Growing Economic Potential of Midwestern Forests

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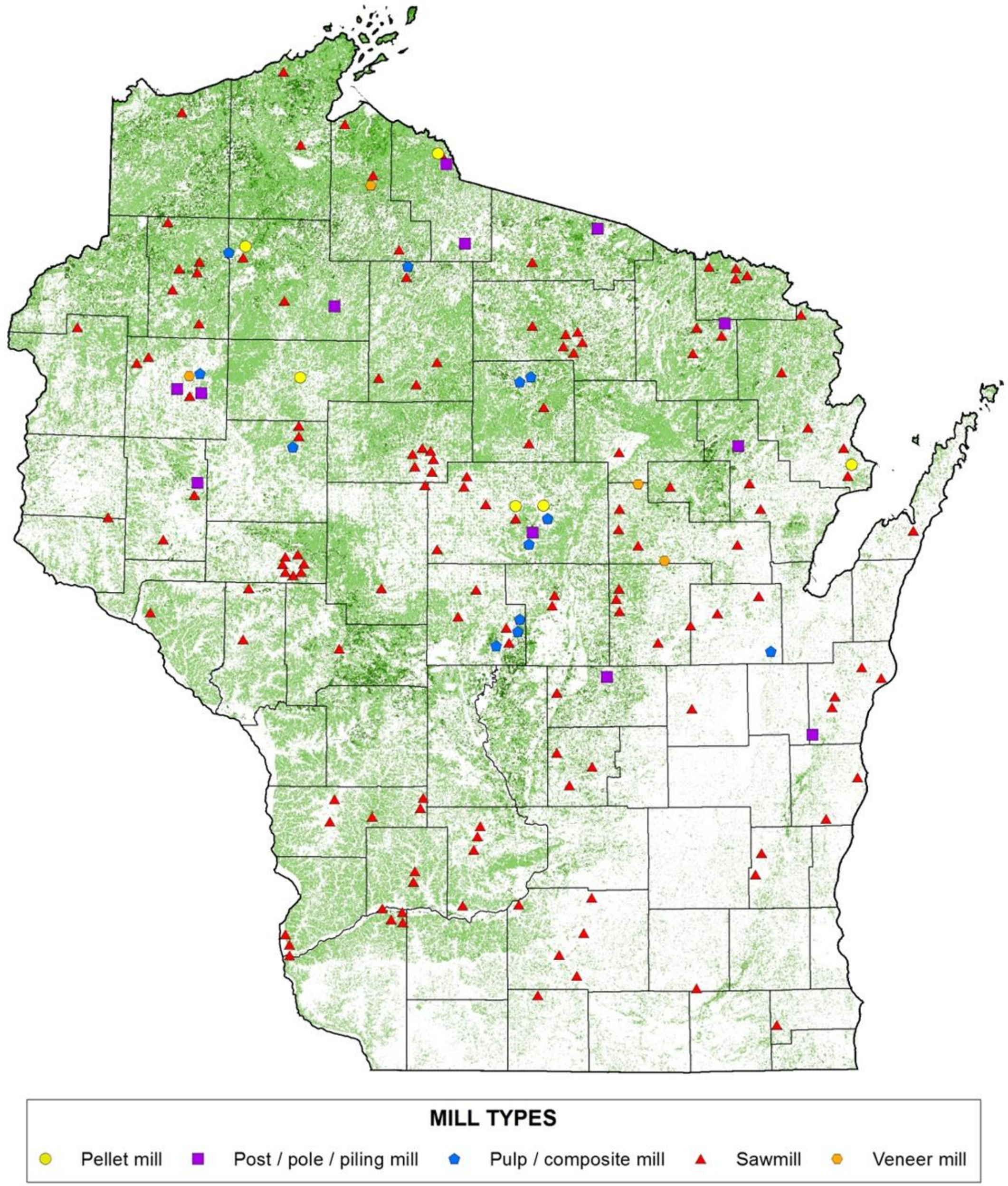
Economic Impact of Forest Industry

- 64,896 jobs
- $24.7 billion output (value of shipments)
- $5.9 billion value-added
- $2.2 billion in international exports
- Forest industry is the number one employer in 10 counties in Wisconsin
- Every dollar of output in the Wisconsin forest industry generates 73 cents of output in other sectors of the Wisconsin economy
- Over 1,200 forest products companies
- Wisconsin has been the #1 paper making state in the U.S. for 60 Years
- Forest products industry is 14% of all manufacturing jobs in Wisconsin

