

2010 Wood Processor Report

Including Import and Export Information

Compiled from 2010 Wood Processor Reports
pursuant to 12 MRSA § 8884

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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 2010, 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 2010, the Maine Forest Service received wood processor reports from 130 primary processing mills (sawmills, pulp and paper mills), 49 portable sawmills, 82 firewood dealers, 37 loggers and brokers who may have exported wood, 26 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 MRSA §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 (cfs):

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 15.4 million green ton equivalents in 2010, up from 14.7 million green ton equivalents in 2009. Eighty percent of the supply (12.3 million green ton equivalents) was harvested in Maine, while 20% (3.1 million green ton equivalents) was imported.

 Maine landowners harvested 14.6 million green ton equivalents of wood in 2010, up slightly from 2009. Sixteen percent (2.3 million green ton equivalents) of the 2010 harvest was exported, down from 2009 (2.5 million green ton equivalents).

 Maine's pulp and paper producers processed 8.5 million green tons of pulpwood, up .5 million tons (6%) from 2009 consumption. Seventy-six percent of the pulpwood originated from Maine's forests; 24% was imported.

 Biomass harvesting volume was 3.5 million tons in 2010, relatively unchanged from 2009 (3.4 million tons). Biomass energy facilities consumed 3.8 million tons in 2010, down slightly from 2009. Eighty-four percent originated from Maine's forests; 16% was imported.

 Maine's sawlog processing in 2010 was .7 billion board feet, up slightly from 2009 (.6 billion board feet).

 During 2010, Maine's forest products industry imported 3.1 million green tons, while 2.3 million green tons were exported.

SAWLOGS

2010 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	651	8,080	494	5	0	9,230	62	118	274	294	136	705	176	14	4	1,783	11,013
AROOSTOOK	71,039	1,038	560	12,724	254	85,615	411	2,819	2,828	6,639	3,679	3	137	26,086	361	42,963	128,578
CUMBERLAND	149	12,697	4,041	0	5	16,892	59	47	95	28	140	674	33	10	6	1,092	17,984
FRANKLIN	6,005	6,097	443	61	42	12,648	321	1,738	1,052	2,263	625	842	458	122	508	7,929	20,577
HANCOCK	7,879	5,577	716	333	100	14,605	15	708	323	557	174	222	281	35	835	3,150	17,755
KENNEBEC	3,672	12,934	1,342	18	14	17,980	226	622	23	186	117	521	104	59	1	1,859	19,839
KNOX	220	4,025	620	0	0	4,865	0	35	2	7	11	162	19	3	0	239	5,104
LINCOLN	922	7,884	977	7	0	9,790	16	44	19	44	54	670	69	8	1	925	10,715
OXFORD	16,033	30,366	933	0	7	47,339	446	1,263	1,271	2,584	777	2,267	740	298	261	9,907	57,246
PENOBSCOT	33,947	10,153	16,183	2,018	82	62,383	90	3,199	3,001	6,054	854	655	729	446	626	15,654	78,037
PISCATAQUIS	37,394	5,714	1,464	977	57	45,606	712	2,831	2,945	6,933	1,891	1,030	1,275	1,009	462	19,088	64,694
SAGadahoc	1,160	3,247	270	0	0	4,677	0	20	5	18	21	503	38	53	0	658	5,335
SOMERSET	36,007	16,499	1,228	480	52	54,266	1,221	3,174	2,582	4,750	1,576	2,277	1,057	40	364	17,041	71,307
WALDO	1,140	5,524	342	145	0	7,151	10	303	42	82	49	381	87	55	1	1,010	8,161
WASHINGTON	20,517	2,104	285	471	82	23,459	15	120	293	404	156	53	178	288	678	2,185	25,644
YORK	22	20,008	631	0	6	20,667	2	117	34	11	96	866	28	2	1	1,157	21,824
Maine wood processed:	236,757	151,947	30,529	17,239	701	437,173	3,606	17,158	14,789	30,854	10,356	11,831	5,409	28,528	4,109	126,640	563,813
Exported from Maine without processing:	156,837	17,971	654	5,172	3	180,637	1,738	1,938	9,305	13,124	10,718	6,642	4,171	347	4,121	52,104	232,741
Total harvested from Maine forests:	393,594	169,918	31,183	22,411	704	617,810	5,344	19,096	24,094	43,978	21,074	18,473	9,580	28,875	8,230	178,744	796,554
Imported from out of state:	5,679	49,325	154	1,479	0	56,637	0	1,152	311	674	760	274	17	34,790	2,534	40,512	97,149
Total processed by Maine Forest Products Industry:	242,436	201,272	30,683	18,718	701	493,810	3,606	18,310	15,100	31,528	11,116	12,105	5,426	63,318	6,643	167,152	660,962

