

MAINE STATE LEGISLATURE

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2014 Wood Processor Report

Including Import and Export Information

Compiled from 2014 Wood Processor Reports

pursuant to 12 M.R.S. § 8884

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Department of Agriculture, Conservation and Forestry

Maine Forest Service

Forest Policy and Management

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What is the purpose of the Wood Processor Report?

Each year, the Maine Forest Service collects information from Maine primary wood processors regarding the volume of wood processed in Maine. Information is also collected for volumes imported into Maine or exported from Maine.

This report summarizes, for 2014, the volume of wood harvested in Maine, processed by Maine mills, and imported into or exported from Maine.

Wood flow data is summarized for sawlogs, pulpwood, biomass chips, other miscellaneous products, and imports and exports.

How was this information collected?

In 2014, the Maine Forest Service received wood processor reports from 114 primary processing mills (sawmills, pulp and paper mills), 29 portable sawmills, 78 firewood dealers, 42 loggers and brokers who may have exported wood, 22 concentration yards, and 8 mills that burn some form of wood for energy. Volume information contained in these individual reports is confidential and by law shall not be made public, except that summary reports may be published using aggregated data which does not reveal the activities of an individual person or firm (12 M.R.S. §8884, sub-§3, "Forest Landowner and Wood Processor Reporting Requirements").

Interpreting Harvest, Export, Import, and Processed by the Maine Forest Products Industry

Maine wood processed

wood that is harvested in Maine and used by a Maine primary processing facility.

Exported from Maine without processing

wood that is harvested in Maine and exported out of state without processing by a Maine mill.

Imported from out of state

wood that is imported from out of state (not harvested in Maine) and processed by a Maine mill.

Total processed by Maine Forest Products Industry

total volume of wood processed in Maine, regardless of origin.

Definitions and Notes

1. Biomass Chips:

produced in the woods by chipping the entire tree, including branches and tops. Usually used as energy fuel, they may also be suitable for sludge composting, playground padding, and mulch.

2. Bole/Stem Pulp Chips:

produced in the woods by chipping the lower portion of the tree. These chips are not free of bark, but are suitable for use in pulp mills.

3. Cords (cds):

a stack of fuel wood, pulpwood, or other material that measures 4 x 4 x 8 feet, or 128 cubic feet.

4. Construction and Demolition Waste (C and D Waste):

ground up wooden debris left over from construction and demolition that is burned by wood to energy facilities.

5. Firewood:

roundwood that is burned for home heating.

6. Hog Fuel:

any woody residue produced from mills, such as sawdust, bark or shavings, and used as energy fuel.

7. Pellets:

wood fuel generally made from dried wood fiber compressed into uniform diameter for burning.

8. Pulpwood:

roundwood that is used for the production of wood pulp. Generally sold as tree length, 16', 8' or 4' lengths.

9. Sawlogs:

a log that meets minimum standards of diameter, length, and defect, intended for sawing into boards or lumber. Includes sawlogs, studwood, pallet logs, boltwood, and veneer logs.


10. Sawmill residues:


clean, pulp-quality chips made from debarked slabs and edgings at sawmills. Used by pulp and paper mills to produce wood pulp.


11. Thousand Board Feet (MBF):


One thousand board feet. One board foot is the amount of wood contained in an unfinished board 1" thick, 12" long, and 12" wide.


Report Highlights


 Maine's forest products industry consumed 15.1 million green ton equivalents in 2014, up from 15.0 million green ton equivalents in 2013. Eighty-three percent of the processing total (12.5 million green ton equivalents) was harvested in Maine, while 17% (2.6 million green ton equivalents) was imported.

 Maine landowners harvested 14.6 million green ton equivalents of wood in 2014, up from 2013 (14.4 million green ton equivalents). Fourteen percent (2.1 million green ton equivalents) of the 2014 harvest was exported, same as in 2013 (2.1 million green ton equivalents).

 Maine's pulp and paper producers processed 8.1 million green tons of pulpwood, down 0.6 million tons (-7%) from 2013 consumption. Seventy-nine percent of the pulpwood originated from Maine's forests; 21% was imported.

 Biomass harvesting volume was 2.9 million tons in 2014, up from 2013 (2.7 million tons). Biomass energy facilities consumed 3.0 million tons in 2014, up 8% from 2013 (2.8 million tons). Eighty-nine percent originated from Maine's forests; 11% was imported.

