



United States
Department of
Agriculture

Forest Service

Northern
Research Station

Resource Bulletin
NRS-78



Wisconsin Timber Industry: An Assessment of Timber Product Output and Use 2008

David E. Haugen

Abstract

In 2008, there were 226 primary wood-processing mills in Wisconsin, 50 fewer mills than in 2003. These mills processed 230.9 million cubic feet of industrial roundwood, of which 200 million cubic feet were harvested from Wisconsin. Just over 60 million cubic feet of the industrial roundwood harvested in Wisconsin was sent to primary wood-processing mills in Michigan, Minnesota, Iowa, Illinois, Indiana, Missouri, Virginia, and foreign countries including Canada. Pulpwood accounted for 65 percent of the total harvest. The harvesting of industrial roundwood products produced 106.3 million cubic feet of logging residues. Primary wood-processing mills generated 1.9 million green tons of mill residues, with 51 percent of the mill residues being used for industrial fuel. About 3 percent of the mill residues generated were not used for other products.

Cover Photo

Photo by Joe O'Brien, U.S. Forest Service.

Manuscript received for publication September 2012

Published by:

U.S. Forest Service
Northern Research Station
11 Campus Blvd, Suite 200
Newtown Square, PA 19073-3294

For additional copies:

U.S. Forest Service
Publications Distribution
359 Main Road
Delaware, OH 43015-8640
Fax: 740-368-0152

May 2013

Visit our Web site: www.nrs.fs.fed.us



Contents

Introduction.....	1
The Author	1
Study Methods.....	2
Primary Timber Industry in Wisconsin.....	4
Industrial Roundwood	4
Saw Logs	7
Other Products	8
Timber Removals	8
Harvest Intensity	9
Primary Mill Residues	11
Acknowledgments.....	12
Literature Cited	13
Appendix	15
Definition of Terms	15
Common and Scientific Names of Tree Species.....	19
Tables	21

INTRODUCTION

Wisconsin's wood products manufacturing industry (NAICS 321—wood product manufacturing, and NAICS 322—paper manufacturing) employed more than 59,000 workers with an output of about \$18.9 billion in 2007 (U.S. Census Bureau 2007). Given the economic importance of the State's wood product industry, this bulletin analyzes recent Wisconsin forest industry trends and reports the results of a detailed study of the forest product industry, industrial roundwood production, and associated primary mill wood and bark residue production in Wisconsin in 2008. Such detailed information is necessary for long-range planning and decisionmaking in wood procurement, economic research, forest resource management, and forest industry development.

The Wisconsin Timber Industry--An Assessment of Timber Product Output and Use, 2003 (Reading and Whipple 2007) was used as a primary baseline of comparison for results. As a result of our ongoing efforts to improve the timber product output (TPO) survey's efficiency and reliability, minor changes in previously published data (e.g., Reading and Whipple 2007) may have occurred due to omissions and/or correction of errors with the reprocessing of earlier data. Rows and columns of supporting tables in the current report may not sum due to rounding, but data in each table cell are accurately displayed.

Information about the forest land resource of Wisconsin is available on the Forest Inventory and Analysis Web site at: <http://nrs.fs.fed.us/fia/data-tools/state-reports/WI>.

The Author

DAVID E. HAUGEN is a forester with the Forest Inventory and Analysis Program, U.S. Forest Service, Northern Research Station, St. Paul, MN.

STUDY METHODS

The study was a cooperative effort between the Wisconsin Department of Natural Resources (WI-DNR) and the Forest Inventory and Analysis (FIA) unit at the Northern Research Station (NRS) of the U.S. Forest Service. The FIA program is responsible for providing forest resource statistics for all ownerships across the United States, including timber product outputs.

WI-DNR surveyed all known primary wood-using mills using questionnaires designed to determine the size and composition of the State's primary wood-using industry, its use of roundwood, and its generation and disposition of wood residues. Responses from the questionnaires were sent to NRS and entered into a database for processing and analysis. As part of the data processing, all industrial roundwood volumes reported on the questionnaires were converted to standard units of measure using regional conversion factors (Table 1). Timber removals by source of material and harvest residues generated during logging were estimated from standard product volumes using factors developed from previous NRS logging utilization studies. Wisconsin's industrial roundwood receipts data, along with out-of-state uses of Wisconsin roundwood, were integrated with a regional timber removals database to provide a complete assessment of Wisconsin's timber product output.

Certain terms used in this report—retained, export, import, production, and receipts—have specialized meanings and relationships unique to the FIA program that surveys timber product output (TPO) (Fig. 1).

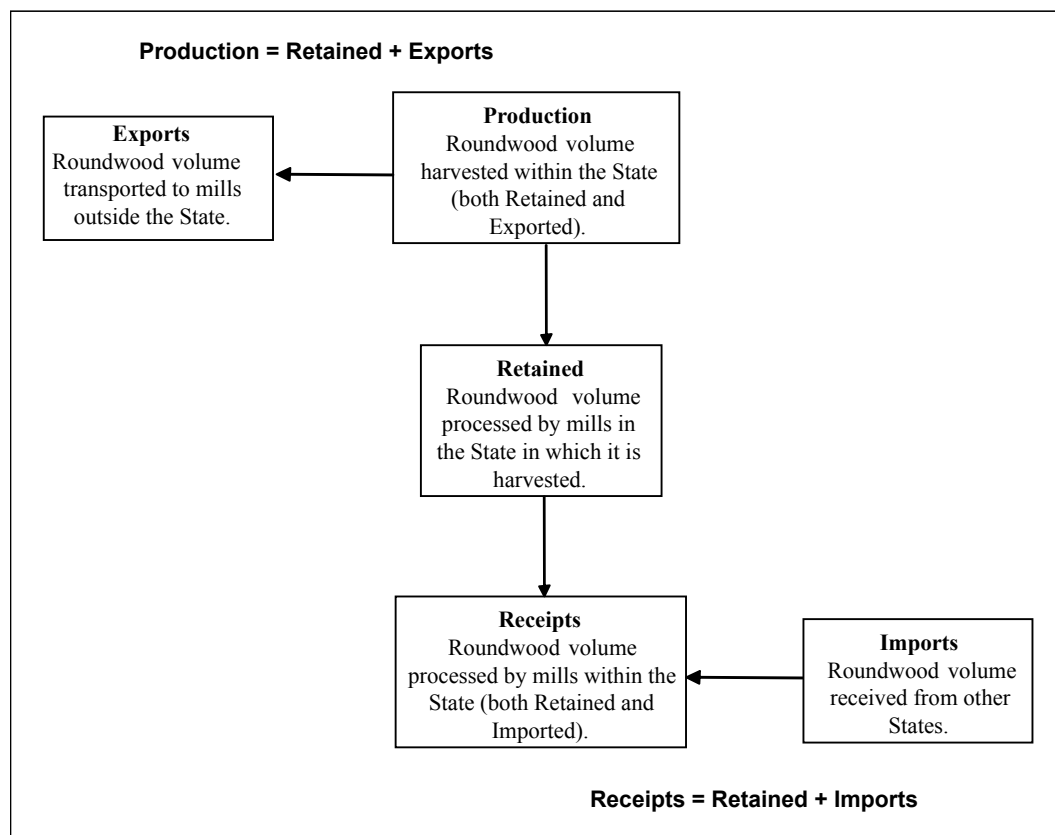


Figure 1.—The movement of industrial roundwood.

Table 1.—Conversion factors from reported unit of measure to standard unit of measure^a

Product (Standard unit of measure)	Reported unit of measure					
	International 1/4-inch rule MBF ^b	Doyle scale MBF	Green tons	Standard cords	Thousand pieces	Thousand cubic feet
Saw logs and handles (MBF International 1/4-inch rule)	1	1.38	0.2174	0.5		0.158
Veneer logs and cooerage (MBF International 1/4-inch rule)	1	1.14		0.5		0.158
Pulp and composite products, and industrial fuelwood (Standard cords)			0.4167	1		0.079
Mine timbers (Thousand cubic feet)		0.2322		0.079	6.7	1
Poles (Pieces)	20		4.348	10	1,000	0.0079
Posts (Thousand pieces)	0.2		0.04167	0.1	1	0.79
Cabin logs, excelsior/shavings, and miscellaneous products (Thousand cubic feet)	0.158	0.21804	0.0329193	0.079	7.9	1

^a Reported volume times conversion factor = Standard volume.

^b MBF = thousand board feet

PRIMARY TIMBER INDUSTRY IN WISCONSIN

Industrial Roundwood

- In 2008, Wisconsin's primary wood-using industry included 179 sawmills, 12 pulpwood mills, 8 veneer mills, 3 particle board mills, and 24 specialty mills that produced other wood products (e.g., handles, excelsior shavings, poles, post and cabin logs) (Table 2 and Fig. 2).

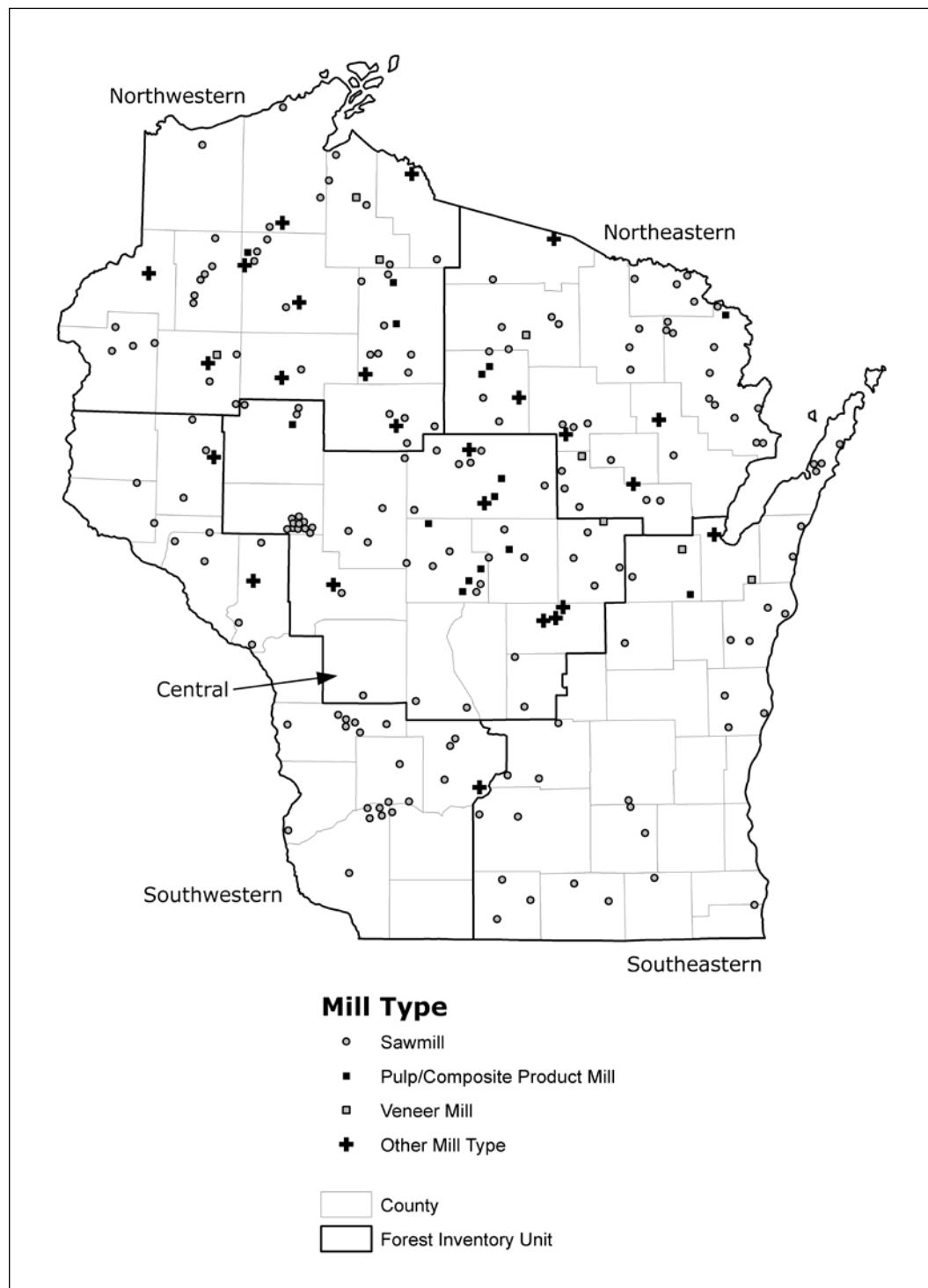


Figure 2.—Primary wood-using mills by FIA Unit, Wisconsin, 2008.

- In 2008, Wisconsin's primary wood using industry totaled 226 mills, a decrease of 50 mills since 2003.
- Pulpwood mills and saw mills process the vast majority of roundwood in Wisconsin. In 2008, the primary wood-using mills in Wisconsin processed 230.9 million cubic feet of industrial roundwood with pulpwood accounting for over 61 percent of the total volume (Table 3).
- Eighty-seven percent of the industrial roundwood processed by the State's primary wood-using mills was cut from Wisconsin forest lands. Michigan and Minnesota forests supplied the majority of domestic imported wood for Wisconsin's forest products industry (Table 4).
- Seventy-three percent of the industrial roundwood processed by Wisconsin primary wood-using mills were hardwood species. Aspen alone accounted for 25 percent of the total volume processed. Other species of importance to the forest industry were hard maple red pine, red oak, basswood, spruce, white pine, birch, and soft maple (Table 4).
- Industrial roundwood production decreased by 28 percent, from 363 million cubic feet in 2003 to 261.3 million cubic feet in 2008 (Table 5 and Fig. 3).

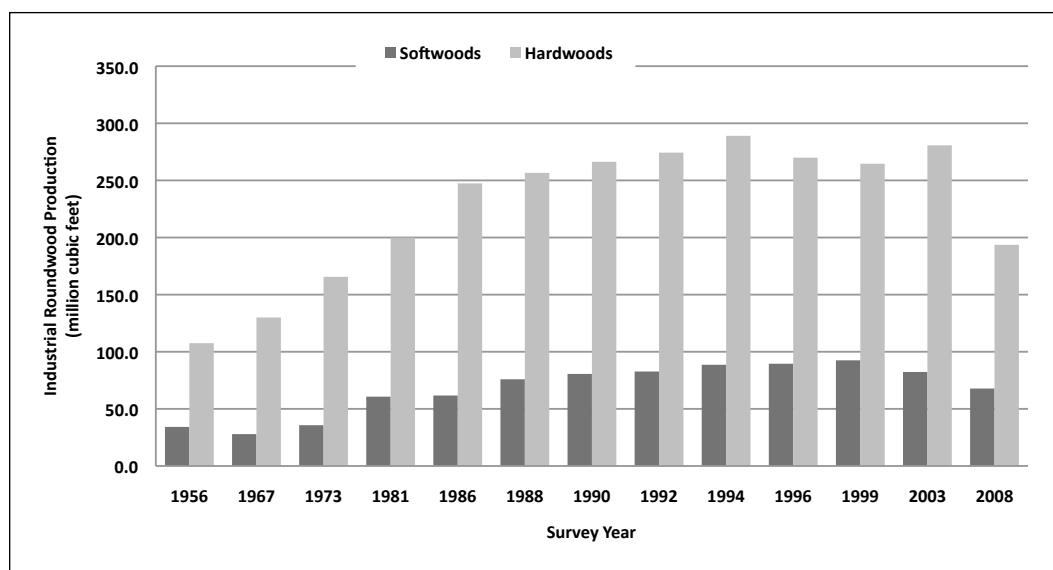


Figure 3.—Industrial roundwood production by softwoods and hardwoods, and survey year, Wisconsin (references ordered by sequence of data: survey year. Blythe et al. 1976, Blythe et al. 1981, Blythe et al. 1989, Smith and Whipple 1990, Hackett and Whipple 1993, Hackett and Whipple 1995, Hackett and Whipple 1997, Hackett et al. 2002, Reading and Whipple 2003, Reading and Whipple 2007).

- More than 76 percent of the 261.3 million cubic feet of industrial roundwood harvested in Wisconsin was processed in the State (Table 6). Primary wood processors in Michigan and Minnesota received 12 and 10 percent, respectively, of the industrial roundwood exported. Other states receiving industrial roundwood harvested from Wisconsin's forests include Iowa, Illinois, Indiana, Missouri and Virginia. Foreign exports of Wisconsin's industrial roundwood harvest totaled only 0.2 percent in 2008.
- In 2008, 99.3 million cubic feet (38 percent of Wisconsin's total industrial roundwood production) was harvested from the Northeastern Forest Inventory Unit (Table 7). Another 92.2 million cubic feet (35 percent) of industrial roundwood was harvested from the Northwestern Unit. The remaining 69.7 million cubic feet of industrial roundwood harvested in State came from the Central Forest Inventory Unit (18 percent), Southwestern Forest Inventory Unit (6 percent), and the Southeastern Forest Inventory Unit (3 percent).
- The aspen/balsam poplar species group accounted for 24 percent of the total industrial roundwood harvested in 2008 (Fig. 4). Other important species harvested were hard maple, red pine, soft maple, spruce, red oak, basswood, white pine and jack pine.

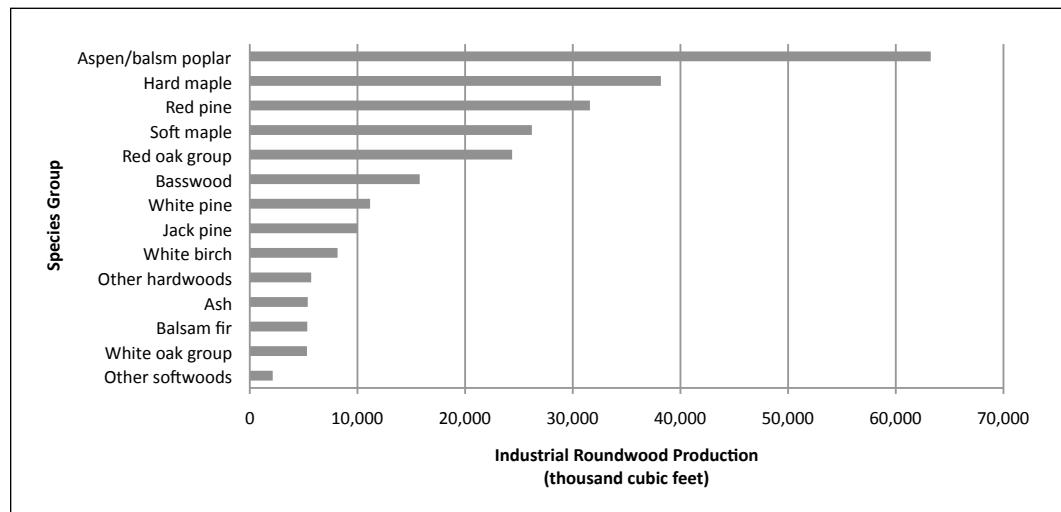


Figure 4.—Industrial roundwood production by species group, Wisconsin, 2008.

- Pulpwood mills were the largest consumers of Wisconsin industrial roundwood, using 65 percent of the total production, while sawmills used roughly 30 percent.
- Excelsior/shaving mills, veneer mills, cabin log mills, industrial fuel, poles, post and cooperage mills accounted for the remaining 5 percent of the total industrial roundwood produced in 2008. (Table 8 and Fig. 5).

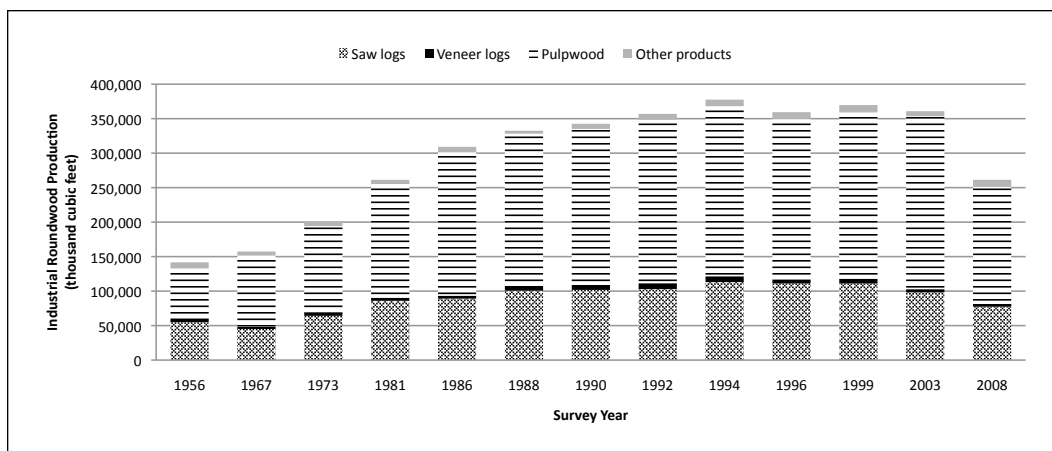


Figure 5.—Industrial roundwood production in thousand cubic feet, by product and survey year for, Wisconsin (references ordered by sequence of data: survey year. Blythe et al. 1976, Blythe et al. 1981, Blythe et al. 1989, Smith and Whipple 1990, Hackett and Whipple 1993, Hackett and Whipple 1995, Hackett and Whipple 1997, Hackett et al. 2002, Reading and Whipple 2003, Reading and Whipple 2007).

Saw logs

- Wisconsin's sawmill receipts totaled 428.5 million board feet in 2008, a decrease of 22 percent from 2003 (Table 9). Softwood saw log receipts were estimated at 96.8 million board feet (1.8 percent decrease), while those of hardwoods equaled 331.7 million board feet (26.5 percent decrease).
- Softwood saw log receipts increased between the 2003 and 2008 survey for the following species: jack pine, spruce, hemlock, tamarack and red pine. Eastern redcedar, balsam fir, white pine, and northern white-cedar saw log receipts declined.
- Hardwood saw log receipts increased between the 2003 and 2008 surveys for black walnut, cottonwood, and hard maple, while many hardwood species including red oak, white oak, aspen/balsam poplar, soft maple, and basswood saw log receipts declined.
- Saw log production decreased by 22 percent, from 566.3 million board feet in 2003 to 441.8 million board feet in 2008. Softwood saw log production increased to 139 million board feet (7.8 percent) in 2008, while those of hardwoods decreased 30.8 percent to 302.8 million board feet.
- In 2008, red pine accounted for almost 21 percent of the total harvest of saw logs from Wisconsin forests followed by hard maple (18 percent), red oak group (16 percent), and aspen/balsam poplar (11 percent) (Fig. 6).

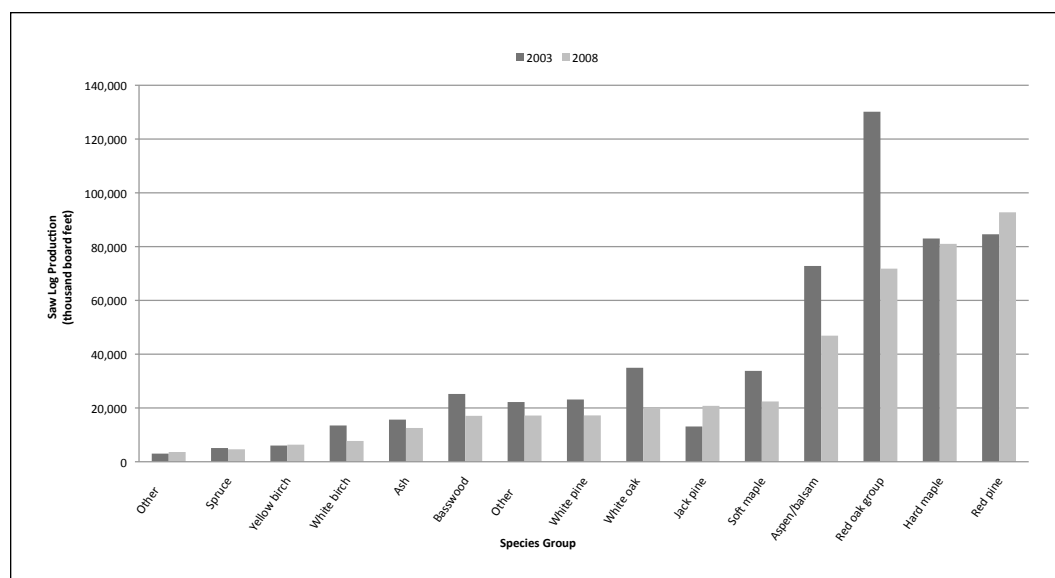


Figure 6.—Saw log production by species group, Wisconsin, 2003 and 2008.

Other Products

- Pulpwood, at 169.7 million cubic feet, was the most harvested product from Wisconsin forests in 2008. Pulpwood production decreased by 32 percent between 2003 and 2008 (Table 5). Results from the Northern Region pulpwood study conducted for 2007 is forthcoming.¹
- Other industrial roundwood products harvested from Wisconsin in 2008 were excelsior shavings, veneer logs, cabin logs, poles, posts, cooperage, and other miscellaneous products. Combined, these products made up only 5 percent of the total volume of industrial roundwood produced.
- Residential fuelwood is not included in this report.

Timber Removals

- During the harvest of industrial roundwood from Wisconsin forests in 2008, 261.3 million cubic feet of wood material (growing stock such as sawtimber and pole timber, and non-growing stock such as limb wood, saplings, cull trees, and dead trees) was used for primary wood products and another 106.3 million cubic feet of wood material (growing stock such as logging residue, and non-growing stock such as logging slash) was left on the ground as harvest residues (Table 10 and Fig. 7).
- Growing-stock, at 239.2 million cubic feet, was the largest component of removals for industrial roundwood production. Ninety-three percent of the growing stock removed was used for products and 7 percent was left as harvest residue. Sawtimber-size trees accounted for 68 percent of the growing-stock volume that was used for products, and the remainder came from pole-size trees.

¹ Piva, Ronald J. In preparation. Pulpwood production in the northern region, 2007. Resour. Bull. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station.

- In 2008, 128.4 million cubic feet of non-growing-stock wood material was removed in the production of industrial roundwood, but only 29 percent of this material was used for products. The remainder was left on the ground as logging slash. Thirty-three percent of the non-growing-stock material used for industrial roundwood came from limbs of growing-stock trees, 32 percent came from dead trees, and 30 percent came from cull trees. The rest of the non-growing-stock material used for products came from saplings.