- 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

2010 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	SAWMILL RESIDUE <i>Green Tons</i>
ANDROSCOGGIN	370	24,697	10,476	0	5,178	40,721	3,776	24,310	28,086	0	68,807	18,426
AROOSTOOK	69,057	898	21,654	0	577	92,186	59,503	815,949	875,452	0	967,638	10,108
CUMBERLAND	1,876	43,038	21,548	0	7,262	73,724	2,041	34,119	36,160	0	109,884	28,098
FRANKLIN	65,445	12,789	21,846	0	3,036	103,116	35,322	285,355	320,677	0	423,793	41,540
HANCOCK	80,634	12,505	23,589	0	2,542	119,270	20,946	115,476	136,422	0	255,692	960
KENNEBEC	10,323	36,208	22,550	0	7,188	76,269	9,352	50,429	59,781	0	136,050	5,485
KNOX	10,209	7,967	3,422	0	1,216	22,814	3,254	20,992	24,246	0	47,060	0
LINCOLN	3,404	22,376	8,507	0	3,085	37,372	4,204	13,291	17,495	0	54,867	14,694
OXFORD	52,774	67,360	72,442	0	11,763	204,339	24,441	432,655	457,096	0	661,435	99,254
PENOBSCOT	167,970	21,311	222,406	0	3,266	414,953	60,333	751,635	811,968	0	1,226,921	44,293
PISCATAQUIS	144,143	18,513	50,821	0	1,540	215,017	58,945	520,485	579,430	0	794,447	91,342
SAGadahoc	319	6,241	4,410	0	1,557	12,527	2,148	4,733	6,881	0	19,408	0
SOMERSET	164,182	56,661	65,615	0	7,322	293,780	58,030	679,405	737,435	0	1,031,215	26,305
WALDO	27,226	14,961	10,753	0	2,123	55,063	13,043	79,021	92,064	0	147,127	25,556
WASHINGTON	130,427	6,113	68,615	0	1,424	206,579	16,899	125,376	142,275	0	348,854	22
YORK	58	56,249	26,759	0	2,813	85,879	2,455	34,445	36,900	0	122,779	16,642
Maine wood processed:	928,417	407,887	655,413	0	61,892	2,053,609	374,692	3,987,676	4,362,368	0	6,415,977	422,725
Exported from Maine without processing:	387,257	1,703	4,791	0	22,212	415,963	36,148	552,684	588,832	0	1,004,795	97,776
Total harvested from Maine forests:	1,315,674	409,590	660,204	0	84,104	2,469,572	410,840	4,540,360	4,951,200	0	7,420,772	520,501
Imported from out of state:	172,145	118,839	197,288	0	43,148	531,420	127,966	1,419,891	1,547,857	0	2,079,277	198,467
Total processed by Maine Forest Products Industry:	1,100,562	526,726	852,701	0	105,040	2,585,029	502,658	5,407,567	5,910,225	0	8,495,254	621,192

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.

2010 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	125,709	33,432	14,480	1,138
Aroostook	529,662	80,606	2	8,763
Cumberland	101,217	8,242	1,141	2,019
Franklin	313,492	26,036	0	17,244
Hancock	131,372	800	0	787
Kennebec	111,366	1,931	898	3,225
Knox	26,017	0	283	761
Lincoln	80,568	1,781	2,039	852
Oxford	256,673	22,276	0	3,464
Penobscot	353,838	113,400	1,089	5,353
Piscataquis	348,716	44,886	1,115	12,923
Sagadahoc	36,713	501	0	150
Somerset	326,225	96,192	155	15,246
Statewide*	8,984	0	0	4,950
Waldo	97,443	8,836	0	1,767
Washington	251,724	10,197	0	897
York	127,141	11,032	3,173	2,519
Maine wood processed:				82,058
Exported from Maine without processing:				1,475
Total harvested from Maine Forests:				83,533
Imported from out of state:				232
Total processed by Maine Forest Products Industry:				82,290

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

Wood Imports and Exports

<u>Import Origins</u>	<u>Export Destinations</u>
<u>States:</u>	<u>States:</u>
Connecticut	Connecticut
Maryland	Indiana
Massachusetts	Massachusetts
Michigan	Michigan
New Hampshire	New Hampshire
New York	New York
Rhode Island	South Carolina
Vermont	Vermont
<u>Provinces:</u>	<u>Provinces:</u>
New Brunswick	New Brunswick
Nova Scotia	Quebec
<u>Countries:</u>	<u>Countries:</u>
Ontario	China
Quebec	Thailand

* This is the third 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 third year we have received reports from Maine's pellet mills. We have included reported volumes for pellet production under this section also.