 Maine's sawlog processing in 2014 was 0.8 billion board feet, up from 2013 (0.7 billion board feet).

 Maine's forest products industry imported 2.6 million green tons during 2014, compared to 2.8 million tons in 2013. 2.1 million green tons were exported in 2014, same as in 2013.

SAWLOGS

2014 Wood flow in Maine as reported to the Maine Forest Service (in MBF)

County	Spruce and Fir	White and Red Pine	Hemlock	Cedar	Other Softwood	Total Softwood	Beech	White Birch	Yellow Birch	Sugar Maple	Red Maple	Oak	Ash	Aspen	Other Hardwood	Total Hardwood	Total Sawlogs
ANDROSCOGGIN	65	9,505	231	1	0	9,802	70	105	82	186	132	880	158	42	0	1,655	11,457
AROOSTOOK	101,225	3,944	206	12,900	142	118,417	3,598	6,474	6,021	14,745	7,462	62	236	53,018	38,140	129,756	248,173
CUMBERLAND	154	17,627	2,988	0	3	20,772	96	108	228	14	304	980	134	60	0	1,924	22,696
FRANKLIN	9,608	8,103	107	3	17	17,838	385	2,173	456	1,582	551	1,077	549	42	694	7,509	25,347
HANCOCK	10,376	3,645	223	266	21	14,531	52	810	352	781	147	580	323	24	964	4,033	18,564
KENNEBEC	883	13,466	1,373	70	11	15,803	169	956	66	260	285	865	185	94	8	2,888	18,691
KNOX	182	4,066	569	10	0	4,827	0	106	15	69	12	427	16	3	0	648	5,475
LINCOLN	238	6,911	2,057	0	0	9,206	19	50	5	23	6	77	4	0	0	184	9,390
OXFORD	18,775	37,555	715	0	19	57,064	457	1,661	516	2,150	607	1,835	560	175	356	8,317	65,381
PENOBSCOT	46,182	8,542	15,492	2,014	65	72,295	130	3,432	1,582	3,999	523	536	1,282	54	746	12,284	84,579
PISCATAQUIS	32,888	3,672	2,004	543	11	39,118	658	2,369	2,980	6,537	1,569	915	1,169	285	532	17,014	56,132
SAGadahoc	63	2,291	202	0	0	2,556	0	0	0	0	0	5	6	1	0	12	2,568
SOMERSET	37,143	10,875	331	258	34	48,641	1,009	2,608	1,364	2,864	1,112	1,303	763	50	498	11,571	60,212
WALDO	616	7,602	370	205	1	8,794	5	329	28	107	16	389	31	56	4	965	9,759
WASHINGTON	21,753	1,618	103	298	21	23,793	52	259	349	616	214	1,046	283	132	749	3,700	27,493
YORK	28	20,680	589	0	48	21,345	167	23	24	27	494	1,438	33	0	0	2,206	23,551
Maine wood processed:	280,179	160,102	27,560	16,568	393	484,802	6,867	21,463	14,068	33,960	13,434	12,415	5,732	54,036	42,691	204,666	689,468
Exported from Maine without processing:	86,452	70,471	309	11,969	0	169,201	2,601	2,963	7,005	12,308	4,739	5,852	5,862	41	5,243	46,614	215,815
Total harvested from Maine forests:	366,631	230,573	27,869	28,537	393	654,003	9,468	24,426	21,073	46,268	18,173	18,267	11,594	54,077	47,934	251,280	905,283
Imported from out of state:	9,649	49,035	752	527	516	60,479	157	2,966	1,091	783	1,923	167	24	44,862	2,465	54,438	114,917
Total processed by Maine Forest Products Industry:	289,828	209,137	28,312	17,095	909	545,281	7,024	24,429	15,159	34,743	15,357	12,582	5,756	98,898	45,156	259,104	804,385

- Notes:**
1. Sawlogs include logs, veneer, boltwood, studwood, palletwood, etc. Green ton converted to MBF @ 5 green tons = 1 MBF.
 2. Other Softwood includes larch, pitch pine, and others.

