

Forestry STATISTICS AND TRENDS

The following sections “Profiles Across the Nation” and “Statistical Trends” depict Canada’s forest resources and industry from a statistical and numerical perspective.

The data are derived primarily from Statistics Canada, Environment Canada, the Forest Products Association of Canada, the Pulp and Paper Products Council, the Canadian Forest Service of Natural Resources Canada, the National Forestry Database and the Canadian Interagency Forest Fire Centre. Where necessary, the data have been edited for accuracy and consistency. All data are subject to revision.

In most cases, the data represent the year before the reporting period. However, when the data are gathered from several sources, it takes longer to analyse and produce them; in these cases, the numbers reflect results from two or three years before the reporting period.

While most of the figures are calculated for the calendar year, some are based on the federal government’s fiscal year (April 1 to March 31). Numbers are rounded off; in the case of employment data, they are rounded to the nearest hundred.

It may not be possible to accurately compare the data from the various sections with each other, as they emanate from several sources and these sources may gather and calculate their statistics differently.

PROFILES Across the Nation

Forest and Other Wooded Land

CANADA

Population (2005)
32.3 million

Land area
979.1 million ha

Forest and other wooded land
402.1 million ha

National parks (2004)
26.5 million ha

Park attendance (2004–2005)
12.3 million person-visits



	% Forest and Other Wooded Land	Total Land Area (Million ha)	Area Forest and Other Wooded Land (Million ha)
	0-<5	363.1	1.2
	5-<20	70.9	8.3
	20-<40	74.0	22.3
	40-<60	83.0	41.7
	60-<80	121.8	86.9
	80-100	266.3	241.7
	Total	979.1	402.1

RESOURCES	
Ownership (2005)	
Provincial	77%
Federal	16%
Private	7%
Forest type (2005)	
Softwood	66%
Hardwood	12%
Mixedwood	22%
Wood supply (2004) ^a	245.9 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	205.6 million m ³
Harvest (area)–Industrial roundwood (2004)	840 448 ha
Area planted (2004)	362 036 ha
Area seeded (2004)	20 434 ha
Area defoliated by insects and beetle-killed trees (2004) ^c	13.1 million ha
Number of fires (2005) ^d	7438
Area burned (2005) ^d	1.7 million ha

MAJOR VALUE-ADDED WOOD PRODUCTS	
Revenue from goods manufactured (2004) ^e	\$4.9 billion
Doors and windows	\$1.8 billion
Framing products	\$1.2 billion
Prefabricated buildings	\$717.1 million
Mobile homes	\$385.4 million
Other products	\$681.0 million

NON-TIMBER FOREST PRODUCTS		
Production	Value	Quantity
Maple products (2004)	\$152.9 million	26.9 million litres
Christmas trees (2004) [*]	\$62.2 million	3.9 million
Wildlife pelts (minus sealskins) ^{**} (2003)	\$25.6 million	902 000

INDUSTRY	
Value of exports (2005)	\$41.9 billion
Softwood lumber	23.7%
Newsprint	12.6%
Wood pulp	14.9%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	12.4%
Other paper and paperboard	17.2%
Converted paper	2.2%
Other products	16.9%
Major export markets (2005)	\$41.9 billion
United States	80.8%
European Union	5.5%
Japan	4.4%
China	2.4%
South and Central America	1.4%
Other countries	5.5%
Balance of trade (2005)	\$31.9 billion
Contribution to GDP (2005) ^{***}	\$37.6 billion
Revenue from goods manufactured (2004) ^e	\$81.8 billion
Exported	54.5%
Sold domestically	45.5%
Direct jobs (2005)	339 900
Indirect and induced jobs (2005)	524 100
Wages and salaries (2004) ^e	\$12.4 billion
Logging (2004)	\$2.1 billion
Wood product manufacturing (2004)	\$5.2 billion
Paper manufacturing (2004)	\$5.2 billion
New investments (2005)	\$3.4 billion
Forest area certified (2005) ^f	119.8 million ha

a, b, c, d, e, f see page 26.

^{*} Based on estimates.

^{**} Numbers for sealskins are estimates based on the last five years' data.

^{***} Current dollars.

British Columbia

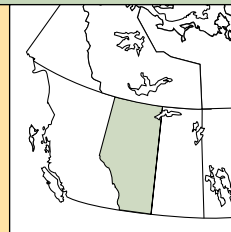


Population (2005)
4.3 million
Land area
94.55 million ha
Forest and other wooded land
64.25 million ha
Provincial parks
10.3 million ha



WESTERN
RED CEDAR

Alberta



Population (2005)
3.3 million
Land area
65.44 million ha
Forest and other wooded land
36.39 million ha
Provincial parks
212 434 ha



LODGEPOLE
PINE

RESOURCES

Ownership (2005)	
Provincial	96%
Federal	1%
Private	3%
Forest type (2005)	
Softwood	82%
Hardwood	5%
Mixedwood	13%
Wood supply (2004) ^a	82.6 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	87.0 million m ³
Harvest (area)–Industrial roundwood (2004)	174 101 ha
Area planted (2004)	155 806 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	10.3 million ha
Number of fires (2005) ^d	970
Area burned (2005) ^d	35 091 ha

INDUSTRY

Value of exports (2005)	\$13.7 billion
Softwood lumber	45.7%
Newsprint	4.5%
Wood pulp	18.8%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	8.8%
Other paper and paperboard	8.9%
Converted paper	0.2%
Other products	13.1%
Major export markets (2005)	\$13.7 billion
United States	68.2%
European Union	6.9%
Japan	11.4%
China	4.8%
South and Central America	1.2%
Other countries	7.5%
Balance of trade (2005)	\$12.4 billion
Revenue from goods manufactured (2004) ^e	\$24.2 billion
Logging (2004)	\$6.2 billion
Wood product manufacturing (2004)	\$12.2 billion
Paper manufacturing (2004)	\$5.8 billion
Direct jobs (2005)	79 700
Wages and salaries (2004) ^e	\$3.5 billion
Logging (2004)	\$885.1 million
Wood product manufacturing (2004)	\$1.7 billion
Paper manufacturing (2004)	\$907.6 million
New investments (2005)	\$0.9 billion
Forest area certified (2005) ^f	42.1 million ha

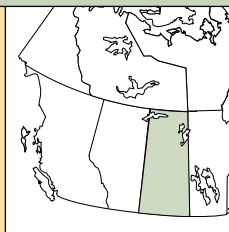
RESOURCES

Ownership (2005)	
Provincial	89%
Federal	8%
Private	3%
Forest type (2005)	
Softwood	50%
Hardwood	32%
Mixedwood	18%
Wood supply (2004) ^a	24.4 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	23.5 million m ³
Harvest (area)–Industrial roundwood (2004)	not available
Area planted (2004)	not available
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	636 939 ha
Number of fires (2005) ^d	1359
Area burned (2005) ^d	60 602 ha

INDUSTRY

Value of exports (2005)	\$3.0 billion
Softwood lumber	20.3%
Newsprint	4.1%
Wood pulp	39.7%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	28.6%
Other paper and paperboard	0.9%
Converted paper	0.7%
Other products	5.6%
Major export markets (2005)	\$3.0 billion
United States	77.2%
European Union	4.2%
Japan	6.6%
China	3.7%
South and Central America	0.0%
Other countries	8.3%
Balance of trade (2005)	\$2.7 billion
Revenue from goods manufactured (2004) ^e	\$6.1 billion
Logging (2004)	\$827.6 million
Wood product manufacturing (2004)	\$3.6 billion
Paper manufacturing (2004)	\$1.6 billion
Direct jobs (2005)	19 200
Wages and salaries (2004) ^e	\$885.1 million
Logging (2004)	\$160.5 million
Wood product manufacturing (2004)	\$518.4 million
Paper manufacturing (2004)	\$206.2 million
New investments (2005)	\$0.7 billion
Forest area certified (2005) ^f	17.4 million ha

Saskatchewan



Population (2005)
1.0 million

Land area
65.19 million ha

Forest and other wooded land
24.26 million ha

Provincial parks
1.2 million ha



WHITE BIRCH

RESOURCES

Ownership (2005)	
Provincial	90%
Federal	4%
Private	6%
Forest type (2005)	
Softwood	47%
Hardwood	16%
Mixedwood	37%
Wood supply (2004) ^a	8.2 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	6.1 million m ³
Harvest (area)–Industrial roundwood (2004)	30 612 ha
Area planted (2004)	15 257 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	282 376 ha
Number of fires (2005) ^d	322
Area burned (2005) ^d	213 523 ha

INDUSTRY

Value of exports (2005)	\$880.9 million
Softwood lumber	12.0%
Newsprint	0.0%
Wood pulp	28.8%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	37.3%
Other paper and paperboard	18.9%
Converted paper	1.8%
Other products	1.2%
Major export markets (2005)	\$880.9 million
United States	80.3%
European Union	9.0%
Japan	2.1%
China	4.6%
South and Central America	0.0%
Other countries	4.0%
Balance of trade (2005)	\$811.7 million
Revenue from goods manufactured (2004) ^e	\$1.6 billion
Logging (2004)	\$262.6 million
Wood product manufacturing (2004)	\$672.2 million
Paper manufacturing (2004)	\$622.5 million
Direct jobs (2005)	3400
Wages and salaries (2004) ^e	\$193.7 million
Logging (2004)	\$29.0 million
Wood product manufacturing (2004)	\$80.1 million
Paper manufacturing (2004)	\$84.6 million
New investments (2005)	not available
Forest area certified (2005) ^f	6.7 million ha

Manitoba



Population (2005)
1.2 million

Land area
63.62 million ha

Forest and other wooded land
36.35 million ha

Provincial parks
3.4 million ha



WHITE SPRUCE

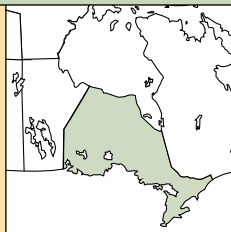
RESOURCES

Ownership (2005)	
Provincial	95%
Federal	2%
Private	3%
Forest type (2005)	
Softwood	74%
Hardwood	15%
Mixedwood	11%
Wood supply (2004) ^a	9.6 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	2.1 million m ³
Harvest (area)–Industrial roundwood (2004)	not available
Area planted (2004)	6865 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	101 931 ha
Number of fires (2005) ^d	246
Area burned (2005) ^d	72 680 ha

INDUSTRY

Value of exports (2005)	\$732.5 million
Softwood lumber	8.5%
Newsprint	15.7%
Wood pulp	0.1%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	24.4%
Other paper and paperboard	13.8%
Converted paper	4.2%
Other products	33.3%
Major export markets (2005)	\$732.5 million
United States	96.2%
European Union	1.1%
Japan	0.2%
China	0.1%
South and Central America	0.6%
Other countries	1.8%
Balance of trade (2005)	\$344.3 million
Revenue from goods manufactured (2004) ^e	\$1.4 billion
Logging (2004)	\$119.6 million
Wood product manufacturing (2004)	\$717.8 million
Paper manufacturing (2004)	\$511.8 million
Direct jobs (2005)	7200
Wages and salaries (2004) ^e	\$236.6 million
Logging (2003)	\$21.0 million
Wood product manufacturing (2004)	\$124.8 million
Paper manufacturing (2004)	\$90.8 million
New investments (2005)	not available
Forest area certified (2005) ^f	10.6 million ha

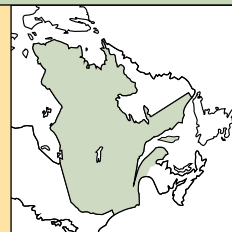
Ontario



Population (2005)
12.5 million
Land area
107.48 million ha
Forest and other wooded land
68.29 million ha
Provincial parks
7.8 million ha



Quebec



Population (2005)
7.6 million
Land area
151.89 million ha
Forest and other wooded land
84.58 million ha
Provincial parks
754 600 ha*