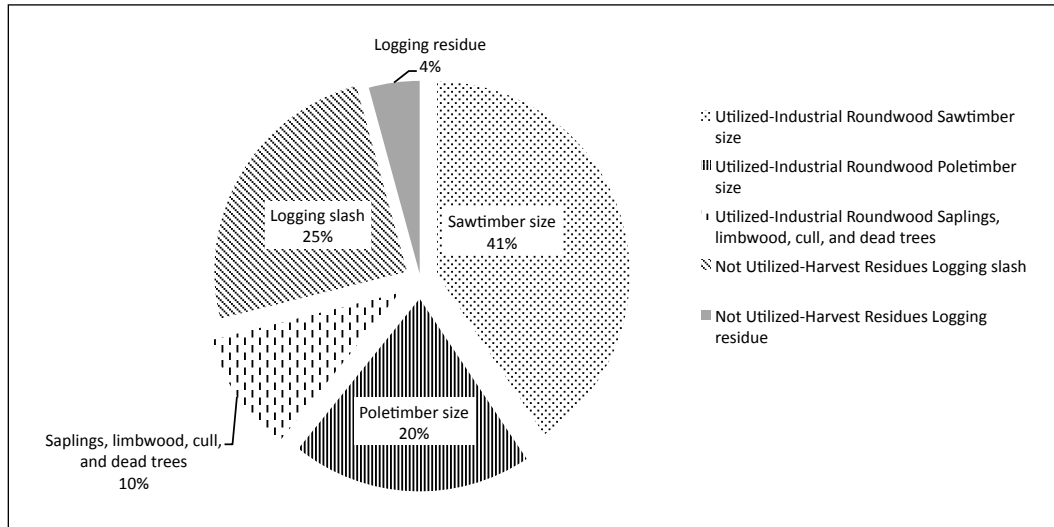


Figure 7.—Distribution of timber removals for industrial roundwood by source of material, Wisconsin, 2008.

- In 2008, 38.4 percent of the growing-stock material removed from Wisconsin's timberland came from the Northeastern Forest Inventory Unit followed by the Northwestern unit (34.4 percent), the Central Unit (18.1 percent), the Southwestern unit (6.3 percent) and the Southeastern unit (2.8 percent) (Table 11).
- In 2008, 755.8 million board feet was removed from Wisconsin inventory of sawtimber (Table 12). Aspen/balsam poplar accounted for 21 percent of the total sawtimber volume removed followed by red pine (16 percent), hard maple (14 percent), and basswood (8 percent).
- The harvesting of industrial roundwood products from Wisconsin forests in 2008 resulted in 106.3 million cubic feet of harvest residues (Table 13).

Harvest Intensity

- Statewide in 2008, there was an average of 36.4 cubic feet of average annual net growth (gross growth minus mortality) of growing stock on timberland, and an average of 20.5 cubic feet of harvest-related wood removals per acre of forest land. Twenty-eight counties had more than 20 cubic feet of wood material removed per acre of forest land (Fig. 8). (For reference, a cord of roundwood contains about 79 cubic feet of wood).

- In 2008, there were 16.7 million acres of forest land in Wisconsin (Perry 2009). The net volume in live trees on forest land was 23.2 billion cubic feet. The 149.2 million cubic feet of total wood material removed due to harvesting (Table 10) was less than 1 percent of the total live volume of trees on forest land in Wisconsin.

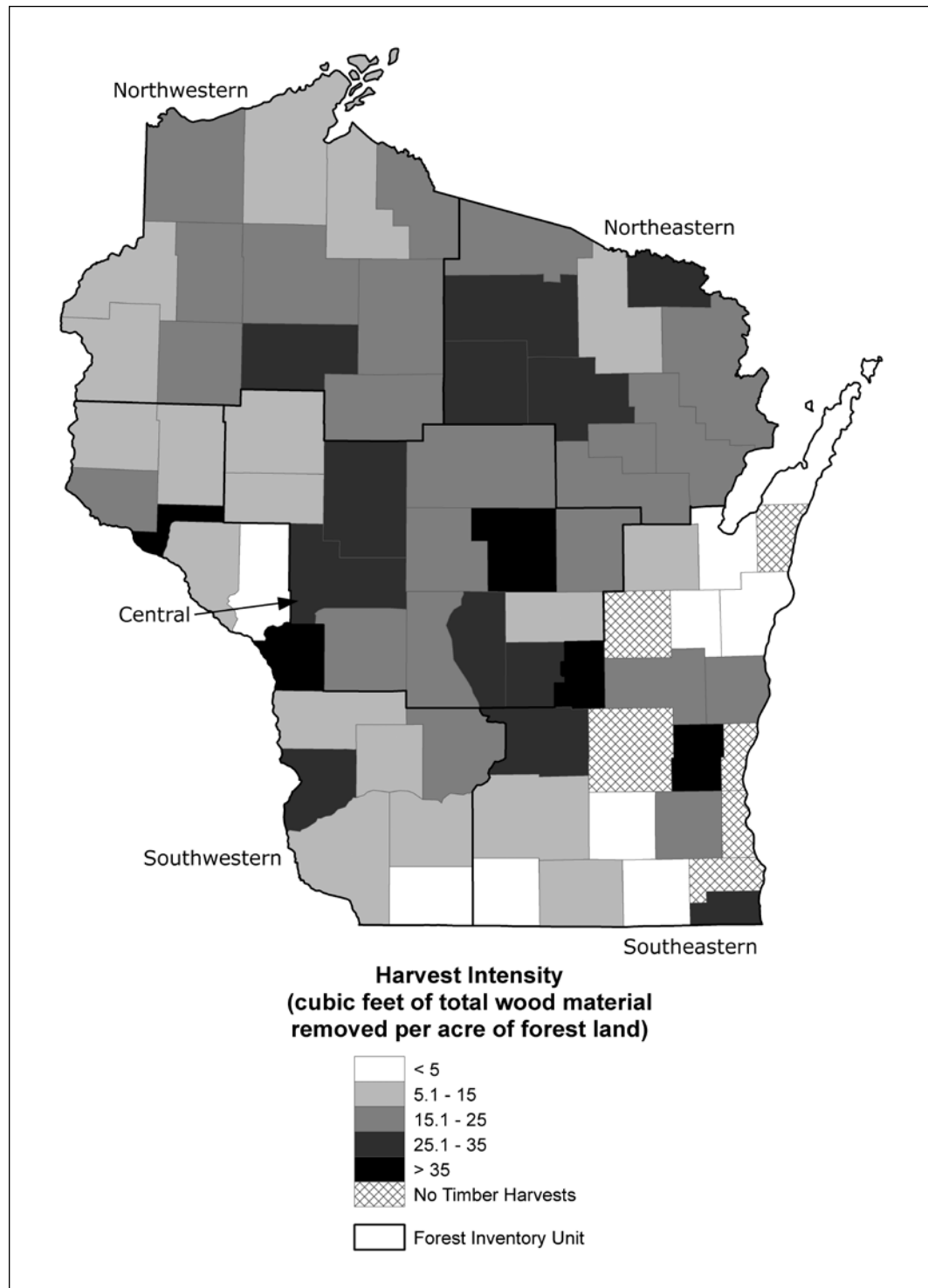


Figure 8.—Harvest intensity for industrial roundwood production, Wisconsin, 2008.

- The Central Forest Inventory Unit had the greatest harvest intensity in 2008, with an average of 25.5 cubic feet of total harvest removals per acre of timberland. Based on U.S. Forest Service Forest Inventory and Analysis (FIA) data, private ownership accounted for 78 percent of the area of timberland and 81 percent of the average annual harvest removals within the Central Unit (Miles 2011).
- The Northeastern Unit had 23.7 cubic feet of total harvest removals per acre of timberland. FIA estimates that 63 percent of the timberland in this unit was privately owned, but accounted for 76 percent of the average annual harvest removals.
- The Northwestern Unit had 20.5 cubic feet of wood removals per acre of timberland. FIA estimates that 60 percent of the timberland in this unit was privately owned, accounting for 68 percent of the average annual harvest removals.
- The Southwestern Unit had 16.8 cubic feet of total harvest removals per acre of timberland. FIA estimates that 93 percent of the timberland in this unit was privately owned, accounting for 99 percent of the average annual harvest removals.
- The Southeastern Unit had 13.5 cubic feet of total harvest removals per acre of timberland. FIA estimates that 87 percent of the timberland in this unit was privately owned, accounting for 100 percent of the average annual harvest removals.

Primary Mill Residues

- In converting industrial roundwood into products (e.g., lumber and wood pulp), Wisconsin's primary wood-using industries generated over 1.8 million green tons of wood residue (coarse and fine residues) and bark residue (Table 14).
- Forty percent of the mill residues were in the form of bark residue. Fine wood residue, such as sawdust, made up another 26 percent of the total mill residues produced. Coarse wood residue, such as slabs and edgings residue, accounted for the remaining 34 percent (Fig. 9).
- Fifty-one percent of the mill residues generated was used for industrial fuel. Pulp and composite product mills utilized 25 percent of residues in fiber products. Miscellaneous use (including small dimension and specialty items) accounted for 11 percent of residue utilization, mulch consumed 7 percent, and domestic fuel, wood pellets and the charcoal or chemical wood industries used 3 percent of the mill residues generated. Three percent of the mill residues generated by the primary wood processors of Wisconsin went unused (Fig. 10).
- Seventy-two percent of the coarse residue was used for fiber products. Industrial fuel consumed 94 percent of the total fine residue generated, and 75 percent of the bark residue generated was used for industrial fuel.

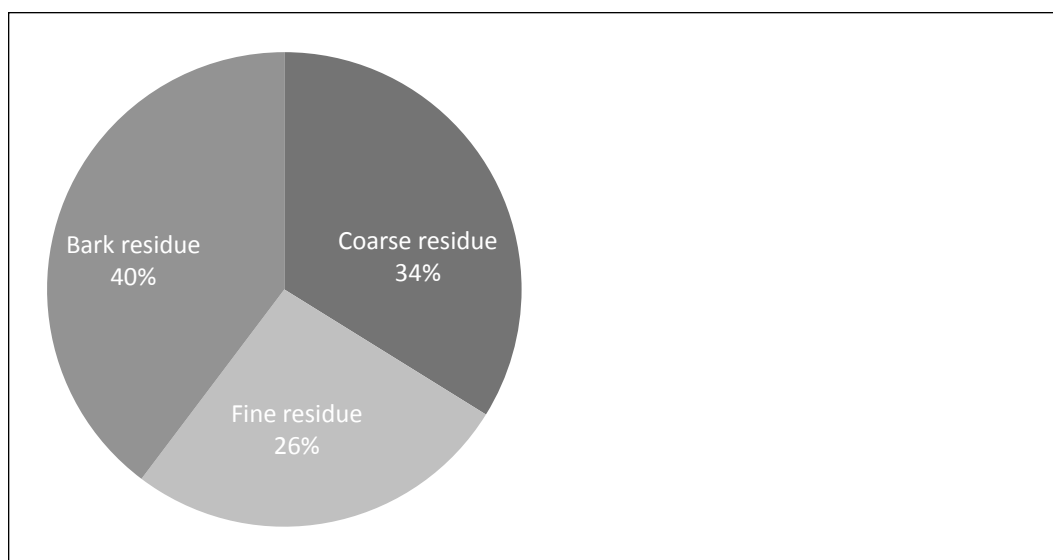


Figure 9.—Distribution of residues generated by primary wood-using mills by type of residue, Wisconsin, 2008..

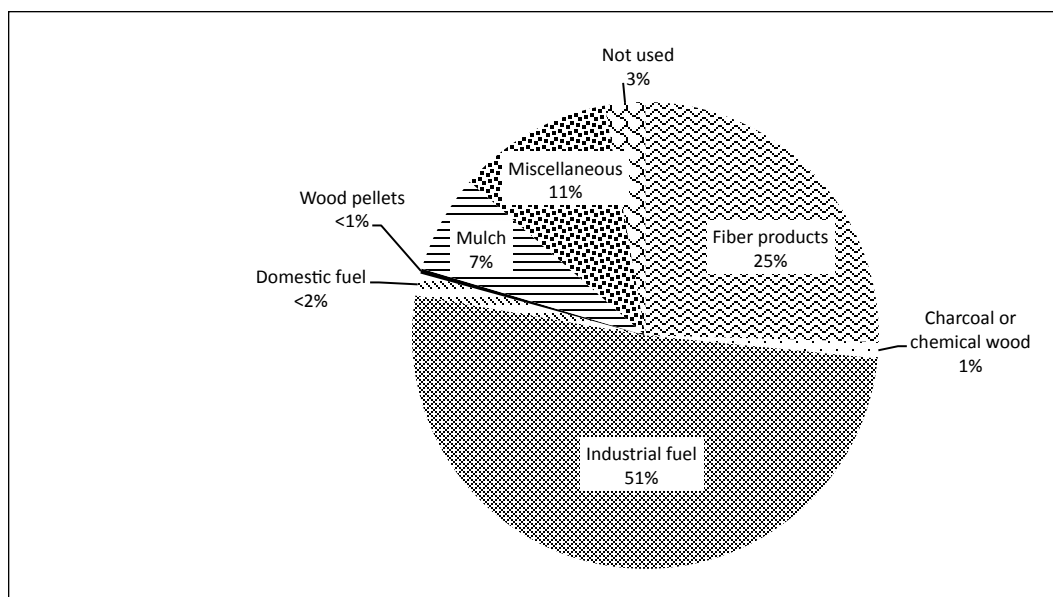


Figure 10.—Distribution of residues generated by primary wood-using mills by method of disposal, Wisconsin, 2008..

ACKNOWLEDGMENTS

Special thanks are given to the primary wood-using firms for supplying information for this study and to the Wisconsin Department of Natural Resources, whose cooperation in canvassing survey respondents is greatly appreciated.

Figures 2 and 8 were created by Brian Walters, forester with Forest Inventory and Analysis in St. Paul, MN.

LITERATURE CITED

- Blyth, James E.; Whipple, James W.; Smith, W. Brad. 1989. **Wisconsin timber industry—an assessment of timber product output and use, 1986**. Resour. Bull. NC-112. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station. 62 p.
- Blyth, James E.; Whipple, James W.; Mace, Terry; Smith, W. Brad. 1981. **Wisconsin timber industry—an assessment of timber product output and use, 1985**. Resour. Bull. NC-90. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station. 61 p.
- Blyth, James E.; Landt, Eugene F.; Whipple, James W.; Hahn, Jerold T. 1976. **Primary forest products industry and timber use, Wisconsin, 1973**. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 61 p.
- Hackett, Ronald L.; Piva, Ronald J.; Whipple, James W. 2002. **Wisconsin timber industry—an assessment of timber product output and use, 1996**. Resour. Bull. NC-201. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 74 p.
- Hackett, Ronald L.; Whipple, James W. 1997. **Wisconsin timber industry—an assessment of timber product output and use, 1994**. Resour. Bull. NC-187. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station. 73 p.
- Hackett, Ronald L.; Whipple, James W. 1995. **Wisconsin timber industry—an assessment of timber product output and use, 1992**. Resour. Bull. NC-164. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station. 64 p.
- Hackett, Ronald L.; Whipple, James W. 1993. **Wisconsin timber industry—an assessment of timber product output and use, 1990**. Resour. Bull. NC-147. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station. 57 p.
- Miles, Patrick D. 2011. **Forest Inventory EVALIDator web-application version 4.01 beta**. St. Paul, MN: U.S. Department of Agriculture, Forest Service, Northern Research Station. Available at <http://fiatools.fs.fed.us/Evalidator4/tmattribute.jsp>
- Perry, Charles H. 2009. **Wisconsin's forest resources, 2008**. Res. Note NRS-42. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 4 p.

Reading, William H., IV; Whipple, James W. 2003. **Wisconsin timber industry—an assessment of timber product output and use, 1999**. Resour. Bull. NC-218. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 91 p.

Reading, William H., IV; Whipple, James W. 2007. **Wisconsin timber industry—an assessment of timber product output and use, 2003**. Resour. Bull. NRS-19. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 93 p.

Smith, W. Brad; Whipple, James W. 1990. **Wisconsin timber industry—an assessment of timber product output and use, 1988**. Resour. Bull. NC-124. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Forest Experiment Station. 68 p.

U. S. Census Bureau. 2007. **2007 Economic census – manufacturing – Wisconsin**. Washington, DC: U.S. Department of Commerce, Bureau of Census.
Available at http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ECN_2007_US_31A1&prodType=table (Accessed June, 2012).

APPENDIX

Definition of Terms

Board foot. Unit of measure applied to roundwood. It relates to lumber that is 1 foot long, 1 foot wide, and 1 inch thick (or its equivalent).

Bolt. A short log no more than 8 feet long, to be sawn for lumber, peeled or sliced for veneer, shaved for excelsior, or converted into shingles, cooperage stock, dimension stock, blocks, blanks, or other products.

Central stem. The portion of a tree between a 1-foot stump and the minimum 4.0-inch top diameter outside bark, or point where the central stem breaks into limbs.

Coarse mill residue. Wood residue suitable for chipping such as slabs, edgings, and veneer cores.

Commercial species. Tree species presently or prospectively suitable for industrial wood products. (Note: Excludes species of typically small size, poor form, or inferior quality such as hophornbeam, Osage-orange, and redbud.)

Cull removals. Net volume of rough and rotten trees plus the net volume in sections of the central stem of growing-stock trees that do not meet regional merchantability standards but are harvested for industrial roundwood products.

Diameter at breast height (d.b.h.). The outside bark diameter at 4.5 feet above the forest floor on the uphill side of the tree. For determining breast height, the forest floor includes the duff layer that may be present, but does not include unincorporated woody debris that may rise above the ground line.

Doyle rule. A simple log rule or formula for estimating the board-foot volume of logs based on a 4-inch slabbing allowance to square the log. This rule is used in the eastern and southern United States.

Exports. The volume of roundwood utilized by mills outside the state where the timber was harvested.

Fine mill residue. Wood residue not suitable for chipping, such as sawdust and veneer clippings.

Forest land. Land at least 10-percent stocked with trees of any size, or formerly having had such tree cover, and not currently developed for nonforest use. (Note: Stocking is measured by comparing specified standards with basal area and/or number of trees, age or size, and spacing.) The minimum area for classification of forest land is 1 acre. Roadside, streamside, and shelterbelt strips of timber must have a crown width of at least 120 feet to qualify as forest land. Unimproved roads and trails, streams or other bodies of water, or clearings in forest areas shall be classified as forest if less than 120 feet wide.

Growing-stock removals. The growing-stock volume removed from timberland by harvesting industrial roundwood products. (Note: Includes sawtimber removals, poletimber removals, and logging residues.)

Growing-stock tree. A live timberland tree of commercial species that meets specified standards of size, quality, and merchantability. (Note: Excludes rough, rotten, and dead trees.)

Growing-stock volume. Net volume of growing-stock trees 5.0 inches d.b.h. and larger, from 1 foot above the ground to a minimum 4.0-inch top diameter outside bark of the central stem or to the point where the central stem breaks into limbs.

Hardwoods. Dicotyledonous trees, usually broad-leaved and deciduous.

Harvest residues. The total net volume of unused portions of trees cut or killed by logging. (Note: Includes both logging residues and logging slash.)

Industrial fuelwood. A roundwood product, with or without bark, used to generate energy at manufacturing facilities and schools, correctional institutions, or electric generating plants.

Imports. The volume of roundwood delivered to a mill or group of mills in a specific state but harvested outside that state.

Industrial roundwood exports. The quantity of industrial roundwood harvested in a geographical area and transported to other geographical areas.

Industrial roundwood imports. The quantity of industrial roundwood received from other geographical areas.

Industrial roundwood products. Saw logs, pulpwood, veneer logs, poles, commercial posts, pilings, cooperage logs, particleboard bolts, shaving bolts, lath bolts, charcoal bolts, and chips from roundwood used for pulp or board products.

Industrial roundwood production. The quantity of industrial roundwood harvested in a geographic area plus all industrial roundwood exported to other geographical areas.

Industrial roundwood receipts. The quantity of industrial roundwood received by commercial mills in a geographic area plus all industrial roundwood imported from other geographical areas.

Industrial roundwood retained. The quantity of industrial roundwood harvested from and processed by commercial mills within the same geographical area.

International 1/4-inch rule. A log rule or formula for estimating the board-foot volume of logs, allowing ½ inch of taper for each 4-foot length and assuming ¼ inch of kerf. This rule is used as the U.S. Forest Service standard log rule in the eastern United States.

Limbwood removals. Net volume of all portions of a tree other than the central stem (including forks, large limbs, tops, and stumps) harvested for industrial roundwood products.

Logging residue. The net volume of unused portions of the merchantable central stem of growing-stock trees cut or killed by logging.

Logging slash. The net volume of unused portions of the unmerchantable (non-growing stock) sections of trees cut or killed by logging.

Merchantable sections. Refers to sections of the central stem of growing-stock trees that meet either pulpwood or saw log specifications.

Net volume. Gross volume less deductions for rot, sweep, or other defects affecting use for roundwood products.

Noncommercial species. Trees species of typically small size, poor form, or inferior quality that normally do not develop into trees suitable for industrial roundwood products. Noncommercial species are listed in the volume tables as rough trees.

Nonforest land. Land that has never supported forests, and land formerly forested where use for timber management is precluded by development for other uses. (Note: Includes areas used for crops, active Christmas tree plantations, orchards, nurseries, improved pasture, residential areas, city parks, improved roads of any width and adjoining clearings, powerline clearings of any width, and 1- to 39.9-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 more than 1 acre to qualify as nonforest land.

Nonforest land removals. Net volume of trees on nonforest lands harvested for industrial roundwood products.

Poletimber. A growing-stock tree at least 5.0 inches d.b.h. but smaller than sawtimber size (9.0 inches d.b.h. for softwoods, 11.0 inches d.b.h. for hardwoods).

Poletimber removals. Net volume in the merchantable central stem of poletimber trees harvested for industrial roundwood products.

Primary wood-using mills. Mills receiving roundwood or chips from roundwood for processing into products such as lumber, veneer, and pulp.

Primary wood-using mill residue. Wood materials (coarse and fine) and bark generated at manufacturing plants that process industrial roundwood into principal products. These residues include wood products obtained incidental to production of principal products and wood materials not utilized for some product.

Production. The quantity of roundwood material harvested in a geographic area plus all roundwood material exported to other geographical areas.

Receipts. The quantity of roundwood material received by commercial mills in a geographic area plus all roundwood material imported from other geographical areas.

Retained. Roundwood volume harvested from and processed by mills within the same state.

Rotten tree. A tree that does not meet regional merchantability standards because of excessive unsound cull.

Rough tree. A tree that does not meet regional merchantability standards because of excessive sound cull (includes forks, sweep and crook, and large branches or knots), including noncommercial tree species.

Roundwood. Logs, bolts, or other round sections cut from trees (including chips from roundwood).

Sapling. A live tree between 1.0 and 5.0 inches d.b.h.

Saw log portion. That portion of the central stem of sawtimber trees between the stump and the saw log top.

Saw log top. The point on the central stem of sawtimber trees above which a saw log cannot be produced. The minimum saw log top is 7.0 inches diameter outside bark for softwoods and 9.0 inches diameter outside bark for hardwoods.

Sawtimber removals. As used in Table 10, sawtimber removals refers to the net volume in the merchantable central stem of sawtimber-size trees harvested for industrial roundwood products. (Note: includes the saw log and upper stem portions of sawtimber-size trees.) When referring to the sawtimber volume removed from timberland as in Table 12, sawtimber removals refers to the net volume in the saw log portion of sawtimber-size trees harvested for roundwood products or left on the ground as harvest residue, and is usually expressed in thousands of board feet (International 1/4-inch rule).

Sawtimber tree. A growing-stock tree 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. and hardwoods must be at least 11.0 inches d.b.h.

Sawtimber volume. Net volume in the saw log portion of sawtimber trees.

Softwoods. Coniferous trees, usually evergreen, having needles or scale-like leaves.

Timber product output. The volume of roundwood products produced from an area's forests.

Timberland. Forest land that is producing, or is capable of producing, in excess of 20 cubic feet per acre per year of industrial roundwood products under natural conditions, is not withdrawn from timber utilization by statute or administrative regulation, and is not associated with urban or rural development.

Tree. A woody perennial plant, typically large, with a single well-defined stem carrying a more or less definite crown; sometimes defined as attaining a minimum diameter of 3 in. (7.6 cm) and a minimum height of 15 ft (4.6 m) at maturity. For FIA, any plant on the tree list in the current field manual is measured as a tree.

Upper stem portion. That portion of the central stem of sawtimber trees between the saw log top and the minimum top diameter of 4.0 inches outside bark, or to the point where the central stem breaks into limbs.

Common and Scientific Names of Tree Species by Species Group

Softwoods

Cedars

Northern white-cedar	<i>Thuja occidentalis</i>
Eastern redcedar	<i>Juniperus virginiana</i>

Pine

Jack pine	<i>Pinus banksiana</i>
Red pine	<i>Pinus resinosa</i>
Eastern white pine	<i>Pinus strobus</i>

Spruce

White spruce	<i>Picea glauca</i>
Black spruce	<i>Picea mariana</i>

Balsam fir	<i>Abies balsamea</i>
Eastern hemlock	<i>Tsuga canadensis</i>
Tamarack	<i>Larix laricina</i>

Hardwoods

Ash

White ash

Fraxinus americana

Black ash

Fraxinus nigra

Green ash

Fraxinus pennsylvanica

Aspen/balsam poplar

Bigtooth aspen

Populus grandidentata

Quaking aspen

Populus tremuloides

Balsam poplar

Populus balsamifera

American basswood

Tilia Americana

American beech

Fagus grandifolia

Birch

River birch

Betula nigra

White birch

Betula papyrifera

Yellow birch

Betula alleghaniensis

Black cherry

Prunus serotina

Black walnut

Juglans nigra

Elm

American elm

Ulmus americana

Rock elm

Ulmus thomasii

Slippery elm

Ulmus rubra

Hickory

Bitternut hickory

Carya cordiformis

Pignut hickory

Carya glabra

Shagbark hickory

Carya ovata

Hard maples

Black maple

Acer nigrum

Sugar maple

Acer saccharum

Soft maples

Boxelder

Acer negundo

Red maple

Acer rubrum

Silver maple

Acer saccharinum

Red oak group

Northern pin oak

Quercus ellipsoidalis

Northern red oak

Quercus rubra

Black oak

Quercus velutina

White oak group

White oak

Quercus alba

Swamp white oak

Quercus bicolor

Bur oak

Quercus macrocarpa

Chinkapin oak

Quercus muehlenbergii

Other hardwoods

Northern catalpa

Catalpa speciosa

Hackberry

Celtis occidentalis

Honeylocust

Gleditsia triacanthos

Butternut

Juglans cinerea

Black willow

Salix nigra

Tables

Table 1.—Conversion factors from reported unit of measure to standard unit of measure

Table 2.—Number of active primary wood-using mills by mill type and survey year, Wisconsin

Table 3.—Industrial roundwood receipts in million cubic feet, by mill type, hardwoods and softwoods, and survey year, Wisconsin

Table 4.—Industrial roundwood receipts in thousand cubic feet, by Forest Inventory Unit, species group, and State of origin, Wisconsin, 2008

Table 5.—Industrial roundwood production in million cubic feet, by product, hardwoods and softwoods, and survey year, Wisconsin

Table 6.—Industrial roundwood production in thousand cubic feet, by Forest Inventory Unit, species group, and State of destination, Wisconsin, 2008

Table 7.—Industrial roundwood production in thousand cubic feet, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Table 8.—Industrial roundwood production by Forest Inventory Unit, species group, and product, Wisconsin, 2008

Table 9.—Saw log receipts and production, in thousand board feet, (International 1/4-inch rule), by Forest Inventory Unit and species group, Wisconsin, 2003 and 2008

Table 10.—Wood material harvested for industrial roundwood, in thousand cubic feet, by Forest Inventory Unit, source of material, and species group, Wisconsin, 2008

Table 11.—Growing-stock removals from timberland for industrial roundwood in thousand cubic feet, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Table 12.—Sawtimber removals from timberland for industrial roundwood in thousand board feet, International 1/4-inch rule, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Table 13.—Harvest residue generated by industrial roundwood harvesting in thousand cubic feet, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Table 14.—Disposition of residues produced at primary wood-using mills in thousand tons, green weight, by Forest Inventory Unit, disposition, residue type, for softwoods and hardwoods, Wisconsin, 2008

Table 2.—Number of active primary wood-using mills by mill type and survey year, Wisconsin¹

Mill type and mill size	Survey year													
	1936	1956	1967	1973	1981	1986	1988	1990	1992	1994	1996	1999	2003	2008
Sawmills														
Large 5mmbf or more	20	8	6	15	23	21	32	27	33	39	34	33	29	27
Medium 1mmbf- 4.9mmbf	57	55	73	101	110	103	92	102	106	111	106	82	71	47
Small <1mmbf	1,461	1,565	739	411	480	333	337	139	114	118	115	185	129	105
Total sawmills	1,538	1,628	818	527	613	457	461	268	253	268	255	300	229	179
Particleboard mills	--	--	--	--	3	3	3	5	5	6	6	6	5	3
Pulp mills	31	29	27	24	20	18	16	17	16	15	16	15	12	12
Veneer mills	49	47	26	19	15	15	17	17	12	12	15	10	10	8
Other mills ²	139	49	27	13	12	15	15	16	25	29	30	27	20	24
Total all mills	1,757	1,753	898	583	663	508	512	323	311	330	322	358	276	226

¹ Mills that produce more than one product are only counted for they product the process the most of.