PULPWOOD

2014 Wood flow in Maine as reported to the Maine Forest Service (in Green Tons), including both solid wood and bole/stem pulp chips (Totals do not add up due to rounding)

County	Spruce and Fir	White and Red Pine	Hemlock	Cedar	Other Softwood	Total Softwood	Aspen	Other Hardwood	Total Hardwood	Mixed Wood	Total Pulpwood
ANDROSCOGGIN	1,350	21,542	12,622	0	5,850	41,364	5,452	48,579	54,031	0	95,395
AROOSTOOK	106,164	3,404	35,778	0	311	145,657	80,467	914,134	994,601	0	1,140,258
CUMBERLAND	2,155	72,748	33,256	0	8,231	116,390	4,465	52,432	56,897	0	173,287
FRANKLIN	108,888	18,741	23,789	0	3,996	155,414	42,323	239,145	281,468	0	436,882
HANCOCK	63,129	19,307	34,239	0	1,097	117,772	27,463	87,607	115,070	0	232,842
KENNEBEC	6,894	33,537	24,449	0	10,042	74,922	15,775	62,235	78,010	0	152,932
KNOX	6,601	5,753	3,089	0	2,045	17,488	6,089	20,858	26,947	0	44,435
LINCOLN	3,377	24,409	9,782	0	5,740	43,308	4,688	15,777	20,465	0	63,773
OXFORD	54,588	158,443	71,483	0	16,686	301,200	35,916	421,285	457,201	0	758,401
PENOBSCOT	167,491	14,262	222,909	0	1,517	406,179	72,708	523,855	596,563	0	1,002,742
PISCATAQUIS	173,594	15,078	45,308	0	1,552	235,532	34,125	357,156	391,281	0	626,813
SAGadahoc	797	6,898	3,774	0	3,137	14,606	2,052	4,980	7,032	0	21,638
SOMERSET	203,373	66,362	37,530	0	4,760	312,025	68,471	527,796	596,267	0	908,292
WALDO	28,230	33,774	11,833	0	3,630	77,467	9,650	55,502	65,152	0	142,619
WASHINGTON	125,018	4,822	26,378	0	606	156,824	42,716	211,572	254,288	0	411,112
YORK	647	69,236	22,780	0	6,089	98,752	6,260	56,505	62,765	0	161,517
Maine wood processed:	1,052,296	568,316	618,999	0	75,289	2,314,900	458,620	3,599,418	4,058,038	0	6,372,938
Exported from Maine without processing:	264,682	2,173	18,109	0	26,770	311,734	41,739	562,859	604,598	0	916,332
Total harvested from Maine forests:	1,316,978	570,489	637,108	0	102,059	2,626,634	500,359	4,162,277	4,662,636	0	7,289,270
Imported from out of state:	279,065	58,664	88,258	0	7,323	433,310	122,586	1,177,776	1,300,362	0	1,733,672
Total processed by Maine Forest Products Industry:	1,331,361	626,980	707,257	0	82,612	2,748,210	581,206	4,777,194	5,358,400	0	8,106,610

SAWMILL RESIDUE
Green Tons
0
11,924
1,388
3,863
866
0
0
1,363
36
35,382
22,357
0
412
3,566
0
11,578
92,735
131,338
224,073
187,058
279,793

Sawmill residues are clean, pulp-quality wood chips made from slabs and edgings at sawmills. The volume is reported here as an additional input to the pulp and paper mills and pellet mills. Sawmill residues are a by-product of the sawing process, and are not included as additional harvest volumes from Maine's forests.

Pulpwood Notes:

1. Other Softwood is comprised of bole chips of which specific species information was not collected.
2. Aspen volumes are based upon pure loads.
3. Other Hardwood is comprised of all hardwood species except aspen sold in pure loads.

Wood Imports and Exports

2014 Wood Flow in Maine as reported to the Maine Forest Service (in Green Tons)

County	BIOMASS CHIPS	Further utilization of wood already tallied.	C AND D WASTE	FIREWOOD / PELLET* CORDS
		HOG FUEL		
Androscoggin	258,878	29,256	9,434	1,538
Aroostook	267,415	165,845	5,612	22,197
Cumberland	136,662	19,835	5,692	4,217
Franklin	207,221	80,986	560	24,739
Hancock	149,644	0	0	6,292
Kennebec	90,197	1,225	2,343	3,080
Knox	20,845	0	0	311
Lincoln	68,491	0	713	1,855
Oxford	209,617	94,456	1,330	12,292
Penobscot	385,316	28,218	0	7,399
Piscataquis	119,538	34,020	0	14,307
Sagadahoc	25,566	102	218	13,685
Somerset	265,433	71,046	0	26,209
Statewide*	0	0	0	3,016
Waldo	147,289	10,342	0	2,074
Washington	177,859	18,194	0	771
York	165,600	16,959	1,754	2,765
Maine wood processed:				
	2,695,571	570,484	27,656	146,747
Exported from Maine without processing:				
	199,193	403,592	0	2,516
Total harvested from Maine Forests:				
	2,894,764	974,076	27,656	149,263
Imported from out of state:				
	339,578	289,434	86,765	200
Total processed by Maine Forest Products Industry:				
	3,035,149	859,918	114,421	146,947

*Volumes reported with no indication of originating county were identified as Statewide volume.