RESOURCES

Ownership (2005)	
Provincial	91%
Federal	1%
Private	8%
Forest type (2005)	
Softwood	58%
Hardwood	16%
Mixedwood	26%
Wood supply (2004) ^a	31.5 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	25.2 million m ³
Harvest (area)–Industrial roundwood (2004)	160 156 ha
Area planted (2004)	84 169 ha
Area seeded (2004)	20 180 ha
Area defoliated by insects and beetle-killed trees (2004) ^c	1.6 million ha
Number of fires (2005) ^d	1961
Area burned (2005) ^d	42 308 ha

INDUSTRY

Value of exports (2005)	\$8.4 billion
Softwood lumber	8.7%
Newsprint	13.4%
Wood pulp	10.1%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	15.4%
Other paper and paperboard	21.7%
Converted paper	6.3%
Other products	24.4%
Major export markets (2005)	\$8.4 billion
United States	96.4%
European Union	1.1%
Japan	0.1%
China	0.5%
South and Central America	0.4%
Other countries	1.5%
Balance of trade (2005)	\$2.9 billion
Revenue from goods manufactured (2004) ^e	\$18.6 billion
Logging (2004)	\$2.0 billion
Wood product manufacturing (2004)	\$6.1 billion
Paper manufacturing (2004)	\$10.5 billion
Direct jobs (2005)	84 500
Wages and salaries (2004) ^e	\$3.1 billion
Logging (2004)	\$324.7 million
Wood product manufacturing (2004)	\$1.0 billion
Paper manufacturing (2004)	\$1.8 billion
New investments (2005)	\$0.6 billion
Forest area certified (2005) ^f	21.9 million ha

RESOURCES

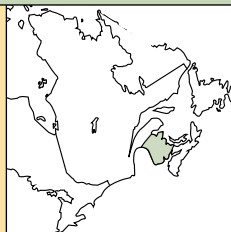
Ownership (2005)	
Provincial	89%
Private	11%
Forest type (2005)	
Softwood	73%
Hardwood	11%
Mixedwood	16%
Wood supply (2004) ^a	54.5 million m ³
Harvest (volume)–Industrial roundwood (2004) ^b	43.3 million m ³
Harvest (area)–Industrial roundwood (2004)	335 792 ha
Area planted (2004)	70 086 ha
Area seeded (2004)	254 ha
Area defoliated by insects and beetle-killed trees (2004) ^c	31 082 ha
Number of fires (2005) ^d	1374
Area burned (2005) ^d	831 022

INDUSTRY

Value of exports (2005)	\$11.6 billion
Softwood lumber	12.2%
Newsprint	20.3%
Wood pulp	7.6%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	9.9%
Other paper and paperboard	26.7%
Converted paper	2.3%
Other products	20.9%
Major export markets (2005)	\$11.6 billion
United States	86.4%
European Union	5.9%
Japan	0.3%
China	1.2%
South and Central America	1.4%
Other countries	4.8%
Balance of trade (2005)	\$9.6 billion
Revenue from goods manufactured (2004) ^e	\$22.6 billion
Logging (2004)	\$2.8 billion
Wood product manufacturing (2004)	\$9.2 billion
Paper manufacturing (2004)	\$10.6 billion
Direct jobs (2005)	113 000
Wages and salaries (2004) ^e	\$3.4 billion
Logging (2004)	\$423.4 million
Wood product manufacturing (2004)	\$1.4 billion
Paper manufacturing (2004)	\$1.6 billion
New investments (2005)	\$0.8 billion
Forest area certified (2005) ^f	11.7 million ha

*Wildlife reserves excluded.

New Brunswick



Population (2005)
752 000

Land area
7.31 million ha

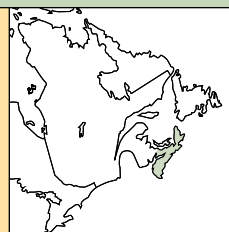
Forest and other wooded land
6.21 million ha

Provincial parks
22 084 ha



BALSAM FIR

Nova Scotia



Population (2005)
937 900

Land area
5.53 million ha

Forest and other wooded land
4.35 million ha

Provincial parks
31 000 ha



RED SPRUCE

RESOURCES

Ownership (2005)	
Provincial	48%
Federal	2%
Private	50%
Forest type (2005)	
Softwood	44%
Hardwood	25%
Mixedwood	31%
Wood supply (2004) ^a	11.4 million m ³
Harvest (volume)—Industrial roundwood (2004) ^b	11.4 million m ³
Harvest (area)—Industrial roundwood (2004)	111 348 ha
Area planted (2004)	22 968 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	0 ha
Number of fires (2005) ^d	305
Area burned (2005) ^d	355 ha

INDUSTRY

Value of exports (2005)	\$1.9 billion
Softwood lumber	25.1%
Newsprint	7.0%
Wood pulp	15.7%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	8.9%
Other paper and paperboard	23.8%
Converted paper	1.9%
Other products	17.6%
Major export markets (2005)	\$1.9 billion
United States	86.3%
European Union	4.3%
Japan	0.4%
China	0.5%
South and Central America	1.2%
Other countries	7.3%
Balance of trade (2005)	\$1.7 billion
Revenue from goods manufactured (2004) ^e	\$4.9 billion
Logging (2004)	\$786.1 million
Wood product manufacturing (2004)	\$1.6 billion
Paper manufacturing (2004)	\$2.5 billion
Direct jobs (2005)	17 700
Wages and salaries (2004) ^e	\$697.5 million
Logging (2004)	\$157.7 million
Wood product manufacturing (2004)	\$210.0 million
Paper manufacturing (2004)	\$329.8 million
New investments (2005)	not available
Forest area certified (2005) ^f	3.9 million ha

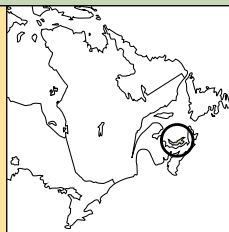
RESOURCES

Ownership (2005)	
Provincial	29%
Federal	3%
Private	68%
Forest type (2005)	
Softwood	58%
Hardwood	13%
Mixedwood	29%
Wood supply (2004) ^a	7.7 million m ³
Harvest (volume)—Industrial roundwood (2004) ^b	6.9 million m ³
Harvest (area)—Industrial roundwood (2003)	52 858 ha
Area planted (2004)	not available
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	not available
Number of fires (2005) ^d	304
Area burned (2005) ^d	517 ha

INDUSTRY

Value of exports (2005)	\$1.0 billion
Softwood lumber	20.3%
Newsprint	26.7%
Wood pulp	16.6%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	2.9%
Other paper and paperboard	28.3%
Converted paper	1.2%
Other products	4.0%
Major export markets (2005)	\$1.0 billion
United States	74.0%
European Union	10.7%
Japan	0.1%
China	0.2%
South and Central America	8.0%
Other countries	7.0%
Balance of trade (2005)	\$994.4 million
Revenue from goods manufactured (2004) ^e	\$1.7 billion
Logging (2004)	\$265.4 million
Wood product manufacturing (2004)	\$578.7 million
Paper manufacturing (2004)	\$886.7 million
Direct jobs (2005)	10 500
Wages and salaries (2004) ^e	\$1.0 billion
Logging (2004)	\$64.6 million
Wood product manufacturing (2004)	\$90.6 million
Paper manufacturing (2004)	\$886.7 million
New investments (2005)	not available
Forest area certified (2005) ^f	1.7 million ha

Prince Edward Island

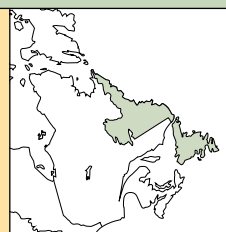


Population (2005)
138 100
Land area
0.58 million ha
Forest and other wooded land
0.27 million ha
Provincial parks
2 100 ha



RED OAK

Newfoundland and Labrador



Population (2005)
516 000
Land area
40.30 million ha
Forest and other wooded land
20.07 million ha
Provincial parks
20 551 ha



BLACK SPRUCE

RESOURCES

Ownership (2005)	
Provincial	8%
Federal	1%
Private	91%
Forest type (2005)	
Softwood	24%
Hardwood	29%
Mixedwood	47%
Wood supply (2004) ^a	0.5 million m ³
Harvest (volume)—Industrial roundwood (2004) ^b	0.7 million m ³
Harvest (area)—Industrial roundwood (2004)	5495 ha
Area planted (2004)	1040 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	320
Number of fires (2005) ^d	13
Area burned (2005) ^d	50 ha

INDUSTRY

Value of exports (2005)	\$21.9 million
Softwood lumber	71.1%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	0.6%
Other paper and paperboard	0.7%
Converted paper	22.5%
Other products	5.1%
Major export markets (2005)	\$21.9 million
United States	98.0%
European Union	1.0%
South and Central America	0.5%
Other countries	0.5%
Balance of trade (2005)	\$21.8 million
Revenue from goods manufactured (2004) ^e	\$128.6 million
Logging (2004)	\$42.9 million
Wood product manufacturing (2004)	\$53.3 million
Paper manufacturing (2004)	\$32.4 million
Direct jobs (2005)	700
Wages and salaries (2004) ^e	\$46.0 million
Logging (2004)	\$35.0 million
Wood product manufacturing (2004)	\$8.0 million
Paper manufacturing (2004)	\$3.0 million
New investments (2005)	not available
Forest area certified (2005) ^f	not applicable

RESOURCES

Ownership (2005)	
Provincial*	99%
Private	1%
Forest type (2005)	
Softwood	93%
Hardwood	1%
Mixedwood	6%
Wood supply (2004) ^a	2.5 million m ³
Harvest (volume)—Industrial roundwood (2004) ^b	2.3 million m ³
Harvest (area)—Industrial roundwood (2004)	22 845 ha
Area planted (2004)	5816 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	58 384 ha
Number of fires (2005) ^d	145
Area burned (2005) ^d	22 834 ha

INDUSTRY

Value of exports (2005)	\$537.8 million
Softwood lumber	2.2%
Newsprint	94.4%
Wood pulp	0.0%
Wood panels (waferboard, plywood, fibreboard, veneer, particleboard)	0.0%
Other paper and paperboard	3.4%
Converted paper	0.0%
Other products	0.0%
Major export markets (2005)	\$537.8 million
United States	29.5%
European Union	37.2%
South and Central America	18.5%
Other countries	14.8%
Balance of trade (2005)	\$526.3 million
Revenue from goods manufactured (2004) ^e	\$651.7 million
Logging (2004)	\$134.1 million
Wood product manufacturing (2004)	\$69.3 million
Paper manufacturing (2004)	\$448.3 million
Direct jobs (2005)	4300
Wages and salaries (2004) ^e	\$110.4 million
Logging (2004)	\$22.6 million
Wood product manufacturing (2004)	\$12.9 million
Paper manufacturing (2004)	\$74.9 million
New investments (2005)	not available
Forest area certified (2005) ^f	3.8 million ha

*Timber and property rights for 69% of the Crown land on the island of Newfoundland have been conveyed to pulp and paper companies through 99-year licences issued under the 1905 *Pulp and Paper Manufacturing Act* and 1935 *Bowater Act*. Therefore, the province's financial and legal system treats this licensed land as private property.

