.8	52.4	105.4	91.2	6.2	257.0
Madison	4.5	21.2	132.7	62.9	5.8	227.2
Oregon	4.9	70.0	132.8	95.7	2.3	305.8
Reynolds	--	60.8	254.1	123.4	4.8	443.1
Ripley	2.4	14.0	168.1	90.3	9.0	283.8
St. Francois	0.8	3.8	89.4	62.6	--	156.6
Shannon	0.0	41.3	231.1	163.6	20.4	456.5
Washington	--	44.5	182.5	162.6	15.9	405.5
Wayne	0.7	49.6	207.4	123.4	6.4	387.5
Total	15.3	490.5	2,021.5	1,373.9	88.5	3,989.6
Southwestern Ozarks						
Barry	3.2	28.6	95.6	78.3	4.5	210.3
Christian	10.6	52.2	50.7	47.5	--	161.0
Douglas	7.4	71.6	139.9	86.5	10.0	315.4
Howell	1.1	51.6	101.5	117.1	10.1	281.3
McDonald	--	36.1	65.5	70.2	4.8	176.7
Newton	1.7	20.3	41.2	34.3	2.8	100.2
Ozark	13.2	68.4	122.1	83.8	5.7	293.2
Stone	4.0	45.0	67.0	63.1	4.2	183.2
Taney	13.7	63.3	138.0	45.9	5.1	266.0
Texas	0.3	46.1	215.4	161.7	14.6	438.1
Webster	--	18.0	53.3	76.4	1.5	149.3
Wright	6.7	41.0	85.2	57.6	3.3	193.8
Total	61.8	542.3	1,175.4	922.4	66.6	2,768.4

(Table MO-58 continued on next page)

(Table MO-58 continued)

Inventory unit and county	Stocking class of growing-stock trees					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Overstocked	
Northwestern Ozarks						
Benton	8.2	55.2	128.7	43.7	--	235.8
Camden	1.1	38.2	166.0	48.8	--	254.2
Cedar	24.0	18.9	34.4	11.5	1.7	90.4
Dallas	10.1	42.6	67.1	38.1	1.2	159.0
Hickory	1.9	57.6	48.9	25.1	1.9	135.4
Laclede	3.3	50.1	133.8	42.9	4.5	234.5
Maries	6.9	20.0	76.4	55.9	1.5	160.6
Miller	3.4	42.8	82.5	61.6	9.5	199.8
Morgan	4.8	13.9	100.8	68.3	--	187.7
Phelps	--	70.9	117.7	72.0	8.7	269.3
Polk	3.6	12.9	60.2	58.3	4.9	139.9
Pulaski	1.2	59.8	104.0	57.0	12.0	234.0
St. Clair	12.5	63.0	63.5	31.5	0.8	171.3
Total	80.9	545.9	1,184.0	614.5	46.6	2,471.9

(Table MO-58 continued on next page)

(Table MO-58 continued)

Inventory unit and county	Stocking class of growing-stock trees					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Overstocked	
Prairie						
Adair	--	18.2	23.3	33.8	2.3	77.7
Andrew	8.8	1.1	15.2	13.5	--	38.5
Atchison	1.5	4.3	16.5	3.6	1.7	27.6
Audrain	2.7	4.2	16.7	12.3	5.4	41.3
Barton	1.2	23.7	7.4	7.8	--	40.0
Bates	21.9	41.1	8.2	6.4	--	77.6
Buchanan	4.9	13.3	25.2	8.5	--	51.9
Caldwell	--	2.0	5.7	7.1	--	14.8
Carroll	2.9	28.7	4.2	8.3	--	44.0
Cass	8.9	19.8	23.5	23.0	--	75.2
Chariton	1.8	17.3	19.2	20.0	--	58.4
Clark	6.8	7.9	43.2	10.8	1.7	70.5
Clay	1.2	5.3	1.2	13.9	--	21.6
Clinton	1.5	2.8	--	--	--	4.3
Cooper	16.7	21.7	14.7	21.4	1.8	76.4
Dade	6.5	31.8	15.4	23.7	--	77.4
Davies	4.3	4.2	26.2	10.5	1.4	46.6
DeKalb	--	8.0	11.9	3.2	--	23.2
Gentry	--	22.2	19.2	14.6	6.3	62.3
Greene	6.1	18.8	38.6	30.1	--	93.7
Grundy	4.5	6.5	15.1	1.1	--	27.2
Harrison	--	32.7	28.9	21.3	1.8	84.8
Henry	2.6	27.2	50.4	10.4	2.3	92.9
Holt	5.2	13.8	5.4	7.1	1.8	33.2
Jackson	13.8	21.9	21.7	9.0	1.3	67.8
Jasper	6.3	6.8	24.8	22.2	1.1	61.2
Johnson	1.6	36.7	18.6	36.9	--	93.8
Knox	--	19.4	16.3	13.4	--	49.1
Lafayette	1.1	5.3	16.4	--	--	22.8
Lawrence	1.3	6.9	33.4	40.4	2.2	84.2
Lewis	--	28.6	25.3	20.7	1.6	76.3
Lincoln	--	16.9	64.3	35.9	3.6	120.8
Linn	5.0	5.1	17.6	8.3	0.1	36.0

(Table MO-58 continued on next page)

(Table MO-58 continued)

Inventory unit and county	Stocking class of growing-stock trees					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Overstocked	
Prairie						
Livingston	8.1	10.9	18.2	10.9	--	48.1
Macon	--	14.8	63.6	18.3	5.3	102.0
Marion	--	9.5	22.0	19.5	1.9	52.9
Mercer	1.3	28.7	27.6	14.3	2.9	74.8
Monroe	0.1	11.8	52.2	31.4	--	95.5
Nodaway	8.3	15.1	16.2	--	--	39.6
Pettis	7.5	21.9	13.7	38.2	1.4	82.7
Pike	2.7	22.5	66.8	34.9	1.9	128.8
Platte	1.2	27.9	18.5	11.9	--	59.4
Putnam	--	24.3	38.9	13.5	1.6	78.3
Ralls	--	7.6	21.2	41.6	--	70.3
Randolph	0.7	9.4	32.8	18.9	--	61.8
Ray	--	20.6	29.9	5.0	--	55.6
Saline	--	15.9	18.1	20.7	2.4	57.1
Schuyler	6.2	1.6	28.0	7.1	--	42.9
Scotland	1.8	28.9	14.9	5.1	1.2	52.0
Shelby	5.1	13.4	28.8	24.8	--	72.1
Sullivan	11.7	18.9	36.6	35.2	--	102.4
Vernon	3.6	33.3	19.0	35.6	--	91.5
Worth	1.5	1.5	6.0	--	--	9.0
Total	198.9	863.0	1,246.6	886.2	55.2	3,249.9

(Table MO-58 continued on next page)

(Table MO-58 continued)

Inventory unit and county	Stocking class of growing-stock trees					All classes
	Nonstocked	Poorly stocked	Moderately stocked	Fully stocked	Overstocked	
Riverborder						
Boone	1.5	35.6	80.1	50.3	5.2	172.7
Callaway	4.5	15.5	81.1	77.2	14.6	192.8
Cape Girardeau	--	10.4	56.7	29.3	--	96.4
Cole	1.4	11.4	31.7	33.1	--	77.6
Dunklin	--	--	6.2	--	1.6	7.8
Franklin	3.6	26.3	151.3	88.6	2.4	272.2
Gasconade	2.9	31.0	54.6	68.6	6.0	163.1
Howard	--	21.9	36.6	6.3	6.4	71.2
Jefferson	0.0	41.9	90.2	98.1	1.8	232.1
Mississippi	1.4	--	4.9	4.9	1.2	12.3
Moniteau	--	22.7	43.0	11.6	6.0	83.3
Montgomery	1.4	23.8	46.8	58.3	2.6	132.9
New Madrid	--	10.0	5.2	--	7.3	22.5
Osage	9.8	26.0	45.5	64.1	1.3	146.7
Pemiscot	5.7	--	--	--	--	5.7
Perry	--	16.2	19.6	50.6	0.8	87.2
St. Charles	1.3	--	66.7	18.1	2.6	88.7
Ste. Genevieve	2.1	10.0	96.9	69.1	0.3	178.3
St. Louis	1.8	21.7	15.9	33.1	--	72.5
Scott	--	13.6	5.4	6.7	--	25.7
Stoddard	4.2	11.5	10.2	33.3	--	59.1
Warren	--	--	81.2	50.5	1.3	133.1
Total	41.6	349.4	1,029.7	851.6	61.5	2,333.8
All counties	398.4	2,791.0	6,657.1	4,648.7	318.3	14,813.6

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the acres round to less than 0.1 thousand acres. Columns and rows may not add to their totals due to rounding.

Table MO-59.—Net volume of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (International 1/4-inch rule), on timberland by inventory unit, county, and major species group, Missouri, 2008

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hardwood species	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hardwood species	All species
Eastern Ozarks												
Butler	27.6	0.1	20.7	177.0	225.3	225.3	114.0	--	57.0	609.8	780.8	780.8
Carter	67.3	0.0	8.8	231.6	307.8	307.8	264.4	--	22.8	681.2	968.4	968.4
Crawford	1.3	7.0	19.8	335.9	364.1	364.1	5.8	17.3	46.5	1,107.4	1,177.1	1,177.1
Dent	34.4	2.5	7.7	301.6	346.2	346.2	152.4	2.0	18.6	926.0	1,098.9	1,098.9
Iron	15.7	3.4	9.8	250.8	279.7	279.7	64.7	5.0	22.3	759.1	851.1	851.1
Madison	35.3	5.0	15.6	211.5	267.3	267.3	149.8	9.9	37.5	720.0	917.2	917.2
Oregon	46.2	0.3	5.9	278.4	330.7	330.7	221.4	--	9.7	898.3	1,129.4	1,129.4
Reynolds	69.9	1.9	36.1	395.8	503.7	503.7	291.3	7.0	87.1	1,205.8	1,591.1	1,591.1
Ripley	56.7	1.4	32.6	239.4	330.2	330.2	277.0	4.7	78.6	688.2	1,048.5	1,048.5
St. Francois	7.0	19.2	8.7	155.3	190.2	190.2	24.7	43.1	18.6	544.2	630.5	630.5
Shannon	84.5	2.1	20.3	455.4	562.3	562.3	357.5	3.0	55.5	1,425.0	1,841.0	1,841.0
Washington	63.7	12.9	15.8	369.6	461.9	461.9	289.0	24.2	30.3	1,156.7	1,500.2	1,500.2
Wayne	71.4	2.3	21.5	405.8	501.2	501.2	311.9	6.1	36.5	1,279.2	1,633.7	1,633.7
Total	581.1	58.1	223.4	3,808.1	4,670.7	4,670.7	2,523.8	122.3	521.1	12,000.8	15,168.0	15,168.0
Southwestern Ozarks												
Barry	14.7	20.2	12.9	214.4	262.3	262.3	58.4	43.1	32.0	755.7	889.1	889.1
Christian	3.1	9.0	6.9	116.0	135.0	135.0	14.4	14.1	27.9	343.7	400.1	400.1
Douglas	21.2	5.0	12.8	210.5	249.5	249.5	102.2	4.6	38.6	624.0	769.5	769.5
Howell	39.7	0.5	5.5	281.1	326.8	326.8	174.5	--	9.7	800.0	984.3	984.3
McDonald	2.6	2.3	12.9	199.4	217.3	217.3	13.4	6.5	27.8	683.7	731.4	731.4
Newton	--	1.9	3.3	129.4	134.6	134.6	--	7.8	--	497.8	505.6	505.6
Ozark	24.1	11.2	28.9	209.4	273.5	273.5	114.4	8.5	93.3	643.9	860.1	860.1
Stone	--	31.1	4.8	120.2	156.1	156.1	--	88.6	11.8	315.0	415.4	415.4
Taney	6.6	32.0	10.1	174.3	223.1	223.1	19.1	43.7	20.5	552.2	635.5	635.5
Texas	106.3	4.3	15.2	365.6	491.5	491.5	425.6	4.7	21.8	1,054.4	1,506.5	1,506.5
Webster	--	4.2	7.3	198.4	209.9	209.9	--	--	23.6	710.2	733.7	733.7
Wright	0.4	4.6	14.5	145.5	164.9	164.9	0.7	2.5	48.4	468.4	520.0	520.0
Total	218.8	126.4	135.0	2,364.2	2,844.4	2,844.4	922.7	224.0	355.6	7,448.9	8,951.1	8,951.1