Import Origins

States:

CONNECTICUT
MASSACHUSETTS
MICHIGAN
New Hampshire
NEW YORK
Rhode Island
Vermont

Provinces:

New Brunswick
Nova Scotia
Quebec

Export Destinations

States:

Connecticut
Indiana
Maryland
Massachusetts
Michigan
New Hampshire
New Jersey
New York

Ohio
Pennsylvania
Rhode Island

Vermont
Wisconsin

Provinces:

New Brunswick
Quebec

Countries:

China
Thailand

* This is the seventh Wood Processor Report to separately report firewood as a new product. Report forms were sent to known firewood dealers. In the past some firewood was uniquely identified and reported to MFS as an export, and MFS grouped these minor volumes into the pulpwood product. This by no means a complete accounting of the volume of processed firewood merchandized, sold, or distributed within Maine, or as an export or import. The only previous estimation of annual firewood consumption is a survey conducted by the State Planning Office in the early 1990's. That survey estimated an annual processing, sale, distribution and consumption of 400,000 cords. MFS will continue to improve its survey methods in order to obtain a consistent and reliable estimate of annual firewood processing.

In addition, this is the seventh year we have received reports from Maine's pellet mills. We have included reported volumes for pellet production under this section also.

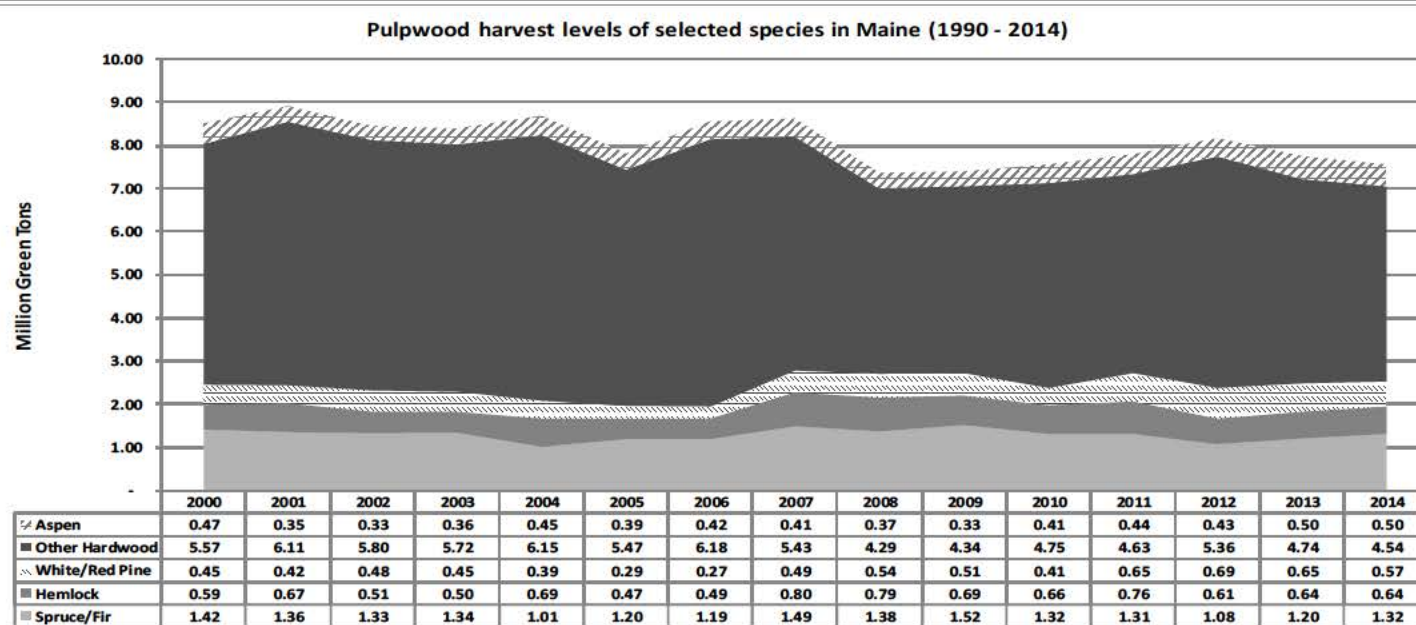
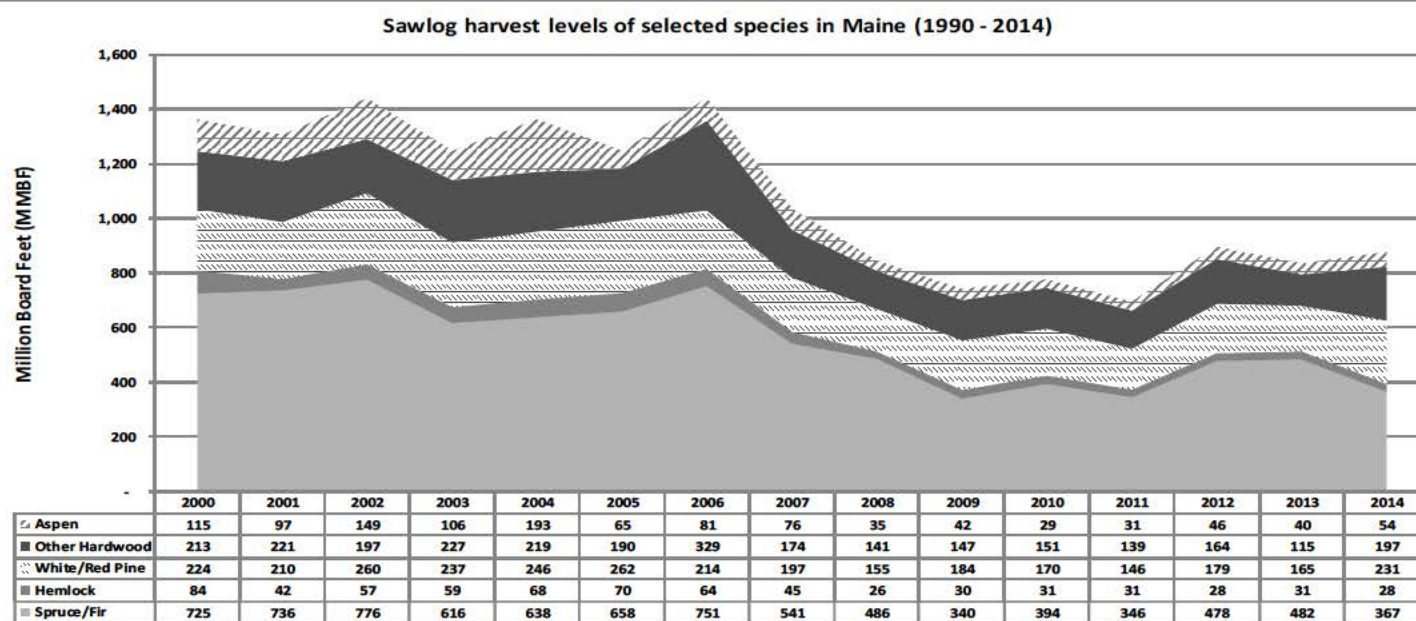
SUMMARY**2014 Wood flow in Maine as reported to the Maine Forest Service**