Yukon Territory

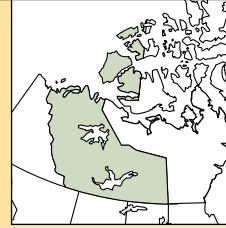


Population (2005)
31 000
Land area
48.49 million ha
Forest and other wooded land
22.79 million ha
Territorial parks
not available



SUBALPINE FIR

Northwest Territories



Population (2005)
43 000
Land area
128.12 million ha
Forest and other wooded land
33.35 million ha
Territorial parks
13 363 ha



JACK PINE

RESOURCES

Ownership (2005)	
Federal	100%
Forest type (2005)	
Softwood	79%
Hardwood	2%
Mixedwood	19%
Wood supply (2004) ^a	239 thousand m ³
Harvest (volume)—Industrial roundwood (2004) ^b	26 thousand m ³
Harvest (area)—Industrial roundwood (2004)	48 ha
Area planted (2004)	not available
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	99 630 ha
Number of fires (2005) ^d	83
Area burned (2005) ^d	170 691 ha

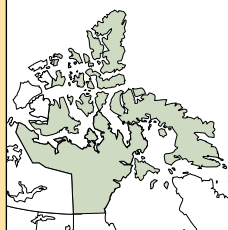
INDUSTRY

Value of exports (2005)	\$904 952
Softwood lumber	0%
Other products	100%
Major export markets (2005)	\$904 952
United States	100%
Balance of trade (2005)	\$888 388

RESOURCES

Ownership (2005)	
Federal	100%
Forest type (2005)	
Softwood	53%
Mixedwood	47%
Harvest (volume)—Industrial roundwood (2004) ^b	26 thousand m ³
Harvest (area)—Industrial roundwood (2004)	51 ha
Area planted (2004)	29 ha
Area seeded (2004)	not available
Area defoliated by insects and beetle-killed trees (2004) ^c	not available
Number of fires (2005) ^d	261
Area burned (2005) ^d	224 631 ha

Nunavut



Population (2005)
30 000
Land area
200.60 million ha
Forest and other wooded land
0.94 million ha
Territorial parks
not available

RESOURCES

Ownership (2005)	
Federal	100%
Forest type (2005)	
Softwood	52%
Mixedwood	48%

EXPLANATORY NOTES

FOREST AND OTHER WOODED LAND

“Other wooded land” refers to treed wetlands and land with slow-growing and scattered trees. The data regarding Canada’s forest and other wooded land are based on Canada’s Forest Inventory 2001 (CanFI 2001), which uses different categories than CanFI 1991. Comparisons between CanFI 1991 and CanFI 2001 cannot be made in a meaningful way due to a number of differences in methods and definitions in the source inventories.

LAND AREA

According to CanFI 2001, Canada’s total area of 979.1 million hectares includes geographical features such as lakes, rivers, streams and watersheds. Although water is included, digitized information on lakes, rivers, streams and watersheds (except for the Great Lakes, some other large lakes and the St. Lawrence River) are not available in the database.

FOREST RESOURCE

Ownership data are provided for the total forest, other wooded land and water where information is available.

Although the federal government maintains ownership in the Yukon and Northwest Territories, the territorial governments have responsibility for managing their forests and selected other natural resources.

^aANNUAL ALLOWABLE CUT (AAC)

Information on the allowable annual cut (AAC) has been reported in *The State of Canada’s Forests* since the fourth report to Parliament. Beginning with 2004 data, this is now referred to as wood supply. A series of profiles giving the current status of the wood supply in each jurisdiction is presented in the report. In addition to the AAC—which properly pertains only to the regulated harvest from provincial Crown land—the profiles include information on wood supply from private and federal lands.

The national wood supply figure was arrived at by estimating available data for private and federal lands. Ontario, Saskatchewan, Alberta, Yukon, Northwest Territories and Nunavut do not report wood supply from private lands. In British Columbia, Schedule A lands are those private industrial lands that are included in Tree Farm Licences (TFLs) for which AACs are set by the Chief Forester, and harvest levels are subject to the same control as Crown lands.

^bHARVESTING

The national and provincial figures for harvesting volume include data for industrial roundwood only. The harvest level for fuelwood and firewood, which may be as high as 2.2 million cubic metres for a single province, is not included in these harvest figures. Although the AAC for British Columbia does not include all private lands, these lands are included in the harvest figure. The yearly harvest rate for British Columbia may fluctuate and, in some cases, may exceed the AAC. Over a

five-year period, however, the harvest figure would be equal to or lower than the AAC.

^cINSECT DEFOLIATION AND BEETLE-KILLED TREES

The data relating to insects were provided by provincial and territorial agencies, and they include areas in which there is tree mortality and moderate to severe defoliation. Defoliation does not always imply mortality; for example, stands with moderate defoliation often recover and may not lose much growth. Also, defoliation is mapped on an insect-species basis, and a given area may be afflicted by more than one species at a time. This may result in double or triple counting in areas affected by more than one species, exaggerating the extent of the total area defoliated.

^dAREA BURNED

All figures are from the Canadian Interagency Forest Fire Centre. Area burned includes areas within national parks.

^eREVENUE FROM GOODS MANUFACTURED

Beginning in 2004, the Annual Survey of Manufactures and Logging (ASML) replaced the Annual Survey of Manufactures and the Annual Survey of Forestry. Two changes have the greatest impact on the comparability of the principal statistics series: (1) some redefinition of the survey content and (2) a change in the coverage threshold for published statistics.

- (1) Financial variables in the Annual Survey of Manufactures and Logging (ASML) survey are defined to adhere to the Statistics Canada Chart of Accounts (COA) classification. The COA is a standard classification based on generally accepted accounting principles. It was developed for reporting information on financial position and performance. As a result, some variables in the ASML are defined differently from those collected in past surveys for manufacturing and new variables have been added.
- (2) Traditionally, published statistics for manufacturing covered the activities of businesses above certain dollar thresholds for sales of goods manufactured. For reference year 2004, these thresholds have been changed so that the new published (ASML) data series is not strictly comparable with the previously published data series for manufacturing. The previous table for manufacturing principal statistics covered the activities of businesses with annual sales greater than or equal to \$30,000. The new table publishes principal statistics for businesses above certain revenue thresholds that vary by province and by industry. Below these thresholds are the smallest manufacturing businesses which are excluded from the ASML survey in order to reduce response burden.

^fCERTIFICATION

If a forest area has been certified to more than one of the three sustainable forest management (SFM) standards (CSA, FSC and SFI), the area is counted only once; hence, the total certifications for SFM standards may be less than the sum of the individual totals for these standards. Source: Canadian Sustainable Forestry Certification Coalition, www.certificationcanada.org.

Statistical TRENDS

FOREST SECTOR PERFORMANCE

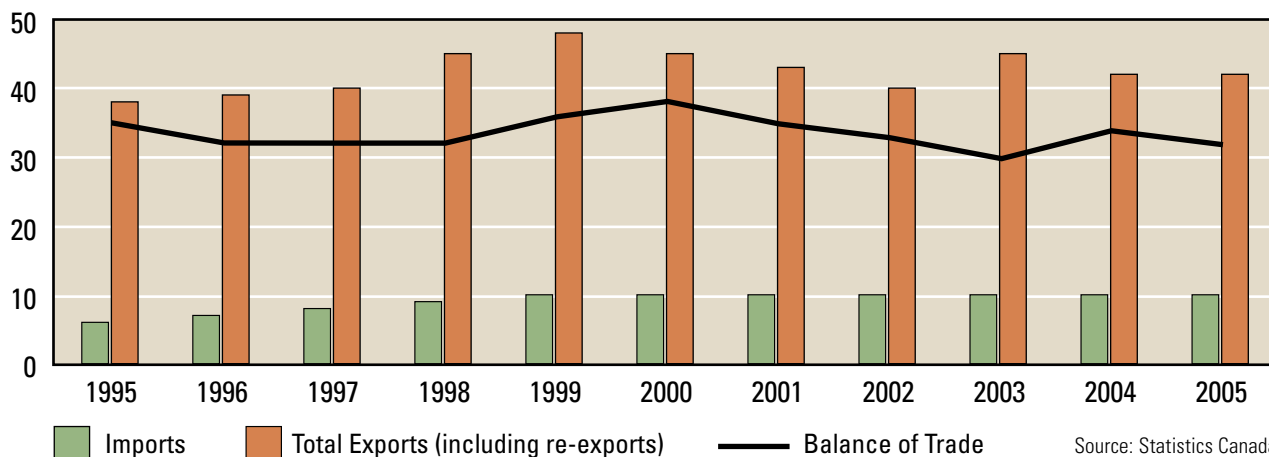
The forest industry provides many benefits to stakeholders such as workers, communities and businesses, and to Canadians as a whole. This sub-section looks at the economic benefits generated by the industry and various measures of economic performance. An important factor in this sub-section and the following “Forest Products” and “Non-Timber Forest Products” sub-sections is the exchange rate between the Canadian and U.S. dollars from one year to the next. In 2005, the Canadian dollar averaged 83 cents U.S., 7.3% higher than in 2004. This affects the volume and dollar value of goods sold internationally. When the Canadian dollar is relatively strong, the costs of Canadian producers relative to their U.S. competitors go up, resulting in fewer exports and more imports. In addition, the value of Canada’s forest product exports tends to fall when the Canadian dollar strengthens because most of our exports are priced in U.S. dollars, given that the United States is our main customer. Holding prices and volumes constant, a stronger dollar erodes the value of exports when translated back into Canadian dollars.

BALANCE OF TRADE

Canada’s trade balance (exports minus imports) in 2005 was \$55.1 billion. Forest product exports make a large contribution to Canada’s trade surplus (\$31.9 billion in 2005); however, in recent years that contribution has declined. Since 2000, Canada’s balance of trade in forest products has been on a steady decline, with the exception of 2004, when high wood prices pushed the value of Canadian exports higher. In 2005, the forest products trade balance resumed its decline, falling by 7.5% from 2004 levels to \$31.9 billion, close to the value seen in 2003 when the forest products balance hit its lowest level in the past 10 years. The year-over-year reduction was due primarily to a stronger Canadian dollar, lower prices for lumber and wood panels, and a decline in shipment volumes for pulp and paper producers.

EXPORTS	BILLION DOLLARS	ANNUAL CHANGE (%)	
	2005	1 year	10 years
Trade balance	55.1	-1.1	4.2
Forest products contribution	31.9	-7.5	-0.9

Balance of Trade of Forest Products in Canada 1995–2005 (Billion dollars)

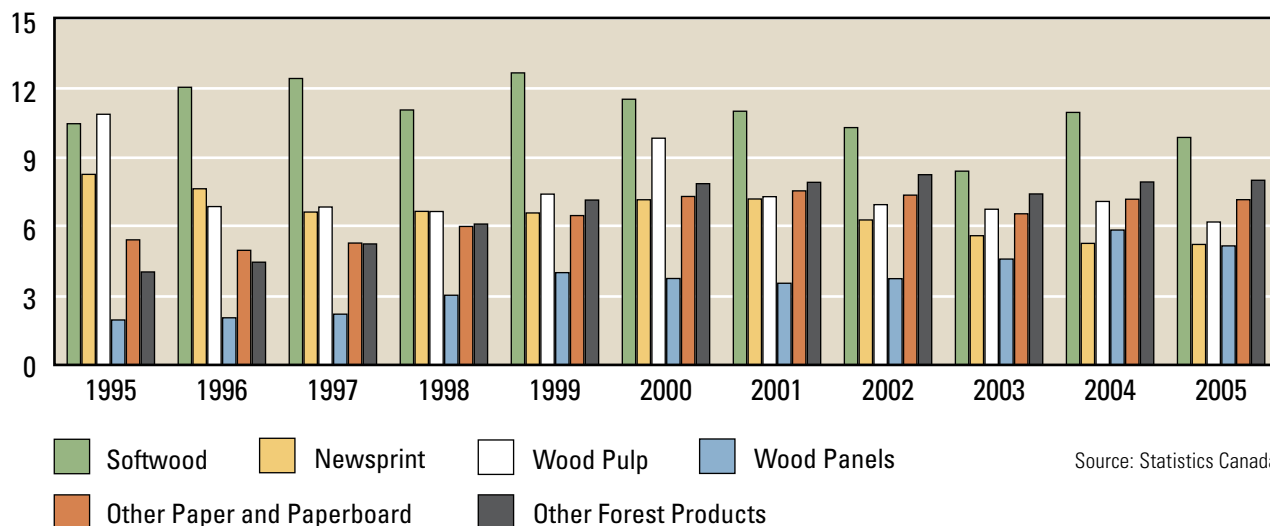


EXPORTS OF FOREST PRODUCTS

Following significant growth in 2004, the export of forest products dropped in 2005 by 6% to \$41.9 billion, remaining slightly higher than 1995 levels. The continued appreciation of the Canadian dollar compared to the U.S. dollar was the primary reason for the decrease. The major value reductions were in wood pulp and panels, and lumber. The decline in wood pulp exports was due in large part to the weakening of pulp markets in Asia and Europe, which pushed 2005 prices down. The decline in the value of lumber and wood panel exports was due primarily to a fall in prices for these products from the near-record highs of 2004, despite the booming North American housing market. In terms of volume, lumber and wood panel exports actually increased by 3.0% and 6.3%, respectively, over the past year. Conversely, strengthened prices for newsprint and many other grades of paper and paperboard moderated currency effects so that the export value of these products remained unchanged.