² Includes mills producing handles, excelsior, poles, posts, cabin logs, etc. Includes particleboard mills for 1936, 1956, 1967, and 1973.

Table 3.—Industrial roundwood receipts in million cubic feet, by mill type, survey year, and softwoods and hardwoods, Wisconsin

	Survey year												2003 - 2008	
	1956	1967	1973	1981	1986	1988	1990	1992	1994	1996	1999	2003	2008	% change
Softwoods														
Pulpwood mills ¹	89.8	79.4	63.0	62.7	55.9	67.2	72.9	76.5	83.0	92.5	72.8	61.9	43.3	-30.0%
Sawmills	14.5	5.1	8.8	15.8	11.3	13.2	13.8	13.5	15.9	16.4	20.2	16.9	16.7	-1.2%
Other mills ²	0.0	0.0	0.0	0.2	0.4	0.1	2.3	0.9	1.3	1.3	1.6	3.4	2.8	-17.6%
Total	104.3	84.5	71.8	78.7	676.6	80.5	89.0	90.9	100.2	110.2	94.6	82.2	62.7	-23.7%
Hardwoods														
Pulpwood mills ¹	74.5	115.7	116.2	146.0	168.1	158.9	162.8	171.6	178.4	168.1	167.2	174.5	98.1	-43.8%
Sawmills	53.3	42.7	59.2	78.6	81.9	80.2	84.0	90.7	98.8	97.8	91.0	78.5	57.5	-26.8%
Other mills ²	21.5	12.0	12.5	6.4	9.3	9.1	11.7	16.0	18.6	17.7	16.3	11.0	12.6	14.5%
Total	149.3	170.4	187.9	231.0	259.3	248.2	258.5	278.2	295.8	283.6	274.4	264.1	168.2	-36.3%
All species														
Pulpwood mills ¹	164.3	195.1	179.2	208.7	224.0	226.1	235.7	248.1	261.4	260.6	240.0	236.4	141.4	-40.2%
Sawmills	67.8	47.8	68.0	94.4	93.2	93.4	97.8	104.1	114.7	114.2	111.2	95.4	74.2	-22.2%
Other mills ²	21.5	12.0	12.5	6.6	9.7	9.2	14.0	16.9	19.9	19.0	17.9	14.4	15.3	6.3%
Total	253.6	254.9	259.7	309.7	326.9	328.7	347.5	369.1	396.0	393.8	369.0	346.3	230.9	-33.3%

¹ Includes pulp mills and particleboard mills after 1973.

² Includes mills that process veneer, excelsior/shavings, cabin logs, poles, posts, etc. Includes particleboard mills for 1956, 1967, and 1973.

All table cells without observations are indicated by --. Table value of 0.0 indicates the volume rounds to less

Table 4.—Industrial roundwood receipts in thousand cubic feet, by species group and state of origin, Wisconsin, 2008

Species group	Total	State of origin										Southern States ¹	Western States ²	Canada
		Illinois	Iowa	Michigan	Minn-esota	New York	Ohio	Pennsylv-ania	West Virginia	Wisconsin				
Softwoods														
Eastern redcedar	39	--	--	--	--	--	--	--	--	--	5	--	34	--
Northern white-cedar	125	--	--	15	--	--	--	--	--	--	109	--	--	--
Balsam fir	2,764	--	--	92	32	--	--	--	--	--	2,632	--	--	8
Douglas fir	34	--	--	--	--	--	--	--	--	--	--	--	34	--
Hemlock	960	--	--	64	--	--	--	--	--	--	893	--	--	4
Jack pine	6,594	--	--	1,039	124	--	--	--	--	--	5,427	--	--	4
Red pine	28,197	21	--	540	398	--	--	--	--	--	27,225	--	--	12
White pine	11,630	330	--	251	77	--	--	--	--	--	10,962	--	--	11
Other pine	86	--	--	0	--	--	--	--	--	--	86	--	--	0
Spruce	11,950	--	--	2,186	2,368	--	--	--	--	--	6,912	--	--	484
Tamarack	352	--	--	9	3	--	--	--	--	--	338	--	--	3
Total	62,731	350	--	4,196	3,003	--	--	--	--	--	54,589	--	68	525
Hardwoods														
Ash	4,901	10	31	276	70	14	7	16	--	--	4,453	--	--	26
Aspen/balsam poplar	58,596	1	1	2,035	2,379	--	--	--	--	--	52,785	--	--	1,395
Basswood	14,602	2	2	619	111	--	--	--	--	--	13,869	--	--	--
Beech	221	--	--	18	0	--	--	--	--	--	203	--	--	0
White birch	11,485	0	--	2,777	1,656	3	--	1	--	--	7,015	--	--	33
Yellow birch	1,929	--	--	291	29	15	--	4	--	--	1,559	--	--	30
Other birch	1	--	--	--	--	--	--	--	--	--	1	--	--	--

Table 4.—Continued

Species group	Total	State of origin											
		Illinois	Iowa	Michigan	Minn- esota	New York	Ohio	Pennsyl- vania	West Virginia	Wisconsin	Southern States ¹	Western States ²	Canada
Black cherry	961	62	14	90	26	--	1	--	--	754	15	--	0
Black walnut	1,233	153	573	0	174	--	--	--	--	333	--	--	--
Cottonwood	254	--	--	2	13	--	--	--	--	239	--	--	--
Elm	401	3	5	1	8	--	--	--	--	384	--	--	0
Hickory	727	12	90	3	49	2	15	4	--	479	64	--	9
Hard maple	30,371	80	228	3,810	752	36	11	33	--	25,307	--	--	113
Soft maple	11,480	12	22	759	142	--	--	--	--	10,543	--	--	2
Red oak group	25,071	188	344	1,311	685	9	35	33	35	22,264	86	--	80
White oak group	5,059	94	71	187	174	--	2	--	--	4,531	--	--	0
Other hardwoods	921	0	--	59	25	--	13	--	--	823	--	--	0
Total	168,213	617	1,380	12,239	6,292	79	85	90	35	145,542	164	--	1,690
State total			967	1,380	16,435	9,295	79	85	90	35	200,131	164	68

¹ Includes North Carolina and Tennessee.

² Includes Idaho, Oregon, and Washington.

All table cells without observations are indicated by --. Table value of 0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 5.—Industrial roundwood production in million cubic feet, by product, hardwoods and softwoods, and survey year, Wisconsin

Mill type	Survey year													2003 - 2008	
	1956	1967	1973	1981	1986	1988	1990	1992	1994	1996	1999	2003	2008	% change	
Softwoods															
Sawmills	11.9	4.8	7.4	13.4	11.4	15.5	13.7	16.7	18.2	18.8	26.1	22.7	24.7	8.8%	
Veneer mills	0.0	0.0	0.0	0.0	0.1	0.9	1.2	0.3	0.3	0.0	0.3	0.5	0.0	-100.0%	
Pulpwood mills ¹	21.0	22.1	27.5	46.1	48.5	58.3	61.6	64.8	68.9	69.2	64.4	55.7	40.6	-27.1%	
Other mills ²	1.3	1.0	0.8	1.2	1.7	1.2	4.2	0.9	1.2	1.5	1.7	3.4	2.4	-29.4%	
Total	34.2	27.9	35.7	60.7	61.7	75.9	80.6	82.7	88.6	89.5	92.5	82.3	67.8	-17.6%	
Hardwoods															
Sawmills	43.1	40.3	56.7	72.6	77.7	85.1	88.9	86.3	94.8	92.2	85.1	76.3	52.6	-31.1%	
Veneer mills	4.7	3.7	5.2	4.4	4.1	6.0	6.2	8.1	8.2	5.4	6.5	5.4	4.0	-25.9%	
Pulpwood mills ¹	52.6	81.0	97.4	119.5	159.5	162.4	164.8	172.1	177.6	163.5	164.7	195.1	129.1	-33.8%	
Other mills ²	7.1	5.0	6.3	3.4	6.1	3.2	6.4	7.8	8.3	8.8	8.2	4.0	7.9	97.5%	
Total	107.5	130.0	165.6	199.9	247.4	256.6	266.3	274.3	289.0	269.9	264.6	280.7	193.6	-31.0%	
All species															
Sawmills	55.0	45.1	64.1	86.0	89.1	100.7	102.6	102.9	113.0	111.0	111.2	99.0	77.4	-21.8%	
Veneer mills	4.7	3.7	5.2	4.4	4.2	6.9	7.4	8.5	8.5	5.4	6.8	5.9	4.0	-32.2%	
Pulpwood mills ¹	73.6	103.1	124.9	165.6	208.0	220.6	226.4	236.9	246.6	232.7	229.1	250.8	169.7	-32.3%	
Other mills ²	8.4	6.0	7.1	4.6	7.8	4.3	10.5	8.6	9.5	10.2	9.9	7.3	10.3	41.1%	
Total	141.7	157.9	201.3	260.6	309.1	332.6	346.9	357.0	377.6	359.4	357.0	363.0	261.3	-28.0%	

¹ Includes pulp mills and particleboard mills after 1973.

² Includes mills that process veneer, excelsior/shavings, cabin logs, poles, posts, etc. Includes particleboard mills for 1956, 1967, and 1973.

All table cells without observations are indicated by --. Table value of 0.0 indicates the volume rounds to less than 100,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 6.—Industrial roundwood production in thousand cubic feet by species group, State of destination, and Forest Inventory Unit, Wisconsin, 2008

Species group	Total	State of destination										Other countries
		Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada		
ALL UNITS												
Softwoods												
Eastern redcedar	5	--	--	--	--	0	--	--	5	--	--	--
Northern white-cedar	219	--	--	--	109	0	--	--	109	--	--	--
Balsam fir	5,340	--	--	--	633	2,076	--	--	2,632	--	--	--
Hemlock	1,179	--	--	--	285	--	--	--	893	--	--	--
Jack pine	10,024	--	--	--	3,886	711	--	--	5,427	--	--	--
Red pine	31,592	--	--	--	2,753	1,609	--	--	27,225	4	--	--
White pine	11,175	12	--	--	116	69	--	--	10,962	--	--	17
Other pine	334	--	--	--	0	248	--	--	86	--	--	--
Spruce	7,493	--	--	--	414	166	--	--	6,912	--	--	--
Tamarack	394	--	--	--	35	21	--	--	338	--	--	--
Total	67,754	12	--	--	8,231	4,901	--	--	54,589	4	--	17
Hardwoods												
Ash	5,384	13	--	10	429	452	--	--	4,453	0	--	27
Aspen/balsam poplar	63,246	--	--	4	5,279	5,156	--	--	52,785	22	--	--
Basswood	15,783	12	2	115	1,433	290	--	--	13,869	0	--	63
Beech	668	--	--	--	465	--	--	--	203	--	--	--
White birch	8,152	--	4	--	519	565	--	0	7,015	--	--	48
Yellow birch	1,929	--	--	--	323	47	--	0	1,559	--	--	--
Other birch	1	0	0	0	--	--	--	--	1	--	--	--
Black cherry	1,248	17	10	109	354	1	--	--	754	--	--	4
Black walnut	823	41	7	415	--	1	--	--	333	--	--	25
Cottonwood	256	13	--	--	--	4	--	--	239	--	--	--

Table 6.—Continued

State of destination											
Species group	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada	Other countries
Elm	442	13	--	35	6	1	--	--	384	--	4
Hickory	557	12	1	65	--	0	--	--	479	--	--
Hard maple	38,183	7	7	255	7,866	4,689	--	2	25,307	--	51
Soft maple	26,200	33	2	186	5,067	10,367	--	0	10,543	0	--
Red oak group	24,367	15	7	357	1,554	33	--	--	22,264	10	127
White oak group	5,311	26	6	497	--	163	18	1	4,531	--	70
Other hardwoods	1,028	25	0	1	179	1	--	--	823	--	--
Total	193,579	227	46	2,049	23,472	21,770	18	3	145,542	33	419
State total	261,333	238	46	2,049	31,703	26,671	18	3	200,131	37	436
NORTHEASTERN UNIT											
Softwoods											
Northern white-cedar	171	--	--	--	109	--	--	--	62	--	--
Balsam fir	2,698	--	--	--	560	132	--	--	2,006	--	--
Hemlock	1,008	--	--	--	285	--	--	--	723	--	--
Jack pine	5,368	--	--	--	3,827	--	--	--	1,541	--	--
Red pine	12,453	--	--	--	2,558	2	--	--	9,893	--	--
White pine	2,937	--	--	--	116	--	--	--	2,821	--	--
Other pine	10	--	--	--	0	0	--	--	9	--	--
Spruce	3,503	--	--	--	327	--	--	--	3,176	--	--
Tamarack	276	--	--	--	35	--	--	--	242	--	--
Total	28,424	--	--	--	7,817	134	--	--	20,473	--	--
Hardwoods											
Ash	2,028	--	--	--	314	--	--	--	1,708	--	6

Table 6.—Continued

Species group	Total	State of destination										Other countries
		Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada		
Aspen/balsam poplar	25,031	--	--	--	5,260	96	--	--	19,675	--	--	
Basswood	8,052	--	--	--	1,121	--	--	--	6,911	--	20	
Beech	445	--	--	--	319	--	--	--	125	--	--	
White birch	2,942	--	--	--	252	1	--	0	2,674	--	14	
Yellow birch	1,099	--	--	--	165	0	--	0	934	--	--	
Other birch	1	--	--	--	--	--	--	--	1	--	--	
Black cherry	376	--	0	--	195	--	--	--	180	--	1	
Black walnut	4	--	1	--	--	--	--	--	0	--	3	
Cottonwood	11	--	--	--	--	--	--	--	11	--	--	
Elm	96	--	--	--	4	--	--	--	92	--	--	
Hickory	52	--	--	--	--	--	--	--	52	--	--	
Hard maple	17,955	--	1	--	4,366	16	--	1	13,549	--	23	
Soft maple	7,116	--	--	--	2,861	175	--	0	4,080	--	--	
Red oak group	5,142	--	0	--	383	--	--	--	4,738	2	19	
White oak group	296	--	1	--	--	--	--	--	293	--	2	
Other hardwoods	268	--	0	--	179	--	--	--	89	--	--	
Total	70,912	--	3	--	15,419	288	--	1	55,111	2	88	
Unit total	99,336	--	3	--	23,236	422	--	1	75,584	2	88	
NORTHWESTERN UNIT												
Softwoods												
Northern white-cedar	10	--	--	--	--	0	--	--	10	--	--	
Balsam fir	2,501	--	--	--	72	1,939	--	--	491	--	--	
Hemlock	41	--	--	--	--	--	--	--	41	--	--	

Table 6.—Continued

Species group	State of destination											Other countries
	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada		
Jack pine	2,119	--	--	--	59	711	--	--	1,348	--	--	--
Red pine	7,676	--	--	--	196	1,604	--	--	5,872	4	--	--
White pine	1,446	--	--	--	--	68	--	--	1,377	--	--	--
Other pine	264	--	--	--	--	247	--	--	17	--	--	--
Spruce	3,375	--	--	--	87	166	--	--	3,122	--	--	--
Tamarack	107	--	--	--	--	21	--	--	86	--	--	--
Total	17,540	--	--	--	414	4,758	--	--	12,364	4	--	--
Hardwoods												
Ash	1,577	--	--	--	114	403	--	--	1,049	0	10	--
Aspen/balsam poplar	27,240	--	--	--	19	4,897	--	--	22,302	22	--	--
Basswood	5,783	--	--	--	309	286	--	--	5,165	0	22	--
Beech	156	--	--	--	144	--	--	--	12	--	--	--
White birch	3,891	--	--	--	267	562	--	0	3,043	--	19	--
Yellow birch	659	--	--	--	157	44	--	0	459	--	--	--
Black cherry	235	--	--	--	157	0	--	--	78	--	--	--
Black walnut	2	--	--	--	--	1	--	--	1	--	--	--
Cottonwood	4	--	--	--	--	4	--	--	--	--	--	--
Elm	44	--	--	--	1	0	--	--	43	--	--	--
Hickory	41	--	--	--	--	0	--	--	41	--	--	--
Hard maple	13,309	--	--	--	3,485	4,672	--	1	5,132	--	19	--
Soft maple	14,086	--	--	--	2,177	9,890	--	0	2,018	0	--	--
Red oak group	6,913	--	--	--	1,170	11	--	--	5,697	3	32	--
White oak group	672	--	--	--	--	1	--	0	661	--	10	--

Table 6.—Continued

State of destination											
Species group	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada	Other countries
Other hardwoods	134	--	--	--	--	0	--	--	134	--	--
Total	74,746	--	--	--	8,000	20,772	--	1	45,835	26	112
Unit total	92,285	--	--	--	8,414	25,530	--	1	58,199	30	112
CENTRAL UNIT											
Softwoods											
Northern white-cedar	6	--	--	--	--	--	--	--	6	--	--
Balsam fir	125	--	--	--	--	5	--	--	120	--	--
Hemlock	123	--	--	--	--	--	--	--	123	--	--
Jack pine	2,364	--	--	--	--	--	--	--	2,364	--	--
Red pine	9,241	--	--	--	--	--	--	--	9,241	--	--
White pine	5,361	--	--	--	--	--	--	--	5,361	--	--
Other pine	56	--	--	--	--	--	--	--	56	--	--
Spruce	275	--	--	--	--	--	--	--	275	--	--
Tamarack	10	--	--	--	--	--	--	--	10	--	--
Total	17,561	--	--	--	--	5	--	--	17,556	--	--
Hardwoods											
Ash	1,010	--	--	--	1	30	--	--	975	--	4
Aspen/balsam poplar	9,055	--	--	--	--	129	--	--	8,926	--	--
Basswood	1,043	--	--	--	2	0	--	--	1,033	--	7
Beech	34	--	--	--	2	--	--	--	32	--	--
White birch	737	--	1	--	1	1	--	--	728	--	5
Yellow birch	153	--	--	--	1	3	--	--	149	--	--
Black cherry	118	--	1	--	1	--	--	--	116	--	0

Table 6.—Continued

State of destination											
Species group	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada	Other countries
Black walnut	26	--	1	--	--	--	--	--	23	--	2
Cottonwood	18	--	--	--	--	--	--	--	18	--	--
Elm	47	--	--	--	--	--	--	--	46	--	1
Hickory	124	--	--	--	--	--	--	--	124	--	--
Hard maple	4,572	--	1	--	14	--	--	0	4,553	--	3
Soft maple	3,485	--	1	--	29	243	--	0	3,212	--	--
Red oak group	7,435	--	3	--	1	--	--	--	7,393	--	39
White oak group	1,807	--	1	--	--	30	18	0	1,738	--	20
Other hardwoods	290	--	0	--	--	--	--	--	290	--	--
Total	29,953	--	8	--	51	437	18	0	29,358	--	81
Unit total	47,514	--	8	--	51	442	18	0	46,914	--	81
SOUTHWESTERN UNIT											
Softwoods											
Eastern redcedar	5	--	--	--	--	0	--	--	5	--	--
Balsam fir	11	--	--	--	--	--	--	--	11	--	--
Jack pine	152	--	--	--	--	--	--	--	152	--	--
Red pine	1,099	--	--	--	--	2	--	--	1,096	--	--
White pine	771	7	--	--	--	0	--	--	763	--	--
Other pine	3	--	--	--	--	0	--	--	3	--	--
Spruce	106	--	--	--	--	1	--	--	105	--	--
Total	2,146	7	--	--	--	3	--	--	2,136	--	--
Hardwoods											
Ash	303	8	--	10	--	19	--	--	265	--	2

Table 6.—Continued

Species group	State of destination											Other countries
	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada		
Aspen/balsam poplar	1,139	--	--	4	--	33	--	--	1,102	--	--	--
Basswood	713	11	2	115	--	3	--	--	573	--	--	9
Beech	0	--	--	--	--	--	--	--	0	--	--	--
White birch	453	--	3	--	--	1	--	0	443	--	--	7
Yellow birch	3	--	--	--	--	--	--	--	3	--	--	--
Other birch	0	--	--	0	--	--	--	--	--	--	--	--
Black cherry	368	16	5	109	--	0	--	--	236	--	--	2
Black walnut	727	40	4	415	--	0	--	--	252	--	--	16
Cottonwood	174	10	--	--	--	0	--	--	163	--	--	--
Elm	195	13	--	35	--	1	--	--	143	--	--	3
Hickory	262	11	1	65	--	0	--	--	186	--	--	--
Hard maple	1,548	5	4	255	--	1	--	--	1,279	--	--	4
Soft maple	880	22	1	186	--	60	--	0	610	--	--	--
Red oak group	3,961	15	3	357	--	22	--	--	3,529	5	--	30
White oak group	1,961	26	3	497	--	132	--	0	1,277	--	--	25
Other hardwoods	171	14	0	1	--	1	--	--	155	--	--	--
Total	12,858	191	25	2,049	--	274	--	0	10,215	5	--	99
Unit total	15,004	198	25	2,049	--	278	--	0	12,351	5	--	99
SOUTHEASTERN UNIT												
Softwoods												
Northern white-cedar	32	--	--	--	--	--	--	--	32	--	--	--
Balsam fir	6	--	--	--	1	--	--	--	5	--	--	--
Hemlock	6	--	--	--	--	--	--	--	6	--	--	--

Table 6.—Continued

Species group	State of destination											Other countries
	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada		
Jack pine	22	--	--	--	--	--	--	--	22	--	--	--
Red pine	1,122	--	--	--	--	--	--	--	1,122	--	--	--
White pine	661	5	--	--	--	--	--	--	639	--	--	17
Other pine	0	--	--	--	--	--	--	--	0	--	--	--
Spruce	234	--	--	--	--	--	--	--	234	--	--	--
Tamarack	0	--	--	--	--	--	--	--	0	--	--	--
Total	2,083	5	--	--	1	--	--	--	2,061	--	--	17
Hardwoods												
Ash	466	5	--	--	0	--	--	--	456	--	--	5
Aspen/balsam poplar	780	--	--	--	--	--	--	--	780	--	--	--
Basswood	192	1	--	--	0	--	--	--	186	--	--	5
Beech	33	--	--	--	--	--	--	--	33	--	--	--
White birch	130	--	--	--	0	--	--	0	127	--	--	3
Yellow birch	14	--	--	--	0	--	--	--	14	--	--	--
Black cherry	151	1	4	--	--	--	--	--	145	--	--	1
Black walnut	65	2	2	--	--	--	--	--	57	--	--	5
Cottonwood	50	3	--	--	--	--	--	--	47	--	--	--
Elm	60	--	--	--	--	--	--	--	60	--	--	--
Hickory	78	2	--	--	--	--	--	--	76	--	--	--
Hard maple	800	1	2	--	1	--	--	--	794	--	--	2
Soft maple	633	11	0	--	0	--	--	--	622	--	--	--
Red oak group	915	--	1	--	--	--	--	--	908	--	--	7
White oak group	576	--	1	--	--	--	--	0	563	--	--	12

Table 6.—Continued

Species group	State of destination										Other countries
	Total	Illinois	Indiana	Iowa	Michigan	Minnesota	Missouri	Virginia	Wisconsin	Canada	
Other hardwoods	166	10	0	--	--	--	--	--	155	--	--
Total	5,109	35	10	--	2	--	--	0	5,023	--	39
Unit total	7,193	40	10	--	3	--	--	0	7,084	--	56

All table cells without observations are indicated by --. Table value of 0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 7.—Industrial roundwood production in thousand cubic feet, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Forest Inventory Unit and county	Softwoods										Hardwoods			
	Northern					Tama-					Aspen/			Bass-
	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	rack	Softwood total	Ash	poplar	wood
Northeastern Unit														
Florence	--	23	315	192	169	847	46	--	549	24	2,166	62	1,918	249
Forest	--	23	457	177	51	969	68	--	1,349	40	3,134	201	1,829	564
Langlade	--	1	496	26	9	420	116	6	383	86	1,543	302	2,738	4,811
Lincoln	--	0	287	16	298	994	154	2	226	32	2,010	446	4,138	551
Marinette	--	74	354	329	1,782	1,866	136	--	302	40	4,884	283	3,528	755
Menominee	--	17	12	185	107	471	1,382	--	15	2	2,191	200	507	536
Oconto	--	31	51	43	562	2,123	68	0	128	21	3,026	220	2,748	146
Oneida	--	1	309	17	759	1,976	270	0	233	9	3,571	109	4,352	93
Shawano	--	0	117	15	11	870	121	1	31	15	1,182	163	837	249
Vilas	--	0	299	9	1,620	1,917	576	0	287	8	4,717	43	2,436	98
Total	--	171	2,698	1,008	5,368	12,453	2,937	10	3,503	276	28,424	2,028	25,031	8,052
Northwestern Unit														
Ashland	--	1	385	1	72	243	48	--	709	4	1,463	97	1,764	210
Barron	--	5	9	--	14	120	122	--	2	--	272	27	713	387
Bayfield	--	0	261	--	353	1,593	118	136	172	6	2,640	70	2,779	229
Burnett	--	0	27	--	469	642	111	58	4	7	1,318	26	1,919	166
Douglas	--	0	561	--	330	2,319	156	51	204	7	3,628	71	3,073	173
Iron	--	1	383	3	8	147	55	3	403	6	1,008	168	1,759	475
Polk	--	--	4	--	38	24	136	--	12	--	215	23	837	243
Price	--	2	531	16	7	401	120	--	436	68	1,579	297	3,969	431
Rusk	--	0	28	1	1	161	95	--	194	--	480	169	1,720	1,132