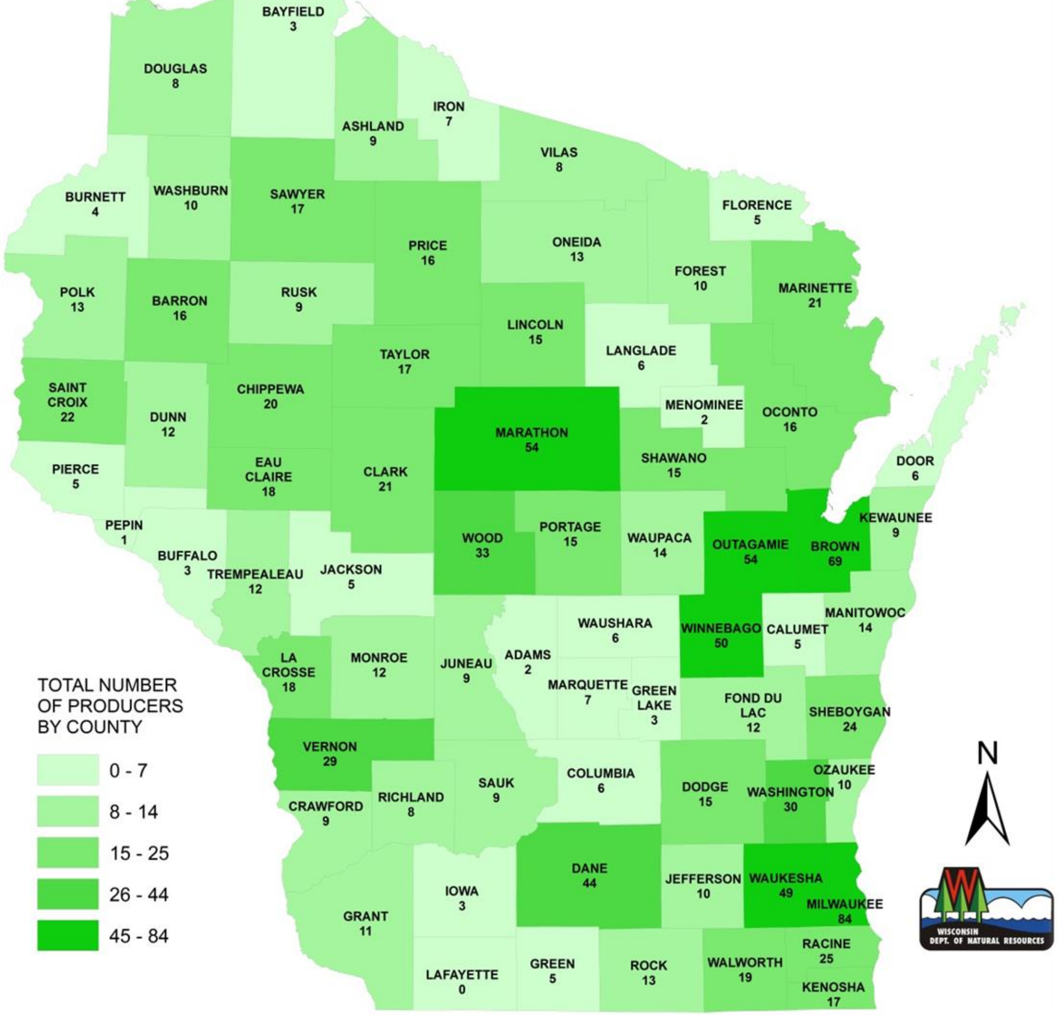
WISCONSIN'S PRIMARY FOREST PRODUCT MILLS



Based on data from the 2013 Timber Products Output survey and 2010 National Pulpwood Consumption.

Date: 09/01/2016

FOREST PRODUCTS PRODUCERS IN WISCONSIN BY COUNTY



THERE ARE OVER 1,170 FOREST PRODUCTS PRODUCERS IN WISCONSIN

PRODUCT PRODUCERS INCLUDE:

Sawmills, veneer mills, pulp mills, composite panel/engineered wood product mills, industrial fuelwood/biomass/energy plants, house/cabin log mills, piling mills, pole and post mills, manufacturers of custom architectural woodwork and millwork, manufactured homes, furniture, prefabricated wood buildings, reconstituted wood products, wood containers and pallets, kitchen cabinets and countertops, wood windows and doors, and other millwork (including flooring) and miscellaneous wood product manufacturing. It also includes paper manufacturing, cut stock, resawing lumber, planing, and wood preservation.

Data sources: 2013 US Forest Service Timber Products Output survey and 2014 Impact Analysis for Planning data. Date: 08/15/2016

Forest Inventory

- Volume of wood is increasing, and growth outpaces removals
  - 21.9 billion cubic feet of wood in Wisconsin
  - We harvest 300.3 million cubic feet annually. This is about half of annual growth
- Key Species
  - Sugar maple is the species with the greatest growing stock volume
  - Second highest is red maple, volume has doubled since 1983
  - Red oak, White pine, and Red pine round out the top 5 species in Wisconsin
  - Greatest volume gains in white pine, tamarack, red pine, red maple, ash and oak (since 1983)
  - Greatest volume loss in jack pine, paper birch, elm, balsam fir, and aspen (since 1983)

Annual Growth and Removal

Ownership	Annual Removals (million of cubic feet)	Annual Net Growth (million cubic feet)	Ratio of growth to removals
Federal	14.3	47.9	3.4
State	20.3	32.4	1.6
County and Municipal	56.7	73.9	1.3
Private	196.0	426.9	2.2
Unknown	8.8	0.5	0.1

Forest Inventory

- Forestland acreage is increasing
  - 17.1 million acres of forestland
  - An increase of 1.8 million acres since 1983
  - Increase in acreage occurring in SE and central WI
- Forest ownership is changing
  - 1/3 is publically owned, half is owned by private individuals and 12% by corporate and private entities.
  - Since 1996, forest products corporations have sold 38 million acres of timberland in Wisconsin, most of that to TIMOs

Future Markets

- Many trees we are harvesting today were planted in the 1950's
- What trees should we plant today and how should we manage today's forests for future markets and conditions?

Future Markets

- For the last fifty years, the U.S. forest products per capita consumption has averaged about 1,800 pounds per year
- For the last fifty years, 80% of the wood consumed in the US has come from domestic production
- From paper and fuelwood to structural panels and nanocellulose

Future Markets

- Nanocellulose
- Mass timber (CLT, Glulam)
- Urban wood (Whole Trees, Wisconsin Urban Wood)
- Wood energy Underutilized species (Spring Green project)
- Ecosystem Services

Challenges

- Workforce
- Landowner engagement
- Lack of markets
- Land conversion

Expanding Wood Markets

- Green building standards
- Good Neighbor Authority
- Forest Practices Study
- Wisconsin Wood Marketing Team
- Wisconsin Wood Energy Team
- My Wisconsin Woods