SUMMARY**2010 Wood flow in Maine as reported to the Maine Forest Service**

Product	Harvest, Export, Import, Instate Processing	Total Volume in 2010	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	563,813	2,475,727
	b. Exported from Maine without processing	232,741	1,021,000
	c. Total harvested from Maine forests (a+b=c)	796,554	3,496,727
	d. Imported from out of state	97,149	420,477
	f. Total processed by Maine Forest Products Industry (a+d=e)	660,962	2,896,204
Pulpwood (in green tons)	a. Maine wood processed	6,415,977	6,415,977
	b. Exported from Maine without processing	1,004,795	1,004,795
	c. Total harvested from Maine forests (a+b=c)	7,420,772	7,420,772
	d. Imported from out of state	2,079,277	2,079,277
	f. Total processed by Maine Forest Products Industry (a+d=e)	8,495,254	8,495,254
Biomass Chips (in green tons)	a. Maine wood processed	3,226,860	3,226,860
	b. Exported from Maine without processing	237,146	237,146
	c. Total harvested from Maine forests (a+b=c)	3,464,006	3,464,006
	d. Imported from out of state	592,793	592,793
	f. Total processed by Maine Forest Products Industry (a+d=e)	3,819,653	3,819,653
Firewood / Pellets (in cords) <u>Note on conversion:</u> 1 cord = 2.5 green tons	a. Maine wood processed	82,058	205,145
	b. Exported from Maine without processing	1,475	3,688
	c. Total harvested from Maine forests (a+b=c)	83,533	208,833
	d. Imported from out of state	232	580
	f. Total processed by Maine Forest Products Industry (a+d=e)	82,290	205,725
Totals (in green tons)	a. Maine wood processed		12,323,709
	b. Exported from Maine without processing		2,266,628
	c. Total harvested from Maine forests (a+b=c)		14,590,337
	d. Imported from out of state		3,093,127
	f. Total processed by Maine Forest Products Industry (a+d=e)		15,416,836

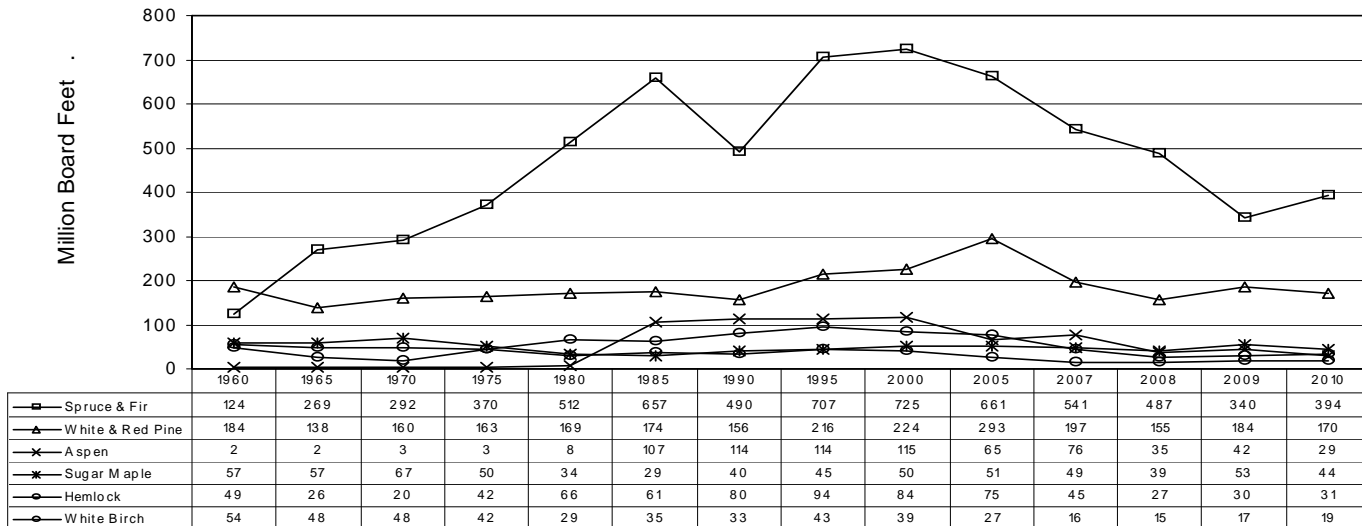
Wood Harvesting Trends (1960-2010)

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.