Product	Harvest, Export, Import, Instate Processing	Total Volume in 2014	Total Volume in Green Tons
Sawlogs (in MBF) 1 MBF = 1,000 board feet <u>Note on conversions:</u> see conversion table at the end of report	a. Maine wood processed	689,468	3,058,628
	b. Exported from Maine without processing	215,815	945,424
	c. Total harvested from Maine forests (a+b=c)	905,283	4,004,051
	d. Imported from out of state	114,917	499,205
	f. Total processed by Maine Forest Products Industry (a+d=e)	804,385	3,557,833
Pulpwood (in green tons)	a. Maine wood processed	6,372,938	6,372,938
	b. Exported from Maine without processing	916,332	916,332
	c. Total harvested from Maine forests (a+b=c)	7,289,270	7,289,270
	d. Imported from out of state	1,733,672	1,733,672
	f. Total processed by Maine Forest Products Industry (a+d=e)	8,106,610	8,106,610
Biomass Chips (in green tons)	a. Maine wood processed	2,695,571	2,695,571
	b. Exported from Maine without processing	199,193	199,193
	c. Total harvested from Maine forests (a+b=c)	2,894,764	2,894,764
	d. Imported from out of state	339,578	339,578
	f. Total processed by Maine Forest Products Industry (a+d=e)	3,035,149	3,035,149
Firewood / Pellets (in cords) <u>Note on conversion:</u> 1 cord = 2.5 green tons	a. Maine wood processed	146,747	366,868
	b. Exported from Maine without processing	2,516	6,290
	c. Total harvested from Maine forests (a+b=c)	149,263	373,158
	d. Imported from out of state	200	500
	f. Total processed by Maine Forest Products Industry (a+d=e)	146,947	367,368
Totals (in green tons)	a. Maine wood processed		12,494,004
	b. Exported from Maine without processing		2,067,239
	c. Total harvested from Maine forests (a+b=c)		14,561,243
	d. Imported from out of state		2,572,955
	f. Total processed by Maine Forest Products Industry (a+d=e)		15,066,960

Wood Harvesting Trends (1960-2014)

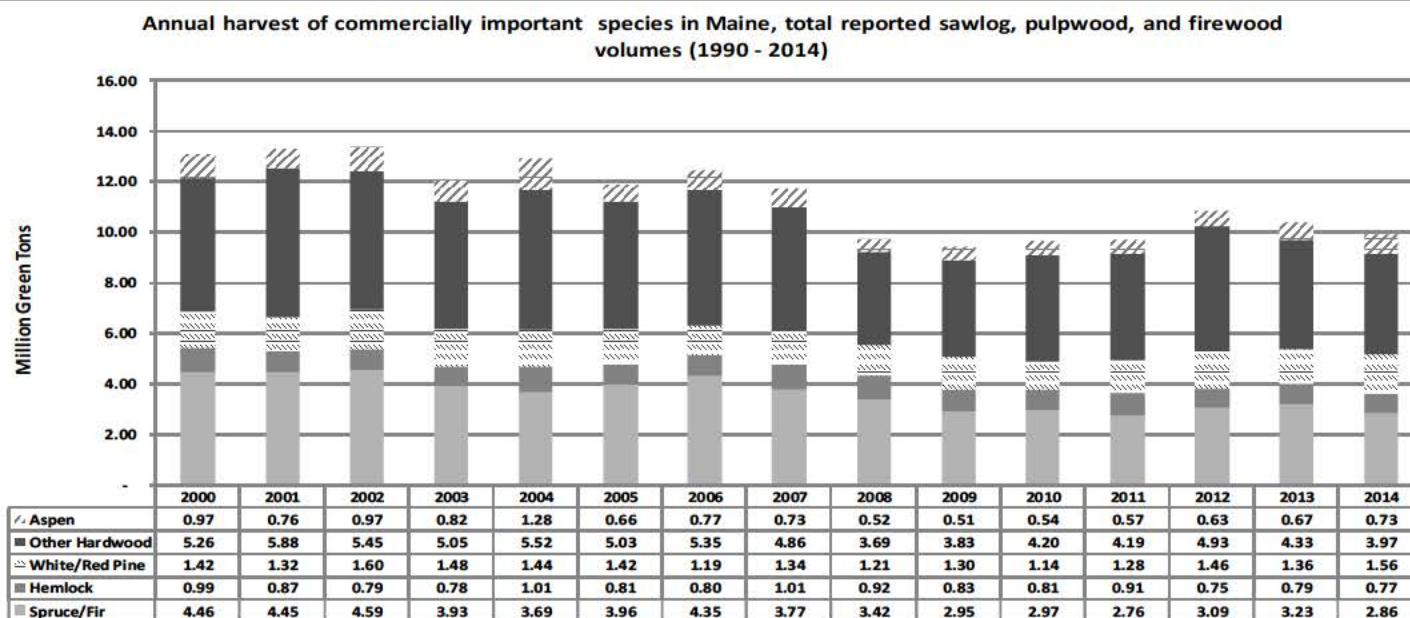
The Maine Forest Service has been collecting data on volume of wood harvested since the late 1940's. The following three charts illustrate wood harvesting trends over the past 50 years.

The two graphs to the right show the harvest volumes for selected species for sawlogs and pulpwood. These volumes include exported volumes.