PRODUCT	BILLION DOLLARS	ANNUAL CHANGE (%)	
	2005	1 year	10 years
Softwood lumber	9.9	-9.9	-0.6
Newsprint	6.2	-0.9	-4.5
Wood pulp	5.3	-12.5	-5.5
Wood panels	5.2	-11.5	10.2
Other paper and paperboard	7.2	-0.3	2.8
Other forest products	8.1	0.6	7.0
Total	41.9	-6.0	0.1

Exports of Forest Products in Canada 1995–2005 (Billion dollars)

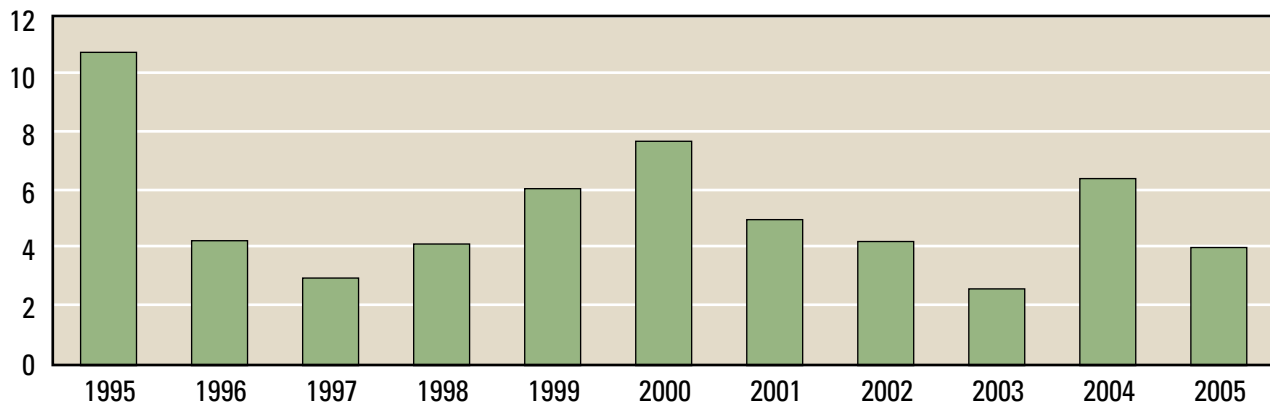


OPERATING PROFITS

As seen over the past 10 years, operating profits in wood and paper manufacturing follow a strong cyclical trend with significant fluctuations over time. Most recently, operating profits decreased by 36.9% in 2005 to \$4.1 billion, following significant growth in 2004. The drop in 2005 was due primarily to the strong Canadian dollar compared with the U.S. dollar, lower exports and higher overall costs, particularly for energy, fibre (in some regions), chemicals and transportation. The highly energy-intensive pulp and paper industry, where energy costs represent 25-35% of the manufacturing costs, was harder hit by the recent run-up in energy prices than the wood products industry. While the wood products industry continued to benefit from high demand from the North American housing market, decreases in wood prices led to lower operating revenue. The softwood lumber dispute also continued to drain the industry's finances.

OPERATING PROFITS	BILLION DOLLARS	ANNUAL CHANGE (%)	
	2005	1 year	10 years
Wood and paper manufacturing	4.1	-36.9	-62.3

Operating Profits in Wood and Paper Manufacturing 1995–2005 (Billion dollars)



Source: Statistics Canada

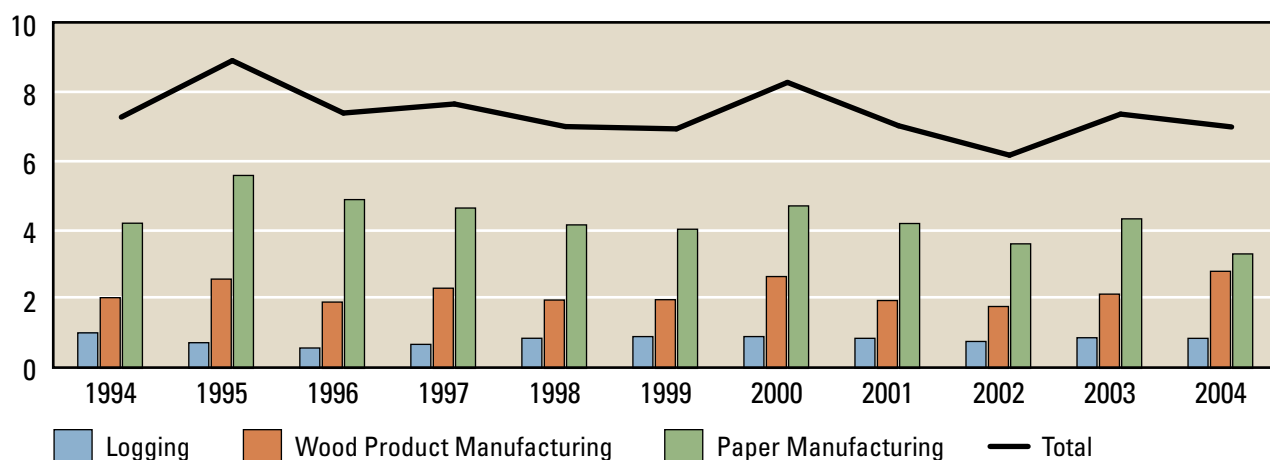
CAPITAL AND REPAIR EXPENDITURES

In 2004, the industry spent \$7.0 billion in capital investments and repairs, down by 5.1% (\$373 million) from the previous year and representing a 0.4% decline over the last 10 years. While repair expenditures rose for the third consecutive year, new investments dropped by 15%, which accounted for the overall decline in expenditures. Because the pulp and paper industry is more capital intensive than the wood or logging industries, it accounted for almost half of the forest sector's total capital and repair expenditures. However, it also experienced the most significant reduction in these

CAPITAL AND REPAIR EXPENDITURES	BILLION DOLLARS	ANNUAL CHANGE (%)	
	2004	1 year	10 years
Wood product manufacturing	2.8	30.7	3.2
Paper manufacturing	3.3	-23.5	-2.3
Logging	0.9	-2.0	-1.7
Total	7.0	-5.1	-0.4

expenditures in 2004, falling by 23.5%, while the wood industry's expenditures rose by 30.7% to reach a peak of \$2.8 billion. The wood industry benefited from near-record lumber and panel prices in 2004, as the North American housing market boom pushed up demand and prices for wood products.

Capital and Repair Expenditures by Forest Industries 1994–2004 (Billion dollars)



Source: Statistics Canada

EMPLOYMENT IN THE FOREST INDUSTRY

In 2005, 339 900 people were employed in the forest industry, according to Statistics Canada's Labour Force Survey. This represents a decrease of 22 200, or 6.1%, from the previous year. Since 1999, employment levels in the forest industry have followed a cyclical pattern with peaks in 2000 and 2003 and troughs in 1999 and 2001. However, the recent drop in employment since the 2003 peak has been particularly sharp. Much of the decline was due to the large number of mill closures, particularly in the pulp and paper industry, since 2003.

Indirect and Induced Employment

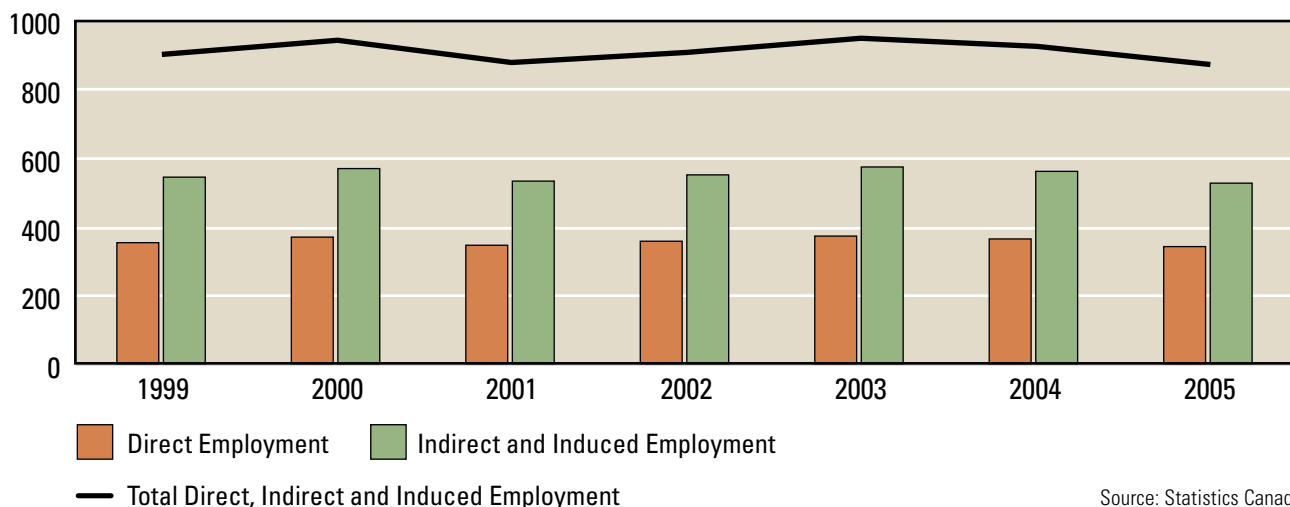
The forest industry also generates important economic benefits through indirect and induced employment. Indirect jobs are those that are created by forest activity, but are outside the industry. For example, when the industry buys materials such as chemicals, packing materials and energy, invests in machinery and equipment, builds mills and roads, and transports goods to domestic and international markets, it creates employment in those sectors. Induced jobs are the employment generated when workers in the forest industry or those employed in forest-related activities purchase consumer goods.

EMPLOYMENT	1999	2005
Direct employment	351 300	339 900
Indirect and induced employment	541 500	524 100
Total direct, indirect and induced employment	892 800	864 000

In 1999, according to Statistics Canada's input-output model, the forest industry was responsible for 261 500 indirect jobs and 280 000 induced jobs, for a total of 541 500. These are in addition to the 351 300 direct jobs that year.

Between 1999 and 2005, direct employment in the forest industry dropped by 3.2% to 339 900. Assuming a proportional decrease in indirect and induced employment, it is estimated that the forest industry generated a total of 524 100 indirect and induced jobs in 2005. Thus, the total estimated number of jobs created in and by the forest industry in 2005 was 864 000, down from an estimated 920 400 in 2004.

Direct, Indirect and Induced Employment 1999–2005 (Thousands)



Source: Statistics Canada

FOREST PRODUCTS

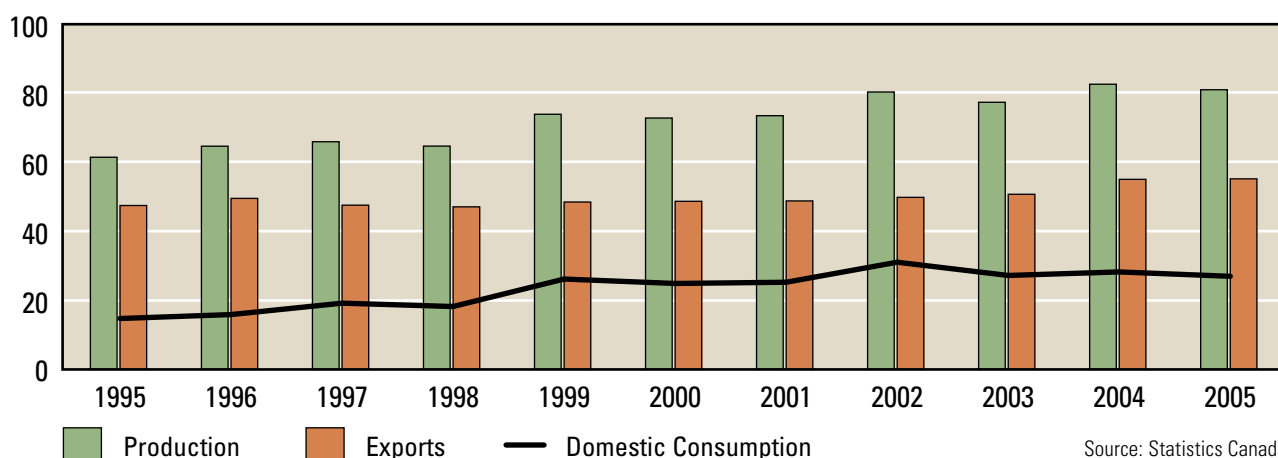
The main products of Canada's forest industry can be divided into two key groups—wood products, and pulp and paper products. The key wood products are softwood lumber, structural panels and engineered wood products. Value-added wood products such as millwork (for example, doors and windows) also make up a significant portion of Canada's wood manufacturing industries (approximately 20% of total shipments). The chief pulp and paper products are newsprint, printing and writing papers, and market pulp. Pulp and paper products also include other papers (for instance, tissue) and packaging, although these represent a relatively small portion of Canada's pulp and paper production.