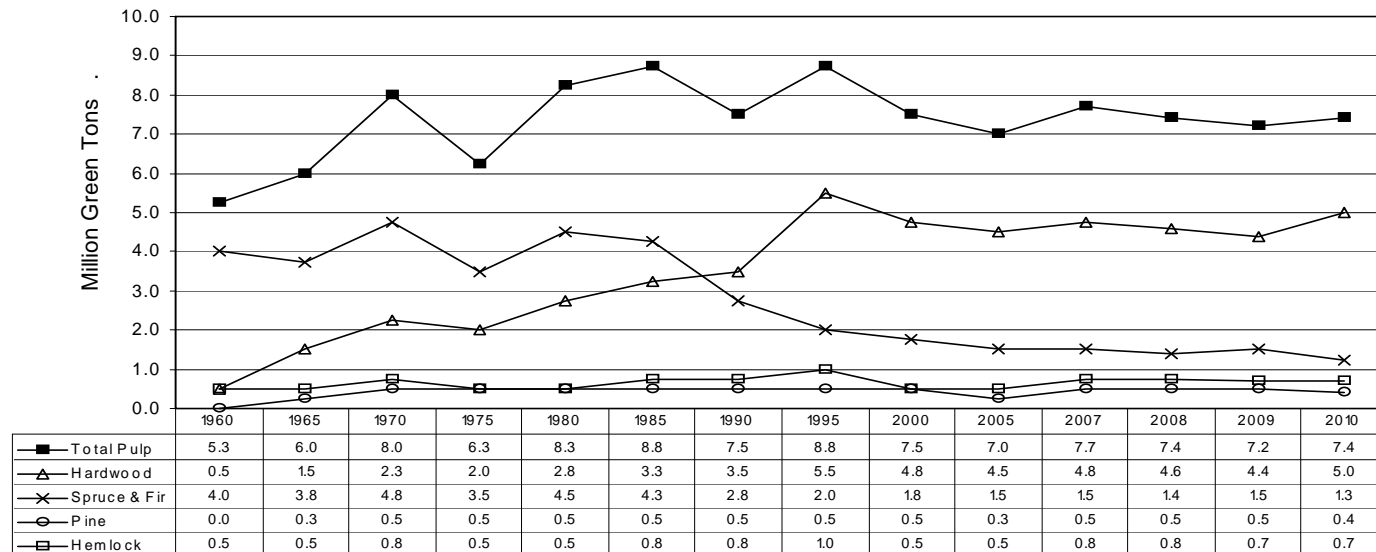
The two graphs to the right show the harvest volumes for selected species for sawlogs and pulpwood. These volumes include exported volumes.



Harvest Levels of Selected Species for Saw logs in Maine (1960 to 2010)



Harvest Levels of Selected Species for Pulpwood in Maine (1960 to 2010)



Wood Harvesting Trends (1960-2010)