(Table MO-59 continued on next page)

(Table MO-59 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Northwestern Ozarks												
Benton	--	8.8	7.8	196.2	212.8		--	18.8	19.0	608.2	646.0	
Camden	--	2.1	5.1	220.5	227.6		--	--	16.1	725.4	741.6	
Cedar	--	0.8	26.7	45.5	72.9		--	--	96.3	121.5	217.8	
Dallas	--	3.8	13.6	132.7	150.0		--	2.3	46.1	451.4	499.8	
Hickory	--	6.4	3.7	84.8	94.8		--	10.9	5.1	217.2	233.2	
Laclede	6.6	4.9	12.3	185.7	209.5		23.0	8.6	45.7	566.7	644.0	
Maries	--	17.0	4.9	142.3	164.2		--	32.3	10.4	393.5	436.2	
Miller	--	5.5	9.9	178.9	194.3		--	7.0	18.3	581.1	606.5	
Morgan	--	2.7	7.0	229.3	239.0		--	4.5	20.6	805.8	830.9	
Phelps	6.4	8.5	16.5	209.2	240.6		28.5	20.8	44.8	571.7	665.8	
Polk	--	8.3	13.4	103.6	125.3		--	15.0	38.1	290.3	343.4	
Pulaski	1.4	6.8	26.4	190.4	225.0		5.1	12.5	84.0	524.1	625.8	
St. Clair	--	1.2	21.5	133.5	156.2		--	--	83.4	433.2	516.6	
Total	14.4	76.7	168.8	2,052.5	2,312.4		56.6	132.8	528.0	6,290.1	7,007.5	

(Table MO-59 continued on next page)

(Table MO-59 continued)

Inventory unit and county	Growing-stock					Sawtimber				
	Major species group				All species	Major species group				All species
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	
Prairie										
Adair	--	--	4.0	61.0	65.0	--	--	4.3	171.9	176.2
Andrew	--	0.1	28.7	11.3	40.1	--	--	113.3	32.3	145.6
Atchison	--	--	16.5	16.5	33.1	--	--	63.4	60.0	123.4
Audrain	--	--	23.4	45.8	69.2	--	--	77.4	151.7	229.1
Barton	--	--	5.2	26.4	31.6	--	--	11.5	102.6	114.1
Bates	--	--	11.9	31.2	43.1	--	--	30.8	114.7	145.5
Buchanan	--	--	40.5	21.8	62.4	--	--	157.4	64.7	222.1
Caldwell	--	--	4.7	5.7	10.3	--	--	11.9	13.6	25.5
Carroll	--	--	3.9	14.9	18.7	--	--	--	39.2	39.2
Cass	--	0.1	26.8	58.1	85.0	--	--	59.7	215.8	275.5
Chariton	--	0.8	25.0	47.8	73.6	--	--	82.4	156.7	239.1
Clark	--	2.4	11.7	41.4	55.4	--	5.6	29.5	145.2	180.3
Clay	--	--	17.6	17.3	34.9	--	--	55.8	67.3	123.1
Clinton	--	--	--	1.5	1.5	--	--	--	4.1	4.1
Cooper	--	3.9	26.5	36.5	66.9	--	5.5	84.6	118.1	208.2
Dade	--	1.0	5.9	57.2	64.1	--	2.9	5.7	176.9	185.5
Davess	--	--	16.2	41.2	57.4	--	--	64.8	146.9	211.8
DeKalb	--	--	3.7	7.8	11.5	--	--	3.5	29.7	33.3
Gentry	--	--	15.4	50.9	66.3	--	--	45.3	193.4	238.7
Greene	--	1.0	12.9	120.1	134.0	--	1.9	44.1	485.7	531.7
Grundy	--	--	7.5	12.0	19.5	--	--	30.7	28.1	58.8
Harrison	--	0.1	13.7	53.7	67.5	--	--	36.7	186.0	222.6
Henry	--	1.8	19.0	62.5	83.2	--	1.7	68.9	219.6	290.2
Holt	--	--	8.3	20.2	28.4	--	--	28.0	65.0	93.0
Jackson	--	--	18.6	40.3	58.9	--	--	62.7	140.2	202.9
Jasper	--	--	14.7	38.1	52.8	--	--	36.6	140.1	176.7
Johnson	--	0.6	23.5	69.1	93.3	--	3.1	89.0	215.2	307.3
Knox	--	0.1	24.4	33.3	57.9	--	--	84.5	103.5	188.0
Lafayette	--	--	4.0	14.5	18.5	--	--	3.4	58.3	61.7
Lawrence	--	0.1	14.7	114.4	129.2	--	--	51.7	443.3	495.0
Lewis	--	1.9	11.8	73.9	87.7	--	3.4	39.0	279.8	322.2
Lincoln	--	1.0	16.1	140.9	158.0	--	--	52.7	529.3	581.9
Linn	--	--	11.8	21.7	33.4	--	--	33.9	68.7	102.6

(Table MO-59 continued on next page)

(Table MO-59 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	softwoods	Other	hardwoods	Soft	Hard	Pine	softwoods	Other	hardwoods	Soft	Hard
Prairie												
Livingston	--	0.6		33.3	20.8	54.6	--	1.7		119.7	74.3	195.7
Macon	--	0.3		12.9	83.5	96.7	--	--		34.7	215.9	250.7
Marion	--	0.1		19.6	60.2	79.9	--	--		67.3	221.5	288.8
Mercer	--	0.2		10.2	60.2	70.5	--	--		21.7	218.7	240.4
Monroe	--	2.4		19.9	86.1	108.3	--	5.5		64.6	269.9	340.0
Nodaway	--	0.1		4.9	21.2	26.3	--	--		12.8	78.3	91.1
Pettis	--	0.1		12.8	78.4	91.3	--	--		24.9	282.5	307.4
Pike	--	0.6		18.4	130.9	150.0	--	--		58.1	427.1	485.2
Platte	--	--		19.8	24.9	44.7	--	--		53.5	71.3	124.8
Putnam	--	--		8.9	49.8	58.7	--	--		15.3	154.3	169.6
Ralls	--	2.5		30.8	69.2	102.5	--	7.4		127.1	235.3	369.8
Randolph	--	0.1		13.6	55.3	69.0	--	--		50.1	183.8	233.9
Ray	--	--		16.3	20.1	36.4	--	--		57.9	62.6	120.4
Saline	--	--		29.5	61.7	91.1	--	--		99.6	226.1	325.7
Schuyler	--	0.4		0.3	35.6	36.3	--	--		--	74.6	74.6
Scotland	--	0.2		10.4	29.5	40.1	--	--		26.9	100.3	127.2
Shelby	--	--		15.9	54.7	70.6	--	--		52.9	181.4	234.3
Sullivan	--	0.1		42.4	98.7	141.2	--	--		157.3	342.4	499.8
Vernon	--	--		44.7	41.0	85.8	--	--		168.7	165.9	334.7
Worth	--	--		9.7	6.9	16.7	--	--		43.8	27.4	71.2
Total	--	22.5		863.1	2,497.6	3,383.3	--	38.6		2,820.2	8,581.2	11,439.9

(Table MO-59 continued on next page)

(Table MO-59 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Riverborder												
Boone	--	13.0	45.4	149.7	208.2		--	32.3	148.7	454.8	635.8	
Callaway	--	16.0	26.3	275.4	317.7		--	48.0	90.0	1,010.1	1,148.2	
Cape Girardeau	--	--	36.6	122.8	159.4		--	--	152.6	478.6	631.2	
Cole	--	19.0	11.6	56.5	87.2		--	57.7	31.3	183.3	272.4	
Dunklin	--	--	4.3	8.3	12.6		--	--	17.0	37.7	54.7	
Franklin	5.0	25.6	51.1	319.6	401.4		23.0	79.1	164.7	1,142.4	1,409.1	
Gasconade	--	10.4	30.7	153.9	195.1		--	25.5	113.8	484.8	624.1	
Howard	--	0.4	28.1	63.6	92.2		--	--	104.5	224.4	329.0	
Jefferson	23.0	31.0	14.8	263.5	332.3		118.4	85.6	34.7	908.4	1,147.1	
Mississippi	--	--	29.8	0.2	30.0		--	--	117.6	--	117.6	
Monteau	--	1.8	12.8	82.9	97.5		--	4.4	19.8	305.4	329.6	
Montgomery	--	9.1	27.6	136.7	173.3		--	27.0	94.4	472.9	594.3	
New Madrid	--	--	6.6	1.5	8.1		--	--	12.1	6.7	18.8	
Osage	--	12.5	10.8	162.1	185.4		--	29.5	7.8	616.7	654.0	
Pemiscot	--	--	0.3	--	0.3		--	--	--	--	--	
Perry	0.6	1.7	10.4	127.8	140.6		2.2	3.6	11.1	505.2	522.1	
St. Charles	--	9.5	27.0	114.9	151.5		--	35.7	107.6	427.7	571.0	
Ste. Genevieve	9.9	16.9	6.1	202.2	235.2		48.5	38.6	4.5	695.4	786.9	
St. Louis	--	--	33.6	98.5	132.1		--	--	130.7	401.5	532.3	
Scott	--	--	23.3	33.0	56.3		--	--	91.1	119.4	210.5	
Stoddard	15.8	0.1	10.3	45.4	71.6		34.9	--	21.6	166.9	223.4	
Warren	7.8	1.9	6.2	195.6	211.5		36.5	7.1	16.9	777.7	838.2	
Total	62.1	169.1	453.9	2,614.4	3,299.4		263.5	474.2	1,492.5	9,420.0	11,650.2	
All counties	876.4	452.8	1,844.3	13,336.7	16,510.3		3,766.5	991.9	5,717.3	43,740.9	54,216.6	

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table MO-59a.—Net volume of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (Doyle rule), in million board feet, on timberland by inventory unit, county, and major species group, Missouri, 2008

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	All species
Eastern Ozarks												
Butler	27.6	0.1	20.7	177.0		225.3	66.5	--	33.5	367.8		467.8
Carter	67.3	0.0	8.8	231.6		307.8	156.6	--	12.5	383.3		552.4
Crawford	1.3	7.0	19.8	335.9		364.1	2.4	6.7	29.4	617.2		655.7
Dent	34.4	2.5	7.7	301.6		346.2	81.7	0.7	9.6	529.7		621.7
Iron	15.7	3.4	9.8	250.8		279.7	33.4	2.1	15.6	415.9		467.0
Madison	35.3	5.0	15.6	211.5		267.3	75.3	3.8	22.8	399.6		501.4
Oregon	46.2	0.3	5.9	278.4		330.7	136.8	--	5.0	532.6		674.3
Reynolds	69.9	1.9	36.1	395.8		503.7	158.5	2.7	48.2	684.2		893.6
Ripley	56.7	1.4	32.6	239.4		330.2	181.2	1.6	47.9	373.6		604.3
St. Francois	7.0	19.2	8.7	155.3		190.2	10.9	22.1	11.2	318.6		362.7
Shannon	84.5	2.1	20.3	455.4		562.3	195.9	1.0	30.5	786.9		1,014.3
Washington	63.7	12.9	15.8	369.6		461.9	159.2	8.7	15.5	644.5		827.9
Wayne	71.4	2.3	21.5	405.8		501.2	176.0	2.7	21.5	717.8		917.9
Total	581.1	58.1	223.4	3,808.1		4,670.7	1,434.3	52.2	303.2	6,771.5		8,561.2
Southwestern Ozarks												
Barry	14.7	20.2	12.9	214.4		262.3	28.2	17.0	16.1	447.0		508.3
Christian	3.1	9.0	6.9	116.0		135.0	8.5	5.4	19.5	213.8		247.2
Douglas	21.2	5.0	12.8	210.5		249.5	70.8	1.8	23.7	350.6		447.0
Howell	39.7	0.5	5.5	281.1		326.8	95.2	--	5.2	437.3		537.7
McDonald	2.6	2.3	12.9	199.4		217.3	9.8	3.3	14.4	392.6		420.1
Newton	--	1.9	3.3	129.4		134.6	--	5.4	--	317.1		322.4
Ozark	24.1	11.2	28.9	209.4		273.5	67.8	3.3	69.5	364.7		505.3
Stone	--	31.1	4.8	120.2		156.1	--	37.8	6.2	181.5		225.5
Taney	6.6	32.0	10.1	174.3		223.1	7.5	19.5	10.9	318.5		356.4
Texas	106.3	4.3	15.2	365.6		491.5	219.4	1.6	12.8	582.8		816.5
Webster	--	4.2	7.3	198.4		209.9	--	--	13.8	417.9		431.7
Wright	0.4	4.6	14.5	145.5		164.9	0.2	0.9	34.0	252.6		287.7
Total	218.8	126.4	135.0	2,364.2		2,844.4	507.3	96.0	226.2	4,276.4		5,105.9