SOFTWOOD LUMBER

Canada is the world's second largest producer of softwood lumber and the largest exporter. Almost all of Canada's softwood lumber is sold either to the United States (more than 60%) or within Canada (about 33%). The volume of Canada's total softwood exports increased by 0.3% in 2005, with shipments to the United States rising by 2.8% while exports to Japan and other countries dropped by 19.5% and 15.0% respectively. The increase in exports to the United States was fuelled by strong demand for lumber from the U.S. housing market, supported by low interest rates, a solid U.S. economy and reduced U.S. softwood lumber tariff rates compared with 2004 rates. Production, on the other hand, decreased (1.9%) as producers in many regions felt the impact of the strong Canadian dollar, which increased their costs relative to their U.S. competitors. However, production levels varied significantly across the country. In British Columbia, production increased as producers worked to salvage timber from areas affected by the mountain pine beetle epidemic. In contrast, Quebec's production declined in response to curtailments in timber supply, which increased wood fibre costs. Production also decreased in the Prairie and Atlantic regions while increasing slightly in Ontario.

SOFTWOOD LUMBER	MILLION CUBIC METRES		ANNUAL CHANGE (%)	
	2005	1 year	10 years	
Production	81.2	-1.9	2.8	
Exports	55.3	0.3	1.5	
Domestic consumption	27.0	-4.5	6.2	

Softwood Lumber Production, Exports and Domestic Consumption 1995–2005 (Million cubic metres)



STRUCTURAL PANELS

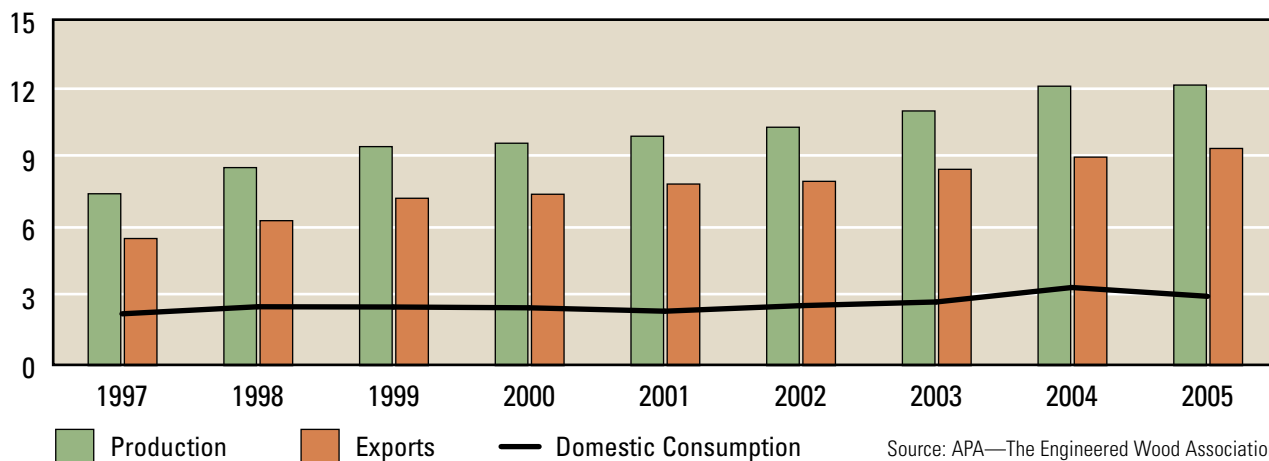
Structural panel products include both plywood and oriented strandboard (OSB). While both are important products in Canada, OSB has been gaining market share at the expense of plywood over the long term. In 2005, OSB constituted 81% of total structural panel production, compared with 75% in 1997. The main market for structural panel products is residential construction (54%), followed by repair and remodelling (21%) and industrial demand (20%).

Within the residential construction market, single-family homes accounted for more than 85% of the demand. About three quarters of Canada's structural panel products are exported, with virtually all

of these exports (99%) going to the United States. In 2005, following a record year of activity, structural panel production slowed by 0.4%, while exports grew by 4.2% in contrast with domestic consumption, which fell by 11.3%. The growth in exports was a result of strong demand in the U.S. housing market, buoyed by low interest rates. The decline in domestic consumption was due in part to lower Canadian housing starts, which fell by 2.0%.

STRUCTURAL PANELS	MILLION CUBIC METRES	ANNUAL CHANGE (%)	
	2005	1 year	8 years
Production	12.2	0.4	6.3
Exports	9.5	4.2	6.9
Domestic consumption	3.0	-11.3	3.7

Structural Panel Production, Exports and Domestic Consumption 1997–2005 (Million cubic metres)

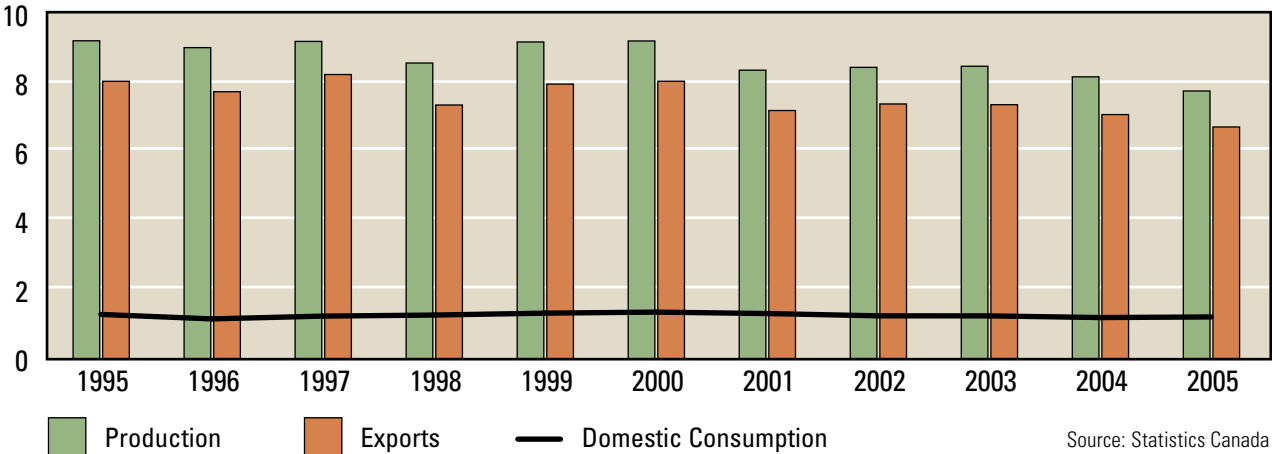


NEWSPRINT

Canada is the world's leading producer and exporter of newsprint, with 75% of its newsprint exports going to the United States. However, while Canada has traditionally held a dominant position in the newsprint industry, production and consumption in North America have been slowly declining over the past 10 years. This decline is due to several factors including the maturation of the newsprint market, affording limited opportunities for growth; the shift in advertising from newspapers to online media sources; and the trend for newspaper publishers to trim their newsprint usage. In 2005, production dropped by 5.0% and exports fell by 5.1%, although domestic consumption increased by 1.6%. While the long-term factors are in continual play, the more recent phenomena of the strong Canadian dollar, rising wood fibre costs in certain regions and rapidly increasing energy prices have put additional pressure on producers, causing them to close mills and curtail production.

NEWSPRINT	MILLION TONNES	ANNUAL CHANGE (%)	
	2005	1 year	10 years
Production	7.8	-5.0	-1.7
Exports	6.7	-5.1	-1.8
Domestic consumption	1.1	1.6	-0.6

Newsprint Production, Exports and Domestic Consumption 1995–2005 (Million tonnes)

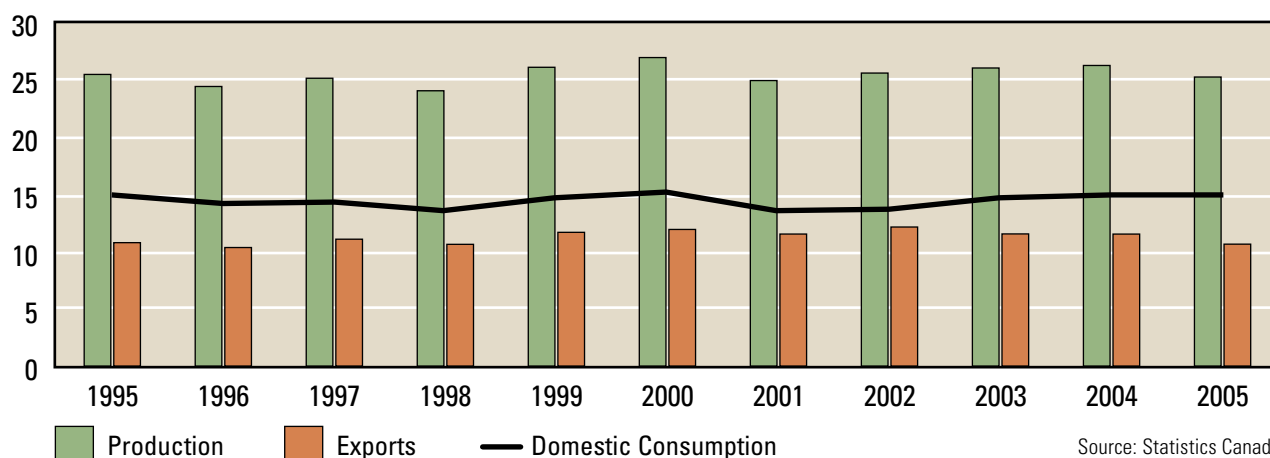


WOOD PULP

Canada is the world's largest exporter of wood pulp, with key markets including the United States (40%), European Union (20%) and China (15%). In 2005, the volume of exports dropped by 7.6% from 2004 levels, while production and domestic consumption fell by 3.8% and 0.2% respectively. Facing higher prices for energy and wood fibre in some regions, a stronger Canadian dollar and shrinking demand for newsprint and other types of paper, wood pulp producers trimmed their output by means of numerous mill closures or simply by reining in production. While the impact of increased costs affected pulp producers across the nation, eastern Canadian producers have been particularly hard-hit due, in part, to regional differences in fibre costs. In British Columbia, wood chip prices have declined at an average annual rate of 4.6% (since 2000) as sawmills in the interior process timber affected by the mountain pine beetle, while prices in the eastern provinces have risen by 10.4% (annually) responding in part to sawmill closures in those regions which have reduced chip supplies.