Table 7.—Continued

Forest Inventory Unit and county	Softwoods										Hardwoods			
	Northern					Tama-					Aspen/			Bass- wood
	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	rack	Softwood total	Ash	poplar	balsam
Sawyer	--	0	239	0	231	774	316	0	678	4	2,242	287	3,765	1,396
Taylor	--	--	44	20	1	303	101	--	549	1	1,019	216	2,091	292
Washburn	--	--	29	--	596	947	67	16	13	6	1,674	126	2,851	649
Total	--	10	2,501	41	2,119	7,676	1,446	264	3,375	107	17,540	1,577	27,240	5,783
Central Unit														
Adams	--	0	--	--	581	1,406	772	2	4	--	2,765	147	235	10
Chippewa	--	--	7	--	71	405	79	--	17	4	583	49	840	480
Clark	--	--	--	3	34	326	424	13	26	--	826	83	1,640	86
Eau Claire	--	--	--	--	265	428	209	--	1	--	904	10	269	15
Jackson	--	--	1	--	507	951	1,217	5	7	--	2,688	42	595	6
Juneau	--	0	--	--	450	656	619	2	3	--	1,731	47	336	12
Marathon	--	4	72	102	40	595	155	7	114	--	1,090	290	2,524	287
Marquette	--	1	--	--	38	699	198	1	3	5	945	9	35	1
Monroe	--	0	1	--	112	452	348	3	3	--	920	30	114	6
Portage	--	--	28	7	140	1,146	202	10	25	1	1,559	47	621	8
Waupaca	--	0	8	10	15	703	228	2	15	--	981	198	635	94
Waushara	--	0	1	--	23	848	386	8	14	0	1,279	25	88	12
Wood	--	--	6	0	90	626	523	4	42	--	1,291	34	1,122	27
Total	--	6	125	123	2,364	9,241	5,361	56	275	10	17,561	1,010	9,055	1,043
Southwestern Unit														
Buffalo	--	--	--	--	2	32	12	--	3	--	49	9	88	34
Crawford	0	--	--	--	--	31	1	--	--	--	31	25	15	51

Table 7.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods			
	Northern					Tama-						Aspen/			
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	rack	Softwood total	Ash	poplar	Bass- wood
Dunn	2,796	0	--	--	--	86	424	267	--	7	--	784	38	308	139
Grant	1,365	1	--	--	--	0	56	19	--	40	--	116	31	47	48
Iowa	724	1	--	--	--	1	30	28	--	2	--	62	15	24	19
La Crosse	800	--	--	--	--	9	36	64	--	2	--	111	1	83	17
Lafayette	279	--	--	--	--	--	--	--	--	1	--	1	6	4	29
Pepin	244	--	--	--	--	--	4	7	--	--	--	10	5	33	9
Pierce	698	--	--	--	--	--	--	3	--	--	--	3	10	32	41
Richland	970	1	--	--	--	--	40	20	--	--	--	60	29	76	43
Sauk	1,567	3	--	--	--	34	149	42	--	19	--	246	63	114	42
St. Croix	744	0	--	1	--	17	180	15	0	18	--	232	22	94	179
Trempealeau	1,207	--	--	9	--	3	118	208	--	13	--	351	5	176	18
Vernon	1,412	0	--	--	--	--	0	85	3	1	--	89	45	45	45
Total	15,004	5	--	11	--	152	1,099	771	3	106	--	2,146	303	1,139	713
Southeastern Unit															
Brown	297	--	0	--	0	2	113	9	--	--	--	124	25	51	18
Calumet	113	--	1	--	--	--	5	9	--	1	--	16	12	11	4
Columbia	1,595	--	1	--	--	--	552	87	--	41	--	680	28	156	2
Dane	403	--	7	--	--	--	14	8	--	19	--	48	15	25	8
Dodge	361	--	--	--	--	--	2	8	--	--	--	11	24	7	4
Door	462	--	3	3	3	5	88	50	--	12	--	165	42	68	2
Fond Du Lac	128	--	0	--	--	--	4	9	0	0	0	13	6	23	4
Green	221	--	--	--	--	1	36	2	--	--	--	38	11	11	3

Table 7.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods			
	Northern					Tama-						Aspen/			
	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	rack	Softwood total	Ash	poplar	Bass- wood	
Green Lake	--	2	1	--	6	19	86	--	--	--	114	2	7	1	
Jefferson	--	0	--	--	--	0	0	--	--	--	0	9	4	6	
Kenosha	--	0	--	--	--	--	0	--	0	--	1	--	--	--	
Kewaunee	--	7	--	2	--	13	18	--	2	--	43	23	29	51	
Manitowoc	--	7	1	1	--	23	28	--	4	0	64	83	130	33	
Milwaukee	--	--	--	--	--	--	--	--	--	--	--	0	--	0	
Outagamie	--	--	--	--	--	28	16	0	25	--	69	61	128	33	
Ozaukee	--	0	--	--	--	--	1	0	25	0	26	14	12	0	
Racine	--	--	--	--	--	14	51	--	0	--	66	0	11	--	
Rock	--	2	--	--	--	1	0	--	--	--	3	7	0	0	
Sheboygan	--	1	--	--	1	52	96	0	37	0	188	58	18	7	
Walworth	--	1	--	--	--	91	61	--	8	--	161	2	9	0	
Washington	--	0	--	--	7	18	68	0	45	0	138	13	18	6	
Waukesha	--	0	--	--	--	47	46	--	12	--	106	7	45	2	
Winnebago	--	--	--	--	--	1	8	--	2	--	10	26	19	7	
Total	--	32	6	6	22	1,122	661	0	234	0	2,083	466	780	192	
State total	5	219	5,340	1,179	10,024	31,592	11,175	334	7,493	394	67,754	5,384	63,246	15,783	

Table 7.—Continued

Hardwoods														
			White		Yellow		Other		Black		Black		Cotton-	
			Beech		birch		birch		cherry		walnut		wood	
													Elm	
													Hickory	
													maple	
													maple	
													oak	
													group	
													oak	
													group	
													woods	
													Hardwood	
													total	
Northeastern Unit														
Florence	57	189	54	--	42	--	--	1	--	1,432	250	284	0	4,543
Forest	12	279	313	--	68	--	--	2	--	2,913	366	612	8	7,199
Langlade	33	243	83	--	51	1	10	3	2,958	804	198	41	1	12,277
Lincoln	16	200	117	--	42	0	47	13	2,000	1,240	228	23	29	9,090
Marinette	63	470	54	--	59	--	0	10	6	1,063	1,583	1,165	44	9,271
Menominee	211	104	321	--	56	--	--	7	15	4,131	1,108	694	40	7,931
Oconto	20	383	39	--	22	--	8	11	5	523	566	278	50	5,018
Oneida	2	490	33	1	5	--	--	0	--	531	472	600	1	6,688
Shawano	11	87	46	--	17	2	1	6	11	1,440	471	332	88	3,774
Vilas	19	496	38	--	16	--	--	1	--	964	257	751	2	5,121
Total	445	2,942	1,099	1	376	4	11	96	52	17,955	7,116	5,142	296	70,912
Northwestern Unit														
Ashland	3	304	74	--	8	1	--	1	1	2,791	83	632	1	2
Barron	--	122	23	--	10	--	--	2	9	218	174	374	83	26
Bayfield	2	869	29	--	4	--	--	0	--	397	1,755	1,066	12	0
Burnett	--	161	1	--	0	0	2	0	0	90	391	1,294	43	0
Douglas	2	683	28	--	4	--	--	0	--	194	1,955	198	8	0
Iron	133	331	223	--	147	--	--	2	--	5,987	1,840	190	0	0
Polk	--	161	1	--	5	1	2	1	2	64	210	278	114	2
Price	4	280	92	--	20	0	--	12	--	979	1,175	165	21	19
Rusk	0	145	20	--	3	--	--	6	5	465	1,385	583	122	16

Table 7.—Continued

Hardwoods																
	White				Black		Black		Cotton-		Hard		Red		Other	
	Beech	birch	Yellow	Other	Black	Black	walnut	wood	Elm	Hickory	maple	maple	oak	oak	hard-	Hardwood
		birch	birch	birch	cherry	cherry							group	group	woods	total
Sawyer	3	422	99	--	9		--	--	5	4	922	3,229	1,483	109	7	11,740
Taylor	8	157	53	--	7		0	--	11	4	1,005	699	123	23	60	4,749
Washburn	0	255	19	--	19		--	--	4	16	198	1,191	529	138	1	5,996
Total	156	3,891	659	--	235		2	4	44	41	13,309	14,086	6,913	672	134	74,746
Central Unit																
Adams	11	11	--	--	5		--	--	3	--	715	380	1,104	148	--	2,768
Chippewa	0	78	4	--	11		--	--	8	25	193	290	520	122	28	2,649
Clark	2	102	9	--	5		--	--	3	11	396	279	666	192	34	3,507
Eau Claire	--	52	--	--	23		4	6	2	1	36	122	410	123	3	1,076
Jackson	--	126	0	--	7		--	7	2	2	305	357	815	280	1	2,544
Juneau	--	24	1	--	10		--	0	3	7	157	196	584	194	43	1,614
Marathon	15	128	102	--	6		2	--	9	15	1,671	767	283	67	86	6,252
Marquette	--	8	--	--	6		0	--	1	0	54	34	237	82	0	465
Monroe	--	27	0	--	11		18	3	5	10	115	128	397	160	7	1,030
Portage	2	49	12	--	5		--	--	2	--	189	242	550	86	9	1,823
Waupaca	3	81	21	--	25		2	2	4	48	520	358	567	123	79	2,760
Waushara	--	19	4	--	4		--	--	3	2	45	68	894	105	1	1,269
Wood	0	35	0	--	1		--	--	2	3	177	264	406	125	--	2,197
Total	34	737	153	--	118		26	18	47	124	4,572	3,485	7,435	1,807	290	29,953
Southwestern Unit																
Buffalo	--	151	--	--	22		4	12	5	22	2	49	499	126	11	1,036
Crawford	--	1	--	0	46		150	0	43	51	171	47	253	226	3	1,083

Table 7.—Continued

Hardwoods																		
			White		Yellow	Other	Black	Black	Cotton-	Red		Soft		White	Other			
Beech	birch	birch	birch	birch	cherry	walnut	wood	Elm	Hickory	maple	maple	oak	oak	group	hard-woods	Hardwood	total	
Dunn	--	110	2	--	20	0	--	8	9	144	90	788	295	61	2,012			
Grant	--	0	--	--	27	213	35	29	17	203	121	235	235	7	1,250			
Iowa	--	6	--	--	27	116	1	17	18	31	61	173	147	6	662			
La Crosse	--	13	--	--	21	4	9	9	12	3	34	282	174	27	688			
Lafayette	--	--	--	--	16	66	--	11	5	38	7	45	49	2	278			
Pepin	--	7	--	--	4	5	1	1	5	34	11	93	16	10	233			
Pierce	0	23	2	--	17	--	0	4	10	113	42	261	128	13	695			
Richland	--	8	--	--	24	24	26	30	29	307	61	147	102	4	910			
Sauk	--	3	--	--	88	6	4	15	28	198	194	449	117	2	1,322			
St. Croix	0	42	--	--	3	0	0	2	3	17	31	79	37	2	512			
Trempealeau	--	82	--	--	19	4	33	4	11	7	38	325	122	12	856			
Vernon	--	6	0	--	34	135	51	16	43	279	94	331	186	10	1,323			
Total	0	453	3	0	368	727	174	195	262	1,548	880	3,961	1,961	171	12,858			
Southeastern Unit																		
Brown	0	4	1	--	1	--	3	1	0	23	17	13	15	1	172			
Calumet	1	2	--	--	--	--	1	3	1	12	16	9	22	4	97			
Columbia	--	11	--	--	39	1	11	4	11	95	130	264	155	8	915			
Dane	--	3	--	--	20	25	5	10	8	21	25	102	85	4	355			
Dodge	--	0	--	--	16	0	--	2	18	73	60	87	57	1	350			
Door	7	65	8	--	2	--	2	1	2	38	5	56	0	1	298			
Fond Du Lac	--	2	--	--	3	0	3	1	1	47	7	6	5	7	114			
Green	--	--	--	--	14	15	--	14	6	52	7	26	22	1	183			

Table 7.—Continued

Hardwoods														
	Beech			White		Yellow		Other		Black		Black		Hardwood total
	birch	birch	birch	birch	birch	cherry	walnut	Cotton-wood	Elm	Hickory	maple	Hard maple	Soft maple	
Green Lake	--	1	--	--	--	3	--	--	1	0	9	16	42	2
Jefferson	--	1	--	--	--	6	6	0	1	1	13	12	19	3
Kenosha	--	--	--	--	--	1	1	--	--	0	--	1	1	--
Kewaunee	3	17	2	--	--	3	0	5	4	3	55	103	29	2
Manitowoc	9	4	3	--	--	8	1	10	3	3	132	99	106	16
Milwaukee	--	--	--	--	--	--	--	--	0	--	0	0	0	--
Outagamie	3	17	0	--	--	1	--	8	2	3	51	77	44	98
Ozaukee	1	0	--	--	--	4	0	--	2	3	10	11	1	1
Racine	--	0	--	--	--	1	3	1	0	0	6	1	1	2
Rock	--	--	--	--	--	12	8	0	4	4	2	3	20	2
Sheboygan	11	0	0	--	--	0	0	1	2	2	34	15	21	1
Walworth	--	--	--	--	--	6	1	0	1	4	9	1	4	0
Washington	--	0	0	--	--	4	1	--	5	1	105	12	24	3
Waukesha	--	0	--	--	--	5	1	1	1	1	6	2	12	4
Winnebago	--	0	--	--	--	2	--	--	0	3	10	14	29	4
Total	33	130	14	--	--	151	65	50	60	78	800	633	915	166
State total	668	8,152	1,929	1	1,248	823	256	442	557	38,183	26,200	24,367	5,311	1,028
														193,579

All table cells without observations are indicated by --. Table value of 0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 8.—Industrial roundwood production by species group, and product, Wisconsin, 2008

Species group	All products	Saw logs		Veneer logs		Pulpwood		Cabin logs
		MBF International	Thousand 1/4-inch cu. ft.	MBF International	Thousand 1/4-inch cu. ft.	Standard	Thousand cords cu. ft.	
ALL UNITS								
Softwoods								
Eastern redcedar	5	0	0	--	--	--	--	5
Northern white-cedar	219	783	164	--	--	265	21	15
Balsam fir	5,340	1,153	242	--	--	64,688	5,098	--
Hemlock	1,179	1,583	268	--	--	11,509	910	--
Jack pine	10,024	20,782	4,363	--	--	70,566	5,568	--
Red pine	31,592	92,756	15,787	--	--	183,505	14,498	487
White pine	11,175	17,230	2,932	104	17	92,875	7,337	846
Other pine	334	79	16	--	--	4,024	317	--
Spruce	7,493	4,626	970	--	--	82,535	6,504	17
Tamarack	394	21	4	--	--	4,665	367	--
Total	67,754	139,013	24,746	104	17	514,632	40,620	1,370
Hardwoods								
Ash	5,384	12,558	2,242	365	59	38,195	3,017	--
Aspen/balsam poplar	63,246	46,887	8,187	623	102	692,425	54,702	--
Basswood	15,783	17,074	3,049	595	96	69,807	5,514	--
Beech	668	252	45	23	3	7,833	618	--
White birch	8,152	7,729	1,380	2,653	432	79,525	6,290	--
Yellow birch	1,929	6,349	1,134	269	44	9,516	751	--
Other birch	1	1	0	--	--	10	1	--
Black cherry	1,248	3,731	666	551	89	6,234	493	--
Black walnut	823	3,773	674	914	149	--	--	--
Cottonwood	256	1,122	201	5	1	95	8	--

Table 8.—Continued

Species group	All products	Saw logs		Veneer logs		Pulpwood		Cabin logs
		MBF International	Thousand cu. ft.	MBF International 1/4-inch	Thousand cu. ft.	Standard cords	Thousand cu. ft.	
Elm	442	1,463	261	25	4	2,229	175	--
Hickory	557	2,386	425	452	73	729	58	--
Hard maple	38,183	81,025	13,540	7,440	1,211	296,007	23,384	--
Soft maple	26,200	22,415	4,001	240	39	279,658	22,119	--
Red oak group	24,367	71,808	12,573	7,553	1,230	132,520	10,480	--
White oak group	5,311	19,771	3,462	1,594	260	17,863	1,413	--
Other hardwoods	1,028	4,459	796	1,197	195	469	38	--
Total	193,579	302,803	52,636	24,499	3,987	1,633,115	129,061	--
State total	261,333	441,816	77,382	24,603	4,004	2,147,747	169,681	1,370
NORTHEASTERN UNIT								
Softwoods								
Northern white-cedar	171	665	140	--	--	265	21	2
Balsam fir	2,698	795	167	--	--	32,123	2,531	--
Hemlock	1,008	1,354	230	--	--	9,849	778	--
Jack pine	5,368	15,810	3,319	--	--	25,725	2,030	--
Red pine	12,453	40,214	6,844	--	--	65,949	5,210	185
White pine	2,937	7,685	1,308	--	--	18,171	1,435	191
Other pine	10	--	--	--	--	122	10	--
Spruce	3,503	2,878	604	--	--	36,760	2,897	2
Tamarack	276	--	--	--	--	3,506	276	--
Total	28,424	69,401	12,612	--	--	192,470	15,188	380
Hardwoods								
Ash	2,028	4,297	767	74	12	15,807	1,249	--
Aspen/balsam poplar	25,031	21,069	3,679	280	46	269,708	21,307	--

Table 8.—Continued

Species group	All products	Saw logs		Veneer logs		Pulpwood		Cabin logs
		MBF International	Thousand	MBF International	Thousand	Standard	Thousand	
		1/4-inch	cu. ft.	1/4-inch	cu. ft.	cords	cu. ft.	Thousand
								cu. ft.
Basswood	8,052	7,533	1,345	260	42	33,605	2,655	--
Beech	445	123	22	15	2	5,320	420	--
White birch	2,942	2,979	532	815	133	28,792	2,277	--
Yellow birch	1,099	3,779	675	149	24	5,063	400	--
Other birch	1	--	--	--	--	10	1	--
Black cherry	376	538	96	58	9	3,429	271	--
Black walnut	4	1	0	21	3	--	--	--
Cottonwood	11	38	7	2	0	45	4	--
Elm	96	46	8	--	--	1,114	88	--
Hickory	52	175	31	5	1	254	20	--
Hard maple	17,955	46,215	7,723	3,779	615	121,535	9,601	--
Soft maple	7,116	6,197	1,106	55	9	75,871	6,001	--
Red oak group	5,142	15,822	2,770	1,030	168	27,872	2,204	--
White oak group	296	1,280	224	19	3	865	68	--
Other hardwoods	268	1,448	258	14	2	86	7	--
Total	70,912	111,540	19,243	6,576	1,069	589,376	46,573	--
Unit total	99,336	180,941	31.85	6,576	1,069	781,846	61,761	380
NORTHWESTERN UNIT								
Softwoods								
Northern white-cedar	10	30	6	--	--	--	--	3
Balsam fir	2,501	358	75	--	--	30,771	2,425	--
Hemlock	41	38	6	--	--	443	35	--
Jack pine	2,119	3,467	728	--	--	17,477	1,379	--
Red pine	7,676	30,205	5,141	--	--	26,236	2,073	188

Table 8.—Continued

Species group	All products	Saw logs			Veneer logs			Pulpwood		Cabin logs
		MBF International	1/4-inch	Thousand cu. ft.	MBF International	1/4-inch	Thousand cu. ft.	Standard cords	Thousand cu. ft.	
White pine	1,446	3,514	3,514	598	--	--	--	9,638	761	68
Other pine	264	78	78	16	--	--	--	3,148	248	--
Spruce	3,375	1,593	1,593	334	--	--	--	38,469	3,031	9
Tamarack	107	21	21	4	--	--	--	1,030	81	--
Total	17,540	39,304	39,304	6,908	--	--	--	127,212	10,033	268
Hardwoods										
Ash	1,577	2,810	2,810	502	126	126	20	12,753	1,007	--
Aspen/balsam poplar	27,240	14,046	14,046	2,452	263	263	43	312,103	24,656	--
Basswood	5,783	4,554	4,554	813	161	161	26	31,462	2,485	--
Beech	156	4	4	1	7	7	1	1,951	154	--
White birch	3,891	3,620	3,620	646	1,197	1,197	195	37,930	3,000	--
Yellow birch	659	1,827	1,827	326	99	99	16	4,011	317	--
Black cherry	235	336	336	60	31	31	5	2,153	170	--
Black walnut	2	4	4	1	5	5	1	--	--	--
Cottonwood	4	22	22	4	--	--	--	--	--	--
Elm	44	106	106	19	--	--	--	320	25	--
Hickory	41	207	207	37	10	10	2	31	2	--
Hard maple	13,309	14,862	14,862	2,483	2,292	2,292	373	131,914	10,421	--
Soft maple	14,086	3,369	3,369	601	94	94	15	170,017	13,448	--
Red oak group	6,913	19,587	19,587	3,430	1,910	1,910	311	39,287	3,108	--
White oak group	672	2,093	2,093	367	84	84	14	3,681	291	--
Other hardwoods	134	550	550	98	214	214	35	13	1	--
Total	74,746	67,997	67,997	11,840	6,493	6,493	1,057	747,626	59,085	--
Unit total	92,285	107,301	107,301	18,748	6,493	6,493	1,057	874,838	69,118	268

Table 8.—Continued

Species group	All products	Saw logs		Veneer logs		Pulpwood		Cabin logs
		MBF International	Thousand	MBF International	Thousand	Standard	Thousand	
		1/4-inch	cu. ft.	1/4-inch	cu. ft.	cords	cu. ft.	Thousand
								cu. ft.
CENTRAL UNIT								
Softwoods								
Northern white-cedar	6	0	0	--	--	--	--	2
Balsam fir	125	--	--	--	--	1,583	125	--
Hemlock	123	189	32	--	--	1,146	91	--
Jack pine	2,364	1,465	308	--	--	25,274	1,994	--
Red pine	9,241	20,383	3,469	--	--	68,665	5,425	110
White pine	5,361	4,385	746	--	--	51,654	4,081	523
Other pine	56	--	--	--	--	712	56	--
Spruce	275	131	27	--	--	3,065	242	6
Tamarack	10	--	--	--	--	128	10	--
Total	17,561	26,553	4,582	--	--	152,227	12,024	641
Hardwoods								
Ash	1,010	2,211	395	87	14	7,614	601	--
Aspen/balsam poplar	9,055	8,462	1,478	59	10	95,298	7,529	--
Basswood	1,043	1,824	326	67	11	4,408	348	--
Beech	34	--	--	--	--	428	34	--
White birch	737	809	144	241	39	6,996	553	--
Yellow birch	153	690	123	16	3	348	27	--
Black cherry	118	435	78	127	21	248	20	--
Black walnut	26	126	22	19	3	--	--	--
Cottonwood	18	32	6	0	0	11	1	--
Elm	47	118	21	5	1	316	25	--
Hickory	124	349	62	285	46	197	16	--

Table 8.—Continued

Species group	All products	Saw logs		Veneer logs		Pulpwood		Cabin logs
		MBF International	Thousand 1/4-inch cu. ft.	MBF International	Thousand 1/4-inch cu. ft.	Standard	Thousand cords	Thousand cu. ft.
Hard maple	4,572	8,909	1,489	938	153	37,090	2,930	--
Soft maple	3,485	6,365	1,136	56	9	29,526	2,335	--
Red oak group	7,435	15,209	2,663	3,148	513	53,870	4,259	--
White oak group	1,807	4,905	859	170	28	11,026	872	--
Other hardwoods	290	1,169	209	434	71	135	11	--
Total	29,953	51,613	9,011	5,652	922	247,511	19,561	--
Unit total	47,514	78,166	13,593	5,652	922	399,738	31,585	641
SOUTHWESTERN UNIT								
Softwoods								
Eastern redcedar	5	0	0	--	--	--	--	5
Balsam fir	11	--	--	--	--	136	11	--
Jack pine	152	40	8	--	--	1,815	143	--
Red pine	1,099	1,884	321	--	--	8,697	687	3
White pine	771	1,263	215	--	--	6,137	485	60
Other pine	3	--	--	--	--	38	3	--
Spruce	106	20	4	--	--	1,284	101	--
Total	2,146	3,207	548	--	--	18,107	1,430	68
Hardwoods								
Ash	303	1,389	248	31	5	399	32	--
Aspen/balsam poplar	1,139	2,255	394	1	0	7,815	617	--
Basswood	713	2,180	389	68	11	242	19	--
Beech	0	0	0	--	--	1	0	--
White birch	453	116	21	299	49	4,839	383	--
Yellow birch	3	11	2	1	0	15	1	--

Table 8.—Continued

Species group	All products	Saw logs			Veneer logs			Pulpwood		Cabin logs	
		MBF	International	Thousand	MBF	International	Thousand	Standard	Thousand	Thousand	cu. ft.
			1/4-inch	cu. ft.		1/4-inch	cu. ft.	cords	cu. ft.		
Other birch	0	0	1	0	--	--	--	--	--	--	--
Black cherry	368		1,771	316	267	43	102	8	--	--	--
Black walnut	727		3,308	591	835	136	--	--	--	--	--
Cottonwood	174		Black cherry	136	--	--	22	2	--	--	--
Elm	195		992	177	20	3	169	13	--	--	--
Hickory	262		1,323	236	132	21	57	5	--	--	--
Hard maple	1,548		8,268	1,382	302	49	1,467	116	--	--	--
Soft maple	880		3,988	712	22	4	1,900	150	--	--	--
Red oak group	3,961		17,595	3,081	1,293	210	8,230	651	--	--	--
White oak group	1,961		8,928	1,563	1,235	201	868	69	--	--	--
Other hardwoods	171		465	83	503	82	75	6	--	--	--
Total	12,858		53,352	9,331	5,009	814	26,201	2,072	--	--	--
Unit total	15,004		56,559	9,879	5,009	814	44,308	3,502	68		
SOUTHEASTERN UNIT											
Softwoods											
Northern white-cedar	32		88	18	--	--	--	--	8		
Balsam fir	6		--	--	--	--	75	6	--	--	--
Hemlock	6		2	0	--	--	71	6	--	--	--
Jack pine	22		--	--	--	--	275	22	--	--	--
Red pine	1,122		70	12	--	--	13,958	1,103	1		
White pine	661		383	65	104	17	7,275	575	4		
Other pine	0		1	0	--	--	4	0	--	--	--
Spruce	234		4	1	--	--	2,957	233	--	--	--