(Table MO-59a continued on next page)

(Table MO-59a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Northwestern Ozarks												
Benton	--	8.8	7.8	196.2	212.8		--	8.1	12.2	344.9	365.3	
Camden	--	2.1	5.1	220.5	227.6		--	--	10.6	416.1	426.7	
Cedar	--	0.8	26.7	45.5	72.9		--	--	66.6	76.9	143.5	
Dallas	--	3.8	13.6	132.7	150.0		--	1.1	30.4	244.2	275.7	
Hickory	--	6.4	3.7	84.8	94.8		--	4.7	2.4	118.6	125.7	
Laclede	6.6	4.9	12.3	185.7	209.5		10.1	3.4	35.9	333.7	383.1	
Maries	--	17.0	4.9	142.3	164.2		--	14.7	5.1	226.7	246.5	
Miller	--	5.5	9.9	178.9	194.3		--	2.7	14.0	337.6	354.3	
Morgan	--	2.7	7.0	229.3	239.0		--	1.9	11.4	474.8	488.0	
Phelps	6.4	8.5	16.5	209.2	240.6		17.0	9.5	33.5	323.4	383.4	
Polk	--	8.3	13.4	103.6	125.3		--	5.6	18.6	157.1	181.4	
Pulaski	1.4	6.8	26.4	190.4	225.0		2.7	5.0	59.9	300.6	368.1	
St. Clair	--	1.2	21.5	133.5	156.2		--	--	59.1	265.6	324.7	
Total	14.4	76.7	168.8	2,052.5	2,312.4		29.8	56.7	359.7	3,620.2	4,066.4	

(Table MO-59a continued on next page)

(Table MO-59a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Prairie												
Adair	--	--	4.0	61.0	65.0		--	--	1.8	93.7	95.5	
Andrew	--	0.1	28.7	11.3	40.1		--	--	101.0	17.9	118.9	
Atchison	--	--	16.5	16.5	33.1		--	--	41.7	35.3	77.0	
Audrain	--	--	23.4	45.8	69.2		--	--	58.5	84.5	143.0	
Barton	--	--	5.2	26.4	31.6		--	--	6.1	63.0	69.2	
Bates	--	--	11.9	31.2	43.1		--	--	23.2	75.3	98.5	
Buchanan	--	--	40.5	21.8	62.4		--	--	112.8	36.5	149.3	
Caldwell	--	--	4.7	5.7	10.3		--	--	7.8	8.0	15.8	
Carroll	--	--	3.9	14.9	18.7		--	--	--	24.7	24.7	
Cass	--	0.1	26.8	58.1	85.0		--	--	35.7	143.7	179.4	
Chariton	--	0.8	25.0	47.8	73.6		--	--	74.6	85.2	159.8	
Clark	--	2.4	11.7	41.4	55.4		--	1.9	17.5	77.6	97.0	
Clay	--	--	17.6	17.3	34.9		--	--	50.2	57.2	107.5	
Clinton	--	--	--	1.5	1.5		--	--	--	2.1	2.1	
Cooper	--	3.9	26.5	36.5	66.9		--	2.2	79.2	71.5	152.9	
Dade	--	1.0	5.9	57.2	64.1		--	1.4	2.9	107.8	112.1	
Daviess	--	--	16.2	41.2	57.4		--	--	42.4	83.8	126.2	
DeKalb	--	--	3.7	7.8	11.5		--	--	1.8	17.9	19.7	
Gentry	--	--	15.4	50.9	66.3		--	--	23.3	113.7	137.0	
Greene	--	1.0	12.9	120.1	134.0		--	0.6	31.8	299.5	332.0	
Grundy	--	--	7.5	12.0	19.5		--	--	20.6	13.9	34.5	
Harrison	--	0.1	13.7	53.7	67.5		--	--	21.3	108.5	129.8	
Henry	--	1.8	19.0	62.5	83.2		--	0.6	41.6	142.6	184.8	
Holt	--	--	8.3	20.2	28.4		--	--	18.4	37.9	56.3	
Jackson	--	--	18.6	40.3	58.9		--	--	35.8	102.7	138.4	
Jasper	--	--	14.7	38.1	52.8		--	--	21.7	88.3	110.1	
Johnson	--	0.6	23.5	69.1	93.3		--	1.5	53.7	135.0	190.2	
Knox	--	0.1	24.4	33.3	57.9		--	--	62.9	66.4	129.2	
Lafayette	--	--	4.0	14.5	18.5		--	--	1.4	31.2	32.6	
Lawrence	--	0.1	14.7	114.4	129.2		--	--	38.4	276.0	314.4	
Lewis	--	1.9	11.8	73.9	87.7		--	1.4	21.2	180.3	202.9	
Lincoln	--	1.0	16.1	140.9	158.0		--	--	38.0	320.5	358.5	
Linn	--	--	11.8	21.7	33.4		--	--	20.1	54.4	74.6	

(Table MO-59a continued on next page)

(Table MO-59a continued)

Inventory unit and county	Growing-stock							Sawtimber						
	Major species group				All species			Major species group				All species		
	Pine	Other softwoods	hardwoods	Soft hardwoods	Hard hardwoods	Hardwoods	species	Pine	Other softwoods	hardwoods	Soft hardwoods	Hard hardwoods	Hardwoods	species
Prairie														
Livingston	--	0.6	33.3	20.8	54.6	125.4		--	0.6	79.6	45.3	125.4		
Macon	--	0.3	12.9	83.5	96.7	146.1		--	--	18.7	127.4	146.1		
Marion	--	0.1	19.6	60.2	79.9	199.8		--	--	46.6	153.2	199.8		
Mercer	--	0.2	10.2	60.2	70.5	128.3		--	--	10.6	117.7	128.3		
Monroe	--	2.4	19.9	86.1	108.3	212.7		--	2.8	37.3	172.6	212.7		
Nodaway	--	0.1	4.9	21.2	26.3	50.9		--	--	7.9	43.0	50.9		
Pettis	--	0.1	12.8	78.4	91.3	197.4		--	--	15.1	182.3	197.4		
Pike	--	0.6	18.4	130.9	150.0	305.1		--	--	50.6	254.5	305.1		
Platte	--	--	19.8	24.9	44.7	68.5		--	--	31.9	36.6	68.5		
Putnam	--	--	8.9	49.8	58.7	97.8		--	--	7.7	90.1	97.8		
Ralls	--	2.5	30.8	69.2	102.5	273.0		--	2.9	106.8	163.3	273.0		
Randolph	--	0.1	13.6	55.3	69.0	129.8		--	--	31.4	98.4	129.8		
Ray	--	--	16.3	20.1	36.4	60.5		--	--	29.7	30.8	60.5		
Saline	--	--	29.5	61.7	91.1	225.8		--	--	77.6	148.3	225.8		
Schuyler	--	0.4	0.3	35.6	36.3	40.4		--	--	--	40.4	40.4		
Scotland	--	0.2	10.4	29.5	40.1	78.6		--	--	14.4	64.3	78.6		
Shelby	--	--	15.9	54.7	70.6	150.5		--	--	34.2	116.3	150.5		
Sullivan	--	0.1	42.4	98.7	141.2	354.4		--	--	141.4	213.1	354.4		
Vernon	--	--	44.7	41.0	85.8	198.4		--	--	98.0	100.4	198.4		
Worth	--	--	9.7	6.9	16.7	48.1		--	--	31.9	16.2	48.1		
Total	--	22.5	863.1	2,497.6	3,383.3	7,265.5		--	15.8	1,979.0	5,270.7	7,265.5		

(Table MO-59a continued on next page)

(Table MO-59a continued)

Inventory unit and county Riverborder	Growing-stock					Sawtimber				
	Major species group				All species	Major species group				All species
	Pine	Other softwoods	hardwoods	Soft hardwoods		Pine	Other softwoods	hardwoods	Soft hardwoods	
Boone	--	13.0	45.4	149.7	208.2	--	16.8	113.6	268.2	398.5
Callaway	--	16.0	26.3	275.4	317.7	--	21.1	62.4	604.9	688.4
Cape Girardeau	--	--	36.6	122.8	159.4	--	--	97.5	280.2	377.7
Cole	--	19.0	11.6	56.5	87.2	--	26.4	18.4	102.2	147.0
Dunklin	--	--	4.3	8.3	12.6	--	--	9.3	21.0	30.4
Franklin	5.0	25.6	51.1	319.6	401.4	14.5	40.6	129.1	695.6	879.8
Gasconade	--	10.4	30.7	153.9	195.1	--	11.2	82.7	274.7	368.6
Howard	--	0.4	28.1	63.6	92.2	--	--	79.3	129.7	209.1
Jefferson	23.0	31.0	14.8	263.5	332.3	85.2	40.3	19.2	569.0	713.8
Mississippi	--	--	29.8	0.2	30.0	--	--	83.7	--	83.7
Moniteau	--	1.8	12.8	82.9	97.5	--	1.5	11.1	187.2	199.8
Montgomery	--	9.1	27.6	136.7	173.3	--	11.1	57.1	276.1	344.4
New Madrid	--	--	6.6	1.5	8.1	--	--	6.2	3.4	9.6
Osage	--	12.5	10.8	162.1	185.4	--	11.9	4.0	360.3	376.2
Pemiscot	--	--	0.3	--	0.3	--	--	--	--	--
Perry	0.6	1.7	10.4	127.8	140.6	0.8	1.3	6.1	317.9	326.0
St. Charles	--	9.5	27.0	114.9	151.5	--	15.3	90.6	285.3	391.2
Ste. Genevieve	9.9	16.9	6.1	202.2	235.2	34.6	16.6	2.1	427.0	480.3
St. Louis	--	--	33.6	98.5	132.1	--	--	112.6	290.4	403.0
Scott	--	--	23.3	33.0	56.3	--	--	54.1	81.9	136.0
Stoddard	15.8	0.1	10.3	45.4	71.6	13.0	--	12.0	110.5	135.6
Warren	7.8	1.9	6.2	195.6	211.5	20.3	3.2	11.4	456.4	491.2
Total	62.1	169.1	453.9	2,614.4	3,299.4	168.4	217.3	1,062.6	5,742.0	7,190.3
All counties	876.4	452.8	1,844.3	13,336.7	16,510.3	2,139.7	438.0	3,930.7	25,680.8	32,189.2

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table MO-60.—Average annual net growth of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (International 1/4-inch rule), in million board feet, on timberland by inventory unit, county, and major species group, Missouri, 2003 to 2008