WOOD PULP	MILLION TONNES	ANNUAL CHANGE (%)	
	2005	1 year	10 years
Production	25.2	-3.8	-0.1
Exports	10.6	-7.6	-0.1
Domestic consumption	14.9	-0.2	0.0

Wood Pulp Production, Exports and Domestic Consumption 1995–2005 (Million tonnes)

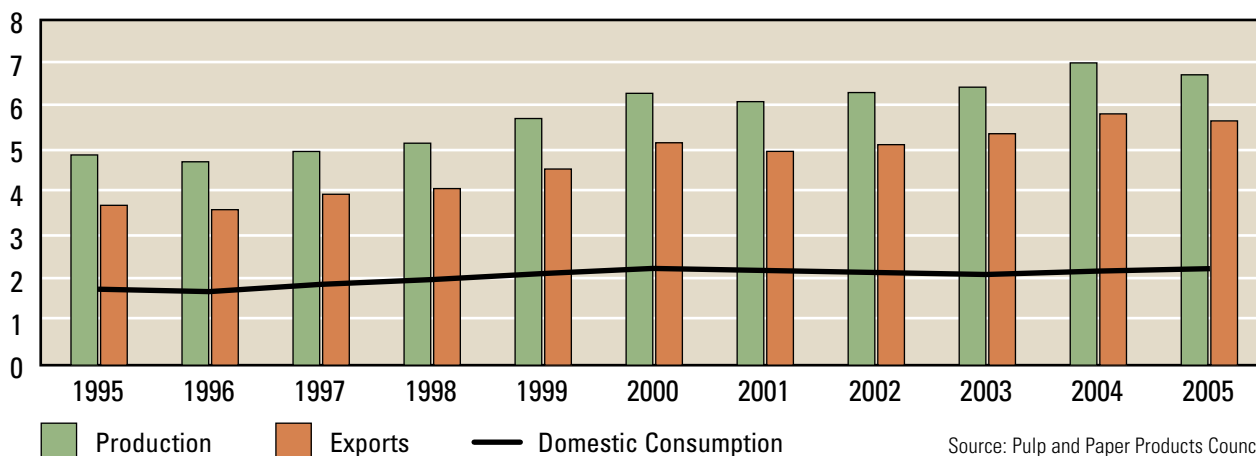


PRINTING AND WRITING PAPER

Canada exports more than 80% of its printing and writing paper production, primarily to the United States. While Uncoated Groundwood (UGW) is the largest volume product, accounting for 63% of all printing and writing paper produced in Canada, UGW does not traditionally hold a large share of the entire U.S. printing and writing paper market. However, due to a number of quality improvements enabling relatively inexpensive production of higher-grade products, UGW can now compete successfully against several higher-grade Uncoated Freesheet products and is currently enjoying expansion at the expense of the latter. This has led to several industry developments, including the conversion of existing newsprint capacity into UGW-based capacity. In the long run, more such expansions are anticipated, driving growth in Canada's printing and writing paper industry. More recently, in 2005, exports of printing and writing paper declined by 2.8% while production dropped by 3.9% from 2004 levels. Although domestic consumption improved (2.2%), exports and production were dragged down by increasing costs for wood fibre and energy, a higher Canadian dollar and weak U.S. demand.

PRINTING AND WRITING PAPER	THOUSAND TONNES	ANNUAL CHANGE (%)	
	2005	1 year	10 years
Production	6.7	-3.9	3.3
Exports	5.7	-2.8	4.3
Domestic consumption	2.2	2.2	2.3

Printing and Writing Paper Production, Exports and Domestic Consumption 1995–2005 (Thousand tonnes)



NON-TIMBER FOREST PRODUCTS

Non-timber forest products (NTFPs) are botanical items, other than timber, that are harvested from the forest. They include products such as edible berries, wild mushrooms and medicinal plants. Two of the more common NTFPs are maple products and Christmas trees.

MAPLE PRODUCTS

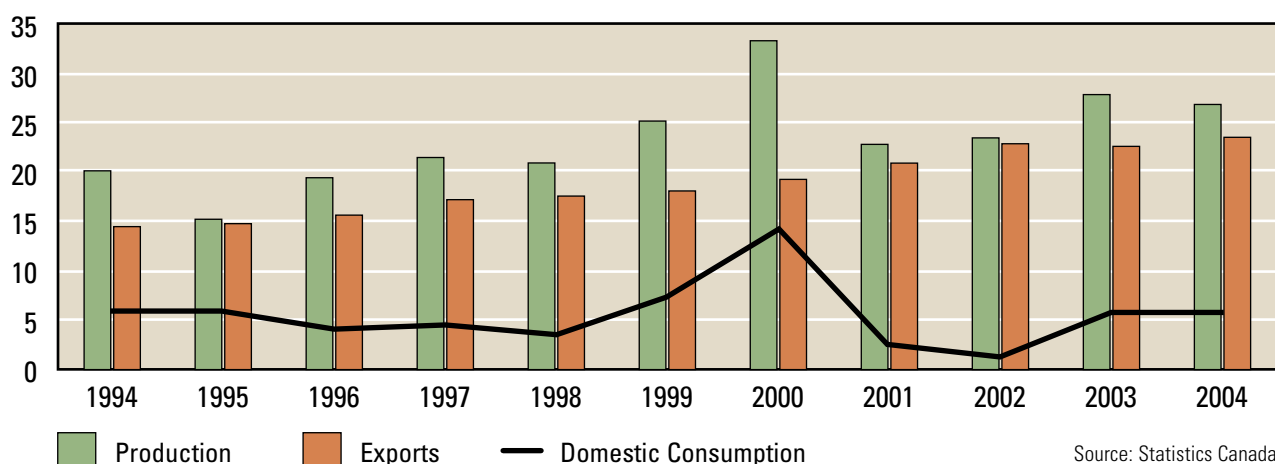
Canada accounts for 85% of the world's maple syrup production, with the United States supplying the remainder. More than 80% of Canada's production is exported to the United States. Japan is the second largest market with sales to this country growing significantly in recent years—doubling, in fact, from 2001 to 2003. In 2004, Canada's production of maple products dropped by 3.6% while exports increased by 4.1%. Even though production declined, Canadian suppliers were able to satisfy domestic and foreign markets by drawing on the high inventory left over from the exceptional 2000

harvest. Quebec is Canada's biggest producer of maple products (93%), with Ontario and New Brunswick accounting for most of the remainder. In 2005, the Canadian maple products industry received a boost when the *Fédération des producteurs*

acéricoles du Québec (Quebec Federation of Maple Syrup Producers), in conjunction with the federal government, announced plans to promote maple products in international markets and to make the maple industry more innovative.

MAPLE PRODUCTS	MILLION DOLLARS	MILLION LITRES	ANNUAL CHANGE (%)	
	2004		1 year	10 years
Production	151.9	26.9	-3.6	2.9
Exports	154.1	23.6	4.1	5.0
Domestic consumption	3.2	6.0	1.5	0.0

Maple Products Production, Exports and Domestic Consumption 1994–2004 (Million litres)



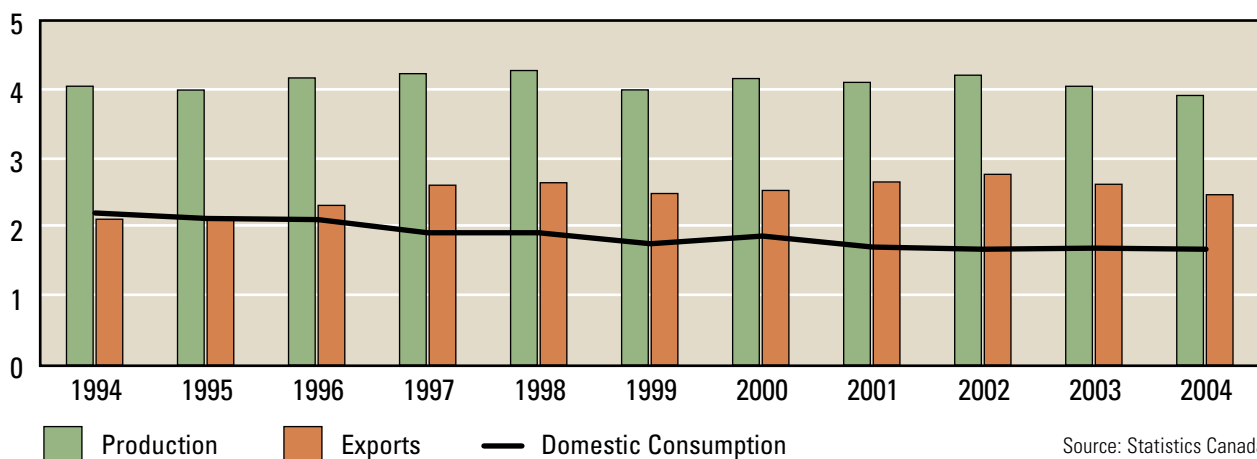
CHRISTMAS TREES

Canada's main Christmas tree species are balsam fir, spruce, Scots pine, lodgepole pine and Douglas fir. Some trees are harvested from natural forests while others, such as Scots pine, are grown on plantations. In 2004, Christmas tree

CHRISTMAS TREES	MILLION DOLLARS	MILLION TREES	ANNUAL CHANGE (%)	
	2004		1 year	10 years
Production	62.2	3.9	-3.3	-0.3
Exports	36.2	2.5	-5.8	1.6
Domestic consumption	29.4	1.7	-0.5	-2.7

production volumes dropped by 3.3% and export volumes fell by 5.8%. The decrease in exports was likely due to the strong Canadian dollar, which appreciated by 7.5% in 2004 over 2003. Most of Canada's Christmas tree exports in 2004 were from Quebec (1.2 million trees), Nova Scotia (0.9 million) and New Brunswick (0.4 million).

Christmas Tree Production, Exports and Domestic Consumption 1994–2004 (Million trees)



FOREST HEALTH AND SILVICULTURE

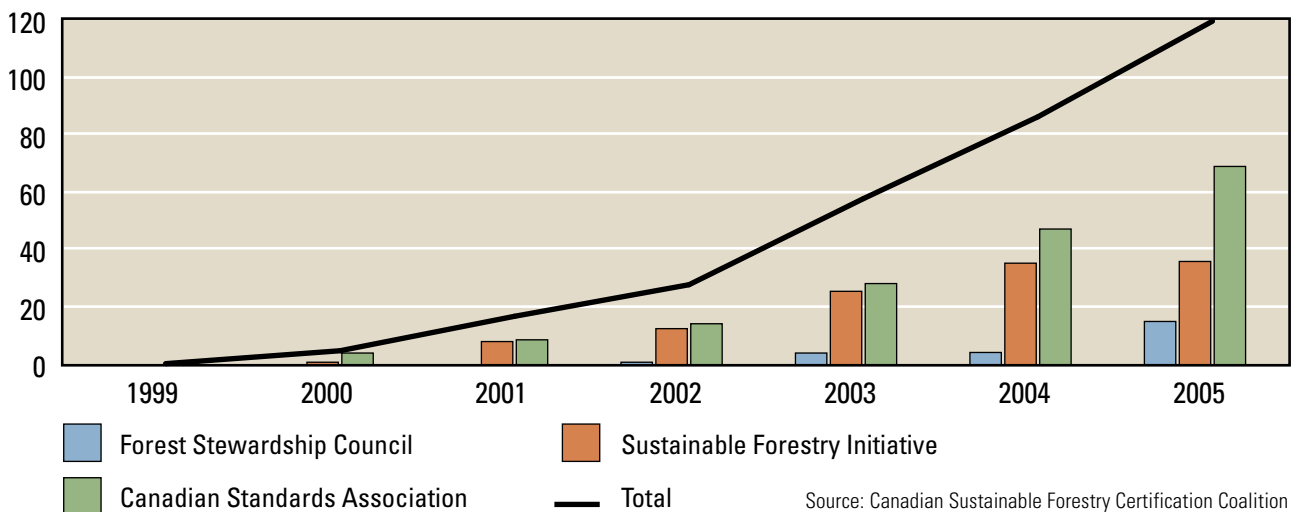
A healthy forest is one that maintains and sustains desirable ecosystem functions that can deliver a wide range of economic and environmental benefits. Both natural and human influences can impact forests in positive and negative ways. For example, forest fires and insect outbreaks can impact large areas of forest land, whereas investments in silviculture can enhance forest health and productivity. This sub-section discusses and reviews key factors that affect the health of Canada's forests.

FOREST CERTIFICATION

Forest certification is an important way of assuring buyers of forest products that the products they purchase come from sustainably managed forests. Canada's forest companies have made significant progress in forest certification. Canada now has the largest certified area of forests in the world, representing about 50% of global certified area. As of December 2005, nearly 120 million hectares—and an estimated annual allowable cut of 100 million cubic metres—had been certified under one or more of the three forest-specific certification systems available in Canada (Canadian Standards Association, Forest Stewardship Council and Sustainable Forestry Initiative). This represents a seven-fold increase in certified area since 2001, and an average annual growth rate of nearly 150% since 1999, when on-the-ground implementation of the standards began in Canada. This impressive growth rate is due in part to initiatives such as the Forest Products Association of Canada's 2002 commitment that all of the lands under its members' management be certified by the end of 2006, a goal that is well on the way to being met.