Table 8.—Continued

Species group	All products	Saw logs			Veneer logs			Pulpwood		Cabin logs	
		MBF	International	Thousand	MBF	International	Thousand	Standard	Thousand	Thousand	cu. ft.
		0	0	0	0	0	0	1	0	0	--
Tamarack		0	0	0	0	0	0	1	0	0	--
Total	2,083		548	96	104	17	17	24,616	1,945	13	13
Hardwoods											
Ash	466		1,851	330	47	8	8	1,622	128	--	--
Aspen/balsam poplar	780		1,055	184	20	3	3	7,501	593	--	--
Basswood	192		983	176	39	6	6	90	7	--	--
Beech	33		125	22	1	0	0	133	10	--	--
White birch	130		205	37	101	16	16	968	77	--	--
Yellow birch	14		42	8	4	1	1	79	6	--	--
Black cherry	151		651	116	68	11	11	302	24	--	--
Black walnut	65		334	60	34	6	6	--	--	--	--
Cottonwood	50		268	48	3	1	1	17	1	--	--
Elm	60		201	36	--	--	--	310	24	--	--
Hickory	78		332	59	20	3	3	190	15	--	--
Hard maple	800		2,771	463	129	21	21	4,001	316	--	--
Soft maple	633		2,496	446	13	2	2	2,344	185	--	--
Red oak group	915		3,595	629	172	28	28	3,261	258	--	--
White oak group	576		2,565	449	86	14	14	1,423	113	--	--
Other hardwoods	166		827	148	32	5	5	160	13	--	--
Total	5,109		18,301	3,211	769	125	125	22,401	1,770	--	--
Unit total	7,193		18,849	3,307	873	142	142	47,017	3,715	13	13

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings		Industrial fuelwood		Poles		Posts	
	MBF International	Thousand	Thousand	cu. ft.	Standard	Thousand	Pieces	Thousand	Thousand	cu. ft.
	1/4-inch	cu. ft.	cu. ft.		cords	cu. ft.		pieces		
ALL UNITS										
Softwoods										
Eastern redcedar	--	--	--	--	2	0	--	--	--	--
Northern white-cedar	--	--	--	--	4	0	1,000	6	11	11
Balsam fir	--	--	--	--	9	1	--	--	--	--
Hemlock	--	--	--	--	--	--	--	--	--	--
Jack pine	--	--	83	--	174	12	--	--	--	--
Red pine	--	--	228	--	1,714	120	57,973	348	120	123
White pine	--	--	--	--	20	1	2,083	13	28	28
Other pine	--	--	--	--	1	0	--	--	--	--
Spruce	--	--	--	--	14	1	--	--	--	--
Tamarack	--	--	--	--	307	21	--	--	--	--
Total	--	--	311	--	2,245	156	61,056	367	159	162
Hardwoods										
Ash	--	--	--	--	941	66	--	--	--	--
Aspen/balsam poplar	--	--	159	--	1,402	99	--	--	--	--
Basswood	--	--	7,093	--	432	30	--	--	--	--
Beech	--	--	--	--	--	--	--	--	--	--
White birch	--	--	--	--	725	51	--	--	--	--
Yellow birch	--	--	--	--	5	0	--	--	--	--
Other birch	--	--	--	--	--	--	--	--	--	--
Black cherry	--	--	--	--	6	0	--	--	--	--
Black walnut	--	--	--	--	2	0	--	--	--	--

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings		Industrial fuelwood		Poles		Posts	
	MBF International 1/4-inch	Thousand cu. ft.	Thousand cu. ft.	Standard cords	Thousand cu. ft.	Pieces	Thousand cu. ft.	Thousand pieces	Thousand cu. ft.	
Cottonwood	--	--	48	4	0	--	--	--	--	
Elm	--	--	--	18	1	--	--	--	--	
Hickory	--	--	--	2	0	--	--	--	--	
Hard maple	--	--	--	685	48	--	--	--	--	
Soft maple	--	--	16	341	23	--	--	--	--	
Red oak group	--	--	--	1,196	83	--	--	--	--	
White oak group	1,217	168	--	129	9	--	--	--	--	
Other hardwoods	--	--	--	4	0	--	--	--	--	
Total	1,217	168	7,316	5,892	410	--	--	--	--	
State total	1,217	168	7,627	8,137	566	61,056	367	159	162	
NORTHEASTERN UNIT										
Softwoods										
Northern white-cedar	--	--	--	--	--	--	--	8	8	
Balsam fir	--	--	--	--	--	--	--	--	--	
Hemlock	--	--	--	--	--	--	--	--	--	
Jack pine	--	--	20	--	--	--	--	--	--	
Red pine	--	--	59	--	--	21,677	130	25	25	
White pine	--	--	--	--	--	271	2	--	--	
Other pine	--	--	--	--	--	--	--	--	--	
Spruce	--	--	--	--	--	--	--	--	--	
Tamarack	--	--	--	--	--	--	--	--	--	
Total	--	--	79	--	--	21,948	132	33	33	

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings	Industrial fuelwood		Poles		Posts	
	MBF International	Thousand		Standard	Thousand	Pieces	Thousand	Thousand	Thousand
	1/4-inch	cu. ft.	Thousand	cords	cu. ft.		cu. ft.	pieces	cu. ft.
Hardwoods									
Ash	--	--	--	--	--	--	--	--	--
Aspen/balsam poplar	--	--	--	--	--	--	--	--	--
Basswood	--	--	4,010	--	--	--	--	--	--
Beech	--	--	--	--	--	--	--	--	--
White birch	--	--	--	--	--	--	--	--	--
Yellow birch	--	--	--	--	--	--	--	--	--
Other birch	--	--	--	--	--	--	--	--	--
Black cherry	--	--	--	--	--	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--
Cottonwood	--	--	--	--	--	--	--	--	--
Elm	--	--	--	--	--	--	--	--	--
Hickory	--	--	--	--	--	--	--	--	--
Hard maple	--	--	--	225	16	--	--	--	--
Soft maple	--	--	--	--	--	--	--	--	--
Red oak group	--	--	--	--	--	--	--	--	--
White oak group	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--
Total	--	--	4,010	225	16	--	--	--	--
Unit total	--	--	4,089	225	16	21,948	132	33	33

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings Thousand cu. ft.	Industrial fuelwood		Poles		Posts	
	MBF International 1/4-inch	Thousand cu. ft.		Standard cords	Thousand cu. ft.	Pieces	Thousand cu. ft.	Thousand pieces	Thousand cu. ft.
NORTHWESTERN UNIT									
Softwoods									
Northern white-cedar	--	--	--	4	0	--	--	--	--
Balsam fir	--	--	--	9	1	--	--	--	--
Hemlock	--	--	--	--	--	--	--	--	--
Jack pine	--	--	--	174	12	--	--	--	--
Red pine	--	--	13	1,680	118	16,952	102	41	42
White pine	--	--	--	15	1	787	5	12	12
Other pine	--	--	--	0	0	--	--	--	--
Spruce	--	--	--	6	0	--	--	--	--
Tamarack	--	--	--	307	21	--	--	--	--
Total	--	--	13	2,195	153	17,739	107	53	54
Hardwoods									
Ash	--	--	--	673	47	--	--	--	--
Aspen/balsam poplar	--	--	--	1,265	89	--	--	--	--
Basswood	--	--	2,431	383	27	--	--	--	--
Beech	--	--	--	--	--	--	--	--	--
White birch	--	--	--	714	50	--	--	--	--
Yellow birch	--	--	--	5	0	--	--	--	--
Black cherry	--	--	--	1	0	--	--	--	--
Black walnut	--	--	--	0	0	--	--	--	--

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings		Industrial fuelwood		Poles		Posts	
	MBF International 1/4-inch	Thousand cu. ft.	Thousand cu. ft.	Standard cords	Thousand cu. ft.	Pieces	Thousand cu. ft.	Thousand pieces	Thousand cu. ft.	
Cottonwood	--	--	--	--	--	--	--	--	--	--
Elm	--	--	--	2	0	--	--	--	--	--
Hickory	--	--	--	0	0	--	--	--	--	--
Hard maple	--	--	--	447	31	--	--	--	--	--
Soft maple	--	--	--	306	21	--	--	--	--	--
Red oak group	--	--	--	932	65	--	--	--	--	--
White oak group	--	--	--	14	1	--	--	--	--	--
Other hardwoods	--	--	--	0	0	--	--	--	--	--
Total	--	--	2,431	4,742	331	--	--	--	--	--
Unit total	--	--	2,444	6,937	484	17,739	107	53	54	54
CENTRAL UNIT										
Softwoods										
Northern white-cedar	--	--	--	--	--	--	--	3	3	3
Balsam fir	--	--	--	--	--	--	--	--	--	--
Hemlock	--	--	--	--	--	--	--	--	--	--
Jack pine	--	--	63	--	--	--	--	--	--	--
Red pine	--	--	109	--	--	15,629	94	33	34	34
White pine	--	--	--	--	--	607	4	8	8	8
Other pine	--	--	--	--	--	--	--	--	--	--
Spruce	--	--	--	--	--	--	--	--	--	--
Tamarack	--	--	--	--	--	--	--	--	--	--
Total	--	--	172	--	--	16,236	98	44	45	45

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings Thousand	Industrial fuelwood		Poles		Posts	
	MBF International 1/4-inch	Thousand cu. ft.		Standard cords	Thousand cu. ft.	Pieces	Thousand cu. ft.	Thousand pieces	Thousand cu. ft.
Hardwoods									
Ash	--	--	--	--	--	--	--	--	--
Aspen/balsam poplar	--	--	40	--	--	--	--	--	--
Basswood	--	--	358	--	--	--	--	--	--
Beech	--	--	--	--	--	--	--	--	--
White birch	--	--	--	--	--	--	--	--	--
Yellow birch	--	--	--	--	--	--	--	--	--
Black cherry	--	--	--	--	--	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--
Cottonwood	--	--	12	--	--	--	--	--	--
Elm	--	--	--	--	--	--	--	--	--
Hickory	--	--	--	--	--	--	--	--	--
Hard maple	--	--	--	--	--	--	--	--	--
Soft maple	--	--	4	--	--	--	--	--	--
Red oak group	--	--	--	--	--	--	--	--	--
White oak group	348	48	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--
Total	348	48	414	--	--	--	--	--	--
Unit total	348	48	586	--	--	16,236	98	44	45

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings		Industrial fuelwood		Poles		Posts	
	MBF International	Thousand 1/4-inch cu. ft.	Thousand cu. ft.	Standard	Thousand cords	Thousand cu. ft.	Pieces	Thousand cu. ft.	Thousand pieces	Thousand cu. ft.
SOUTHWESTERN UNIT										
Softwoods										
Eastern redcedar	--	--	--	2	0	--	--	--	--	--
Balsam fir	--	--	--	--	--	--	--	--	--	--
Jack pine	--	--	--	--	--	--	--	--	--	--
Red pine	--	--	47	34	2	2,851	17	20	21	21
White pine	--	--	--	5	0	416	2	8	8	8
Other pine	--	--	--	1	0	--	--	--	--	--
Spruce	--	--	--	8	1	--	--	--	--	--
Total	--	--	47	50	3	3,267	19	28	29	29
Hardwoods										
Ash	--	--	--	268	19	--	--	--	--	--
Aspen/balsam poplar	--	--	119	137	10	--	--	--	--	--
Basswood	--	--	291	49	3	--	--	--	--	--
Beech	--	--	--	--	--	--	--	--	--	--
White birch	--	--	--	11	1	--	--	--	--	--
Yellow birch	--	--	--	--	--	--	--	--	--	--
Other birch	--	--	--	--	--	--	--	--	--	--
Black cherry	--	--	--	5	0	--	--	--	--	--
Black walnut	--	--	--	2	0	--	--	--	--	--
Cottonwood	--	--	36	4	0	--	--	--	--	--
Elm	--	--	--	16	1	--	--	--	--	--
Hickory	--	--	--	2	0	--	--	--	--	--

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings	Industrial fuelwood		Poles		Posts	
	MBF International 1/4-inch	Thousand cu. ft.		Standard cords	Thousand cu. ft.	Pieces	Thousand cu. ft.	Thousand pieces	Thousand cu. ft.
Hard maple	--	--	--	13	1	--	--	--	--
Soft maple	--	--	12	35	2	--	--	--	--
Red oak group	--	--	--	264	18	--	--	--	--
White oak group	869	120	--	115	8	--	--	--	--
Other hardwoods	--	--	--	4	0	--	--	--	--
Total	869	120	458	925	63	--	--	--	--
Unit total	869	120	505	975	66	3,267	19	28	29
SOUTHEASTERN UNIT									
Softwoods									
Northern white-cedar	--	--	--	--	--	1,000	6	0	0
Balsam fir	--	--	--	--	--	--	--	--	--
Hemlock	--	--	--	--	--	--	--	--	--
Jack pine	--	--	--	--	--	--	--	--	--
Red pine	--	--	--	--	--	864	5	1	1
White pine	--	--	--	--	--	2	0	--	--
Other pine	--	--	--	--	--	--	--	--	--
Spruce	--	--	--	--	--	--	--	--	--
Tamarack	--	--	--	--	--	--	--	--	--
Total	--	--	--	--	--	1,866	11	1	1

Table 8.—Continued

Species Group	Cooperage		Excelsior/ shavings		Industrial fuelwood		Poles		Posts	
	MBF International	Thousand	Thousand	cu. ft.	Standard	Thousand	Pieces	Thousand	Thousand	cu. ft.
	1/4-inch	cu. ft.	cu. ft.		cords	cu. ft.		pieces		
Hardwoods										
Ash	--	--	--	--	--	--	--	--	--	--
Aspen/balsam poplar	--	--	--	--	--	--	--	--	--	--
Basswood	--	--	3	--	--	--	--	--	--	--
Beech	--	--	--	--	--	--	--	--	--	--
White birch	--	--	--	--	--	--	--	--	--	--
Yellow birch	--	--	--	--	--	--	--	--	--	--
Black cherry	--	--	--	--	--	--	--	--	--	--
Black walnut	--	--	--	--	--	--	--	--	--	--
Cottonwood	--	--	--	--	--	--	--	--	--	--
Elm	--	--	--	--	--	--	--	--	--	--
Hickory	--	--	--	--	--	--	--	--	--	--
Hard maple	--	--	--	--	--	--	--	--	--	--
Soft maple	--	--	--	--	--	--	--	--	--	--
Red oak group	--	--	--	--	--	--	--	--	--	--
White oak group	--	--	--	--	--	--	--	--	--	--
Other hardwoods	--	--	--	--	--	--	--	--	--	--
Total	--	--	3	--	--	--	--	--	--	--
Unit total	--	--	3	--	--	--	1,866	11	1	1

All table cells without observations are indicated by --. Table value of 0 indicates the volume rounds to less than 1/2 unit of measure. Columns and rows may not add to their totals due to rounding.

Table 9.—Saw log receipts and production in thousand board feet, International 1/4-inch rule, by Forest Inventory Unit and species group, Wisconsin, 2003 and 2008

Species group	Receipts			Production		
	2003	2008	% change	2003	2008	% change
Softwoods						
Eastern redcedar	109	0	-100.0%	109	0	-100.0%
Northern white-cedar	358	337	-5.9%	369	783	112.2%
Balsam fir	112	34	-69.6%	1,362	1,153	-15.3%
Hemlock	1,379	1,633	18.4%	1,160	1,583	36.5%
Jack pine	651	1,523	133.9%	13,111	20,782	58.5%
Red pine	70,465	72,715	3.2%	84,587	92,756	9.7%
White pine	22,778	17,264	-24.2%	23,142	17,229	-25.6%
Other pine	--	79	--	--	79	--
Spruce	2,666	3,202	20.1%	5,095	4,626	-9.2%
Tamarack	19	21	10.5%	22	21	-4.5%
Total	98,538	96,808	-1.8%	128,957	139,012	7.8%
Hardwoods						
Ash	16,352	13,393	-18.1%	15,662	12,557	-19.8%
Aspen/balsam poplar	71,451	51,020	-28.6%	72,804	46,888	-35.6%
Basswood	27,692	19,821	-28.4%	25,207	17,074	-32.3%
Beech	1,990	275	-86.2%	2,149	252	-88.3%
White birch	12,657	7,570	-40.2%	13,482	7,729	-42.7%
Yellow birch	7,643	7,497	-1.9%	6,020	6,349	5.5%
Other birch	366	--	--	333	1	-99.7%
Black cherry	5,622	3,841	-31.7%	5,503	3,729	-32.2%
Black walnut	2,668	6,506	143.9%	2,514	3,773	50.1%
Cottonwood	476	1,044	119.3%	778	1,121	44.1%

Table 9.—Continued

Species group	Receipts			Production		
	2003	2008	% change	2003	2008	% change
Elm	4,034	1,271	-68.5%	3,728	1,463	-60.8%
Hickory	5,012	2,463	-50.9%	4,986	2,385	-52.2%
Hard maple	92,698	97,762	5.5%	83,016	81,026	-2.4%
Soft maple	33,868	22,311	-34.1%	33,791	22,416	-33.7%
Red oak group	132,386	73,979	-44.1%	130,161	71,807	-44.8%
White oak group	33,305	19,608	-41.1%	34,945	19,772	-43.4%
Other hardwoods	2,833	3,365	18.8%	2,212	4,459	101.6%
Total	451,052	331,725	-26.5%	437,291	302,801	-30.8%
State total	549,590	428,532	-22.0%	566,248	441,813	-22.0%

All table cells without observations are indicated by --. Table value of 0 indicates the volume rounds to less than 1,000 board feet. Columns and rows may not add to their totals due to rounding.

Table 10.—Wood material harvested for industrial roundwood in thousand cubic feet, by Forest Inventory Unit, source of material, and species group, Wisconsin, 2008¹

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products		Logging residue (not used)	Total growing stock	Used for products	
	Sawtimber	Pole-timber			Limbwood	Saplings
ALL UNITS						
Softwoods						
Eastern redcedar	4.6	0.6	0.3	5.5	0.1	0.0
Northern white-cedar	171.9	40.0	13.9	225.9	3.9	1.0
Balsam fir	2,669.9	2,144.0	123.0	4,936.9	219.5	107.1
Hemlock	650.6	407.9	23.8	1,082.3	52.7	33.4
Jack pine	5,334.3	3,441.2	390.6	9,166.1	339.8	168.3
Red pine	22,061.6	7,298.5	1,073.9	30,434.0	1,043.3	536.3
White pine	6,780.1	3,389.6	280.3	10,450.1	445.2	270.8
Other pine	165.7	136.6	7.9	310.3	12.0	6.8
Spruce	3,970.9	2,865.7	204.7	7,041.3	259.9	139.8
Tamarack	183.7	162.7	8.2	354.6	21.7	8.0
Total	41,993.2	19,886.9	2,126.7	64,006.8	2,398.1	1,271.5
Hardwoods						
Ash	2,690.0	1,162.4	372.2	4,224.6	387.5	14.0
Aspen/balsam poplar	37,449.0	20,010.9	3,210.2	60,670.0	1,683.5	67.5
Basswood	9,238.6	3,950.7	2,519.3	15,708.6	666.9	26.9
Beech	232.0	178.3	27.8	438.1	70.8	0.8
White birch	2,309.1	4,601.4	471.9	7,382.5	551.0	112.7
Yellow birch	1,124.7	356.8	163.5	1,645.0	95.2	5.5

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limbwood	Saplings
Other birch	0.5	0.2	0.0	0.7	0.1	0.0
Black cherry	740.6	209.4	110.0	1,060.0	61.5	1.6
Black walnut	649.1	63.0	104.3	816.5	5.2	0.0
Cottonwood	190.5	34.3	37.1	261.9	2.4	0.1
Elm	254.5	84.2	36.7	375.3	22.7	1.4
Hickory	409.2	58.1	64.3	531.6	9.9	0.3
Hard maple	20,330.3	7,813.1	2,125.5	30,268.8	2,758.8	69.3
Soft maple	10,559.5	10,019.2	1,343.0	21,921.6	2,213.6	412.6
Red oak group	16,347.8	4,976.5	2,228.0	23,552.3	1,228.8	117.3
White oak group	4,047.3	735.6	568.3	5,351.1	203.1	7.3
Other hardwoods	795.1	86.8	127.6	1,009.5	10.6	0.3
Total	107,367.6	54,340.9	13,509.7	175,218.2	9,971.7	837.4
State Total	149,360.8	74,227.8	15,636.4	239,225.1	12,369.8	2,108.9
NORTHEASTERN						
Softwoods						
Northern white-cedar	135.8	30.1	10.8	176.6	3.2	0.9
Balsam fir	1,353.5	1,094.6	65.6	2,513.7	95.7	54.6
Hemlock	556.6	349.1	20.4	926.0	45.1	28.6
Jack pine	3,441.6	1,447.2	254.7	5,143.4	145.8	61.7
Red pine	9,001.0	2,656.1	439.9	12,097.0	366.9	192.5

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
White pine	2,030.1	696.5	91.5	2,818.0	95.8	52.7
Other pine	4.6	4.1	0.2	8.9	0.4	0.2
Spruce	1,911.4	1,298.7	102.3	3,312.5	115.8	62.5
Tamarack	131.8	117.5	6.0	255.3	10.2	6.0
Total	18,566.4	7,693.9	991.3	27,251.6	878.7	459.7
Hardwoods						
Ash	972.0	462.0	132.7	1,566.7	149.0	6.1
Aspen/balsam poplar	14,926.9	7,847.7	1,262.6	24,037.2	664.6	28.6
Basswood	4,778.4	2,052.2	1,362.3	8,192.9	314.7	13.3
Beech	150.8	120.3	17.9	289.0	48.0	0.6
White birch	833.7	1,670.8	174.8	2,679.2	188.2	38.0
Yellow birch	656.4	191.1	96.1	943.6	51.0	2.3
Other birch	0.3	0.2	0.0	0.5	0.1	0.0
Black cherry	164.4	90.7	21.9	277.1	31.7	1.0
Black walnut	3.2	0.0	0.6	3.8	0.0	--
Cottonwood	6.5	1.8	1.0	9.2	0.5	0.0
Elm	31.5	31.2	3.5	66.2	10.2	0.8
Hickory	30.5	9.5	4.4	44.4	2.5	0.1
Hard maple	10,374.6	3,352.7	1,072.0	14,799.3	1,141.9	29.0
Soft maple	2,845.2	2,751.0	359.1	5,955.2	602.4	115.8

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
Red oak group	3,514.8	996.2	478.1	4,989.1	246.9	18.0
White oak group	229.3	40.4	31.8	301.5	10.5	0.4
Other hardwoods	201.7	26.4	31.0	259.2	2.7	0.0
Total	39,720.1	19,644.3	5,049.8	64,414.2	3,465.0	253.9
Unit Total	58,286.4	27,338.3	6,041.0	91,665.7	4,343.7	713.6
NORTHWESTERN UNIT						
Softwoods						
Northern white-cedar	8.4	1.1	0.6	10.2	0.2	0.0
Balsam fir	1,249.0	989.2	54.4	2,292.6	118.6	49.4
Hemlock	21.4	15.5	0.7	37.6	2.0	1.3
Jack pine	1,015.3	793.1	69.9	1,878.3	87.9	40.8
Red pine	6,031.2	1,204.4	309.7	7,545.3	235.2	76.1
White pine	963.3	371.8	44.1	1,379.3	50.0	28.6
Other pine	132.6	107.3	6.4	246.3	9.4	5.4
Spruce	1,751.0	1,317.8	87.4	3,156.2	122.1	64.9
Tamarack	47.0	40.9	2.0	89.9	11.2	1.8
Total	11,219.1	4,841.2	575.3	16,635.6	636.6	268.3
Hardwoods						
Ash	713.8	375.0	95.0	1,183.8	137.2	5.1
Aspen/balsam poplar	15,815.5	8,833.5	1,346.5	25,995.5	738.0	26.8

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
Basswood	3,178.3	1,492.6	857.2	5,528.1	300.6	8.7
Beech	50.0	43.4	5.7	99.1	17.6	0.2
White birch	1,090.4	2,189.8	215.3	3,495.6	279.5	58.2
Yellow birch	354.6	139.6	50.4	544.6	39.2	2.7
Black cherry	103.1	54.6	13.8	171.6	19.9	0.4
Black walnut	1.3	0.1	0.2	1.6	0.0	0.0
Cottonwood	2.9	0.4	0.5	3.8	0.0	--
Elm	21.7	10.4	3.0	35.1	3.1	0.2
Hickory	30.5	4.2	4.7	39.5	0.6	0.0
Hard maple	5,743.0	3,279.6	621.2	9,643.8	1,216.6	33.9
Soft maple	5,050.7	5,867.9	606.4	11,525.1	1,328.8	245.0
Red oak group	4,706.6	1,291.0	643.2	6,640.9	349.7	14.3
White oak group	466.7	121.9	63.5	652.1	31.6	1.2
Other hardwoods	106.7	9.5	17.4	133.7	0.9	0.0
Total	37,436.1	23,713.6	4,544.1	65,693.7	4,463.4	396.7
Unit Total	48,655.2	28,554.7	5,119.4	82,329.3	5,100.0	664.9
CENTRAL UNIT						
Softwoods						
Northern white-cedar	3.0	2.3	0.5	5.8	0.1	0.2
Balsam fir	59.5	53.0	2.7	115.2	4.6	2.7

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
Hemlock	69.8	40.9	2.6	113.3	5.3	3.3
Jack pine	826.8	1,113.0	62.7	2,002.6	98.2	60.7
Red pine	5,875.9	2,606.9	274.1	8,756.9	338.3	200.9
White pine	2,980.8	1,839.0	111.3	4,931.1	237.3	150.2
Other pine	26.8	23.8	1.2	51.8	2.1	1.2
Spruce	144.5	106.4	7.4	258.3	9.4	5.2
Tamarack	4.8	4.3	0.2	9.3	0.4	0.2
Total	9,991.8	5,789.7	462.9	16,244.4	695.6	424.5
Hardwoods						
Ash	497.5	219.3	68.8	785.6	71.8	2.3
Aspen/balsam poplar	5,431.3	2,816.7	464.8	8,712.7	246.6	11.4
Basswood	612.0	264.1	148.1	1,024.2	43.1	4.8
Beech	10.6	9.5	1.2	21.3	3.9	0.0
White birch	220.5	407.4	45.4	673.4	45.9	9.2
Yellow birch	103.6	22.8	15.6	142.0	4.1	0.4
Black cherry	83.4	14.2	13.2	110.8	2.9	0.2
Black walnut	20.0	2.1	3.2	25.2	0.2	--
Cottonwood	13.2	4.2	4.0	21.3	0.1	0.0
Elm	23.6	11.3	3.3	38.2	3.1	0.3
Hickory	93.9	11.1	15.6	120.6	2.3	0.1