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group						Major species group					
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Eastern Ozarks												
Butler	0.5	0.0	1.1	3.4	5.0		2.6	--	2.6	18.7	23.9	
Carter	2.1	0.0	0.4	4.3	6.8		9.5	--	1.2	15.1	25.8	
Crawford	0.1	0.3	0.5	4.6	5.5		0.3	1.0	0.1	27.3	28.7	
Dent	1.2	0.2	0.3	7.7	9.4		5.6	0.1	0.6	33.1	39.4	
Iron	0.5	0.3	0.1	4.9	5.8		1.6	0.6	0.3	24.8	27.4	
Madison	1.4	0.3	0.5	5.6	7.7		7.9	0.6	1.0	26.1	35.6	
Oregon	2.0	0.0	0.2	9.0	11.3		11.4	--	0.2	39.0	50.6	
Reynolds	1.9	0.1	2.2	8.0	12.2		11.2	0.9	2.3	38.6	53.0	
Ripley	1.5	0.1	1.9	7.5	10.9		8.2	0.2	4.8	28.5	41.7	
St. Francois	0.3	0.9	0.1	6.1	7.3		1.6	1.4	-0.2	27.5	30.4	
Shannon	2.4	0.1	0.6	11.5	14.6		11.2	0.1	1.6	53.8	66.6	
Washington	1.4	0.6	0.5	7.5	10.1		8.4	2.0	0.5	30.6	41.4	
Wayne	1.8	0.0	0.4	10.1	12.4		10.1	0.2	0.6	41.6	52.6	
Total	17.0	2.9	8.8	90.4	119.0		89.6	7.1	15.7	404.8	517.2	
Southwestern Ozarks												
Barry	0.5	0.6	0.4	5.1	6.6		2.5	3.4	1.2	24.5	31.7	
Christian	0.1	0.5	0.0	2.1	2.6		0.2	1.6	0.2	8.6	10.6	
Douglas	0.7	0.3	0.5	4.1	5.7		3.7	0.7	2.2	15.6	22.2	
Howell	1.2	0.0	0.2	7.3	8.7		5.9	--	0.4	24.9	31.2	
McDonald	-0.2	0.1	0.7	5.3	5.9		-1.2	0.1	2.7	24.0	25.6	
Newton	--	0.1	0.2	2.5	2.8		--	0.3	--	11.6	11.9	
Ozark	0.7	0.5	3.1	4.1	8.4		3.1	1.3	12.7	17.2	34.3	
Stone	--	0.9	0.2	3.1	4.1		--	3.0	0.1	12.1	15.2	
Taney	0.2	1.8	0.7	4.3	6.9		1.8	3.0	1.4	16.1	22.4	
Texas	2.8	0.3	1.3	16.1	20.5		14.3	0.7	4.4	48.8	68.2	
Webster	--	0.3	0.8	6.4	7.6		--	--	3.3	25.7	29.1	
Wright	0.0	0.5	0.4	3.9	4.8		0.2	0.6	1.1	14.3	16.2	
Total	5.8	6.0	8.5	64.3	84.5		30.5	14.7	29.8	243.3	318.4	

(Table MO-60 continued on next page)

(Table MO-60 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods			Pine	Other softwoods	Soft hardwoods	Hard hardwoods		
Northwestern Ozarks												
Benton	--	0.4	0.3	3.7	4.3		--	1.1	0.5	17.3	18.9	
Camden	--	0.2	0.5	4.9	5.6		--	--	2.0	19.5	21.4	
Cedar	--	0.1	1.3	0.9	2.3		--	--	4.5	1.8	6.3	
Dallas	--	-0.1	1.2	3.3	4.3		--	0.0	4.6	16.4	21.0	
Hickory	--	0.3	0.2	3.2	3.6		--	0.8	0.1	11.8	12.7	
Laclede	0.2	0.2	1.9	1.2	3.6		1.3	0.4	7.7	4.7	14.2	
Maries	--	0.7	0.3	3.8	4.8		--	2.0	1.3	15.4	18.6	
Miller	--	0.5	0.4	8.1	9.0		--	1.2	0.1	29.1	30.3	
Morgan	--	0.1	0.1	9.3	9.4		--	0.1	0.4	42.3	42.8	
Phelps	0.0	0.5	2.2	5.7	8.5		0.3	1.4	7.5	18.9	28.1	
Polk	--	0.4	0.2	0.7	1.3		--	1.3	0.4	1.8	3.4	
Pulaski	0.1	0.5	0.6	9.2	10.4		0.3	1.2	1.1	23.2	25.8	
St. Clair	--	0.1	1.3	3.1	4.5		--	--	6.5	14.0	20.4	
Total	0.4	4.1	10.5	57.0	72.0		1.8	9.5	36.6	216.1	264.0	

(Table MO-60 continued on next page)

(Table MO-60 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard species	
Prairie												
Adair	--	--	0.1	1.8	1.9		--	--	0.7	6.7	7.4	
Andrew	--	0.0	1.9	1.4	3.4		--	--	6.5	5.5	12.0	
Atchison	--	--	1.3	1.9	3.3		--	--	5.4	6.7	12.1	
Audrain	--	--	0.9	1.1	2.0		--	--	3.4	7.4	10.8	
Barton	--	--	0.1	0.7	0.8		--	--	0.7	2.9	3.6	
Bates	--	--	0.6	1.7	2.2		--	--	0.7	7.3	7.9	
Buchanan	--	--	1.3	0.4	1.7		--	--	6.7	1.5	8.2	
Caldwell	--	--	0.2	0.2	0.4		--	--	0.7	0.4	1.1	
Carroll	--	--	0.6	2.1	2.7		--	--	--	5.0	5.0	
Cass	--	0.0	0.9	1.2	2.1		--	--	1.3	5.1	6.5	
Chariton	--	0.1	0.8	2.5	3.5		--	--	3.9	9.9	13.8	
Clark	--	0.1	0.8	0.8	1.7		--	0.1	3.0	3.6	6.7	
Clay	-0.1	--	0.6	0.7	1.2		-0.3	--	1.7	3.0	4.4	
Cooper	--	0.3	2.2	1.4	3.9		--	0.7	6.8	5.1	12.6	
Dade	--	0.1	0.0	1.5	1.6		--	0.1	0.2	5.2	5.4	
Daviess	--	--	0.2	0.8	1.0		--	--	0.6	5.2	5.8	
DeKalb	--	--	-0.6	0.5	-0.1		--	--	-2.9	1.0	-2.0	
Gentry	--	--	1.4	2.1	3.5		--	--	4.0	10.6	14.6	
Greene	--	0.1	0.6	5.0	5.6		--	0.3	2.7	25.0	28.1	
Grundy	--	--	0.4	0.4	0.8		--	--	1.6	2.5	4.1	
Harrison	--	0.0	0.9	2.0	2.9		--	--	3.8	7.7	11.6	
Henry	--	0.1	0.2	1.9	2.2		--	0.4	0.6	9.0	10.0	
Holt	--	--	0.2	0.8	1.0		--	--	1.6	3.4	4.9	
Jackson	--	--	0.7	1.1	1.8		--	--	3.7	2.9	6.6	
Jasper	--	--	0.8	1.8	2.6		--	--	3.5	6.7	10.2	
Johnson	--	0.1	3.1	1.6	4.7		--	0.2	12.5	5.7	18.4	
Knox	--	0.0	0.8	1.1	1.9		--	--	2.7	3.4	6.1	
Lafayette	--	--	0.5	1.2	1.6		--	--	0.7	6.1	6.8	
Lawrence	--	0.0	0.4	2.9	3.4		--	--	1.1	12.5	13.6	
Lewis	--	0.2	1.3	3.7	5.2		--	0.4	4.5	15.4	20.3	
Lincoln	--	0.1	0.7	3.9	4.7		--	--	1.5	16.2	17.7	
Linn	--	--	0.5	0.2	0.7		--	--	2.8	0.3	3.1	
Livingston	--	0.0	2.3	0.6	2.9		--	0.0	7.9	2.9	10.8	

(Table MO-60 continued on next page)

(Table MO-60 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group						Major species group					
	Pine	Other softwoods	hardwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	hardwoods	Soft hardwoods	Hard hardwoods	All species
Prairie												
Macon	--	0.0	-0.3		2.1	1.8	--	--		-2.7	7.6	4.9
Marion	--	0.0	0.2		1.2	1.4	--	--		0.9	5.5	6.4
Mercer	--	0.0	0.4		0.9	1.3	--	--		2.1	7.2	9.2
Monroe	--	0.4	0.8		4.3	5.5	--	1.1		4.0	14.1	19.2
Nodaway	--	--	0.1		0.9	1.0	--	--		0.3	2.7	3.0
Pettis	--	0.0	0.4		1.0	1.5	--	--		0.8	3.5	4.3
Pike	--	0.0	1.7		3.8	5.5	--	--		6.9	18.9	25.8
Platte	--	--	0.5		0.5	1.0	--	--		2.2	4.7	6.9
Putnam	--	--	0.4		1.6	2.0	--	--		1.0	5.0	5.9
Rails	--	0.1	0.0		2.4	2.6	--	0.3		-0.5	5.7	5.5
Randolph	--	0.0	0.4		3.2	3.6	--	--		1.0	12.1	13.2
Ray	--	--	1.1		0.5	1.6	--	--		5.4	1.6	7.0
Saline	--	0.0	2.0		4.2	6.2	--	--		5.6	17.4	23.0
Schuyler	--	0.1	0.1		1.6	1.7	--	--		--	3.6	3.6
Scotland	--	0.0	0.6		1.3	2.0	--	--		2.5	5.2	7.7
Shelby	--	--	2.0		1.8	3.8	--	--		6.7	4.7	11.4
Sullivan	--	0.0	0.6		2.3	2.9	--	--		1.8	8.0	9.8
Vernon	--	--	1.4		1.4	2.9	--	--		6.3	7.4	13.7
Worth	--	--	0.3		0.5	0.8	--	--		1.0	1.5	2.5
Total	-0.1	1.8	39.9		86.6	128.1	-0.3	3.6		139.8	348.4	491.4

(Table MO-60 continued on next page)

(Table MO-60 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Riverborder												
Boone	--	0.5	0.9	4.5	5.9		--	1.9	0.8	15.8	18.6	
Callaway	--	0.4	0.6	7.2	8.2		--	1.6	2.7	35.0	39.2	
Cape Girardeau	--	--	1.5	3.4	4.8		--	--	8.3	16.6	24.9	
Cole	--	0.3	0.3	0.9	1.5		--	1.4	1.2	6.0	8.6	
Dunklin	--	--	0.0	0.1	0.1		--	--	0.3	0.4	0.7	
Franklin	0.5	0.9	2.7	12.2	16.3		2.2	3.1	9.8	50.5	65.6	
Gasconade	--	0.7	1.3	4.3	6.3		--	2.0	5.3	17.3	24.6	
Howard	--	0.0	0.2	2.0	2.3		--	--	0.7	7.5	8.1	
Jefferson	1.2	0.8	0.1	0.9	3.0		5.9	2.0	-0.8	4.5	11.7	
Mississippi	--	--	0.2	0.0	0.2		--	--	0.9	--	0.9	
Moniteau	--	0.1	1.3	1.2	2.6		--	0.0	3.5	6.1	9.6	
Montgomery	--	1.6	3.0	3.3	7.8		--	4.8	11.6	17.3	33.7	
New Madrid	--	--	0.9	0.3	1.2		--	--	1.5	1.3	2.8	
Osage	--	0.9	0.5	1.2	2.6		--	1.5	0.1	9.3	10.9	
Pemiscot	--	--	0.1	--	0.1		--	--	--	--	--	
Perry	0.1	0.1	0.8	2.5	3.5		0.2	0.0	0.8	12.0	13.0	
St. Charles	--	0.3	0.8	3.1	4.2		--	1.9	3.1	15.3	20.3	
Ste. Genevieve	1.5	0.4	0.2	4.9	7.1		7.9	1.4	--	20.4	29.6	
St. Louis	--	--	4.3	2.4	6.8		--	--	18.5	10.5	28.9	
Scott	--	--	0.5	0.5	1.0		--	--	1.9	1.3	3.2	
Stoddard	2.5	--	0.5	2.6	5.6		8.5	--	1.7	10.1	20.4	
Warren	0.1	0.3	0.1	5.1	5.6		1.0	1.4	0.2	25.3	27.9	
Total	5.9	7.3	20.7	62.8	96.7		25.7	23.2	72.1	282.2	403.3	
All counties	29.0	22.0	88.4	361.0	500.4		147.3	58.1	294.0	1,494.8	1,994.2	

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table MO-60a.—Average annual net growth of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (Doyle rule), in million board feet, on timberland by inventory unit, county, and major species group, Missouri, 2003 to 2008