FOREST CERTIFICATION	MILLION HECTARES	ANNUAL CHANGE (%)	
	2005	1 year	6 years
Total	119.8	38.5	149.2

Forest Certification in Canada 1999–2005 (Million hectares)



HARVEST LEVELS AND WOOD SUPPLY

On provincial Crown lands, harvest levels are a regulated component associated with the licensing of forest management activities. These levels are usually specified in terms of an allowable annual cut (AAC). An AAC is the annual level of harvest allowed on a particular area of land over a specified number of years. In practice, annual harvest levels may be above or below the AAC, but must balance out over the regulation period.

Each province calculates AACs differently. Calculations are based on the size of the land base; the growth rate of trees; losses due to fire, insects and disease; accessibility; economic conditions; environmental considerations; silvicultural investment; degree of protection; and management objectives. There is no single correct harvest rate for a forest.

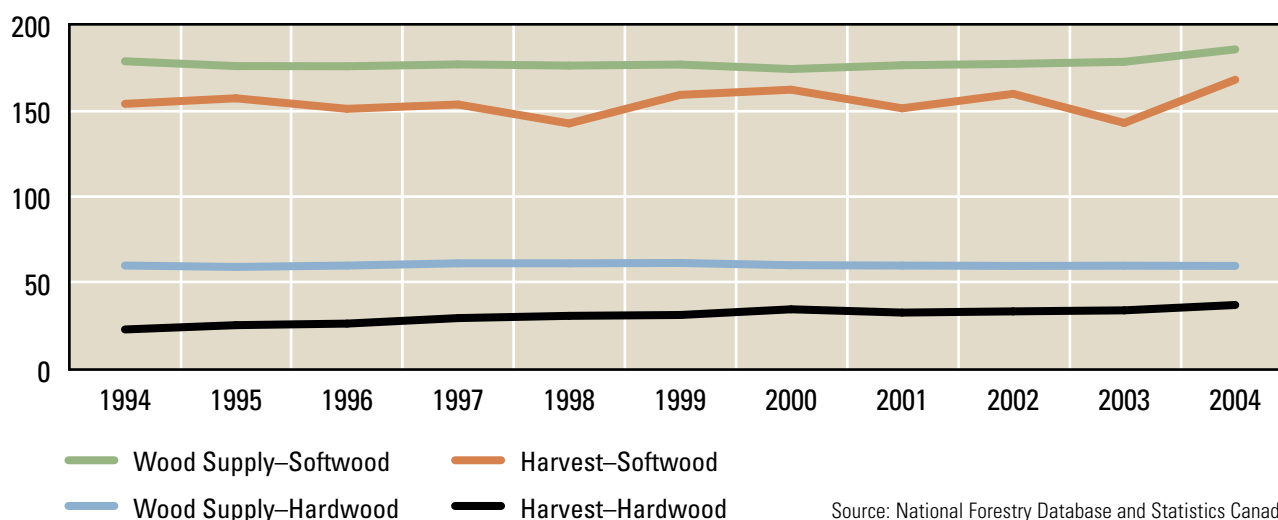
Harvest levels on private, federal and territorial lands are not regulated by legislation, although the managers of these lands do sometimes set harvest targets. This means that the wood supply from private, federal and territorial lands can only be estimated, based on the sum of these targets and, for lands where targets have not been set, the average of past harvest levels.

HARVEST LEVELS AND WOOD SUPPLY	MILLION CUBIC METRES	ANNUAL CHANGE (%)	
		2004	1 year
Wood supply–softwood	185.8	4.0	0.4
Wood supply–hardwood	60.1	-0.1	0.0
Harvest–softwood	168.2	17.6	0.9
Harvest–hardwood	37.4	9.0	4.9

While there is no official AAC for Canada as a whole, the country’s “wood supply” can be estimated by combining the provincial AACs with the wood supply from private, federal and territorial lands. The results show that over the period from 1994 to 2004, Canada’s wood supply remained stable at approximately 238 million cubic metres per year, 52 million cubic metres more than was actually harvested. In 2004, 37% of Canada’s wood supply was located in British Columbia, followed by Quebec (22%), the Prairie provinces (18%), Ontario (14%) and the Atlantic region (9%).

From 1994 to 2004, annual softwood harvest levels remained relatively steady, averaging 155 million cubic metres per year, about 23 million cubic metres below the wood supply. While hardwood harvest levels increased by 61% in that period, from 23 million cubic metres per year to 37 million cubic metres, they were still well below the wood supply of 60 million cubic metres per year.

Harvest Levels and Wood Supply 1994–2004 (Million cubic metres)



Source: National Forestry Database and Statistics Canada

PLANTING AND SEEDING

By law, all forests harvested on Canada's public lands must be replaced. Foresters replace these harvested areas using either natural or artificial regeneration.

AREA AND NUMBER OF SEEDLINGS PLANTED	2004	ANNUAL CHANGE (%)	
		1 year	10 years
Area planted and seeded (thousand hectares)	382	-7.3	-2.1
Seedlings planted (million)	481	-0.2	-3.3

Natural regeneration occurs with little or no assistance by humans. For example, trees establish from seeds originating from the adjacent forest or when small trees in existing stands (advanced regeneration) are protected from change during the harvesting operation. The natural regeneration system being used varies by species and region in Canada.

Artificial regeneration involves either direct seeding of an area, or planting seedlings (young trees grown from seed in a greenhouse or nursery) or cuttings. Artificial regeneration, particularly planting, allows maximum control over the species, the spacing between trees and the timing of treatment.

Until the early 1950s, foresters relied almost exclusively on natural regeneration. Improvements in seedling production methods and changes in provincial standards for regeneration success have resulted in increased use of artificial regeneration.

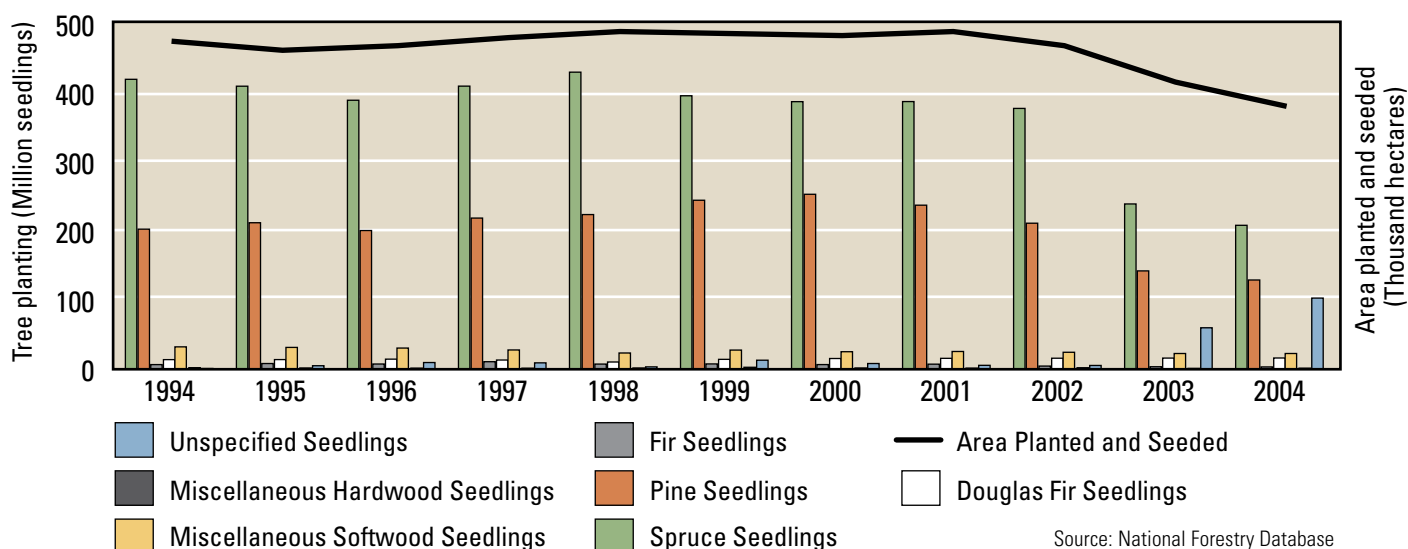
In 2004, 382 000 hectares were either planted or seeded in Canada. Quebec accounted for 70 000 hectares; Ontario, 104 000 hectares; and British Columbia, 156 000 hectares.

In 2004, British Columbia planted 184 million seedlings; Ontario, 106 million; and Quebec, 100 million. Of the 481 million seedlings planted in Canada, 96% were on provincial Crown land.

Over the past 10 years, the area regenerated by planting or seeding has dropped slightly (2.1%) as has the number of seedlings planted (3.3%). This may be due to a small decline in harvest over the past 10 years (0.4%) and an increase in the area of aspen harvested, as aspen is a species that regenerates naturally by sprouting from roots.

The graph below shows regeneration of areas disturbed by both harvesting and natural disturbances. It also includes a small area of afforestation (that is, the conversion to forest of land that has not been forested for a long time).

Number of Seedlings Planted (Million seedlings) and Area Planted and Seeded (Thousand hectares) 1994–2004



Source: National Forestry Database

FOREST FIRES

Forest fires in Canada vary considerably in number and in area burned. Historically, there are large fluctuations in fire activity, both nationally and among provinces and territories, in a given year. For example, Ontario went from a low of 6633 hectares burned in 2000 to a high of 314 219 hectares burned in 2003.

Nationally, the 2005 fire season represented a typical year with 7438 fires, close to the 10-year average of 7496, and 1.7 million hectares of area burned, below (70.8%) the 10-year average of 2.4 million hectares.

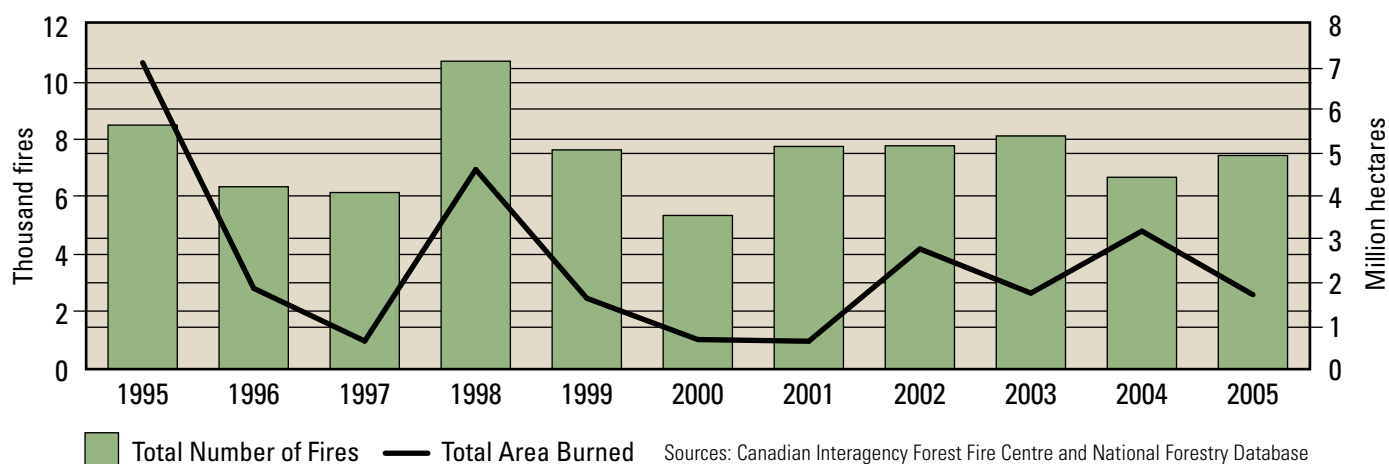
Quebec accounted for almost half (49%) of the area burned in Canada in 2005. A full 90% of the annual area burned in Quebec took place in May. This drew fire suppression resources from Saskatchewan, Manitoba, Ontario, Northwest Territories, Newfoundland and Labrador, and New Brunswick (British Columbia and the U.S. Forest Service contributed resources during the summer).

