2002 Wood Processor Report

Including Import and Export Information

Compiled from 2002 Wood Processor Reports, pursuant to 12 MRSA c. 805, sub-c. 5

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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 2002, the volume of wood that was harvested in Maine, processed by Maine mills, and imported into or exported from Maine.

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

How was this information collected?

In 2002, the Maine Forest Service received wood processor reports from 201 primary processing mills (sawmills, pulp and paper mills), 112 portable sawmills, 51 loggers and brokers who may have exported wood, and from 14 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 chapter 805, subchapter 5, "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 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. Hog Fuel:

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

5. Pulpwood:

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

6. 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.

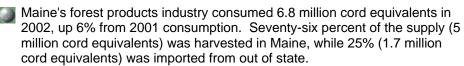
7. Sawmill residues:

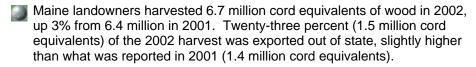
clean, pulp-quality chips made from debarked slabs and edgings at sawmills. Used by pulp and paper mills to produce wood pulp.

8. 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 pulp and paper producers processed 3.7 million cord equivalents of pulp wood, down 8% from 2001. Seventy-four percent of the pulp wood originated from Maine's forests; 25% was imported from out of state.

Pulp and paper producers also processed 1.4 million tons of sawmill residues.

Maine's pulpwood production has declined in recent years, from 3.5 million cords in 1995 to 3 million cords in 2002.

Maine's sawlog production has increased in recent years, from 707 million board feet in 1995 to 776 million board feet in 2002.

During 2002, Maine's forest products industry imported more roundwood (1.7 million cords) into the state than they exported (1.5 million cords).

SAWLOGS

2002 Wood flow in Maine as reported to the Maine Forest Service (Converted to MBF)

		White															
County	Spruce and Fir	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	43	9,437	809	1	0	10,290	174	445	177	376	353	359	58	16	6	1,964	12,254
AROOSTOOK	151,025	5,023	7,738	12,764	9,865	186,415	1,435	2,791	6,080	11,489	3,339	87	615	73,434	2	99,272	285,687
CUMBERLAND	366	29,624	4,765	0	0	34,755	171	2,401	126	129	195	2,155	66	10	71	5,324	40,079
FRANKLIN	8,785	10,689	460	112	0	20,046	1,381	5,273	2,330	3,299	2,060	1,409	786	55	71	16,664	36,710
HANCOCK	2,491	6,597	939	420	13	10,460	73	1,064	188	482	182	232	30	4,288	3	6,542	17,002
KENNEBEC	1,565	15,788	1,928	46	0	19,327	277	704	311	459	343	810	174	31	3	3,112	22,439
KNOX	142	2,560	402	3	16	3,123	61	77	32	49	76	103	15	31	0	444	3,567
LINCOLN	115	6,847	742	9	2	7,715	29	44	38	74	40	258	23	23	1	530	8,245
OXFORD	9,923	41,446	2,866	2	0	54,237	1,333	2,318	1,701	1,916	2,276	1,957	986	33	90	12,610	66,847
PENOBSCOT	47,315	20,426	21,007	6,072	207	95,027	1,656	3,073	1,516	2,817	2,114	617	668	40,137	36	52,634	147,661
PISCATAQUIS	69,036	8,975	867	504	0	79,382	195	2,634	2,848	6,440	3,552	141	906	7,311	40	24,067	103,449
SAGADAHOC	18	1,047	1,108	0	0	2,173	7	16	11	19	11	12	2	13	0	91	2,264
SOMERSET	27,053	12,219	1,350	990	14	41,626	2,623	2,825	2,312	4,239	3,200	882	853	1,008	49	17,991	59,617
WALDO	1,299	7,271	602	247	1	9,420	74	925	63	69	71	374	61	368	3	2,008	11,428
WASHINGTON	21,860	15,367	6,759	686	2,527	47,199	64	381	313	585	277	21	46	21,344	0	23,031	70,230
YORK	39	27,436	950	0	0	28,425	32	27	22	26	84	1,171	19	107	18	1,506	29,931
Maine wood processed:	341,075	220,752	53,292	21,856	12,645	* 656,210	9,585	24,998	18,068	32,468	18,173	10,588	5,308	148,209	393	267,790	924,000
Exported from Maine without processing:	434,467	39,561	3,857	17,287	811	495,983	4,370	3,934	17,924	32,074	7,095	3,999	1,567	1,167	6,659	78,789	574,772
Total harvested from Maine forests:	775,542	260,313	57,149	39,143	13,456	1,152,193	13,955	28,932	35,992	64,542	25,268	14,587	6,875	149,376	7,052	346,579	1,498,772
Imported from out of state:	20,670	173,441	13,019	4,661	4,012	215,803	1,469	6,347	3,328	4,214	1,953	453	89	77,179	3,308	98,340	314,143
Total processed by Maine Forest Products Industry:	361,745	394,193	66,311	26,517	13,456	872,013	11,054	31,345	21,396	36,682	20,126	11,041	5,397	225,388	3,701	366,130	1,238,143