Inventory unit and county	Growing-stock					Sawtimber					
	Major species group				All species	Major species group				All species	
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods		Pine	Other softwoods	Soft hardwoods	Hard hardwoods		
Eastern Ozarks											
Butler	0.5	0.0	1.1	3.4	5.0	1.3	--	1.4	9.6	12.3	
Carter	2.1	0.0	0.4	4.3	6.8	4.9	--	0.6	4.8	10.2	
Crawford	0.1	0.3	0.5	4.6	5.5	0.1	0.4	0.1	13.2	13.8	
Dent	1.2	0.2	0.3	7.7	9.4	2.8	0.0	0.3	16.5	19.6	
Iron	0.5	0.3	0.1	4.9	5.8	0.9	0.2	0.2	11.6	12.9	
Madison	1.4	0.3	0.5	5.6	7.7	3.3	0.2	0.6	12.6	16.8	
Oregon	2.0	0.0	0.2	9.0	11.3	7.9	--	0.1	20.0	27.9	
Reynolds	1.9	0.1	2.2	8.0	12.2	5.3	0.3	0.8	18.2	24.6	
Ripley	1.5	0.1	1.9	7.5	10.9	4.8	0.1	2.7	14.4	22.0	
St. Francois	0.3	0.9	0.1	6.1	7.3	0.7	0.6	0.0	16.3	17.6	
Shannon	2.4	0.1	0.6	11.5	14.6	5.3	0.0	0.8	25.3	31.4	
Washington	1.4	0.6	0.5	7.5	10.1	4.0	0.7	0.3	15.9	20.8	
Wayne	1.8	0.0	0.4	10.1	12.4	5.1	0.2	0.3	20.2	25.8	
Total	17.0	2.9	8.8	90.4	119.0	46.4	2.8	8.3	198.4	255.8	
Southwestern Ozarks											
Barry	0.5	0.6	0.4	5.1	6.6	1.2	1.2	0.6	12.4	15.4	
Christian	0.1	0.5	0.0	2.1	2.6	0.1	0.6	0.2	4.6	5.4	
Douglas	0.7	0.3	0.5	4.1	5.7	2.2	0.2	1.2	6.4	10.1	
Howell	1.2	0.0	0.2	7.3	8.7	2.7	--	0.2	12.0	14.9	
McDonald	-0.2	0.1	0.7	5.3	5.9	-0.6	0.1	1.3	11.3	12.0	
Newton	--	0.1	0.2	2.5	2.8	--	0.2	--	6.4	6.6	
Ozark	0.7	0.5	3.1	4.1	8.4	1.8	0.5	10.8	8.4	21.5	
Stone	--	0.9	0.2	3.1	4.1	--	1.1	0.0	5.9	7.1	
Taney	0.2	1.8	0.7	4.3	6.9	0.7	1.4	0.7	7.0	9.7	
Texas	2.8	0.3	1.3	16.1	20.5	6.5	0.3	2.6	25.3	34.7	
Webster	--	0.3	0.8	6.4	7.6	--	--	2.1	13.9	15.9	
Wright	0.0	0.5	0.4	3.9	4.8	0.1	0.0	0.9	7.1	8.1	
Total	5.8	6.0	8.5	64.3	84.5	14.6	5.6	20.6	120.7	161.4	

(Table MO-60a continued on next page)

(Table MO-60a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	species
Northwestern Ozarks												
Benton	--	0.4	0.3	3.7	4.3	4.3	--	0.4	0.3	8.3	9.0	9.0
Camden	--	0.2	0.5	4.9	5.6	5.6	--	--	1.3	10.8	12.1	12.1
Cedar	--	0.1	1.3	0.9	2.3	2.3	--	--	2.9	1.3	4.3	4.3
Dallas	--	-0.1	1.2	3.3	4.3	4.3	--	0.0	3.3	7.8	11.1	11.1
Hickory	--	0.3	0.2	3.2	3.6	3.6	--	0.3	0.1	5.5	5.8	5.8
Laclede	0.2	0.2	1.9	1.2	3.6	3.6	0.5	0.2	8.1	2.0	10.7	10.7
Maries	--	0.7	0.3	3.8	4.8	4.8	--	0.8	0.6	7.5	8.9	8.9
Miller	--	0.5	0.4	8.1	9.0	9.0	--	0.5	0.0	15.5	16.0	16.0
Morgan	--	0.1	0.1	9.3	9.4	9.4	--	0.0	0.2	22.4	22.6	22.6
Phelps	0.0	0.5	2.2	5.7	8.5	8.5	0.1	0.6	5.8	8.3	14.8	14.8
Polk	--	0.4	0.2	0.7	1.3	1.3	--	0.4	0.2	-1.8	-1.1	-1.1
Pulaski	0.1	0.5	0.6	9.2	10.4	10.4	0.1	0.4	0.5	11.9	13.0	13.0
St. Clair	--	0.1	1.3	3.1	4.5	4.5	--	--	4.7	6.1	10.8	10.8
Total	0.4	4.1	10.5	57.0	72.0	72.0	0.8	3.6	28.0	105.7	138.1	138.1

(Table MO-60a continued on next page)

(Table MO-60a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	softwoods	hardwoods	Other	Soft	Hard	Pine	softwoods	hardwoods	Soft	Hard	All species
Prairie												
Adair	--	--	0.1	--	1.8	1.9	--	--	0.3	3.4	3.7	3.7
Andrew	--	0.0	1.9	1.4	3.4	8.4	--	--	4.6	3.8	8.4	8.4
Atchison	--	--	1.3	1.9	3.3	7.1	--	--	3.2	3.9	7.1	7.1
Audrain	--	--	0.9	1.1	2.0	5.2	--	--	2.1	3.1	5.2	5.2
Barton	--	--	0.1	0.7	0.8	1.9	--	--	0.3	1.7	1.9	1.9
Bates	--	--	0.6	1.7	2.2	4.9	--	--	0.5	4.3	4.9	4.9
Buchanan	--	--	1.3	0.4	1.7	5.2	--	--	4.5	0.7	5.2	5.2
Caldwell	--	--	0.2	0.2	0.4	0.7	--	--	0.4	0.3	0.7	0.7
Carroll	--	--	0.6	2.1	2.7	3.0	--	--	--	3.0	3.0	3.0
Cass	--	0.0	0.9	1.2	2.1	3.7	--	--	0.7	2.9	3.7	3.7
Chariton	--	0.1	0.8	2.5	3.5	7.5	--	--	2.4	5.2	7.5	7.5
Clark	--	0.1	0.8	0.8	1.7	3.3	--	0.0	1.6	1.6	3.3	3.3
Clay	-0.1	--	0.6	0.7	1.2	3.1	-0.1	--	1.5	1.7	3.1	3.1
Cooper	--	0.3	2.2	1.4	3.9	7.5	--	0.3	4.5	2.7	7.5	7.5
Dade	--	0.1	0.0	1.5	1.6	3.1	--	--	0.1	3.0	3.1	3.1
Daviess	--	--	0.2	0.8	1.0	2.5	--	--	0.4	2.2	2.5	2.5
DeKalb	--	--	-0.6	0.5	-0.1	-1.0	--	--	-1.5	0.5	-1.0	-1.0
Gentry	--	--	1.4	2.1	3.5	7.6	--	--	2.0	5.6	7.6	7.6
Greene	--	0.1	0.6	5.0	5.6	16.7	--	0.1	1.6	15.0	16.7	16.7
Grundy	--	--	0.4	0.4	0.8	2.2	--	--	1.1	1.2	2.2	2.2
Harrison	--	0.0	0.9	2.0	2.9	5.9	--	--	1.9	4.0	5.9	5.9
Henry	--	0.1	0.2	1.9	2.2	5.7	--	0.1	0.4	5.2	5.7	5.7
Holt	--	--	0.2	0.8	1.0	2.7	--	--	0.7	2.0	2.7	2.7
Jackson	--	--	0.7	1.1	1.8	3.9	--	--	2.3	1.6	3.9	3.9
Jasper	--	--	0.8	1.8	2.6	5.6	--	--	1.9	3.6	5.6	5.6
Johnson	--	0.1	3.1	1.6	4.7	10.1	--	0.1	7.7	2.3	10.1	10.1
Knox	--	0.0	0.8	1.1	1.9	3.4	--	--	1.4	2.0	3.4	3.4
Lafayette	--	--	0.5	1.2	1.6	3.8	--	--	0.3	3.5	3.8	3.8
Lawrence	--	0.0	0.4	2.9	3.4	8.2	--	--	0.8	7.4	8.2	8.2
Lewis	--	0.2	1.3	3.7	5.2	12.2	--	0.1	2.5	9.6	12.2	12.2
Lincoln	--	0.1	0.7	3.9	4.7	9.9	--	--	1.1	8.8	9.9	9.9
Linn	--	--	0.5	0.2	0.7	2.1	--	--	1.4	0.7	2.1	2.1
Livingston	--	0.0	2.3	0.6	2.9	6.3	--	0.0	4.7	1.5	6.3	6.3

(Table MO-60a continued on next page)

(Table MO-60a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	softwoods	Other	hardwoods	Soft	Hard	Pine	softwoods	Other	hardwoods	Soft	Hard
Prairie												
Macon	--	0.0	0.0	-0.3	2.1	1.8	--	--	--	--	-2.2	4.3
Marion	--	0.0	0.0	0.2	1.2	1.4	--	--	--	--	0.4	3.3
Mercer	--	0.0	0.0	0.4	0.9	1.3	--	--	--	--	0.9	3.8
Monroe	--	0.4	0.4	0.8	4.3	5.5	--	--	0.6	2.0	2.0	6.2
Nodaway	--	--	--	0.1	0.9	1.0	--	--	--	--	0.1	1.3
Pettis	--	0.0	0.0	0.4	1.0	1.5	--	--	--	--	0.5	2.1
Pike	--	0.0	0.0	1.7	3.8	5.5	--	--	--	--	7.4	11.8
Platte	--	--	--	0.5	0.5	1.0	--	--	--	--	1.1	2.0
Putnam	--	--	--	0.4	1.6	2.0	--	--	--	--	0.4	2.8
Ralls	--	0.1	0.1	0.0	2.4	2.6	--	--	0.1	0.0	0.0	3.5
Randolph	--	0.0	0.0	0.4	3.2	3.6	--	--	--	--	0.7	5.8
Ray	--	--	--	1.1	0.5	1.6	--	--	--	--	2.9	0.8
Saline	--	0.0	0.0	2.0	4.2	6.2	--	--	--	--	4.2	11.4
Schuyler	--	0.1	0.1	0.1	1.6	1.7	--	--	--	--	--	1.7
Scotland	--	0.0	0.0	0.6	1.3	2.0	--	--	--	--	1.3	2.7
Shelby	--	--	--	2.0	1.8	3.8	--	--	--	--	4.6	2.5
Sullivan	--	0.0	0.0	0.6	2.3	2.9	--	--	--	--	1.6	4.5
Vernon	--	--	--	1.4	1.4	2.9	--	--	--	--	3.5	7.1
Worth	--	--	--	0.3	0.5	0.8	--	--	--	--	0.7	0.8
Total	-0.1	1.8	1.8	39.9	86.6	128.1	-0.1	1.5	1.5	87.4	193.1	281.8

(Table MO-60a continued on next page)

(Table MO-60a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	softwoods	Other	hardwoods	Soft	Hard	Pine	softwoods	Other	hardwoods	Soft	Hard
						species						species
Riverborder												
Boone	--	0.5	0.9	4.5	5.9	8.8	--	0.7	0.3	8.8	9.8	9.8
Callaway	--	0.4	0.6	7.2	8.2	20.1	--	0.6	2.0	20.1	22.7	22.7
Cape Girardeau	--	--	1.5	3.4	4.8	9.0	--	--	4.7	9.0	13.7	13.7
Cole	--	0.3	0.3	0.9	1.5	2.7	--	0.5	0.9	2.7	4.1	4.1
Dunklin	--	--	0.0	0.1	0.1	0.4	--	--	0.1	0.3	0.4	0.4
Franklin	0.5	0.9	2.7	12.2	16.3	37.9	1.3	1.2	5.8	29.5	37.9	37.9
Gasconade	--	0.7	1.3	4.3	6.3	13.5	--	1.1	3.7	8.7	13.5	13.5
Howard	--	0.0	0.2	2.0	2.3	4.0	--	--	-0.1	4.1	4.0	4.0
Jefferson	1.2	0.8	0.1	0.9	3.0	4.3	4.2	0.8	-0.3	-0.4	4.3	4.3
Mississippi	--	--	0.2	0.0	0.2	0.0	--	--	0.0	--	0.0	0.0
Moniteau	--	0.1	1.3	1.2	2.6	5.1	--	0.0	1.9	3.2	5.1	5.1
Montgomery	--	1.6	3.0	3.3	7.8	18.3	--	2.0	7.7	8.6	18.3	18.3
New Madrid	--	--	0.9	0.3	1.2	1.4	--	--	0.8	0.7	1.4	1.4
Osage	--	0.9	0.5	1.2	2.6	1.3	--	0.5	0.1	0.7	1.3	1.3
Pemiscot	--	--	0.1	--	0.1	--	--	--	--	--	--	--
Perry	0.1	0.1	0.8	2.5	3.5	6.9	0.1	0.0	0.4	6.4	6.9	6.9
St. Charles	--	0.3	0.8	3.1	4.2	11.9	--	0.8	1.6	9.5	11.9	11.9
Ste. Genevieve	1.5	0.4	0.2	4.9	7.1	18.4	5.9	0.5	--	12.0	18.4	18.4
St. Louis	--	--	4.3	2.4	6.8	24.5	--	--	17.3	7.3	24.5	24.5
Scott	--	--	0.5	0.5	1.0	1.7	--	--	1.1	0.6	1.7	1.7
Stoddard	2.5	--	0.5	2.6	5.6	10.2	3.2	--	0.8	6.3	10.2	10.2
Warren	0.1	0.3	0.1	5.1	5.6	14.9	0.6	0.6	0.1	13.6	14.9	14.9
Total	5.9	7.3	20.7	62.8	96.7	225.1	15.2	9.6	48.7	151.6	225.1	225.1
All counties	29.0	22.0	88.4	361.0	500.4	1,062.3	76.9	23.0	193.0	769.5	1,062.3	1,062.3