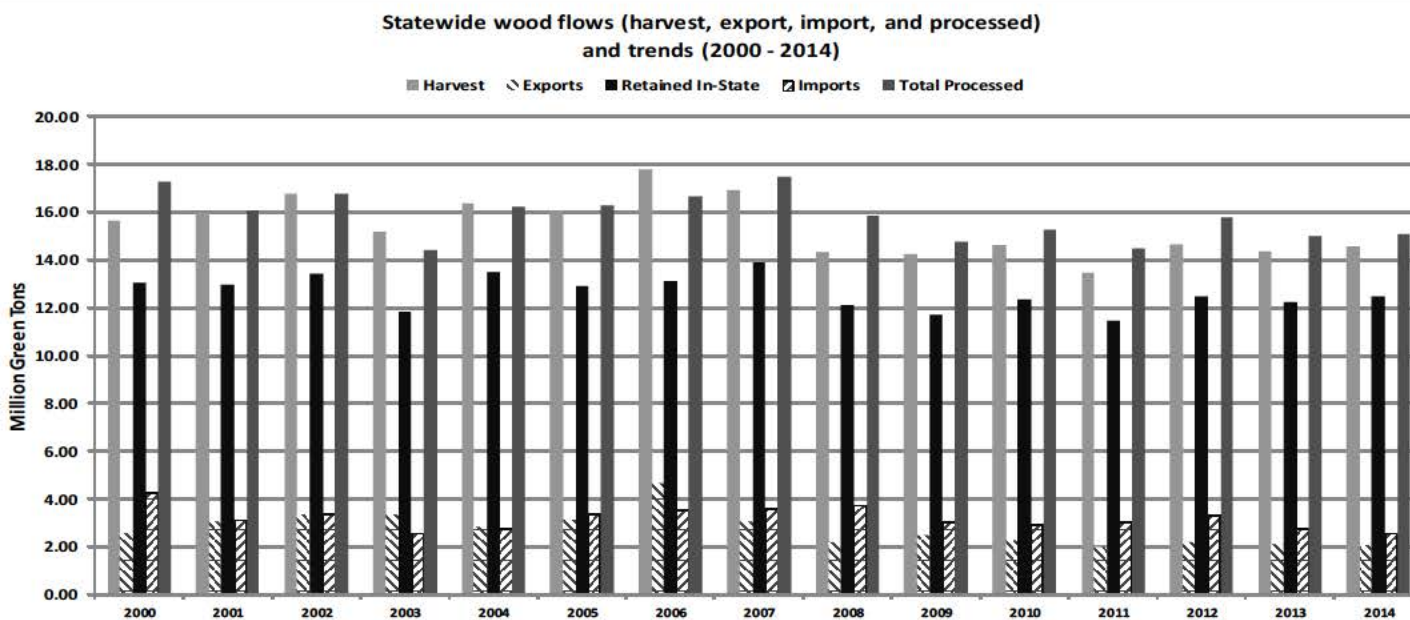
Wood Harvesting Trends (1960-2014)

The graph to the right shows the volumes for commercially important species.



Import and Export Trends (1990-2014)

The graph to the right shows the volumes of forest products being exported from Maine, imported into Maine, and processed within Maine.



Conversion Table
MBF/Weight Equivalents
for various Maine Commercial Tree Species

These conversions are used by the Maine Forest Service.

Users of this report may wish to confirm the conversion rate(s) used by individual mills and/or contractors who purchase wood.

<u>Species</u>	<u>MBF</u>	<u>Tons</u>
Spruce Fir	1	4.2
White Pine	1	4.3
Red Pine	1	4.3
Hemlock	1	4.8
Cedar	1	3.4
Tamarack (Larch)	1	4.8
Beech	1	4.5
White Birch	1	4.5
Yellow Birch	1	5.4
Sugar Maple	1	5.4
Red Maple	1	4.5
White Oak	1	5.4
Red Oak	1	5.4
Ash	1	4.5
Aspen/Poplar	1	4.3
Softwood	1	4.6
Hardwood	1	5.4
Mixed Wood	1	4.6

For purposes of comparing volumes, a rough conversion of 1 MBF = 2 cords is commonly used.

These conversions factors are handy for making estimates and for forest inventory purposes, but are advisory only. The weight of a particular volume of wood varies greatly by species, time of year and other factors.

It is illegal in Maine to convert from one system of measurement to another for the basis of payment (e.g. convert a mill payment for pulpwood in dollars per ton to a landowner payment in dollars per cord).



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