Notes:

- 1. Sawlogs include logs, veneer, boltwood, studwood, palletwood, etc. Cords converted to MBF @ 2 cords = 1 MBF.
- 2. Other Softwood includes larch, pitch pine, and others.
- * Some volume reported could not be identified within a specific county and are reported in the totals only.

White

County	Spruce	and Red	** 1 1	G 1	Other	Total		Other	Total	Total
	and Fir	Pine	Hemlock	Cedar	1	Softwood	Aspen	Hardwood	Hardwood	Pulpwood
ANDROSCOGGIN	1,084	18,914	6,305	0	0	26,303	4,060	47,360	51,420	77,723
AROOSTOOK	81,114	3,403	11,876	0	3,653	100,045	3,762	223,444	227,206	327,251
CUMBERLAND	1,042	30,732	14,704	0	0	46,478	1,844	20,284	22,128	68,606
FRANKLIN	38,489	13,365	16,119	0	0	67,973	20,504	192,207	212,711	280,684
HANCOCK	42,899	4,966	7,913	0	11	55,789	7,781	54,410	62,191	117,980
KENNEBEC	5,387	17,548	7,586	0	0	30,521	6,506	19,089	25,595	56,116
KNOX	7,392	3,028	1,263	0	0	11,683	1,479	4,317	5,796	17,479
LINCOLN	5,617	7,864	1,720	0	0	15,201	2,364	5,549	7,913	23,114
OXFORD	42,525	38,610	27,107	0	0	108,242	16,184	157,673	173,857	282,099
PENOBSCOT	84,548	12,678	47,899	0	597	145,721	18,103	275,583	293,686	439,407
PISCATAQUIS	58,539	4,151	12,518	0	79	75,287	14,168	210,261	224,429	299,716
SAGADAHOC	534	3,608	689	0	0	4,831	710	1,059	1,769	6,600
SOMERSET	62,372	17,170	24,340	0	0	103,882	34,476	258,079	292,555	396,437
WALDO	21,050	6,989	5,882	0	37	33,958	7,161	16,157	23,318	57,276
WASHINGTON	51,094	10,945	19,268	0	122	81,429	3,954	136,514	140,469	221,898
YORK	214	29,953	6,166	0	0	36,333	959	11,728	12,687	49,020
Maine wood			*			*			*	T
processed:	503,899	223,923	213,261	0	4,499	945,970	144,015	1,633,713	1,780,333	2,726,303
Exported from										
Maine without	129,336	1,584	97	0	28	131,044	7,183	130,864	138,047	269,091
processing:										
Total harvested		227.505	212.250		1	1.055.011	151 100		4.040.200	2007.204
from Maine forests:	633,235	225,507	213,358	0	4,527	1,077,014	151,198	1,764,577	1,918,380	2,995,394
Imported from out of state:	192,322	110,916	55,757	0	57,313	416,308	104,477	400,948	505,426	921,733
Total processed by	50 5 00 1	224.02=	250.012			1.0.00.000	210.152	0.004.5	2225	2 540 02 5
Maine Forest Products Industry:	696,221	334,839	269,018	0	61,812	1,362,278	248,492	2,034,661	2,285,758	3,648,036