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table MO-61.—Average annual removals of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (International 1/4-inch rule), in million board feet, on timberland by inventory unit, county, and major species group, Missouri, 2003 to 2008

Inventory unit and county	Growing-stock					Sawtimber					
	Major species group				All species	Major species group				All species	
	Pine	softwoods	Other hardwoods	Soft hardwoods		Hard hardwoods	Pine	softwoods	Other hardwoods		Soft hardwoods
Eastern Ozarks											
Butler	0.4	--	--	--	2.5	3.0	1.5	--	--	11.2	12.7
Carter	--	--	--	--	3.0	3.0	--	--	--	11.0	11.0
Crawford	--	--	--	0.0	0.7	0.7	--	--	--	1.9	1.9
Dent	--	--	--	0.0	2.3	2.3	--	--	--	10.5	10.5
Iron	--	--	--	0.0	2.5	2.5	--	--	--	11.2	11.2
Madison	0.4	--	--	--	3.4	3.8	1.4	--	--	13.3	14.7
Oregon	0.5	--	--	--	3.5	4.0	2.4	--	--	15.4	17.8
Reynolds	1.1	--	--	0.0	4.0	5.1	5.7	--	--	18.0	23.7
Ripley	0.1	0.0	0.1	0.1	2.0	2.2	--	--	0.6	7.8	8.4
St. Francois	0.1	0.1	0.6	0.6	4.5	5.3	0.5	--	2.6	16.1	19.3
Shannon	0.3	--	--	--	3.9	4.2	--	--	--	13.1	13.1
Washington	--	--	--	--	2.3	2.3	--	--	--	6.7	6.7
Wayne	0.0	0.3	0.3	0.3	2.5	3.1	--	1.3	--	7.8	9.1
Total	2.9	0.4	1.1	1.1	37.2	41.6	11.5	1.3	3.2	144.1	160.2
Southwestern Ozarks											
Barry	--	0.0	0.1	0.1	6.3	6.5	--	--	--	28.1	28.1
Christian	--	0.1	--	--	--	0.1	--	--	--	--	--
Douglas	--	0.0	0.1	0.1	3.7	3.8	--	--	--	11.3	11.3
Howell	--	--	0.0	0.0	3.7	3.7	--	--	--	13.2	13.2
McDonald	--	0.1	0.1	0.1	3.7	3.9	--	--	--	13.5	13.5
Newton	--	--	--	--	5.6	5.6	--	--	--	25.8	25.8
Ozark	0.1	0.1	--	--	3.2	3.5	0.8	0.4	--	14.9	16.1
Stone	--	0.3	--	--	0.6	0.9	--	1.0	--	0.9	1.9
Taney	--	0.3	--	--	0.8	1.1	--	0.6	--	2.4	3.0
Texas	0.2	--	0.1	0.1	2.3	2.6	0.6	--	--	7.9	8.5
Webster	--	0.0	0.2	0.2	1.5	1.7	--	--	--	6.6	6.6
Wright	--	0.5	--	--	0.5	1.0	--	1.2	--	1.8	3.0
Total	0.4	1.4	0.5	0.5	32.0	34.4	1.4	3.1	--	126.5	131.0

(Table MO-61 continued on next page)

(Table MO-61 continued)

Inventory unit and county	Growing-stock					Sawtimber				
	Major species group					Major species group				
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species
Northwestern Ozarks										
Benton	--	--	--	1.7	1.7	--	--	--	3.1	3.1
Camden	--	0.0	--	3.3	3.3	--	--	--	14.5	14.5
Cedar	--	0.0	4.9	0.4	5.3	--	--	18.0	1.9	19.9
Dallas	--	0.1	--	--	0.1	--	--	--	--	--
Hickory	--	--	--	0.2	0.2	--	--	--	--	--
Laclede	--	--	0.0	1.3	1.3	--	--	--	4.6	4.6
Maries	--	0.0	--	1.7	1.7	--	--	--	8.1	8.1
Miller	--	0.1	--	2.4	2.5	--	--	--	3.7	3.7
Morgan	--	0.0	--	4.0	4.0	--	--	--	13.8	13.8
Phelps	--	0.4	0.2	1.0	1.6	--	0.5	1.0	3.2	4.7
Polk	--	0.1	0.0	0.0	0.2	--	0.3	--	--	0.3
Pulaski	--	--	--	0.2	0.2	--	--	--	0.9	0.9
St. Clair	--	--	0.0	0.8	0.8	--	--	--	1.8	1.8
Total	--	0.7	5.2	17.0	22.9	--	0.7	19.0	55.6	75.4

(Table MO-61 continued on next page)

(Table MO-61 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	All species
Prairie												
Andrew	--	--	1.8	1.6	3.5		--	--	7.7	7.3	15.0	
Atchison	--	--	0.1	--	0.1		--	--	0.2	--	0.2	
Audrain	--	--	0.1	0.1	0.1		--	--	--	--	--	
Barton	--	--	0.2	0.3	0.5		--	--	0.8	0.8	1.6	
Bates	--	--	0.1	--	0.1		--	--	0.3	--	0.3	
Cass	--	--	0.0	--	0.0		--	--	--	--	--	
Chariton	--	--	0.0	--	0.0		--	--	--	--	--	
Clark	--	--	0.0	0.6	0.6		--	--	--	2.4	2.4	
Clay	--	--	0.0	0.3	0.4		--	--	--	1.5	1.5	
Cooper	--	0.0	--	--	0.0		--	--	--	--	--	
Davies	--	--	--	0.1	0.1		--	--	--	--	--	
DeKalb	--	--	--	0.3	0.3		--	--	--	--	--	
Gentry	--	--	0.0	1.0	1.0		--	--	--	3.8	3.8	
Greene	--	--	0.6	1.7	2.3		--	--	0.6	4.6	5.2	
Grundy	--	--	1.0	2.8	3.8		--	--	4.4	12.3	16.7	
Harrison	--	--	0.0	0.4	0.4		--	--	--	0.9	0.9	
Henry	--	--	--	0.7	0.7		--	--	--	3.0	3.0	
Holt	--	--	--	0.7	0.7		--	--	--	3.0	3.0	
Jackson	--	--	4.8	0.0	4.8		--	--	21.1	--	21.1	
Jasper	--	--	--	0.3	0.3		--	--	--	1.3	1.3	
Johnson	--	--	0.0	0.3	0.4		--	--	--	0.8	0.8	
Knox	--	--	0.0	2.1	2.2		--	--	--	7.6	7.6	
Lafayette	--	--	0.3	1.2	1.5		--	--	--	5.5	5.5	
Lawrence	--	--	0.0	--	0.0		--	--	--	--	--	
Lincoln	--	--	--	0.2	0.2		--	--	--	0.8	0.8	
Linn	--	--	--	0.1	0.1		--	--	--	--	--	
Livingston	--	--	0.0	--	0.0		--	--	--	--	--	
Macon	--	--	0.9	0.8	1.8		--	--	3.3	3.0	6.3	
Marion	--	--	0.2	0.4	0.7		--	--	0.7	2.0	2.7	
Pike	--	--	--	3.3	3.3		--	--	--	16.0	16.0	
Platte	--	--	0.2	--	0.2		--	--	1.1	--	1.1	
Putnam	--	--	0.0	2.0	2.1		--	--	--	9.3	9.3	
Ralls	--	--	--	0.1	0.1		--	--	--	--	--	

(Table MO-61 continued on next page)

(Table MO-61 continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			Major species group			Major species group			Major species group		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	All species	
Prairie												
Randolph	--	--	--	0.7	0.7		--	--	--	2.8	2.8	
Ray	--	--	6.6	0.1	6.7		--	--	25.5	--	25.5	
Saline	--	0.1	0.2	0.7	1.0		--	--	0.6	3.5	4.1	
Scotland	--	--	--	1.6	1.6		--	--	--	6.2	6.2	
Shelby	--	--	--	0.6	0.6		--	--	--	2.5	2.5	
Vernon	--	--	0.3	1.0	1.3		--	--	0.4	3.1	3.5	
Total	--	0.1	17.6	26.2	43.9		--	--	66.8	103.9	170.7	
Riverborder												
Boone	--	--	--	1.5	1.5		--	--	--	6.4	6.4	
Callaway	--	0.1	0.0	0.6	0.7		--	--	--	1.4	1.4	
Cape Girardeau	--	--	--	3.1	3.1		--	--	--	13.6	13.6	
Cole	--	0.3	--	--	0.3		--	1.5	--	--	1.5	
Dunklin	--	--	0.2	--	0.2		--	--	1.0	--	1.0	
Franklin	--	0.1	--	0.6	0.7		--	--	--	2.7	2.7	
Gasconade	--	0.1	--	--	0.1		--	0.4	--	--	0.4	
Howard	--	--	0.4	1.8	2.1		--	--	1.6	7.8	9.4	
Jefferson	0.5	0.0	0.7	1.4	2.7		2.3	--	3.2	5.5	11.1	
Mississippi	--	--	0.1	--	0.1		--	--	--	--	--	
Montgomery	--	--	0.0	2.1	2.1		--	--	--	9.6	9.6	
New Madrid	--	--	1.4	--	1.4		--	--	6.1	--	6.1	
Osage	--	0.1	0.2	1.8	2.1		--	--	--	4.0	4.0	
Perry	--	--	--	0.2	0.2		--	--	--	0.9	0.9	
St. Charles	--	--	--	3.5	3.5		--	--	--	13.7	13.7	
Ste. Genevieve	--	--	0.1	2.5	2.6		--	--	--	11.4	11.4	
Scott	--	--	0.1	--	0.1		--	--	--	--	--	
Stoddard	--	--	--	0.7	0.7		--	--	--	3.1	3.1	
Warren	--	--	0.0	6.2	6.3		--	--	--	24.3	24.3	
Total	0.5	0.7	3.3	25.9	30.4		2.3	1.9	12.0	104.3	120.6	
All counties	3.7	3.4	27.7	138.4	173.2		15.3	7.0	101.1	534.4	657.8	

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table MO-61a.—Average annual removals of growing-stock trees (at least 5 inches d.b.h.), in million cubic feet, and sawtimber trees (Doyle rule), in million board feet, on timberland by inventory unit, county, and major species group, Missouri, 2003 to 2008