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
Hard maple	2,374.6	935.7	251.9	3,562.2	341.6	5.4
Soft maple	1,650.1	1,143.1	223.8	3,017.0	240.2	45.7
Red oak group	4,247.0	2,101.2	558.5	6,906.7	470.9	80.6
White oak group	1,206.8	357.3	162.4	1,726.6	92.6	4.9
Other hardwoods	226.1	23.6	36.7	286.4	2.9	0.1
Total	16,814.4	8,343.4	2,016.5	27,174.4	1,572.2	165.6
Unit Total	26,806.2	14,133.1	2,479.4	43,418.8	2,267.9	590.1
SOUTHWESTERN UNIT						
Softwoods						
Eastern redcedar	4.6	0.6	0.3	5.5	0.1	0.0
Balsam fir	5.1	4.6	0.2	9.9	0.4	0.2
Jack pine	44.9	76.4	2.9	124.3	6.8	4.4
Red pine	651.7	350.5	36.1	1,038.4	42.7	26.3
White pine	473.7	229.4	20.6	723.7	30.0	18.2
Other pine	1.4	1.3	0.1	2.8	0.1	0.1
Spruce	52.1	43.6	2.5	98.2	4.0	2.2
Total	1,233.6	706.5	62.7	2,002.8	84.2	51.3
Hardwoods						
Ash	207.1	38.8	31.0	276.9	12.5	0.3
Aspen/balsam poplar	774.3	292.9	91.9	1,159.0	22.0	0.6

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
Basswood	525.5	122.4	128.8	776.7	6.3	0.1
Beech	0.0	0.0	0.0	0.1	0.0	0.0
White birch	111.4	275.3	26.1	412.8	31.0	6.1
Yellow birch	1.8	0.8	0.3	2.9	0.2	0.0
Other birch	0.2	0.0	0.0	0.2	0.0	--
Black cherry	283.3	32.2	44.8	360.2	3.4	0.0
Black walnut	574.1	55.3	92.4	721.7	4.6	0.0
Cottonwood	130.4	23.2	25.9	179.4	1.3	0.0
Elm	142.6	21.1	21.8	185.5	3.2	0.1
Hickory	201.2	23.5	31.5	256.3	2.3	0.0
Hard maple	1,308.3	125.8	127.0	1,561.1	20.3	0.5
Soft maple	607.3	136.0	93.5	836.8	20.9	2.8
Red oak group	3,184.7	456.9	451.5	4,093.1	127.0	3.4
White oak group	1,686.8	145.4	246.5	2,078.6	49.6	0.4
Other hardwoods	138.9	9.9	23.7	172.5	1.6	0.1
Total	9,877.9	1,759.3	1,436.7	13,073.8	306.4	14.5
Unit Total	11,111.4	2,465.8	1,499.4	15,076.6	390.6	65.8
SOUTHEASTERN UNIT						
Softwoods						
Northern white-cedar	24.8	6.5	2.0	33.2	0.4	0.0

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limewood	Saplings
Balsam fir	2.8	2.5	0.1	5.5	0.2	0.1
Hemlock	2.8	2.5	0.1	5.3	0.3	0.2
Jack pine	5.7	11.4	0.4	17.5	1.0	0.7
Red pine	501.8	480.5	14.1	996.4	60.2	40.5
White pine	332.2	252.9	12.9	598.0	32.1	21.1
Other pine	0.3	0.1	0.0	0.4	0.0	0.0
Spruce	111.8	99.1	5.1	216.1	8.6	5.0
Tamarack	0.1	0.0	0.0	0.1	0.0	0.0
Total	982.3	855.7	34.5	1,872.5	102.9	67.7
Hardwoods						
Ash	299.7	67.3	44.7	411.6	17.0	0.2
Aspen/balsam poplar	500.9	220.2	44.5	765.6	12.2	0.0
Basswood	144.5	19.4	22.9	186.7	2.1	0.0
Beech	20.5	5.1	3.0	28.6	1.4	0.0
White birch	53.1	58.2	10.3	121.5	6.3	1.2
Yellow birch	8.2	2.5	1.2	11.9	0.8	0.0
Black cherry	106.3	17.6	16.4	140.3	3.6	0.0
Black walnut	50.6	5.6	8.0	64.1	0.4	--
Cottonwood	37.5	4.9	5.8	48.1	0.5	0.0
Elm	35.0	10.3	5.1	50.4	3.0	0.0

Table 10.—Continued

Species Group	Source of material					
	Growing stock			Non-growing stock		
	Used for products			Used for products		
	Sawtimber	Pole-timber	Logging residue (not used)	Total growing stock	Limbwood	Saplings
Hickory	53.0	9.8	8.1	70.8	2.1	0.0
Hard maple	529.8	119.3	53.2	702.3	38.3	0.4
Soft maple	406.2	121.1	60.2	587.6	21.3	3.3
Red oak group	694.6	131.2	96.7	922.5	34.3	1.0
White oak group	457.6	70.6	64.1	592.3	18.7	0.4
Other hardwoods	121.6	17.4	18.7	157.7	2.5	0.0
Total	3,519.2	880.3	462.6	4,862.1	164.8	6.8
Unit Total	4,501.5	1,735.9	497.2	6,734.6	267.7	74.5

Table 10.—Continued

Species Group	Source of material						
	Non-growing stock						
	Used for products						
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used	Total harvested
ALL UNITS							
Softwoods							
Eastern redcedar	0.0	--	2.2	2.3	5.4	2.5	7.9
Northern white-cedar	0.9	0.7	84.7	91.2	218.5	98.6	317.1
Balsam fir	31.7	168.2	1,967.7	2,494.3	5,340.4	2,090.7	7,431.1
Hemlock	23.3	10.8	283.8	403.9	1,178.6	307.6	1,486.2
Jack pine	59.8	681.1	3,380.0	4,628.9	10,024.5	3,770.6	13,795.1
Red pine	408.2	244.1	8,908.5	11,140.4	31,592.0	9,982.4	41,574.3
White pine	192.6	96.5	2,882.3	3,887.3	11,174.8	3,162.6	14,337.4
Other pine	2.0	10.5	125.9	157.2	333.6	133.8	467.4
Spruce	41.7	214.6	2,842.0	3,498.0	7,492.5	3,046.8	10,539.3
Tamarack	5.3	12.1	140.3	187.5	393.5	148.5	542.1
Total	765.6	1,438.6	20,617.4	26,491.1	67,753.9	22,744.1	90,497.9
Hardwoods							
Ash	252.9	877.1	2,125.5	3,657.0	5,383.9	2,497.7	7,881.6
Aspen/balsam poplar	3,044.5	990.5	22,515.0	28,300.9	63,245.8	25,725.2	88,971.0
Basswood	421.5	1,478.9	3,491.8	6,085.9	15,783.4	6,011.1	21,794.5
Beech	41.4	144.3	253.3	510.6	667.6	281.1	948.7
White birch	237.7	340.2	2,711.5	3,953.1	8,152.1	3,183.5	11,335.6
Yellow birch	75.2	271.7	793.1	1,240.7	1,929.0	956.6	2,885.6

Table 10.—Continued

Species Group	Source of material						
	Non-growing stock		Used for products				Total harvested
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used	
Other birch	0.1	0.2	0.4	0.8	1.0	0.4	1.6
Black cherry	55.6	179.4	516.3	814.4	1,248.1	626.4	1,874.5
Black walnut	30.8	74.3	360.7	471.0	822.5	464.9	1,287.5
Cottonwood	5.4	23.5	98.6	130.0	256.2	135.6	391.8
Elm	17.0	62.7	181.3	285.1	442.4	218.0	660.4
Hickory	20.9	58.8	242.0	331.9	557.2	306.3	863.5
Hard maple	2,012.9	5,199.0	15,100.6	25,140.5	38,183.3	17,226.0	55,409.4
Soft maple	2,434.0	560.8	10,031.9	15,653.0	26,199.8	11,374.9	37,574.6
Red oak group	1,446.3	250.0	9,069.7	12,112.1	24,366.7	11,297.7	35,664.4
White oak group	261.1	57.0	2,132.9	2,661.4	5,311.4	2,701.1	8,012.6
Other hardwoods	40.4	95.2	443.5	589.9	1,028.3	571.1	1,599.4
Total	10,397.6	10,663.5	70,068.0	101,938.3	193,578.8	83,577.8	277,156.5
State Total	11,163.2	12,102.1	90,685.4	128,429.4	261,332.6	106,321.8	367,654.5
NORTHEASTERN							
Softwoods							
Northern white-cedar	0.3	0.7	66.7	71.7	170.9	77.5	248.4
Balsam fir	16.1	83.5	1,019.7	1,269.6	2,698.1	1,085.2	3,783.3
Hemlock	20.0	9.2	242.8	345.6	1,008.5	263.1	1,271.6
Jack pine	22.2	249.5	1,948.5	2,427.7	5,368.0	2,203.1	7,571.1
Red pine	142.6	94.1	3,635.4	4,431.6	12,453.3	4,075.3	16,528.6

Table 10.—Continued

Species Group	Source of material					
	Non-growing stock					
	Used for products		Logging		Total non-	
	Cull trees	Dead trees	slash (not used)	growing stock	Total used	Total not used
					harvested	
White pine	38.1	23.4	840.5	1,050.5	2,936.5	932.0
Other pine	0.1	0.3	3.6	4.6	9.6	3.8
Spruce	18.7	95.6	1,338.1	1,630.7	3,502.8	1,440.5
Tamarack	1.8	9.1	103.8	130.8	276.3	109.8
Total	259.8	565.4	9,199.1	11,362.7	28,423.9	10,190.3
Hardwoods						
Ash	95.4	343.3	796.2	1,389.9	2,027.7	928.9
Aspen/balsam poplar	1,175.4	387.7	8,960.4	11,216.9	25,031.1	10,223.0
Basswood	197.1	696.4	1,628.4	2,849.9	8,052.1	2,990.7
Beech	27.9	97.0	167.8	341.3	444.6	185.7
White birch	82.6	128.5	1,021.4	1,458.6	2,941.7	1,196.1
Yellow birch	42.5	155.6	461.5	712.8	1,098.8	557.6
Other birch	0.1	0.2	0.3	0.6	0.8	0.3
Black cherry	20.0	68.4	143.9	265.0	376.3	165.9
Black walnut	0.3	0.0	1.0	1.4	3.5	1.6
Cottonwood	0.4	1.5	4.5	6.9	10.6	5.5
Elm	5.2	17.5	31.3	65.0	96.3	34.9
Hickory	2.0	7.4	21.6	33.7	52.1	26.0
Hard maple	904.2	2,152.6	7,245.3	11,472.9	17,954.9	8,317.3
Soft maple	645.9	155.8	2,675.4	4,195.3	7,116.0	3,034.4
						10,150.5

Table 10.—Continued

Species Group	Source of material					
	Non-growing stock			Used for products		
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used harvested
Red oak group	313.7	52.9	1,997.0	2,628.4	5,142.5	2,475.1
White oak group	11.4	3.6	123.2	149.1	295.7	155.0
Other hardwoods	6.9	29.9	125.7	165.1	267.6	156.7
Total	3,530.9	4,298.1	25,404.9	36,952.8	70,912.3	30,454.6
Unit Total	3,790.7	4,863.5	34,603.9	48,315.5	99,336.3	40,645.0
NORTHWESTERN UNIT						
Softwoods						
Northern white-cedar	0.0	--	4.0	4.3	9.9	4.6
Balsam fir	14.7	80.0	895.0	1,157.7	2,500.9	949.4
Hemlock	0.9	0.4	9.5	14.0	41.4	10.2
Jack pine	15.6	166.1	683.9	994.4	2,118.9	753.8
Red pine	75.4	54.0	2,362.9	2,803.5	7,676.2	2,672.6
White pine	20.4	11.6	399.3	510.0	1,445.8	443.4
Other pine	1.6	8.2	99.9	124.4	264.4	106.3
Spruce	19.3	100.0	1,271.7	1,578.0	3,375.0	1,359.2
Tamarack	3.5	2.7	32.7	51.9	107.0	34.7
Total	151.4	423.0	5,758.9	7,238.1	17,539.5	6,334.2
Hardwoods						
Ash	81.6	263.8	590.0	1,077.7	1,576.5	685.0
Aspen/balsam poplar	1,385.8	440.4	9,601.4	12,192.4	27,240.0	10,947.8

Table 10.—Continued

Species Group	Source of material						
	Non-growing stock						Total harvested
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used	
Basswood	180.4	622.1	1,318.5	2,430.3	5,782.6	2,175.8	7,958.4
Beech	10.1	34.8	58.2	120.9	156.0	64.0	220.0
White birch	114.6	158.2	1,235.7	1,846.2	3,890.7	1,451.1	5,341.7
Yellow birch	27.4	95.8	258.4	423.6	659.4	308.8	968.2
Black cherry	12.8	44.2	92.1	169.3	235.0	105.9	340.9
Black walnut	0.1	0.1	0.6	0.8	1.6	0.8	2.4
Cottonwood	0.1	0.4	1.8	2.4	3.9	2.3	6.1
Elm	1.9	6.9	17.0	29.1	44.2	19.9	64.2
Hickory	1.2	4.6	18.9	25.2	41.1	23.6	64.7
Hard maple	768.3	2,267.5	4,988.5	9,275.0	13,309.0	5,609.8	18,918.8
Soft maple	1,456.8	136.8	5,310.5	8,477.8	14,086.0	5,916.9	20,002.9
Red oak group	486.5	65.2	2,729.3	3,645.0	6,913.4	3,372.5	10,285.9
White oak group	44.2	6.7	272.4	356.2	672.4	335.9	1,008.3
Other hardwoods	5.8	11.1	56.5	74.3	134.0	74.0	208.0
Total	4,577.6	4,158.6	26,549.9	40,146.2	74,745.9	31,094.0	105,839.9
Unit Total	4,729.0	4,581.6	32,308.8	47,384.3	92,285.5	37,428.2	129,713.6
CENTRAL UNIT							
Softwoods							
Northern white-cedar	0.0	--	1.2	1.5	5.6	1.7	7.3
Balsam fir	0.8	4.1	46.8	59.0	124.7	49.5	174.2

Table 10.—Continued

Species Group	Source of material					
	Non-growing stock			Used for products		
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used
Hemlock	2.3	1.1	30.2	42.3	122.8	32.9
Jack pine	20.4	245.2	697.2	1,121.6	2,364.3	759.9
Red pine	143.5	76.0	2,419.5	3,178.2	9,241.4	2,693.7
White pine	105.0	48.8	1,295.7	1,836.9	5,361.0	1,407.0
Other pine	0.4	1.9	21.1	26.5	56.1	22.3
Spruce	1.5	8.0	104.5	128.7	275.0	112.0
Tamarack	0.1	0.3	3.8	4.8	10.1	4.0
Total	274.0	385.3	4,620.1	6,399.5	17,561.0	5,082.9
Hardwoods						
Ash	48.1	171.4	403.1	696.6	1,010.3	472.0
Aspen/balsam poplar	411.6	137.5	3,224.2	4,031.4	9,055.1	3,689.0
Basswood	26.6	92.4	257.3	424.3	1,043.1	405.4
Beech	2.2	7.6	12.6	26.3	33.8	13.8
White birch	21.1	32.9	257.4	366.5	737.1	302.9
Yellow birch	4.6	17.7	66.1	92.9	153.3	81.6
Black cherry	5.0	12.1	48.4	68.6	117.8	61.6
Black walnut	0.8	2.5	11.5	15.0	25.6	14.7
Cottonwood	0.2	0.7	3.1	4.2	18.4	7.1
Elm	1.9	6.6	17.3	29.2	46.8	20.6
Hickory	6.9	9.9	47.3	66.5	124.3	62.9
						187.1

Table 10.—Continued

Species Group	Source of material					
	Non-growing stock					
	Used for products					
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used
					harvested	
Hard maple	248.5	665.7	1,821.6	3,082.9	4,571.5	2,073.5
Soft maple	266.7	138.7	1,369.0	2,060.4	3,484.6	1,592.8
Red oak group	460.8	74.1	2,319.4	3,405.8	7,434.6	2,878.0
White oak group	128.0	17.0	704.9	947.5	1,806.7	867.4
Other hardwoods	12.5	24.8	121.4	161.7	290.0	158.1
Total	1,645.5	1,411.8	10,684.8	15,480.0	29,952.9	12,701.4
Unit Total	1,919.5	1,797.1	15,304.9	21,879.5	47,513.9	17,784.3
SOUTHWESTERN UNIT						
Softwoods						
Eastern redcedar	0.0	--	2.2	2.3	5.4	2.5
Balsam fir	0.1	0.4	4.0	5.1	10.7	4.3
Jack pine	1.5	17.6	44.3	74.6	151.6	47.2
Red pine	18.6	8.9	260.9	357.4	1,098.7	297.0
White pine	12.8	6.5	199.7	267.2	770.6	220.3
Other pine	0.0	0.1	1.1	1.5	3.1	1.2
Spruce	0.7	3.3	39.8	50.0	106.0	42.2
Total	33.7	36.8	552.0	758.0	2,146.1	614.7
Hardwoods						
Ash	10.9	33.5	129.7	186.9	303.2	160.6
Aspen/balsam poplar	36.5	13.1	417.0	489.3	1,139.4	508.9
						1,648.3

Table 10.—Continued

Species Group	Source of material							
	Non-growing stock							
	Used for products							
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used	Total harvested	
Basswood	12.1	47.0	199.7	265.3	713.4	328.6	1,042.0	
Beech	0.0	0.0	0.0	0.1	0.1	0.0	0.1	
White birch	15.0	14.2	149.4	215.7	453.0	175.5	628.5	
Yellow birch	0.1	0.3	1.1	1.7	3.2	1.4	4.6	
Other birch	0.0	0.0	0.1	0.2	0.2	0.1	0.4	
Black cherry	12.4	36.5	164.8	217.1	367.9	209.5	577.4	
Black walnut	27.5	65.2	317.7	415.0	726.7	410.1	1,136.7	
Cottonwood	3.4	15.3	65.7	85.7	173.6	91.6	265.2	
Elm	5.5	22.3	89.6	120.8	194.8	111.4	306.3	
Hickory	8.1	27.0	119.6	157.1	262.2	151.2	413.4	
Hard maple	55.1	37.7	703.9	817.5	1,547.7	830.9	2,378.6	
Soft maple	33.7	79.4	394.5	531.3	880.0	488.0	1,368.0	
Red oak group	141.4	47.5	1,644.6	1,963.8	3,960.8	2,096.0	6,056.9	
White oak group	56.1	22.7	789.6	918.4	1,961.0	1,036.0	2,997.0	
Other hardwoods	10.4	10.3	63.6	85.9	171.0	87.4	258.4	
Total	428.1	472.0	5,250.6	6,471.6	12,858.1	6,687.3	19,545.5	
Unit Total	461.8	508.8	5,802.6	7,229.6	15,004.2	7,302.1	22,306.3	

Table 10.—Continued

Species Group	Source of material						
	Non-growing stock						
	Used for products						
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used	Total harvested
SOUTHEASTERN UNIT							
Softwoods							
Northern white-cedar	0.5	--	12.8	13.8	32.2	14.8	47.0
Balsam fir	0.0	0.2	2.2	2.8	5.9	2.4	8.3
Hemlock	0.1	0.1	1.3	2.0	6.0	1.4	7.3
Jack pine	0.2	2.7	6.2	10.8	21.7	6.5	28.2
Red pine	28.0	11.2	229.7	369.8	1,122.4	243.8	1,366.2
White pine	16.3	6.2	147.0	222.8	660.9	159.9	820.8
Other pine	0.0	0.0	0.2	0.2	0.5	0.2	0.7
Spruce	1.5	7.7	87.8	110.6	233.8	92.9	326.7
Tamarack	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total	46.7	28.1	487.4	732.7	2,083.4	521.9	2,605.3
Hardwoods							
Ash	16.9	65.1	206.6	305.9	466.3	251.2	717.5
Aspen/balsam poplar	35.1	11.6	311.9	371.0	780.2	356.4	1,136.6
Basswood	5.3	20.9	87.8	116.1	192.2	110.6	302.8
Beech	1.2	4.8	14.6	22.0	33.0	17.6	50.6
White birch	4.4	6.4	47.6	66.0	129.7	57.9	187.6
Yellow birch	0.6	2.2	6.0	9.6	14.4	7.2	21.6
Black cherry	5.4	18.2	67.1	94.4	151.2	83.5	234.7

Table 10.—Continued

Species Group	Source of material						
	Non-growing stock			Used for products			Total harvested
	Cull trees	Dead trees	Logging slash (not used)	Total non-growing stock	Total used	Total not used	
Black walnut	2.0	6.6	29.8	38.8	65.2	37.8	103.0
Cottonwood	1.3	5.6	23.4	30.8	49.7	29.1	78.9
Elm	2.4	9.4	26.1	41.1	60.2	31.2	91.4
Hickory	2.7	9.9	34.6	49.4	77.5	42.7	120.2
Hard maple	36.8	75.5	341.3	492.3	800.1	394.5	1,194.7
Soft maple	31.0	50.1	282.5	388.2	633.1	342.7	975.8
Red oak group	44.0	10.3	379.4	469.1	915.5	476.1	1,391.5
White oak group	21.3	7.0	242.7	290.2	575.6	306.8	882.5
Other hardwoods	4.9	19.1	76.3	102.9	165.6	95.0	260.6
Total	215.5	322.9	2,177.8	2,887.8	5,109.5	2,640.4	7,749.9
Unit Total	262.2	351.0	2,665.1	3,620.5	7,192.8	3,162.3	10,355.1

¹ Based on factors obtained from regional utilization studies.

All table cells without observations are indicated by -- . Table value of 0.0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 11.—Growing-stock removals from timberland for industrial roundwood in thousand cubic feet, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Forest Inventory Unit and county	Softwoods										Hardwoods			
	Softwoods										Soft-			
	Eastern redcedar	white- cedar	Northern Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	wood total	Ash	Aspen/ balsam poplar	Bass- wood
Northeastern Unit														
Florence	--	24	294	170	138	830	41	--	514	22	2,033	52	1,866	198
Forest	--	24	426	173	41	916	67	--	1,264	37	2,949	180	1,809	489
Langlade	--	1	461	24	8	386	107	6	359	79	1,432	224	2,626	5,689
Lincoln	--	0	267	14	283	985	145	2	219	30	1,946	311	3,889	380
Marinette	--	77	330	293	1,690	1,808	125	--	288	37	4,648	243	3,446	521
Menominee	--	16	12	170	110	442	1,330	--	15	2	2,096	133	494	406
Oconto	--	32	48	42	567	2,028	64	0	120	19	2,922	174	2,680	124
Oneida	--	1	288	15	694	1,927	258	0	225	8	3,416	88	4,057	78
Shawano	--	1	108	15	9	835	115	1	30	14	1,127	131	828	232
Vilas	--	0	280	9	1,604	1,940	566	0	278	7	4,684	30	2,343	77
Total	--	177	2,514	926	5,143	12,097	2,818	9	3,313	255	27,252	1,567	24,037	8,193
Northwestern Unit														
Ashland	--	1	359	1	72	249	45	--	662	3	1,393	71	1,691	155
Barron	--	5	7	--	11	117	122	--	2	--	264	21	699	431
Bayfield	--	0	231	--	315	1,594	113	126	161	4	2,545	58	2,649	157
Burnett	--	0	22	--	410	633	104	53	4	3	1,230	18	1,828	194
Douglas	--	0	506	--	297	2,311	157	47	190	3	3,512	53	2,930	111
Iron	--	1	356	3	6	148	54	2	383	6	960	118	1,693	311
Polk	--	--	3	--	31	23	129	--	11	--	196	19	800	286
Price	--	2	493	15	5	393	114	--	409	63	1,494	219	3,743	312

Table 11.—Continued

Forest Inventory Unit and county	Softwoods										Hardwoods			
	Softwoods										Hardwoods			
	Northern					Softwoods					Hardwoods			
	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	Soft- wood total	Ash	balsam poplar	Bass- wood
Rusk	--	0	26	1	1	161	88	--	181	--	458	130	1,643	1,220
Sawyer	--	0	221	0	216	730	289	1	631	3	2,092	214	3,584	1,421
Taylor	--	--	41	18	0	303	99	--	510	1	973	157	1,982	253
Washburn	--	--	27	--	512	881	65	17	12	4	1,518	104	2,752	676
Total	--	10	2,293	38	1,878	7,545	1,379	246	3,156	90	16,636	1,184	25,995	5,528
Central Unit														
Adams	--	0	--	--	472	1,283	689	2	4	--	2,451	102	216	9
Chippewa	--	--	6	--	58	399	77	--	17	3	560	38	821	535
Clark	--	--	--	3	32	320	401	12	25	--	792	66	1,561	69
Eau Claire	--	--	--	--	225	403	197	--	1	--	827	7	265	15
Jackson	--	--	1	--	437	907	1,123	5	6	--	2,479	26	586	7
Juneau	--	0	--	--	386	622	560	2	3	--	1,572	41	319	11
Marathon	--	4	67	95	42	579	149	6	106	--	1,049	220	2,433	248
Marquette	--	1	--	--	32	641	181	1	3	5	865	7	34	0
Monroe	--	0	1	--	96	435	320	3	3	--	857	25	113	6
Portage	--	--	26	6	118	1,102	186	9	23	1	1,472	35	590	7
Waupaca	--	0	7	9	12	670	211	2	14	--	925	171	616	83
Wausara	--	0	1	--	18	798	357	7	13	0	1,195	21	84	11
Wood	--	--	6	0	75	596	482	3	39	--	1,202	28	1,072	23
Total	--	6	115	113	2,003	8,757	4,931	52	258	9	16,244	786	8,713	1,024