SAWMILL RESIDUE
Green Tons
34,400
151,926
32,564
63,773
7,428
13,865
0
14,203
102,552
245,259
96,594
2,132
65,245
32,016
2,929
28,970
893,856
0,5,050
85,184
03,101
979,040
525,131
1,418,987

Sawmill residues are clean, pulpquality wood chips made from slabs and edgings at sawmills. The volume is reported here as an additional input to the pulp and paper 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:

- Other Softwood is comprised of bole chips of which specific species information was not collected.
- 2. Aspen volumes are based upon pure loads.
- Other Hardwood is comprised of all hardwood species except aspen sold in pure loads.
- Some volume reported could not be identified within a specific county and are reported in the totals only.

2002 Wood Flow in Maine as reported to the Maine Forest Service (in Green Tons)

		Further utilization of wood already tallied.
County	BIOMASS CHIPS	HOG FUEL
ANDROSCOGGIN	50,027	10,151
AROOSTOOK	331,788	576,710
CUMBERLAND	79,503	20,994
FRANKLIN	144,349	54,542
HANCOCK	37,637	1,460
KENNEBEC	47,565	13,089
KNOX	8,645	923
LINCOLN	28,757	881
OXFORD	81,240	68,427
PENOBSCOT	179,340	456,212
PISCATAQUIS	173,726	91,852
SAGADAHOC	3,764	744
SOMERSET	103,923	98,719
WALDO	53,020	16,356
WASHINGTON	75,268	12,480
YORK	134,661	3,782
	*	*
Maine wood processed:	1,547,542	1,564,523
Exported from Maine without processing:	215,467	68,535
Total harvested from Maine Forests:	1,763,009	1,633,058
Imported from out of state:	304,726	754,471
Total processed by Maine Forest Products Industry:	1,852,268	2,318,994

^{*} Some volume reported could not be identified within a specific county and are reported in the totals only.

Wood Imports and Exports

Import Origins	Export Destinations			
States:	States:			
Connecticut	Connecticut			
Massachusetts	Illinois			
New Hampshire	Indiana			
New York	Michigan			
Pennsylvania	New Hampshire			
Rhode Island	New York			
Vermont	Vermont			
Provinces:	Provinces:			
New Brunswick	New Brunswick			
Nova Scotia	Nova Scotia			
Prince Edward Island	Quebec			
Quebec	Countries:			
	Italy			



SUMMARY 2002 Wood flow in Maine as reported to the Maine Forest Service

<u>Product</u>	Harvest, Export, Import, Instate Processing	Total Volume in 2002	Total Volume converted to cords
Sawlogs	a. Maine wood processed	924,000	1,848,000
(in MBF) 1 MBF = 1,000 board feet	b. Exported from Maine without processing	574,772	1,149,544
T MDT = 1,000 board leet	c. Total harvested from Maine forests (a+b=c)	1,498,772	2,997,544
	d. Imported from out of state	314,143	628,286
	f. Total processed by Maine Forest Products Industry (a+d=e)	1,238,143	2,476,286
Pulpwood	a. Maine wood processed	2,726,303	2,726,303
(in cords)	b. Exported from Maine without processing	269,091	269,091
	c. Total harvested from Maine forests (a+b=c)	2,995,394	2,995,394
	d. Imported from out of state	921,733	921,733
	f. Total processed by Maine Forest Products Industry (a+d=e)	3,648,036	3,648,036
Biomass Chips	a. Maine wood processed	1,547,542	619,017
(in green tons)	b. Exported from Maine without processing	215,467	86,187
	c. Total harvested from Maine forests (a+b=c)	1,763,009	705,204
	d. Imported from out of state	304,726	121,890
	f. Total processed by Maine Forest Products Industry (a+d=e)	1,852,268	740,907
Totals	a. Maine wood processed		5,193,320
(in cords)	b. Exported from Maine without processing		1,504,822
	c. Total harvested from Maine forests (a+b=c)		6,698,142
	d. Imported from out of state		1,671,910
	f. Total processed by Maine Forest Products Industry (a+d=e)		6,865,230