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	All species
Eastern Ozarks												
Butler	0.4	--	--	--	2.5	3.0	0.9	--	--	--	6.3	7.2
Carter	--	--	--	--	3.0	3.0	--	--	--	--	6.1	6.1
Crawford	--	--	0.0	0.7	0.7	0.7	--	--	--	--	0.9	0.9
Dent	--	--	0.0	2.3	2.3	2.3	--	--	--	--	5.9	5.9
Iron	--	--	0.0	2.5	2.5	2.5	--	--	--	--	6.4	6.4
Madison	0.4	--	--	3.4	3.4	3.8	0.8	--	--	--	7.5	8.3
Oregon	0.5	--	--	3.5	3.5	4.0	1.2	--	--	--	8.8	10.0
Reynolds	1.1	--	0.0	4.0	4.0	5.1	3.2	--	--	--	8.8	11.9
Ripley	0.1	0.0	0.1	2.0	2.0	2.2	--	--	0.3	--	3.7	4.0
St. Francois	0.1	0.1	0.6	4.5	4.5	5.3	0.2	--	2.1	8.9	11.1	11.1
Shannon	0.3	--	--	3.9	3.9	4.2	--	--	--	7.9	7.9	7.9
Washington	--	--	--	2.3	2.3	2.3	--	--	--	3.5	3.5	3.5
Wayne	0.0	0.3	0.3	2.5	2.5	3.1	--	0.7	--	4.1	4.1	4.9
Total	2.9	0.4	1.1	37.2	37.2	41.6	6.3	0.7	2.3	78.7	78.7	88.0
Southwestern Ozarks												
Barry	--	0.0	0.1	6.3	6.3	6.5	--	--	--	16.6	16.6	16.6
Christian	--	0.1	--	--	--	0.1	--	--	--	--	--	--
Douglas	--	0.0	0.1	3.7	3.7	3.8	--	--	--	5.2	5.2	5.2
Howell	--	--	0.0	3.7	3.7	3.7	--	--	--	10.1	10.1	10.1
McDonald	--	0.1	0.1	3.7	3.7	3.9	--	--	--	7.4	7.4	7.4
Newton	--	--	--	5.6	5.6	5.6	--	--	--	16.6	16.6	16.6
Ozark	0.1	0.1	--	3.2	3.2	3.5	0.4	0.1	--	7.7	7.7	8.2
Stone	--	0.3	--	0.6	0.6	0.9	--	0.4	--	0.5	0.5	0.8
Taney	--	0.3	--	0.8	0.8	1.1	--	0.3	--	1.4	1.4	1.7
Texas	0.2	--	0.1	2.3	2.3	2.6	0.4	--	--	4.6	4.6	4.9
Webster	--	0.0	0.2	1.5	1.5	1.7	--	--	--	4.4	4.4	4.4
Wright	--	0.5	--	0.5	0.5	1.0	--	0.3	--	1.0	1.0	1.2
Total	0.4	1.4	0.5	32.0	32.0	34.4	0.7	1.0	--	75.4	75.4	77.2

(Table MO-61a continued on next page)

(Table MO-61a continued)

Inventory unit and county	Growing-stock						Sawtimber					
	Major species group			All species			Major species group			All species		
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	All species	Pine	Other softwoods	Soft hardwoods	Hard hardwoods	Hard	All species
Northwestern Ozarks												
Benton	--	--	--	--	1.7	1.7	--	--	--	--	1.7	1.7
Camden	--	0.0	--	--	3.3	3.3	--	--	--	--	9.2	9.2
Cedar	--	0.0	4.9	0.4	5.3	5.3	--	--	17.4	1.1	1.1	18.5
Dallas	--	0.1	--	--	0.1	0.1	--	--	--	--	--	--
Hickory	--	--	--	0.2	0.2	0.2	--	--	--	--	--	--
Laclede	--	--	0.0	1.3	1.3	1.3	--	--	--	--	2.9	2.9
Maries	--	0.0	--	1.7	1.7	1.7	--	--	--	--	4.0	4.0
Miller	--	0.1	--	2.4	2.5	2.5	--	--	--	--	2.2	2.2
Morgan	--	0.0	--	4.0	4.0	4.0	--	--	--	--	9.2	9.2
Phelps	--	0.4	0.2	1.0	1.6	1.6	--	0.2	0.6	1.5	1.5	2.3
Polk	--	0.1	0.0	0.0	0.2	0.2	--	0.1	--	--	--	0.1
Pulaski	--	--	--	0.2	0.2	0.2	--	--	--	0.5	0.5	0.5
St. Clair	--	--	0.0	0.8	0.8	0.8	--	--	--	0.7	0.7	0.7
Total	--	0.7	5.2	17.0	22.9	22.9	--	0.2	18.0	33.0	51.2	51.2

(Table MO-61a continued on next page)

(Table MO-61a continued)

Inventory unit and county	Growing-stock					Sawtimber				
	Major species group				All species	Major species group				All species
	Pine	Other softwoods	Soft hardwoods	Hard hardwoods		Pine	Other softwoods	Soft hardwoods	Hard hardwoods	
Prairie										
Andrew	--	--	1.8	1.6	3.5	--	--	8.8	5.3	14.1
Atchison	--	--	0.1	--	0.1	--	--	0.1	--	0.1
Audrain	--	--	0.1	0.1	0.1	--	--	--	--	--
Barton	--	--	0.2	0.3	0.5	--	--	0.6	0.3	0.9
Bates	--	--	0.1	--	0.1	--	--	0.1	--	0.1
Cass	--	--	0.0	--	0.0	--	--	--	--	--
Chariton	--	--	0.0	--	0.0	--	--	--	--	--
Clark	--	--	0.0	0.6	0.6	--	--	--	1.9	1.9
Clay	--	--	0.0	0.3	0.4	--	--	--	0.4	0.4
Cooper	--	0.0	--	--	0.0	--	--	--	--	--
Davies	--	--	--	0.1	0.1	--	--	--	--	--
DeKalb	--	--	--	0.3	0.3	--	--	--	--	--
Gentry	--	--	0.0	1.0	1.0	--	--	--	1.3	1.3
Greene	--	--	0.6	1.7	2.3	--	--	0.2	3.4	3.6
Grundy	--	--	1.0	2.8	3.8	--	--	2.8	6.8	9.6
Harrison	--	--	0.0	0.4	0.4	--	--	--	0.5	0.5
Henry	--	--	--	0.7	0.7	--	--	--	2.1	2.1
Holt	--	--	--	0.7	0.7	--	--	--	2.0	2.0
Jackson	--	--	4.8	0.0	4.8	--	--	22.3	--	22.3
Jasper	--	--	--	0.3	0.3	--	--	--	0.9	0.9
Johnson	--	--	0.0	0.3	0.4	--	--	--	--	--
Knox	--	--	0.0	2.1	2.2	--	--	--	5.4	5.4
Lafayette	--	--	0.3	1.2	1.5	--	--	--	3.8	3.8
Lawrence	--	--	0.0	--	0.0	--	--	--	--	--
Lincoln	--	--	--	0.2	0.2	--	--	--	0.4	0.4
Linn	--	--	--	0.1	0.1	--	--	--	--	--
Livingston	--	--	0.0	--	0.0	--	--	--	--	--
Macon	--	--	0.9	0.8	1.8	--	--	1.4	1.3	2.6
Marion	--	--	0.2	0.4	0.7	--	--	0.4	1.4	1.8
Pike	--	--	--	3.3	3.3	--	--	--	10.7	10.7
Platte	--	--	0.2	--	0.2	--	--	0.4	--	0.4
Putnam	--	--	0.0	2.0	2.1	--	--	--	7.0	7.0
Ralls	--	--	--	0.1	0.1	--	--	--	--	--

(Table MO-61a continued on next page)

(Table MO-61a continued)

Inventory unit and county	Growing-stock					Sawtimber				
	Major species group			All species		Major species group				All species
	Pine	Other softwoods	Soft hardwoods			Pine	Other softwoods	Soft hardwoods	Hard hardwoods	
Prairie										
Randolph	--	--	--	0.7	0.7	--	--	--	2.0	2.0
Ray	--	--	6.6	0.1	6.7	--	--	21.9	--	21.9
Saline	--	0.1	0.2	0.7	1.0	--	--	0.3	1.7	2.0
Scotland	--	--	--	1.6	1.6	--	--	--	7.0	7.0
Shelby	--	--	--	0.6	0.6	--	--	--	1.8	1.8
Vernon	--	--	0.3	1.0	1.3	--	--	0.2	1.8	2.0
Total	--	0.1	17.6	26.2	43.9	--	--	59.5	69.1	128.6
Riverborder										
Boone	--	--	--	1.5	1.5	--	--	--	3.6	3.6
Callaway	--	0.1	0.0	0.6	0.7	--	--	--	0.9	0.9
Cape Girardeau	--	--	--	3.1	3.1	--	--	--	10.1	10.1
Cole	--	0.3	--	--	0.3	--	0.7	--	--	0.7
Dunklin	--	--	0.2	--	0.2	--	--	0.6	--	0.6
Franklin	--	0.1	--	0.6	0.7	--	--	--	1.6	1.6
Gasconade	--	0.1	--	--	0.1	--	0.1	--	--	0.1
Howard	--	--	0.4	1.8	2.1	--	--	1.1	5.3	6.4
Jefferson	0.5	0.0	0.7	1.4	2.7	1.4	--	2.0	3.2	6.5
Mississippi	--	--	0.1	--	0.1	--	--	--	--	--
Montgomery	--	--	0.0	2.1	2.1	--	--	--	6.5	6.5
New Madrid	--	--	1.4	--	1.4	--	--	3.8	--	3.8
Osage	--	0.1	0.2	1.8	2.1	--	--	--	1.8	1.8
Perry	--	--	--	0.2	0.2	--	--	--	0.4	0.4
St. Charles	--	--	--	3.5	3.5	--	--	--	8.9	8.9
Ste. Genevieve	--	--	0.1	2.5	2.6	--	--	--	7.0	7.0
Scott	--	--	0.1	--	0.1	--	--	--	--	--
Stoddard	--	--	--	0.7	0.7	--	--	--	2.0	2.0
Warren	--	--	0.0	6.2	6.3	--	--	--	14.7	14.7
Total	0.5	0.7	3.3	25.9	30.4	1.4	0.8	7.5	66.0	75.7
All counties	3.7	3.4	27.7	138.4	173.2	8.4	2.8	87.2	322.1	420.6

All table cells without observations in the inventory sample are indicated by --. Table value of 0.0 indicates the volume rounds to less than 0.1 million cubic or board feet. Columns and rows may not add to their totals due to rounding.

Table MO-65.—Sampling errors, in percent, for net volume, average annual net growth, average annual removals, and average annual mortality on timberland, and forest and timberland area by inventory unit and county, Missouri, 2008

Inventory unit and county	Forest area	Timberland area	Growing stock				Sawtimber			
			Volume	Average annual net growth	Average annual removals	Average annual mortality	Volume	Average annual net growth	Average annual removals	Average annual mortality
Eastern Ozarks										
Butler	12.70	12.70	17.20	16.34	39.11	40.16	19.51	20.26	40.61	68.76
Carter	8.26	9.17	14.30	29.60	57.36	32.69	18.32	29.73	63.07	41.98
Crawford	6.63	6.63	9.57	20.08	71.20	26.91	12.00	20.51	98.39	40.08
Dent	7.75	7.75	11.36	25.93	65.98	29.05	15.48	26.21	67.39	48.17
Iron	8.83	8.68	11.49	24.93	74.05	30.64	15.18	21.29	76.42	38.78
Madison	8.60	8.53	13.00	16.48	35.74	53.11	15.27	16.98	41.39	95.11
Oregon	8.53	8.43	12.74	25.81	43.78	40.89	14.65	25.77	45.11	84.46
Reynolds	5.71	5.71	8.81	21.84	44.78	30.74	10.61	17.81	43.67	33.95
Ripley	8.63	8.63	13.39	20.03	56.58	35.96	16.35	18.62	63.51	51.73
St. Francois	9.05	8.44	15.78	33.32	46.41	63.57	20.50	39.06	49.33	78.19
Shannon	4.43	5.73	8.15	11.53	51.18	23.85	9.88	12.71	61.16	43.49
Washington	6.54	6.54	10.43	29.11	68.14	27.63	12.86	32.05	57.49	37.92
Wayne	6.58	7.11	9.97	11.27	54.07	36.76	12.61	15.00	81.04	57.05
Total	1.47	1.60	2.67	6.06	15.11	9.56	3.43	6.05	16.30	13.49
Southwestern Ozarks										
Barry	10.46	10.28	15.87	23.40	59.76	47.77	18.93	20.38	61.35	70.65
Christian	12.78	13.47	21.39	24.82	84.62	35.62	25.70	32.99	--	82.68
Douglas	6.52	6.52	11.22	18.04	39.06	37.07	15.70	23.33	41.40	53.55
Howell	7.76	7.70	12.83	17.39	44.92	30.37	15.92	20.80	52.74	44.75
McDonald	7.21	7.21	13.62	19.40	39.83	61.55	16.30	20.85	45.50	87.44
Newton	12.19	12.19	17.14	45.14	47.07	42.53	20.54	39.76	46.73	56.27
Ozark	7.22	7.08	13.96	20.06	36.72	35.96	17.78	24.64	38.50	57.99
Stone	9.03	8.88	10.89	16.86	96.66	45.33	17.53	22.47	100.00	96.81
Taney	8.16	8.59	14.51	25.64	46.16	63.77	18.10	31.86	63.26	97.69
Texas	5.25	5.23	9.58	17.17	55.30	31.44	12.23	17.55	64.70	58.82
Webster	7.30	7.30	14.19	15.16	66.79	57.06	17.36	15.15	69.32	99.75
Wright	7.55	8.48	11.24	18.69	49.57	46.55	16.05	26.47	62.81	72.76
Total	2.15	2.20	3.82	6.44	17.88	12.69	4.89	6.83	20.19	20.75