Table 11.—Continued

Forest Inventory Unit and county	Softwoods														Hardwoods			
	Softwoods														Soft-			
	Northern				Jack				White		Tama-		Aspen/					
	Eastern	white-	Balsam		Hemlock	pine	Red	White	Other	Spruce	rack	wood	Ash	balsam	Bass-			
	redcedar	cedar	fir				pine	pine				total		poplar	wood			
Southwestern Unit																		
Buffalo	1,088	--	--	--	--	2	31	11	--	3	--	47	9	93	34			
Crawford	1,144	0	--	--	--	--	27	1	--	--	--	28	24	16	50			
Dunn	2,722	0	--	--	--	69	398	260	--	6	--	733	31	293	164			
Grant	1,394	1	--	--	--	0	50	17	--	37	--	105	30	50	47			
Iowa	726	1	--	--	--	1	27	24	--	2	--	55	14	24	19			
La Crosse	808	--	--	--	--	8	34	61	--	2	--	104	1	88	18			
Lafayette	282	--	--	--	--	--	--	--	--	1	--	1	6	4	29			
Pepin	244	--	--	--	--	--	4	6	--	--	--	10	4	32	8			
Pierce	717	--	--	--	--	--	--	3	--	--	--	3	9	34	40			
Richland	989	1	--	--	--	--	35	18	--	--	--	55	28	79	42			
Sauk	1,561	3	--	--	--	29	133	37	--	18	--	219	60	116	41			
St. Croix	736	0	--	1	--	13	179	14	0	17	--	225	12	86	220			
Trempealeau	1,228	0	--	9	--	3	120	195	--	12	--	338	5	199	22			
Vernon	1,437	--	--	--	--	--	0	76	3	1	--	80	44	46	44			
Total	15,077	6	--	10	--	124	1,038	724	3	98	--	2,003	277	1,159	777			
Southeastern Unit																		
Brown	274	--	0	--	0	2	100	8	--	--	--	110	23	51	18			
Calumet	101	--	1	--	--	--	5	8	--	1	--	15	9	11	4			
Columbia	1,447	--	1	--	--	--	490	77	--	38	--	606	22	152	2			
Dane	398	--	7	--	--	--	12	8	--	17	--	44	14	24	7			
Dodge	365	--	--	--	--	--	2	8	--	--	--	10	22	7	4			

Table 11.—Continued

Forest Inventory Unit and county	Softwoods														Hardwoods				
	Total	Eastern				Northern				Softwoods						Soft-		Aspen/	
		redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	wood total	Ash	poplar	balsam	Bass- wood			
Door	419	--	3	3	3	4	78	45	--	11	--	147	34	65	2				
Fond Du Lac	116	--	0	--	--	--	4	9	0	0	0	13	5	22	4				
Green	200	--	--	--	--	1	32	1	--	--	--	34	11	10	3				
Green Lake	197	--	2	1	--	5	17	77	--	--	--	102	1	7	1				
Jefferson	90	--	0	--	--	--	0	0	--	--	--	0	9	3	6				
Kenosha	7	--	0	--	--	--	--	0	--	0	--	1	--	--	--				
Kewaunee	403	--	8	--	2	--	12	18	--	2	--	42	20	29	50				
Manitowoc	725	--	7	1	0	--	21	29	--	4	0	62	77	131	32				
Milwaukee	2	--	--	--	--	--	--	--	--	--	--	--	0	--	0				
Outagamie	588	--	--	--	--	--	25	15	0	23	--	63	54	126	33				
Ozaukee	70	--	0	--	--	--	--	1	0	23	0	24	9	11	0				
Racine	83	--	--	--	--	--	13	45	--	0	--	58	0	11	--				
Rock	94	--	2	--	--	--	1	0	--	--	--	2	7	0	0				
Sheboygan	334	--	1	--	--	1	47	86	0	35	0	169	54	18	7				
Walworth	188	--	1	--	--	--	80	54	--	7	--	143	2	8	0				
Washington	314	--	0	--	--	5	16	61	0	42	0	124	11	17	6				
Waukesha	185	--	0	--	--	--	42	41	--	11	--	94	6	43	2				
Winnebago	134	--	--	--	--	--	1	7	--	2	--	9	22	18	5				
Total	6,735	--	33	5	5	17	996	598	0	216	0	1,873	412	766	187				
State total	239,225	6	226	4,937	1,082	9,166	30,434	10,450	310	7,041	355	64,007	4,225	60,670	15,709				

Table 11.—Continued

Hardwoods																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Forest Inventory Unit and county	White				Yellow				Other				Black				Black				Cotton-				Hickory				Hard				Soft				Red				White				Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
	Beech	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch	birch

Table 11.—Continued

Forest Inventory Unit and county	Hardwoods													
	White				Yellow				Other				Black	
	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods
Sawyer	2	373	86	--	8	--	--	5	4	801	2,640	1,469	96	7
Taylor	5	141	44	--	6	0	--	8	3	782	584	119	23	59
Washburn	0	228	18	--	18	--	--	4	16	162	978	523	137	1
Total	99	3,496	545	--	172	2	4	35	39	9,644	11,525	6,641	652	134
Central Unit														
Adams	7	10	--	--	4	--	--	2	--	450	312	974	137	--
Chippewa	0	71	4	--	11	--	--	7	23	188	242	510	124	28
Clark	1	92	8	--	5	--	--	2	10	318	242	625	190	33
Eau Claire	--	46	--	--	21	3	8	2	1	23	107	405	122	3
Jackson	--	113	0	--	7	--	9	1	2	220	311	736	243	1
Juneau	--	21	1	--	10	--	0	3	7	123	175	561	178	45
Marathon	10	120	95	--	5	2	--	6	13	1,354	660	289	70	84
Marquette	--	7	--	--	5	0	--	1	0	44	29	222	82	0
Monroe	--	26	0	--	11	17	3	5	10	89	113	399	157	7
Portage	1	44	11	--	4	--	--	1	--	128	211	482	82	8
Waupaca	2	73	20	--	24	2	1	3	49	453	319	576	126	76
Waushara	--	18	4	--	3	--	--	3	2	32	60	751	101	1
Wood	0	31	0	--	1	--	--	1	3	141	236	376	114	--
Total	21	673	142	--	111	25	21	38	121	3,562	3,017	6,907	1,727	286
Southwestern Unit														
Buffalo	--	137	--	--	21	4	13	5	21	2	48	507	135	11
Crawford	--	1	--	0	46	148	0	42	50	177	45	272	240	3
Total	--	138	--	0	67	152	13	47	71	179	93	779	375	14

Table 11.—Continued

Hardwoods															
Forest Inventory Unit and county	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	Hardwood total
Dunn	--	99	1	--	19	0	--	6	8	132	76	786	312	61	1,989
Grant	--	0	--	--	27	214	35	29	16	211	118	253	252	7	1,289
Iowa	--	6	--	--	27	114	1	16	17	28	58	183	157	6	671
La Crosse	--	13	--	--	21	4	10	8	12	2	34	282	184	29	704
Lafayette	--	--	--	--	15	66	--	10	5	39	7	47	52	2	281
Pepin	--	6	--	--	4	5	1	1	5	35	10	95	17	10	234
Pierce	0	21	2	--	16	--	0	3	10	112	40	276	138	13	714
Richland	--	8	--	--	24	24	26	29	29	317	59	158	110	4	935
Sauk	--	3	--	--	86	6	4	14	27	199	186	476	122	1	1,342
St. Croix	0	37	--	--	3	0	0	2	3	15	25	72	35	2	511
Trempealeau	--	74	--	--	18	4	39	4	10	6	39	330	128	12	890
Vernon	--	6	0	--	34	133	50	16	43	287	91	355	197	11	1,357
Total	0	413	3	0	360	722	179	185	256	1,561	837	4,093	2,079	172	13,074
Southeastern Unit															
Brown	0	4	1	--	1	--	3	1	0	16	16	14	16	1	164
Calumet	1	2	--	--	--	--	1	2	1	8	14	8	22	3	86
Columbia	--	10	--	--	35	1	10	3	10	73	115	249	152	7	841
Dane	--	3	--	--	20	25	5	9	8	17	23	107	89	3	355
Dodge	--	0	--	--	16	0	--	1	17	75	57	94	61	1	355
Door	5	61	7	--	2	--	2	0	2	32	5	54	0	0	271
Fond Du Lac	--	2	--	--	2	0	3	1	1	39	6	6	5	7	103
Green	--	--	--	--	13	15	--	13	6	36	6	28	24	1	166

Table 11.—Continued

Forest Inventory Unit and county	Hardwoods														Hardwood total
	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	
Green Lake	--	1	--	--	2	--	--	0	0	7	14	39	21	2	95
Jefferson	--	1	--	--	6	6	0	1	1	11	11	18	13	3	90
Kenosha	--	--	--	--	1	1	--	--	0	--	1	1	2	--	7
Kewaunee	3	17	2	--	3	0	4	3	3	55	99	31	40	2	361
Manitowoc	8	4	2	--	7	1	10	3	3	126	95	114	35	16	663
Milwaukee	--	--	--	--	--	--	--	0	--	0	0	0	1	--	2
Outagamie	2	16	0	--	1	--	7	2	3	44	71	45	26	95	525
Ozaukee	0	0	--	--	2	0	--	1	2	6	9	1	4	1	47
Racine	--	0	--	--	1	3	0	0	0	3	1	1	3	2	25
Rock	--	--	--	--	12	8	0	3	4	2	3	21	29	2	92
Sheboygan	9	0	0	--	0	0	1	1	2	31	14	22	3	1	165
Walworth	--	--	--	--	6	1	0	0	4	7	1	5	10	0	46
Washington	--	0	0	--	4	1	--	3	1	100	11	24	7	3	190
Waukesha	--	0	--	--	5	1	1	1	1	4	2	12	9	4	91
Winnebago	--	0	--	--	2	--	--	0	2	10	13	31	19	2	125
Total	29	122	12	--	140	64	48	50	71	702	588	922	592	158	4,862
State total	438	7,383	1,645	1	1,060	816	262	375	532	30,269	21,922	23,552	5,351	1,010	175,218

All table cells without observations are indicated by -- . Table value of 0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 12.—Sawtimber removals from timberland for industrial roundwood in thousand board feet, International 1/4-inch rule, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Forest Inventory Unit and county	Softwoods											Hardwoods			
	Softwoods											Hardwoods			
	Total	Eastern redcedar	white- cedar	Northern Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	Soft- wood total	Ash	poplar	Bass- wood
Northeastern Unit															
Florence	18,077	--	95	508	340	193	3,535	83	--	949	35	5,738	202	4,988	674
Forest	35,339	--	98	767	752	51	3,176	298	--	2,382	58	7,581	772	5,646	1,959
Langlade	47,748	--	2	780	81	26	1,088	310	9	683	125	3,105	649	6,823	25,745
Lincoln	24,803	--	0	473	32	872	4,484	493	3	558	47	6,963	619	9,113	734
Marquette	39,760	--	298	572	610	5,206	7,222	355	--	648	59	14,970	977	9,560	1,246
Menominee	29,586	--	26	26	476	429	1,460	5,256	--	48	3	7,724	283	1,364	1,262
Oconto	24,181	--	127	97	189	2,116	7,495	210	0	246	30	10,510	598	7,357	485
Oneida	27,501	--	3	519	50	1,861	8,062	991	0	562	12	12,061	267	9,990	253
Shawano	17,871	--	2	170	65	11	3,133	429	1	68	22	3,902	471	2,587	1,049
Vilas	32,074	--	2	504	24	5,653	9,708	2,508	1	703	12	19,114	76	5,867	249
Total	296,940	--	654	4,415	2,620	16,419	49,363	10,934	14	6,847	403	91,669	4,914	63,293	33,655
Northwestern Unit															
Ashland	16,938	--	5	640	2	266	1,305	152	--	1,193	5	3,568	211	3,919	446
Barron	9,295	--	21	20	--	14	457	561	--	4	--	1,076	59	2,179	1,966
Bayfield	27,492	--	1	438	--	830	7,809	425	199	368	7	10,077	230	6,214	370
Burnett	13,634	--	0	57	--	919	2,839	343	84	16	6	4,265	60	4,331	890
Douglas	26,813	--	1	883	--	786	11,088	767	74	399	6	14,004	176	7,239	203
Iron	20,592	--	6	621	10	8	734	242	4	839	9	2,473	302	4,114	606
Polk	6,474	--	--	10	--	41	89	452	--	17	--	610	68	1,879	1,307
Price	20,747	--	7	846	33	7	1,690	406	--	788	111	3,887	561	9,320	675
Rusk	17,360	--	0	41	2	1	734	278	--	317	--	1,372	400	3,997	5,235

Table 12.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods		
	Northern											Soft-		
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	wood total	Ash	Aspen/ balsam poplar wood
Sawyer	38,482	--	1	350	1	673	3,259	782	2	1,108	4	6,181	646	9,095 5,912
Taylor	14,371	--	--	65	47	1	1,426	428	--	855	1	2,822	404	5,114 815
Washburn	20,938	--	--	44	--	1,033	2,928	263	69	32	7	4,377	406	7,047 2,896
Total	233,138	--	42	4,014	96	4,579	34,360	5,098	433	5,935	158	54,713	3,523	64,449 21,322
Central Unit														
Adams	10,670	--	1	--	--	618	3,381	1,459	3	7	--	5,469	237	538 38
Chippewa	11,977	--	--	10	--	78	1,728	308	--	48	5	2,177	122	2,555 2,432
Clark	12,765	--	--	--	5	91	1,368	1,389	19	54	--	2,926	222	4,043 216
Eau Claire	6,103	--	--	--	--	405	1,305	670	--	2	--	2,383	17	826 64
Jackson	13,999	--	--	2	--	865	3,256	3,287	7	10	--	7,426	43	1,645 32
Juneau	9,576	--	0	--	--	737	2,179	1,373	3	5	--	4,298	162	828 40
Marathon	21,390	--	8	105	291	124	2,143	574	10	193	--	3,447	693	6,433 838
Marquette	3,890	--	5	--	--	59	1,754	499	1	14	8	2,339	23	100 2
Monroe	6,757	--	0	2	--	182	1,652	902	4	5	--	2,747	92	356 28
Portage	9,218	--	--	41	14	198	4,214	534	15	40	1	5,058	96	1,407 31
Waupaca	13,034	--	1	12	25	14	2,426	632	3	23	--	3,136	665	1,754 269
Waushara	6,290	--	1	1	--	24	2,667	1,069	11	34	0	3,808	74	214 43
Wood	9,655	--	--	9	0	126	2,148	1,410	5	63	--	3,761	94	2,706 68
Total	135,324	--	15	182	336	3,521	30,221	14,107	82	497	15	48,975	2,541	23,404 4,101
Southwestern Unit														
Buffalo	4,405	--	--	--	--	2	90	38	--	4	--	135	42	361 159
Crawford	5,753	0	--	--	--	--	52	5	--	--	--	57	115	76 240

Table 12.—Continued

Forest Inventory Unit and county	Softwoods										Hardwoods			
	Northern					Softwoods					Hardwoods			
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	Soft- wood total	Ash	Aspen/ balsam poplar wood
Dunn	10,235	0	--	--	--	85	1,245	1,055	--	10	--	2,394	107	717 758
Grant	6,726	2	--	--	--	0	98	50	--	58	--	208	144	232 227
Iowa	3,328	4	--	--	--	1	53	48	--	3	--	108	60	83 92
La Crosse	3,633	--	--	--	--	13	84	205	--	3	--	306	4	320 83
Lafayette	1,390	--	--	--	--	--	--	--	--	2	--	2	27	15 138
Pepin	1,065	--	--	--	--	--	12	22	--	--	--	34	20	91 39
Pierce	3,450	--	--	--	--	--	--	16	--	--	--	16	44	149 190
Richland	4,818	4	--	--	--	--	73	52	--	--	--	129	134	332 200
Sauk	6,852	12	--	--	--	54	277	83	--	28	--	453	282	417 198
St. Croix	2,887	0	--	2	--	16	828	34	0	39	--	920	30	208 1,045
Trempealeau	4,957	--	--	14	--	6	442	622	--	19	--	1,102	22	828 106
Vernon	7,041	0	--	--	--	--	2	170	4	2	--	177	210	193 214
Total	66,542	23	--	16	--	178	3,255	2,398	4	167	--	6,040	1,242	4,023 3,688
Southeastern Unit														
Brown	878	--	1	--	0	2	191	26	--	--	--	220	106	159 89
Calumet	350	--	3	--	--	--	11	32	--	2	--	48	33	43 18
Columbia	4,149	--	5	--	--	--	955	163	--	60	--	1,183	78	391 7
Dane	1,696	--	20	--	--	--	24	14	--	27	--	85	63	76 36
Dodge	1,750	--	--	--	--	--	4	16	--	--	--	20	96	19 18
Door	1,195	--	13	5	7	5	150	110	--	18	--	308	125	170 11
Fond Du Lac	422	--	0	--	--	--	9	32	0	0	0	41	21	52 20
Green	746	--	--	--	--	1	61	3	--	--	--	64	50	24 14

Table 12.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods			
	Northern											Soft-			
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	wood total	Ash	poplar	Bass- wood
Green Lake	547	--	--	8	2	--	6	33	174	--	--	223	2	16	3
Jefferson	385	--	--	0	--	--	--	0	0	--	--	1	41	9	30
Kenosha	35	--	--	0	--	--	--	--	1	--	1	2	--	--	--
Kewaunee	1,848	--	--	32	--	4	--	34	96	--	5	170	77	107	241
Manitowoc	3,248	--	--	30	2	1	--	51	141	--	6	231	352	468	153
Milwaukee	7	--	--	--	--	--	--	--	--	--	--	--	1	--	2
Outagamie	2,245	--	--	--	--	--	--	48	47	0	36	131	224	379	154
Ozaukee	134	--	--	0	--	--	--	--	2	0	36	38	17	25	0
Racine	191	--	--	--	--	--	--	24	87	--	0	111	0	24	--
Rock	462	--	--	4	--	--	--	1	0	--	--	5	33	1	2
Sheboygan	1,064	--	--	3	--	--	1	93	184	1	55	337	248	64	34
Walworth	458	--	--	2	--	--	--	153	103	--	12	270	9	19	0
Washington	1,074	--	--	0	--	--	7	32	137	0	66	242	41	38	31
Waukesha	496	--	--	1	--	--	--	80	80	--	18	178	27	97	11
Winnebago	525	--	--	--	--	--	--	2	15	--	3	20	84	42	16
Total	23,907	--	--	121	9	11	21	1,956	1,464	1	343	3,927	1,728	2,223	889
State total	755,850	23	831	8,635	3,062	24,718	119,155	34,001	534	13,789	576	205,325	13,948	157,393	63,655

Table 12.—Continued

Hardwoods																
Forest Inventory Unit and county		Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton-wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard-woods	total
Northeastern Unit																
Florence		58	382	174	--	88	--	--	2	--	3,888	543	1,322	1	18	12,339
Forest		14	582	1,404	--	248	--	--	6	--	12,544	1,139	3,251	43	149	27,758
Langlade		46	426	245	--	89	8	2	22	10	8,026	1,541	796	213	1	44,643
Lincoln		16	230	235	--	58	0	--	46	29	3,817	2,164	579	73	128	17,840
Marinette		77	621	197	--	95	--	1	16	25	3,141	3,101	4,650	207	877	24,790
Menominee		254	120	907	--	59	--	--	8	45	12,791	2,119	2,505	145	1	21,862
Oconto		35	503	145	--	38	--	29	13	16	1,870	1,222	1,131	227	1	13,671
Oneida		2	622	101	1	19	--	--	0	--	1,578	841	1,765	1	--	15,440
Shawano		24	151	181	--	50	13	5	9	46	5,956	1,366	1,558	443	60	13,969
Vilas		19	685	119	--	35	--	--	1	--	3,071	480	2,349	8	--	12,960
Total		547	4,322	3,707	1	779	21	37	124	171	56,684	14,516	19,906	1,360	1,234	205,271
Northwestern Unit																
Ashland		9	661	330	--	23	4	--	3	4	5,175	230	2,332	9	13	13,370
Barron		--	205	100	--	47	--	--	7	39	966	370	1,760	365	156	8,219
Bayfield		3	1,383	123	--	5	--	--	1	--	1,390	2,913	4,760	24	0	17,415
Burnett		--	221	2	--	1	0	9	1	1	144	636	2,870	201	0	9,369
Douglas		3	692	57	--	4	--	--	0	--	306	3,147	960	22	0	12,809
Iron		137	550	450	--	190	--	--	2	--	7,931	3,144	691	0	0	18,118
Polk		--	160	3	--	26	3	9	4	10	187	407	1,193	595	12	5,865
Price		4	460	275	--	36	0	--	15	--	2,691	1,957	689	86	90	16,860
Rusk		0	187	61	--	12	--	--	18	22	1,386	2,334	1,903	353	78	15,988

Table 12.—Continued

Forest Inventory Unit and county	Hardwoods														Hardwood total
	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	
Sawyer	4	669	307	--	32	--	--	23	20	3,302	5,554	6,412	292	34	32,301
Taylor	8	179	140	--	23	0	--	18	12	2,593	1,392	478	89	283	11,549
Washburn	0	314	87	--	86	--	--	20	76	623	2,146	2,273	583	4	16,561
Total	168	5,682	1,934	--	484	8	18	113	186	26,694	24,231	26,322	2,618	672	178,425
Central Unit															
Adams	11	10	--	--	18	--	--	5	--	731	667	2,472	475	--	5,201
Chippewa	0	121	9	--	51	--	--	29	107	935	587	2,104	608	140	9,800
Clark	2	120	27	--	21	--	--	8	46	1,151	722	2,299	800	163	9,839
Eau Claire	--	43	--	--	93	17	36	6	5	37	333	1,720	511	13	3,720
Jackson	--	100	1	--	32	--	43	6	11	622	976	2,385	674	2	6,572
Juneau	--	30	2	--	48	--	1	16	35	432	610	2,209	617	247	5,278
Marathon	15	377	430	--	20	12	--	18	52	5,064	1,914	1,326	337	413	17,942
Marquette	--	13	--	--	24	0	--	2	2	170	83	773	358	2	1,551
Monroe	--	77	0	--	52	83	16	23	47	299	381	1,769	747	39	4,011
Portage	2	58	50	--	15	--	--	2	--	290	647	1,205	314	40	4,160
Waupaca	3	128	85	--	117	11	4	5	264	1,922	1,080	2,666	571	354	9,898
Waushara	--	55	15	--	12	--	--	4	6	91	205	1,370	392	2	2,482
Wood	0	33	0	--	4	--	--	3	11	501	790	1,315	368	--	5,893
Total	35	1,164	619	--	507	124	100	127	587	12,245	8,996	23,611	6,771	1,416	86,349
Southwestern Unit															
Buffalo	--	145	--	--	102	20	63	21	104	11	219	2,293	675	57	4,270
Crawford	--	4	--	1	224	728	2	204	244	954	215	1,379	1,292	17	5,697

Table 12.—Continued

Hardwoods																	
Forest Inventory Unit and county	White				Black				Cotton-				Red				Other
	Beech	birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	oak group	White oak group	hard- woods	Hardwood total		
Dunn	--	103	3	--	86	2	--	21	37	599	201	3,392	1,513	303	7,841		
Grant	--	2	--	--	133	1,087	166	138	79	1,138	565	1,282	1,290	35	6,518		
Iowa	--	23	--	--	133	561	5	78	85	122	254	904	791	29	3,220		
La Crosse	--	68	--	--	102	18	48	36	56	9	159	1,227	1,041	156	3,328		
Lafayette	--	--	--	--	69	335	--	42	24	208	30	231	262	7	1,389		
Pepin	--	5	--	--	20	23	3	3	25	182	47	434	83	56	1,031		
Pierce	0	23	7	--	78	--	2	14	46	570	192	1,355	694	71	3,435		
Richland	--	42	--	--	118	120	123	138	140	1,704	277	789	553	17	4,688		
Sauk	--	2	--	--	422	29	20	67	130	1,035	856	2,342	594	7	6,399		
St. Croix	0	29	--	--	14	0	0	5	13	64	61	326	161	10	1,967		
Trempealeau	--	86	--	--	87	19	185	20	50	24	177	1,484	705	62	3,855		
Vernon	--	30	0	--	166	649	240	78	208	1,534	421	1,789	1,072	60	6,864		
Total	0	562	11	1	1,753	3,591	857	865	1,242	8,154	3,672	19,227	10,725	889	60,502		
Southeastern Unit																	
Brown	0	17	4	--	4	--	13	2	0	45	68	67	81	3	659		
Calumet	2	3	--	--	--	--	5	4	2	16	42	27	93	15	303		
Columbia	--	6	--	--	153	7	49	11	37	244	395	923	636	28	2,966		
Dane	--	6	--	--	94	122	23	43	37	67	88	507	433	15	1,611		
Dodge	--	0	--	--	75	2	--	3	79	401	261	471	301	6	1,730		
Door	20	160	23	--	4	--	8	1	7	132	15	207	1	1	887		
Fond Du Lac	--	1	--	--	11	0	16	2	5	155	23	21	23	32	382		
Green	--	--	--	--	60	74	--	58	27	88	29	138	115	5	681		

Table 12.—Continued

Forest Inventory Unit and county	Hardwoods														total
	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	
Green Lake	--	1	--	--	11	--	--	2	1	16	49	136	81	7	324
Jefferson	--	0	--	--	28	27	2	6	7	45	40	77	58	16	385
Kenosha	--	--	--	--	3	5	--	--	2	--	7	7	9	--	33
Kewaunee	15	58	8	--	15	1	21	15	14	288	450	155	202	11	1,678
Manitowoc	34	15	9	--	35	4	46	9	14	613	438	575	175	76	3,017
Milwaukee	--	--	--	--	--	--	--	0	--	0	0	1	3	--	7
Outagamie	9	36	1	--	3	--	31	3	9	186	285	211	128	454	2,114
Ozaukee	1	0	--	--	4	0	--	2	3	11	19	2	11	1	96
Racine	--	0	--	--	2	16	2	0	1	6	3	3	13	8	79
Rock	--	--	--	--	58	40	0	17	19	9	13	106	148	11	457
Sheboygan	35	1	1	--	1	0	7	3	10	139	64	99	15	5	727
Walworth	--	--	--	--	29	4	1	2	21	23	4	24	51	2	188
Washington	--	0	0	--	14	6	--	8	5	493	41	107	31	16	832
Waukesha	--	0	--	--	24	4	4	2	4	15	5	62	41	21	318
Winnebago	--	0	--	--	8	--	--	0	10	52	59	145	85	4	505
Total	117	305	45	--	637	313	229	193	313	3,044	2,400	4,071	2,736	738	19,979
State total	867	12,034	6,316	2	4,161	4,058	1,241	1,422	2,500	106,822	53,815	93,137	24,210	4,947	550,526

All table cells without observations are indicated by -- . Table value of 0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 13.—Harvest residue generated by industrial roundwood harvesting in thousand cubic feet, by Forest Inventory Unit, county, and species group, Wisconsin, 2008