Note on conversions: For sawlogs: 1 MBF = 2 cords For Biomass Chips: 1 cord = 2.5 green tons

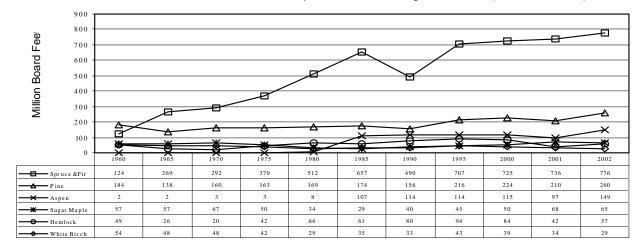
Wood Harvesting Trends (1960-2002)

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 41 years.

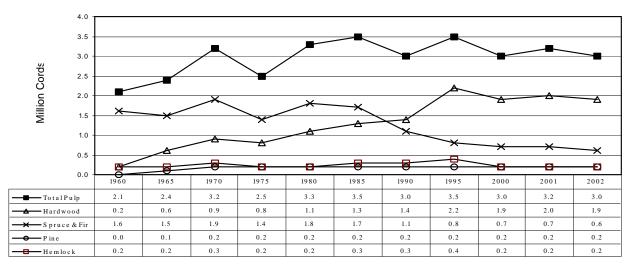
The two graphs to the right show the harvest volumes for selected species for sawlogs and pulpwood. These volumes include exported volumes.



Harvest Levels of Selected Species for Sawlogs in Maine (1960 to 2002)



Harvest Levels of Selected Species for Pulpwood in Maine (1960 -2002)



Wood Harvesting Trends (1960-2002)

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

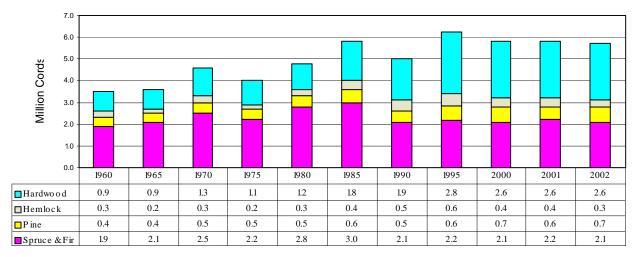


Import and Export Trends (1990-2002)

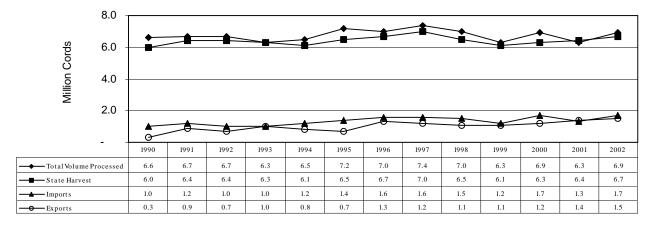
The graph to the right shows the volumes of forest products being exported from Maine, imported into Maine, and processed within Maine.



Harvest of Commercially Important Species in Maine (1960 - 2002)



Imports and Exports of Forest Products (1990-2002)



Conversion Table Cord/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>Cords</u>	<u>Tons</u>	<u>Pounds</u>
Spruce Fir	1	2.1	4,200
White Pine	1	2.15	4,300
Red Pine	1	2.15	4,300
Hemlock	1	2.4	4,800
Cedar	1	1.7	3,400
Tamarack (Larch)	1	2.4	4,800
Mixed or Other Softwoods	1	2.15	4,300
Beech	1	2.25	4,500
White Birch	1	2.25	4,500
Yellow Birch	1	2.7	5,400
Sugar Maple	1	2.7	5,400
Red Maple	1	2.25	4,500
White Oak	1	2.7	5,400
Red Oak	1	2.7	5,400
Ash	1	2.25	4,500
Aspen/Poplar	1	2.15	4,300
Mixed or Other Hardwood	1	2.7	5,400
Softwood	1	2.3	4,600
Hardwood	1	2.7	5,400
Mixed Wood	1	2.3	4,600

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



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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 stakeolders. District Foresters conduct educational workshops, field demonstrations, media presentations, and can provide limited one-on-one contact with individual landowners.

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