(Table MO-65 continued on next page)

(Table MO-65 continued)

Inventory unit and county	Growing stock						Sawtimber			
	Forest area	Timberland area	Volume	Average		Average annual mortality	Volume	Average		Average annual mortality
				annual net growth	annual removals			annual net growth	annual removals	
Northwestern Ozarks										
Benton	6.45	6.45	9.94	22.52	79.94	34.33	12.72	22.81	100.00	55.32
Camden	4.35	4.73	8.61	36.34	68.20	32.34	13.49	39.85	70.61	47.98
Cedar	14.15	14.15	24.98	38.89	88.81	53.35	32.35	45.09	89.71	89.71
Dallas	8.71	8.71	15.02	28.18	99.74	31.44	18.06	25.82	--	--
Hickory	6.90	7.83	14.48	27.80	100.00	70.13	23.81	32.55	--	97.60
Laclede	7.58	8.11	13.30	78.13	75.72	30.22	18.69	79.90	95.33	32.99
Maries	4.43	5.77	10.23	12.73	62.80	26.49	15.84	19.65	62.64	--
Miller	7.47	8.52	12.46	27.37	70.44	40.14	17.40	35.07	65.34	56.35
Morgan	5.78	5.78	7.90	29.37	59.54	27.55	10.76	26.70	70.85	53.80
Phelps	8.31	8.73	12.98	31.12	66.69	48.21	17.44	35.58	77.89	89.14
Polk	8.37	8.37	13.82	76.59	100.00	51.76	22.02	100.00	100.00	65.80
Pulaski	8.97	8.97	13.29	28.62	100.00	32.01	19.07	35.26	100.00	37.81
St. Clair	6.30	8.90	13.54	60.19	63.70	47.54	16.82	55.01	76.08	60.72
Total	2.01	2.17	3.39	9.89	28.56	12.30	4.68	10.68	32.44	17.72

(Table MO-65 continued on next page)

(Table MO-65 continued)

Inventory unit and county	Forest area	Timberland area	Growing stock				Sawtimber			
			Volume	Average annual net growth	Average annual removals	Average annual mortality	Volume	Average annual net growth	Average annual removals	Average annual mortality
Prairie										
Adair	18.84	18.84	26.13	34.39	--	51.31	28.67	34.66	--	100.00
Andrew	27.08	28.28	46.48	40.25	75.56	67.65	43.08	50.96	79.17	--
Atchison	25.68	25.68	48.41	70.33	100.00	100.00	54.83	72.60	100.00	--
Audrain	19.93	19.93	29.02	50.56	92.70	82.04	32.04	52.62	--	90.78
Barton	22.89	22.19	35.27	42.19	100.00	63.46	45.02	49.95	100.00	95.28
Bates	9.39	9.39	38.66	45.76	100.00	95.45	47.31	52.29	100.00	100.00
Buchanan	22.86	22.86	36.30	49.69	--	56.03	44.50	49.97	--	100.00
Caldwell	53.88	53.88	61.42	61.61	--	--	63.04	70.34	--	--
Carroll	28.38	28.38	33.17	35.44	--	--	57.22	61.08	--	--
Cass	16.03	16.03	38.57	27.50	100.00	66.94	47.86	36.13	--	87.73
Chariton	17.31	17.31	33.71	26.99	97.78	52.03	40.74	35.22	--	--
Clark	15.14	18.35	26.24	35.65	100.00	63.89	30.61	46.86	100.00	70.79
Clay	44.91	44.91	59.01	52.58	100.00	52.62	59.27	55.23	100.00	88.75
Clinton	74.10	74.10	100.00	--	--	--	100.00	--	--	--
Cooper	14.50	14.50	26.75	33.43	100.00	56.06	38.78	51.75	--	--
Dade	17.84	17.84	31.39	38.12	--	50.76	48.60	62.95	--	--
Davies	20.95	20.95	34.95	48.10	100.00	63.03	39.82	37.34	--	84.99
DeKalb	48.39	48.39	66.52	100.00	78.79	97.94	71.76	100.00	--	99.38
Gentry	6.33	6.33	25.07	38.83	68.40	75.94	28.69	28.67	68.41	100.00
Greene	14.97	14.97	18.85	37.92	75.01	50.82	20.64	38.50	75.94	100.00
Grundy	34.05	35.17	37.68	36.46	90.61	100.00	49.70	39.30	90.61	--
Harrison	13.51	13.51	29.02	33.17	100.00	65.73	36.60	30.92	100.00	100.00
Henry	10.40	10.40	27.12	32.33	99.40	42.49	36.62	33.53	99.40	100.00
Holt	26.86	26.86	47.24	40.67	73.56	100.00	52.47	51.90	73.10	--
Jackson	18.04	18.04	44.20	27.21	95.33	50.90	49.50	37.54	95.57	--
Jasper	20.74	20.74	35.96	37.42	100.00	72.47	45.24	41.89	100.00	100.00
Johnson	17.06	17.06	26.47	72.39	74.83	50.41	32.01	73.34	79.08	57.01
Knox	15.17	15.17	21.15	24.97	76.92	84.97	27.30	30.31	84.42	--
Lafayette	35.91	35.91	41.40	35.47	90.44	--	44.97	36.79	91.11	--
Lawrence	10.15	10.15	14.04	27.32	100.00	32.52	18.29	25.00	--	74.52
Lewis	17.71	17.71	32.07	33.85	--	66.35	35.72	38.60	--	100.00
Lincoln	9.86	9.86	17.34	22.39	100.00	45.59	20.95	26.17	100.00	100.00
Linn	29.28	29.28	42.18	60.15	71.88	53.69	63.34	69.66	--	95.25

(Table MO-65 continued on next page)

(Table MO-65 continued)

Inventory unit and county	Forest area	Timberland area	Growing stock				Sawtimber			
			Volume	Average annual net growth	Average annual removals	Average annual mortality	Volume	Average annual net growth	Average annual removals	Average annual mortality
Livingston	15.87	15.87	43.95	50.87	100.00	58.80	53.39	49.54	--	--
Macon	14.47	14.89	19.53	42.27	77.32	40.06	20.68	74.42	81.23	51.62
Marion	13.92	14.51	22.43	30.09	52.80	39.27	24.33	31.41	63.94	95.87
Mercer	16.21	16.21	27.07	67.43	--	39.92	30.26	24.81	--	--
Monroe	13.14	13.14	20.87	34.52	--	87.86	26.32	39.71	--	100.00
Nodaway	27.18	27.18	58.03	46.81	--	58.39	60.41	48.34	--	--
Pettis	16.03	16.03	23.83	38.65	--	53.02	26.04	55.12	--	56.23
Pike	8.88	8.88	12.61	32.66	61.81	38.49	17.50	26.61	62.73	60.80
Platte	12.36	12.36	29.73	41.74	79.00	36.61	37.35	28.24	79.00	49.88
Putnam	16.49	16.49	29.24	24.35	60.09	100.00	43.81	28.31	59.91	--
Ralls	9.84	9.84	31.77	21.09	89.23	51.78	42.17	43.67	--	89.23
Randolph	19.47	19.47	21.57	41.86	88.61	97.69	24.96	33.26	97.69	--
Ray	7.98	7.98	22.83	42.47	66.73	79.32	29.77	48.45	66.73	100.00
Saline	16.67	16.67	24.55	73.61	75.79	56.78	26.17	66.48	78.48	65.43
Schuyler	22.28	22.28	31.84	30.95	--	69.59	52.42	38.33	--	--
Scotland	17.89	17.89	33.48	31.12	100.00	100.00	36.60	39.68	100.00	--
Shelby	14.92	14.92	23.83	30.63	100.00	59.11	29.77	39.04	100.00	--
Sullivan	16.36	16.36	27.50	23.31	--	55.76	32.69	30.86	--	71.34
Vernon	13.59	13.59	24.22	31.19	75.80	58.88	24.92	36.88	96.79	85.91
Worth	70.51	70.51	97.59	83.64	--	--	99.56	90.30	--	--
Total	2.32	2.36	4.19	7.35	22.73	10.78	5.16	7.54	24.23	17.03

(Table MO-65 continued on next page)

(Table MO-65 continued)

Inventory unit and county	Forest area	Timberland area	Growing stock				Sawtimber			
			Volume	Average annual net growth	Average annual removals	Average annual mortality	Volume	Average annual net growth	Average annual removals	Average annual mortality
Riverborder										
Boone	8.63	8.63	12.14	15.86	93.62	61.51	15.45	20.78	93.62	78.47
Callaway	8.59	8.74	12.59	15.73	58.87	39.77	15.30	15.53	89.97	74.74
Cape Girardeau	10.06	10.06	17.00	21.27	62.36	56.72	19.79	22.38	65.25	76.45
Cole	13.49	15.33	18.68	39.03	100.00	39.46	22.69	37.49	100.00	58.74
Dunklin	81.04	81.04	85.19	100.00	100.00	78.83	87.17	82.83	100.00	81.67
Franklin	5.54	5.62	8.63	22.93	75.17	28.67	9.90	20.85	90.72	40.01
Gasconade	6.26	7.45	14.92	19.83	95.21	32.88	19.42	23.37	95.21	--
Howard	15.58	15.58	24.19	32.89	77.78	89.17	29.98	44.79	76.47	100.00
Jefferson	6.15	6.15	11.47	100.00	55.25	44.31	14.75	100.00	58.48	48.97
Mississippi	52.80	52.80	86.51	100.00	74.84	100.00	91.77	100.00	--	100.00
Moniteau	13.05	13.05	19.93	62.69	--	65.70	21.75	53.05	--	--
Montgomery	5.71	5.71	13.07	31.30	78.16	48.27	15.46	26.00	78.16	78.16
New Madrid	50.64	50.64	58.64	51.75	100.00	--	77.25	74.14	100.00	--
Osage	8.32	7.92	14.96	48.90	86.85	44.78	18.38	55.83	92.60	51.76
Pemiscot	81.38	81.38	100.00	100.00	--	--	--	--	--	--
Perry	11.62	12.97	19.27	22.88	92.05	40.53	23.10	24.60	92.05	66.03
St. Charles	12.49	12.49	14.12	22.62	67.87	52.38	15.73	24.17	73.32	70.74
Ste. Genevieve	7.35	10.20	14.79	49.58	84.87	36.11	17.99	57.39	86.95	86.95
St. Louis	17.24	18.53	23.20	60.69	--	63.83	23.79	61.65	--	65.34
Scott	43.21	43.21	55.05	78.90	100.00	81.38	58.33	90.05	--	100.00
Stoddard	11.57	11.57	33.47	57.48	77.99	67.53	37.77	52.06	77.99	--
Warren	8.61	8.61	11.72	30.44	51.88	42.24	12.31	24.42	59.53	100.00
Total	2.19	2.31	3.76	10.48	21.93	16.19	4.46	10.39	23.66	21.53
All counties	0.78	0.84	1.47	3.53	9.34	5.50	1.90	3.60	10.14	8.12
Sampling errors that exceed 100% are reported as 100%.										

Sampling errors that exceed 100% are reported as 100%.



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