Forest Inventory Unit and county	Softwoods														Hardwoods			
	Softwoods														Hardwoods			
	Softwoods														Hardwoods			
	Total	Eastern redcedar	white- cedar	Northern Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	Soft- wood total	Ash	poplar	Bass- wood			
Northeastern Unit																		
Florence	2,833	--	11	127	42	52	286	10	--	222	10	760	32	850	118			
Forest	4,770	--	11	184	61	16	285	24	--	548	16	1,143	110	857	291			
Langlade	5,256	--	0	199	7	4	109	31	3	156	34	542	136	1,113	1,499			
Lincoln	4,138	--	0	115	4	120	353	45	1	96	13	747	164	1,498	203			
Marinette	6,004	--	33	142	74	719	601	36	--	126	16	1,746	150	1,588	330			
Menominee	4,382	--	7	5	48	49	134	444	--	7	1	695	85	225	253			
Oconto	3,331	--	14	21	15	251	649	19	0	52	8	1,030	108	1,231	75			
Oneida	3,581	--	0	125	5	287	659	85	0	99	3	1,263	44	1,447	36			
Shawano	2,267	--	0	46	5	3	268	37	0	13	6	380	81	393	139			
Vilas	4,083	--	0	121	2	701	732	201	0	122	3	1,884	18	1,021	46			
Total	40,645	--	77	1,085	263	2,203	4,075	932	4	1,440	110	10,190	929	10,223	2,991			
Northwestern Unit																		
Ashland	3,211	--	1	155	0	32	97	14	--	286	1	586	45	741	95			
Barron	1,063	--	2	1	--	4	37	44	--	1	--	90	11	316	150			
Bayfield	4,024	--	0	86	--	124	585	37	54	66	1	953	34	1,124	99			
Burnett	2,060	--	0	5	--	164	222	31	23	2	0	447	8	770	56			
Douglas	3,834	--	0	201	--	120	851	59	20	79	0	1,330	29	1,229	71			
Iron	5,167	--	1	154	1	2	56	19	1	167	2	403	75	751	199			
Polk	880	--	--	0	--	11	7	41	--	5	--	64	11	345	80			
Price	3,463	--	1	213	4	2	136	36	--	177	27	596	118	1,446	152			
Rusk	2,544	--	0	11	0	0	57	26	--	78	--	173	76	694	398			

Table 13.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods		
	Northern							Tama-				Soft-		
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	rack	wood total	Ash	Aspen/ balsam poplar wood
Sawyer	5,756	--	0	95	0	91	249	80	0	273	1	789	123	1,515
Taylor	2,287	--	--	18	5	0	110	35	--	220	0	388	91	781
Washburn	3,141	--	--	11	--	203	266	22	8	5	1	516	62	1,236
Total	37,428	--	5	949	10	754	2,673	443	106	1,359	35	6,334	685	10,948
Central Unit														
Adams	1,626	--	0	--	--	176	351	174	1	2	--	704	63	67
Chippewa	1,393	--	--	3	--	22	138	26	--	7	1	197	21	366
Clark	1,769	--	--	--	1	13	110	125	5	11	--	265	39	632
Eau Claire	763	--	--	--	--	86	119	61	--	1	--	267	4	106
Jackson	1,929	--	--	1	--	170	284	324	2	3	--	783	17	263
Juneau	1,240	--	0	--	--	149	193	150	1	1	--	494	25	127
Marathon	3,161	--	1	29	28	10	178	49	3	46	--	344	138	1,058
Marquette	445	--	1	--	--	13	178	51	0	2	2	246	4	16
Monroe	780	--	0	0	--	37	141	91	1	1	--	271	15	54
Portage	1,155	--	--	11	2	45	358	53	4	10	0	483	21	243
Waupaca	1,538	--	0	3	3	4	212	61	1	6	--	291	96	272
Waushara	690	--	0	0	--	7	243	104	3	6	0	363	12	36
Wood	1,293	--	--	2	0	29	188	139	1	17	--	376	16	449
Total	17,784	--	2	50	33	760	2,694	1,407	22	112	4	5,083	472	3,689
Southwestern Unit														
Buffalo	527	--	--	--	--	1	8	3	--	1	--	13	5	37
Crawford	612	0	--	--	--	--	7	0	--	--	--	7	14	9

Table 13.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods			
	Northern											Soft-			
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	wood total	Ash	Aspen/ balsam poplar	Bass- wood
Dunn	1,190	0	--	--	--	26	117	87	--	3	--	233	17	121	47
Grant	735	0	--	--	--	0	12	5	--	16	--	33	18	28	28
Iowa	379	0	--	--	--	0	6	6	--	1	--	14	8	12	11
La Crosse	364	--	--	--	--	3	8	19	--	1	--	30	1	35	9
Lafayette	154	--	--	--	--	--	--	--	--	0	--	0	3	2	17
Pepin	122	--	--	--	--	--	1	2	--	--	--	3	3	14	5
Pierce	381	--	--	--	--	--	--	1	--	--	--	1	6	17	24
Richland	523	0	--	--	--	--	9	5	--	--	--	14	17	42	25
Sauk	791	1	--	--	--	11	33	10	--	8	--	63	36	58	24
St. Croix	266	0	--	1	--	5	64	4	0	7	--	81	2	36	57
Trempealeau	504	--	--	4	--	1	33	58	--	5	--	101	3	71	6
Vernon	754	0	--	--	--	--	0	20	1	0	--	21	27	25	27
Total	7,302	2	--	4	--	47	297	220	1	42	--	615	161	509	329
Southeastern Unit															
Brown	116	--	0	--	0	1	24	2	--	--	--	27	14	24	10
Calumet	52	--	0	--	--	--	1	3	--	0	--	5	6	6	2
Columbia	597	--	1	--	--	--	119	19	--	16	--	156	14	68	1
Dane	207	--	3	--	--	--	3	2	--	7	--	15	8	12	4
Dodge	198	--	--	--	--	--	0	2	--	--	--	2	13	3	2
Door	178	--	1	1	1	1	19	12	--	5	--	41	21	28	1
Fond Du Lac	60	--	0	--	--	--	1	3	0	0	0	4	3	10	2
Green	103	--	--	--	--	0	8	0	--	--	--	8	6	5	2

Table 13.—Continued

Forest Inventory Unit and county	Softwoods											Hardwoods			
	Northern							Soft-				Aspen/			
	Total	Eastern redcedar	white- cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Other pine	Spruce	Tama- rack	wood total	Ash	poplar	Bass- wood
Green Lake	77	--	1	1	--	2	4	20	--	--	--	27	1	3	0
Jefferson	50	--	0	--	--	--	0	0	--	--	--	0	5	2	4
Kenosha	4	--	0	--	--	--	--	0	--	0	--	0	--	--	--
Kewaunee	220	--	3	--	0	--	3	7	--	1	--	16	12	15	30
Manitowoc	389	--	3	0	0	--	6	11	--	2	0	22	47	66	19
Milwaukee	1	--	--	--	--	--	--	--	--	--	--	--	0	--	0
Outagamie	309	--	--	--	--	--	6	4	0	10	--	20	33	60	19
Ozaukee	36	--	0	--	--	--	--	0	0	10	0	10	6	5	0
Racine	27	--	--	--	--	--	3	11	--	0	--	14	0	5	--
Rock	52	--	1	--	--	--	0	0	--	--	--	1	4	0	0
Sheboygan	142	--	0	--	--	0	11	22	0	15	0	49	33	9	4
Walworth	61	--	0	--	--	--	20	13	--	3	--	36	1	4	0
Washington	142	--	0	--	--	2	4	16	0	18	0	40	7	7	4
Waukesha	70	--	0	--	--	--	10	10	--	5	--	25	4	19	1
Winnebago	71	--	--	--	--	--	0	2	--	1	--	3	14	8	3
Total	3,162	--	15	2	1	7	244	160	0	93	0	522	251	356	111
State total	106,322	2	99	2,091	308	3,771	9,982	3,163	134	3,047	149	22,744	2,498	25,725	6,011

Table 13.—Continued

Hardwoods																	
Forest Inventory		White		Yellow		Other		Black		Black		Cotton-		Red		Other	
Unit and county	Beech	birch	birch	birch	cherry	walnut	wood	Elm	Hickory	maple	maple	Soft	oak	oak	group	hard-	Hardwood
Northeastern Unit																	
Florence	23	85	27	--	19	--	--	0	--	650	113	151	0	2	2,072		
Forest	5	126	181	--	36	--	--	1	--	1,470	185	341	5	19	3,626		
Langlade	14	103	39	--	21	1	0	4	1	1,320	342	97	23	0	4,714		
Lincoln	6	71	44	--	14	0	--	14	5	797	459	91	10	16	3,391		
Marinette	26	195	28	--	26	--	0	4	3	489	697	587	23	111	4,258		
Menominee	88	43	159	--	23	--	--	3	8	1,955	485	340	20	0	3,687		
Oconto	9	159	21	--	10	--	4	5	2	255	255	140	26	0	2,301		
Oneida	1	175	14	0	2	--	--	0	--	216	159	225	0	--	2,319		
Shawano	5	38	25	--	8	1	1	3	6	725	232	173	48	8	1,886		
Vilas	8	202	18	--	7	--	--	0	--	439	107	332	1	--	2,199		
Total	186	1,196	558	0	166	2	5	35	26	8,317	3,034	2,475	155	157	30,455		
Northwestern Unit																	
Ashland	1	140	42	--	4	0	--	0	0	1,204	39	312	1	1	2,625		
Barron	--	48	13	--	6	--	--	1	5	102	77	191	43	12	973		
Bayfield	1	334	16	--	2	--	--	0	--	167	736	553	5	0	3,071		
Burnett	--	33	0	--	0	0	1	0	0	16	158	547	22	0	1,613		
Douglas	1	205	12	--	1	--	--	0	--	39	808	103	4	0	2,503		
Iron	55	144	102	--	62	--	--	1	--	2,497	785	93	0	0	4,764		
Polk	--	56	0	--	3	0	1	1	1	24	91	139	63	1	816		
Price	2	115	42	--	8	0	--	4	--	408	466	84	10	11	2,867		
Rusk	0	57	8	--	2	--	--	3	3	205	585	276	57	9	2,371		

Table 13.—Continued

Forest Inventory Unit and county	Hardwoods														Hardwood total
	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	
Sawyer	1	161	42	--	5	--	--	3	3	418	1,371	749	50	4	4,967
Taylor	3	57	20	--	3	0	--	4	2	439	288	60	11	35	1,899
Washburn	0	101	11	--	11	--	--	3	10	92	513	266	71	1	2,625
Total	64	1,451	309	--	106	1	2	20	24	5,610	5,917	3,372	336	74	31,094
Central Unit															
Adams	4	4	--	--	2	--	--	0	--	292	161	258	66	--	922
Chippewa	0	31	1	--	7	--	--	4	14	101	127	263	61	16	1,196
Clark	1	38	3	--	3	--	--	2	6	181	125	321	98	19	1,504
Eau Claire	--	19	--	--	12	2	2	1	1	15	56	207	63	1	496
Jackson	--	49	0	--	4	--	3	1	1	134	172	376	125	0	1,147
Juneau	--	9	0	--	6	--	0	2	4	72	97	287	91	20	746
Marathon	6	63	57	--	3	1	--	4	8	781	353	148	37	49	2,817
Marquette	--	3	--	--	3	0	--	0	0	26	16	89	42	0	200
Monroe	--	11	0	--	6	10	2	3	6	53	63	203	76	3	509
Portage	1	20	7	--	2	--	--	1	--	80	111	139	40	4	672
Waupaca	1	33	11	--	11	1	1	1	21	239	164	255	63	45	1,247
Waushara	--	8	2	--	2	--	--	1	1	20	32	158	50	0	327
Wood	0	14	0	--	1	--	--	0	1	80	117	176	56	--	917
Total	14	303	82	--	62	15	7	21	63	2,073	1,593	2,878	867	158	12,701
Southwestern Unit															
Buffalo	--	59	--	--	12	3	5	3	12	1	27	256	70	5	514
Crawford	--	1	--	0	27	86	0	26	30	94	27	141	118	2	605

Table 13.—Continued

Forest Inventory Unit and county		Hardwoods														
		Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	Hardwood total
Dunn	--	39	0	--	11	0	--	4	5	70	40	407	162	34	958	
Grant	--	0	--	--	16	117	21	17	10	112	71	131	129	4	702	
Iowa	--	3	--	--	16	67	1	10	10	16	34	95	79	4	365	
La Crosse	--	6	--	--	11	2	3	5	7	1	19	142	80	12	333	
Lafayette	--	--	--	--	9	36	--	6	3	21	4	24	27	1	153	
Pepin	--	3	--	--	2	3	0	0	3	18	6	48	9	5	119	
Pierce	0	9	1	--	10	--	0	2	6	60	24	143	72	6	379	
Richland	--	4	--	--	13	13	16	18	17	168	36	82	56	2	509	
Sauk	--	1	--	--	50	3	2	9	16	107	112	246	63	1	729	
St. Croix	0	16	--	--	2	0	0	1	2	8	13	32	16	1	185	
Trempealeau	--	32	--	--	11	2	12	2	6	3	19	167	61	6	403	
Vernon	--	3	0	--	19	79	30	10	25	152	55	183	95	5	733	
Total	0	175	1	0	210	410	92	111	151	831	488	2,096	1,036	87	6,687	
Southeastern Unit																
Brown	0	2	1	--	1	--	2	0	0	10	9	7	8	0	89	
Calumet	0	1	--	--	--	--	1	1	0	5	7	4	11	2	47	
Columbia	--	4	--	--	21	1	6	2	6	43	65	128	79	4	442	
Dane	--	1	--	--	12	15	3	6	5	10	13	55	46	2	192	
Dodge	--	0	--	--	10	0	--	1	10	40	34	49	32	1	195	
Door	3	28	4	--	1	--	1	0	1	17	3	27	0	0	137	
Fond Du Lac	--	1	--	--	1	0	2	0	1	22	4	3	3	4	56	
Green	--	--	--	--	8	9	--	8	4	22	4	14	12	1	95	

Table 13.—Continued

Forest Inventory Unit and county	Hardwoods														Hardwood total
	Beech	White birch	Yellow birch	Other birch	Black cherry	Black walnut	Cotton- wood	Elm	Hickory	Hard maple	Soft maple	Red oak group	White oak group	Other hard- woods	
Green Lake	--	1	--	--	2	--	--	0	0	4	8	20	11	1	50
Jefferson	--	0	--	--	3	3	0	1	1	6	6	10	7	2	50
Kenosha	--	--	--	--	0	1	--	--	0	--	1	1	1	--	4
Kewaunee	2	9	1	--	2	0	3	2	2	30	59	16	21	1	204
Manitowoc	5	2	2	--	4	0	6	2	2	68	57	59	18	10	367
Milwaukee	--	--	--	--	--	--	--	0	--	0	0	0	0	--	1
Outagamie	1	8	0	--	0	--	4	1	2	25	41	24	14	57	289
Ozaukee	0	0	--	--	2	0	--	1	1	4	5	0	2	0	26
Racine	--	0	--	--	0	2	0	0	0	2	0	0	2	1	13
Rock	--	--	--	--	7	5	0	2	2	1	2	11	15	1	51
Sheboygan	6	0	0	--	0	0	1	1	1	17	8	11	2	1	93
Walworth	--	--	--	--	3	0	0	0	3	4	0	2	5	0	24
Washington	--	0	0	--	2	1	--	2	1	54	6	12	4	2	102
Waukesha	--	0	--	--	3	1	0	0	0	3	1	6	4	3	45
Winnebago	--	0	--	--	1	--	--	0	2	5	8	16	10	2	68
Total	18	58	7	--	84	38	29	31	43	395	343	476	307	95	2,640
State total	281	3,183	957	0	626	465	136	218	306	17,226	11,375	11,298	2,701	571	83,578

All table cells without observations are indicated by -- . Table value of 0 indicates the volume rounds to less than 1,000 cubic feet. Columns and rows may not add to their totals due to rounding.

Table 14.—Disposition of residues produced at primary wood-using mills in thousand tons, green weight, by Forest Inventory Unit, disposition, residue type, for softwoods and hardwoods, Wisconsin, 2008

Forest Inventory Unit and disposition		Residue type									
		Wood residue								Bark	
		Total all residues		Coarse		Fine					
Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood
Northeastern Unit											
Fiber products	19.1	145.7	19.1	145.7	19.1	138.9	0.0	6.8	--	--	--
Charcoal or chemical wood	0.2	12.5	0.2	12.5	--	--	0.2	12.5	--	--	--
Industrial fuel	9.0	197.1	1.9	81.1	0.1	20.2	1.8	60.9	7.1	116.0	116.0
Domestic fuel	2.3	4.8	0.4	2.2	0.4	1.1	0.0	1.1	1.9	2.6	2.6
Wood pellets	0.0	1.4	0.0	1.4	--	--	0.0	1.4	--	--	--
Mulch	1.4	38.7	0.8	14.0	0.6	8.9	0.2	5.1	0.6	24.7	24.7
Miscellaneous ¹	5.9	68.3	5.4	43.0	0.0	2.4	5.4	40.7	0.5	25.3	25.3
Not used	0.0	35.0	0.0	19.9	--	--	0.0	19.9	--	15.1	15.1
Total	38.0	503.5	27.9	319.8	20.2	171.4	7.7	148.3	10.1	183.7	183.7
Northwestern Unit											
Fiber products	89.8	57.0	89.2	56.8	89.2	56.8	--	0.1	0.6	0.1	0.1
Charcoal or chemical wood	--	3.3	--	3.3	--	--	--	3.3	--	--	--
Industrial fuel	81.2	238.0	53.5	102.1	0.7	43.6	52.8	58.5	27.7	135.9	135.9
Domestic fuel	3.4	6.6	2.3	4.3	2.2	4.3	0.1	--	1.2	2.3	2.3
Mulch	3.2	13.6	1.4	5.1	1.4	5.1	--	--	1.8	8.5	8.5
Miscellaneous ¹	6.5	21.0	2.2	18.6	0.1	0.4	2.1	18.2	4.4	2.4	2.4
Not used	9.5	0.4	0.1	0.3	0.0	0.2	0.1	0.1	9.3	0.1	0.1
Total	193.6	339.9	148.7	190.6	93.6	110.4	55.1	80.2	44.9	149.3	149.3

Table 14.—Continued

Forest Inventory Unit and disposition		Residue type											
		Wood residue										Bark	
		Total all residues				Coarse				Fine			
		Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood		
Central Unit													
Fiber products	5.6	66.0	5.6	66.0	66.0	5.4	61.5	0.1	4.4	0.0	0.0	0.0	0.0
Charcoal or chemical wood	--	2.0	--	2.0	2.0	--	--	--	2.0	--	--	--	--
Industrial fuel	143.0	184.2	47.0	66.0	66.0	3.2	22.7	43.8	43.3	96.0	118.2	118.2	118.2
Domestic fuel	1.9	1.7	1.4	1.2	1.2	1.3	1.1	0.0	0.1	0.6	0.5	0.5	0.5
Wood pellets	1.4	1.4	1.4	1.4	1.4	--	--	1.4	1.4	--	--	--	--
Mulch	4.2	20.5	1.2	2.9	2.9	1.2	2.9	--	--	3.0	17.6	17.6	17.6
Miscellaneous ¹	6.6	29.0	5.1	22.6	22.6	0.6	0.9	4.5	21.8	1.6	6.4	6.4	6.4
Not used	3.8	2.9	1.0	1.0	1.0	0.2	0.2	0.9	0.8	2.7	1.9	1.9	1.9
Total	166.6	307.7	62.7	163.1	163.1	11.9	89.4	50.8	73.7	103.9	144.6	144.6	144.6
Southwestern Unit													
Fiber products	3.6	63.6	3.6	63.6	63.6	3.6	56.5	--	7.2	--	--	--	--
Industrial fuel	1.3	34.2	1.1	25.6	25.6	0.7	13.8	0.4	11.8	0.3	8.6	8.6	8.6
Domestic fuel	0.3	4.2	0.2	2.8	2.8	0.2	1.3	--	1.5	0.1	1.5	1.5	1.5
Wood pellets	--	2.2	--	1.3	1.3	--	--	--	1.3	--	0.9	0.9	0.9
Mulch	2.0	32.2	--	14.0	14.0	--	12.6	--	1.4	2.0	18.1	18.1	18.1
Miscellaneous ¹	2.2	38.7	2.2	28.1	28.1	--	9.1	2.2	19.0	--	10.6	10.6	10.6
Not used	0.0	0.1	0.0	0.0	0.0	--	--	0.0	0.0	--	0.0	0.0	0.0
Total	9.4	175.2	7.1	135.5	135.5	4.5	93.3	2.6	42.2	2.4	39.7	39.7	39.7
Southeastern Unit													
Fiber products	1.1	23.5	1.1	23.5	23.5	1.0	23.5	0.1	0.0	--	--	--	--

Table 14.—Continued

Forest Inventory Unit and disposition	Residue type										
	Total all residues				Wood residue						
	Softwood		Hardwood		Total wood residue		Coarse			Fine	
	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Softwood	Hardwood	Bark
Charcoal or chemical wood	--	3.0	--	3.0	--	3.0	--	--	--	3.0	--
Industrial fuel	51.0	16.1	14.8	5.4	0.0	0.6	14.8	4.8	36.2	10.7	
Domestic fuel	0.5	2.8	0.4	2.5	0.4	2.3	0.0	0.2	0.1	0.3	
Wood pellets	0.0	0.0	0.0	0.0	--	--	0.0	0.0	--	--	
Mulch	0.3	11.2	0.1	5.3	0.1	5.3	--	--	0.2	5.9	
Miscellaneous ¹	1.7	21.2	0.9	12.8	0.2	3.4	0.7	9.3	0.8	8.4	
Not used	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	
Total	54.6	78.1	17.2	52.7	1.7	35.2	15.5	17.5	37.4	25.4	
State Total											
Fiber products	119.2	355.9	118.6	355.7	118.3	337.2	0.2	18.5	0.6	0.1	
Charcoal or chemical wood	0.2	20.8	0.2	20.8	--	--	0.2	20.8	--	--	
Industrial fuel	285.5	669.6	118.2	280.3	4.7	101.0	113.6	179.3	167.3	389.3	
Domestic fuel	8.4	20.1	4.6	13.0	4.5	10.0	0.2	2.9	3.8	7.2	
Wood pellets	1.4	5.0	1.4	4.0	--	--	1.4	4.0	--	0.9	
Mulch	11.2	116.2	3.5	41.4	3.3	34.9	0.2	6.5	7.7	74.8	
Miscellaneous ¹	23.0	178.2	15.7	125.1	0.9	16.2	14.8	108.9	7.3	53.1	
Not used	13.3	38.6	1.2	21.4	0.2	0.5	1.0	20.9	12.1	17.2	
Total	462.2	1,404.4	263.6	861.7	131.9	499.8	131.7	362.0	198.7	542.7	

¹ Livestock bedding, small dimension, and specialty items.

All table cells without observations are indicated by --. Table value of 0.0 indicates the volume rounds to less than 1,000 green tons. Columns and rows may not add to their totals due to rounding.

Library Card

Haugen, David E. 2013. **Wisconsin timber industry--an assessment of timber product output and use, 2008**. Resour. Bull. NRS-78. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station. 110 p.

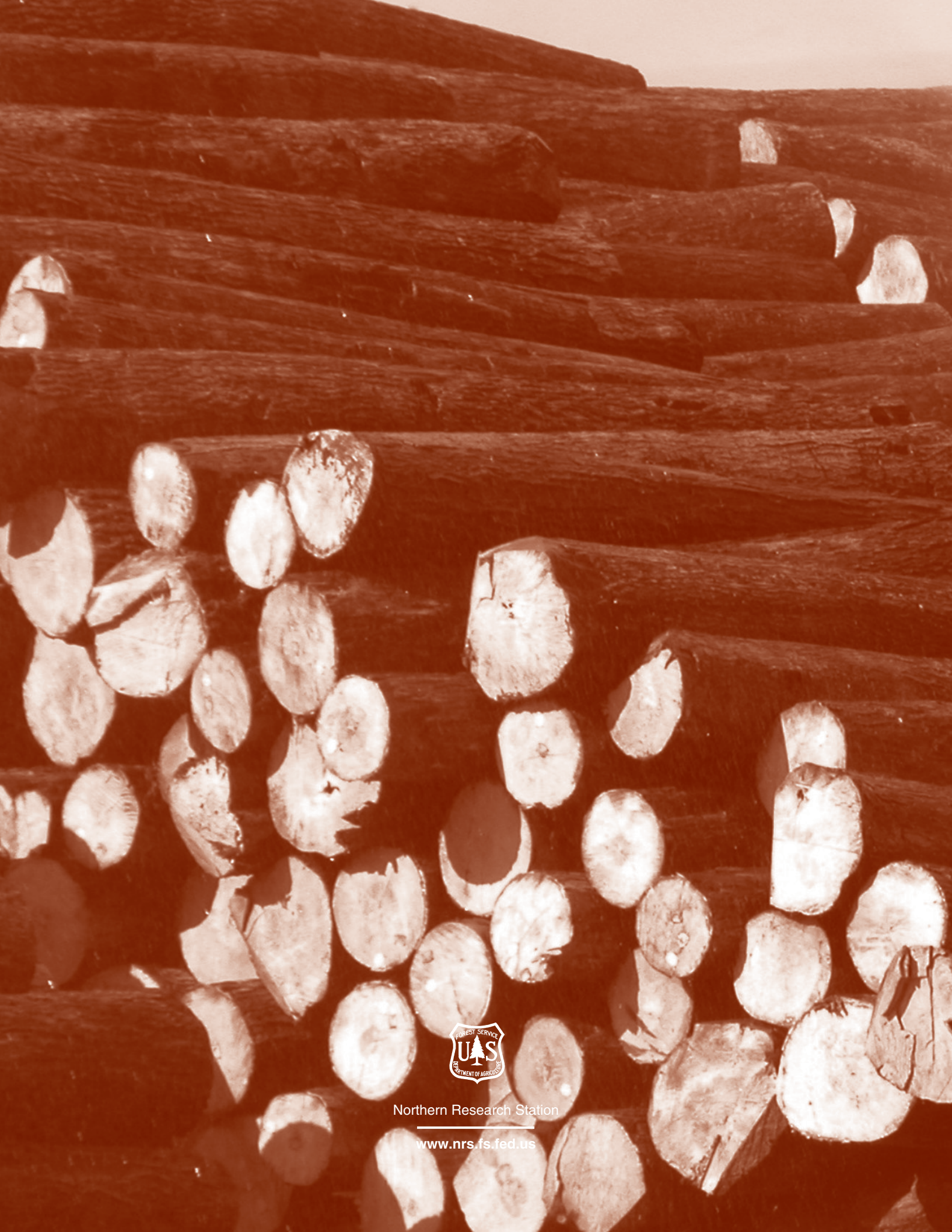
Presents recent Wisconsin forest industry trends; production and receipts of industrial roundwood; and production of saw logs, and other products in 2008. Logging residue generated from timber harvest operations is reported, as well as wood and bark residue generated at primary wood-using mills and disposition of mill residues.

KEY WORDS: industrial roundwood, harvest residue, mill residue, production, saw logs

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternate means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202)720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, DC 20250-9410, or call (800)795-3272 (voice) or (202)720-6382 (TDD). USDA is an equal opportunity provider and employer.



Printed on Recycled Paper



Northern Research Station

www.nrs.fs.fed.us