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

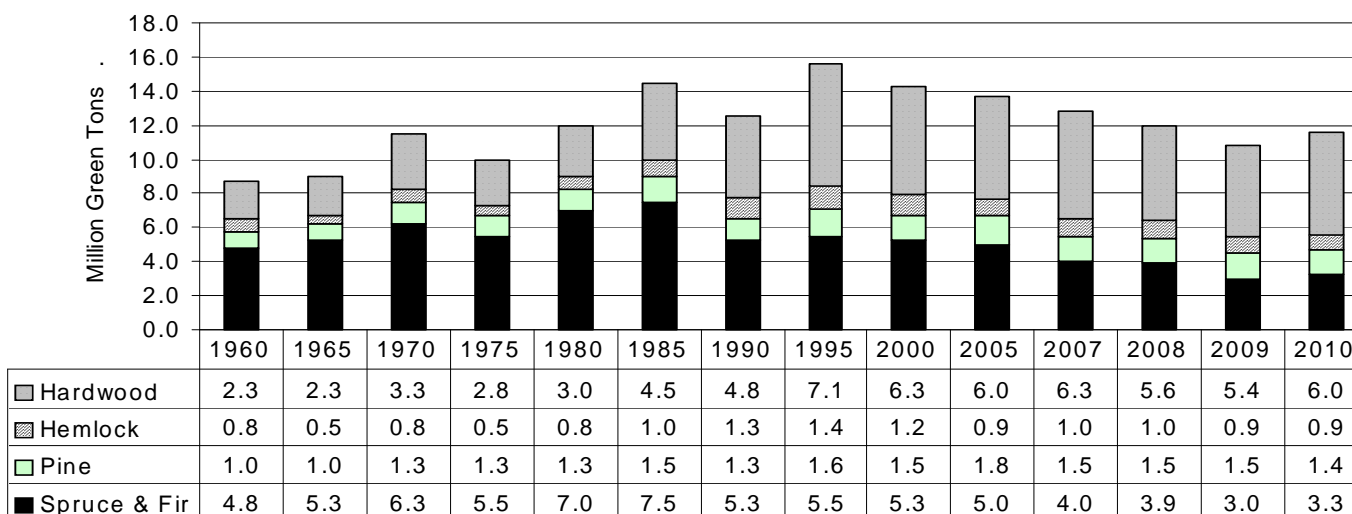


Import and Export Trends (1990-2010)

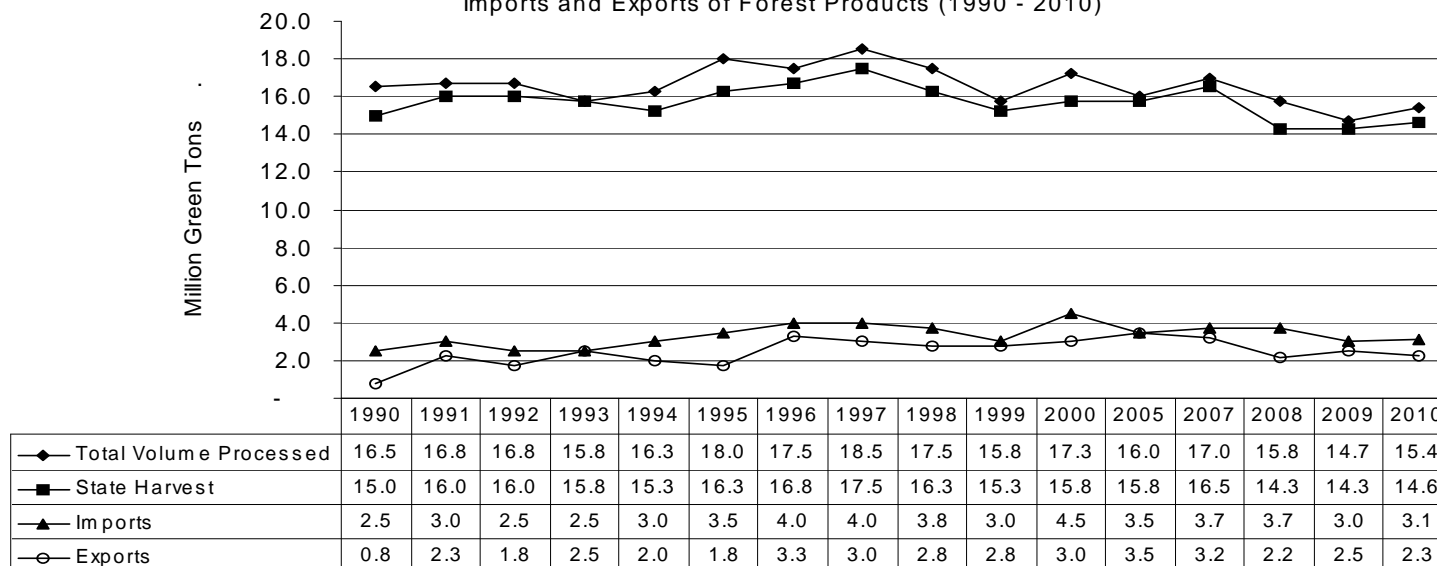
The graph to the right shows the volumes of forest products being exported from Maine, imported into Maine, and processed within Maine.



Harvest Commercially Important Species in Maine (1960 - 2010)



Imports and Exports of Forest Products (1990 - 2010)



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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Maine Forest Service District Foresters

The Maine Forest Service has 10 District Foresters who provide technical assistance and educational services to landowners, loggers, schools and educational institutions, municipalities and other stakeholders. District Foresters conduct educational workshops, field demonstrations, media presentations, and can provide limited one-on-one contact with individual landowners.

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