Forest fires tend to rage in warm, dry weather brought about by high-pressure ridges in the atmosphere. These ridges are associated

FOREST FIRES	2005	10-YEAR AVERAGE
Total number of fires	7438	7496
Total area burned	1.7 million hectares	2.4 million hectares

with Rossby waves, also called planetary waves, which can be seen in the wave pattern of the jet stream. Planetary waves move slowly, usually west to east, influencing the regions under the ridges for days or weeks. Canada is approximately one planetary wavelength in size, which is why, every summer, at least one province or territory suffers an extreme fire season.

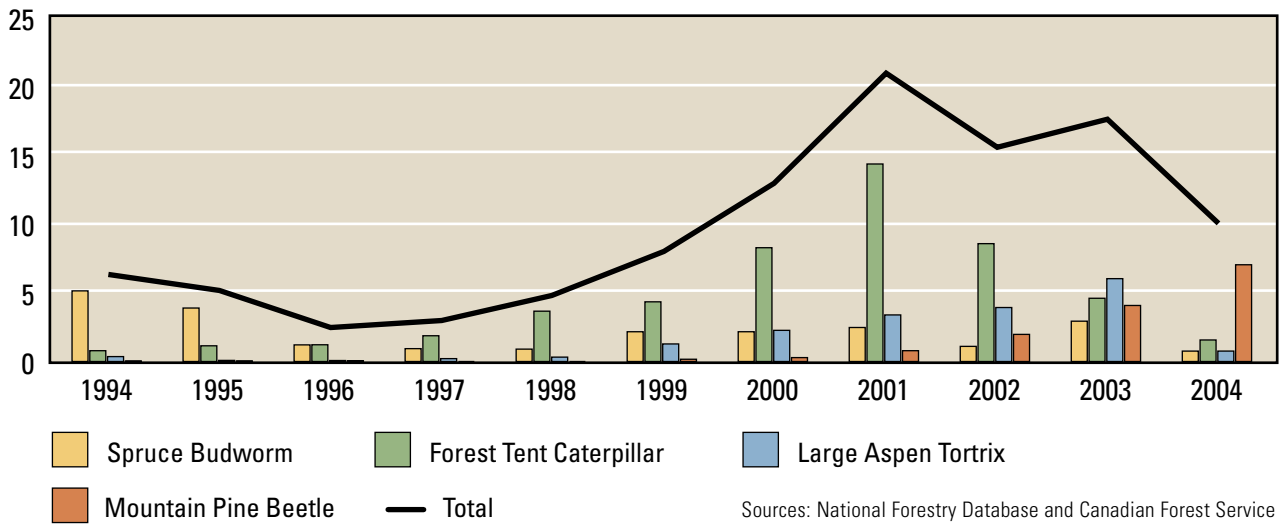
Number of Forest Fires (Thousand fires) and Area Burned (Million hectares) 1995–2005



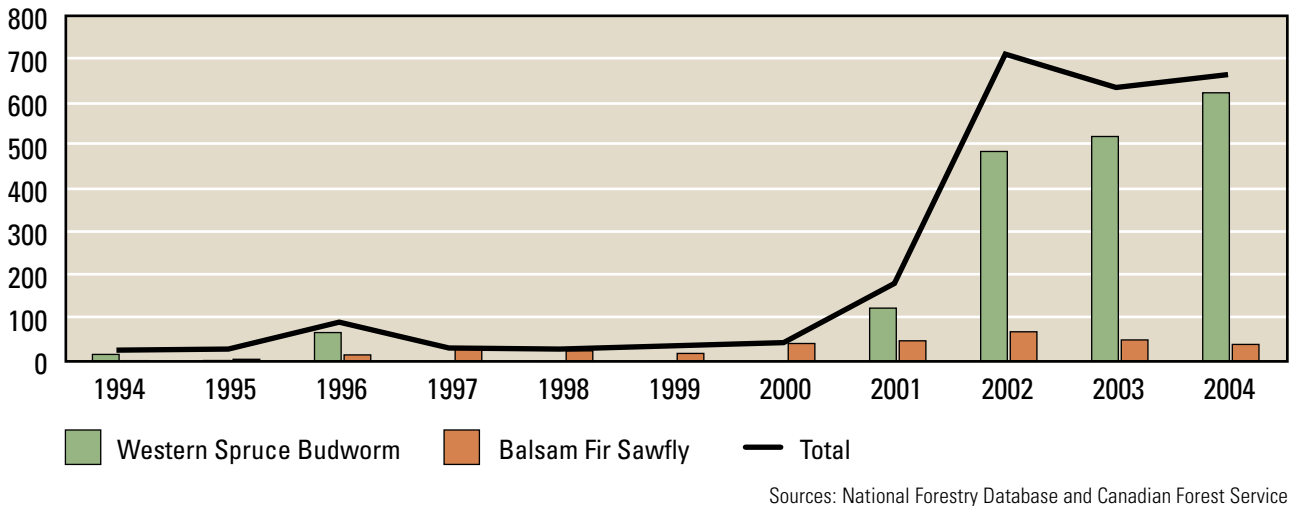
INSECT DEFOLIATION AND TREE MORTALITY

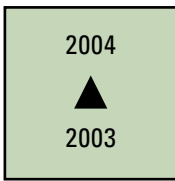
The National Forestry Database provides statistics on various aspects of Canada's forests, including insect damage. The database reports on areas in which there is tree mortality and/or moderate to severe defoliation due to insects. Moderate to severe defoliation means that 30% or more of the foliage has been removed. Significant growth losses are generally deemed to begin when crown defoliation reaches 40%. Among the insects that significantly damaged forests in 2004 are mountain pine beetle, large aspen tortrix, forest tent caterpillar, spruce budworm and western spruce budworm. Other insects such as gypsy moth, hemlock looper and balsam fir sawfly also caused defoliation over localized areas. Overall, 13.1 million hectares of forest area were affected in 2004, a decline from 20.5 million hectares in 2003.

Area Defoliated and Beetle-Killed Trees by Major Insects 1994–2004 (Million hectares)



Area Defoliated by Western Spruce Budworm and Balsam Fir Sawfly 1994–2004 (Thousand hectares)

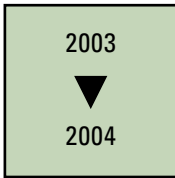




The **mountain pine beetle** is the most destructive pest of mature lodgepole pine forests in North America. British Columbia has been experiencing an epidemic of this insect for several years, and a large-scale effort has been mounted by federal/provincial governments, research institutes, First Nations, academic institutions and industry to mitigate the effects of the outbreak. In 2004, the mountain pine beetle killed trees over a forest area of more than 7 million hectares in British Columbia, up from 4 million hectares the previous year. Significant areas of attack occurred north of historical outbreak areas and are attributed in part to the absence of sufficiently cold temperatures to offset increases in the beetle population.



Photo: Klaus Borte, NRCCan

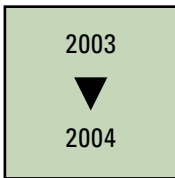


The **large aspen tortrix** is one of the main insects associated with the trembling aspen. The defoliation caused by this insect generally does not affect tree survival as it occurs early enough in the summer for the tree to produce new foliage. In unusual circumstances, outbreaks may last beyond three years and may, if other stress factors such as drought



Photo: Thérèse Arcand, NRCCan

are present, kill the tree. In 2004, this insect defoliated about 750 000 hectares of aspen forest in Canada, a significant drop from 6 million hectares the previous year. Much of this occurred in Alberta, where 320 725 hectares were defoliated in 2004 compared with 5.2 million hectares in 2003.

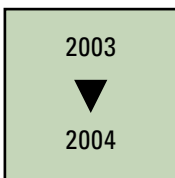


The **forest tent caterpillar** is another serious defoliator of trembling aspen in Canada. Outbreaks may last four to six years, and may return as frequently as every 10 years. Larger populations tend to occur in parkland and boreal mixedwood areas. Forest tent caterpillar infestations cause branch diebacks and growth reduction; extended periods of severe defoliation may



Photo: Thérèse Arcand, NRCCan

kill the tree, especially if other stress factors such as drought are present. In 2004, defoliation by this insect was largely confined to Alberta and Ontario where a total of about 1.6 million hectares of aspen forest was affected, a sharp decline from 2001 when some 13 million hectares in Ontario alone were defoliated.

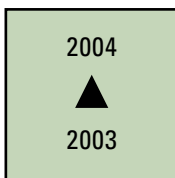


Spruce budworm is the most destructive insect pest of spruce and fir species in Canada. Outbreaks are part of the forest renewal cycle and usually last six to eight years but can last more than 10. Severe outbreaks in commercial forests, however, create serious wood supply problems. The larvae of spruce budworm damage trees by feeding on the current



Photo: Thérèse Arcand, NRCCan

year's needles and cones and occasionally on mature needles. In 2004, 755 325 hectares were defoliated by this insect, the lowest level in the past 10 years and significantly lower than in peak years, which have reached 20 million hectares.



The area of forest damaged by **western spruce budworm** increased steadily from 123 638 hectares in 2001 to 623 735 hectares in 2004. This insect is a significant pest of Douglas fir in the interior of British Columbia. Spray programs using biological insecticides are frequently carried out for forest protection against both the spruce budworm and the western spruce budworm, on small portions of the defoliated area.



© NRCCan

2003



2004

The **balsam fir sawfly** is a native defoliator that feeds mainly on balsam fir and, occasionally on white spruce and black spruce. Outbreaks usually last only a few years and have occurred mostly in the Atlantic provinces. Western Newfoundland has experienced the most damage, with moderate to severe defoliation every year since 1996 and with the largest area (68 698 hectares)



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recorded in 2002. The amount of damage caused by this insect in western Newfoundland has diminished in recent years (39 366 hectares in 2004) due to aerial applications of a balsam fir sawfly-specific virus developed by the Canadian Forest Service of Natural Resources Canada.

UPDATE ON INVASIVE ALIEN SPECIES

A serious invasive alien species is the **emerald ash borer**, which was first detected in Windsor, Ontario, in 2002, and has since been detected through parts of southwestern Ontario. This insect attacks primarily native ash species, which are an important part of both our urban and forest environments. The emerald ash borer does not defoliate trees; rather, it kills them by feeding under the bark and disrupting the flow of nutrients and water throughout the tree. The movement of wood in the affected areas of southwestern Ontario is now regulated and, as this insect is also a serious pest in the United States, Canada and the United States are working together on strategies to combat its spread.



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The **Asian longhorned beetle** was discovered in September 2003 in the Toronto/Vaughan area of Ontario. Numerous infested trees have been located in industrial, residential and park areas. This insect attacks many hardwood species in Canada, but prefers maple, elm, birch and sycamore. As with the emerald ash borer, tree removal is currently the only viable approach to eradicating this insect, although alternative pest control techniques are being investigated. To date, about 75 000 trees have been removed in the Toronto area control program, and it appears the program has been successful in containing the beetle to the greater Toronto area.



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A new pest in eastern Canada is the **European wood wasp**, *Sirex noctilio*. Native to Europe, Asia and northern Africa, this insect was discovered in Ontario in 2005. It feeds on many species of pine and, given the climatic conditions of its native range, it could establish anywhere in North America where pine grows. The wood wasp is known to have caused serious damage in more southern latitudes and is considered "very high risk" in North America. Surveys will be conducted from Ontario to Nova Scotia in 2006 to determine the extent of the problem. This insect is currently a serious pest of pine plantations in Australia, South America and South Africa.



Photo: D. Lances, USDA

MILL CLOSURES AND MILL INVESTMENTS in the Canadian Forest Sector

As noted elsewhere in this report, Canada's forest industry has faced a number of competitiveness challenges over the past few years. These have led the industry to adjust by shutting down higher-cost production and investing in its more profitable assets.

The following tables provide a list of mill closures from April 1, 2005 through March 2006, and a list of major mill investments from January 1, 2005 through March 2006. As the first table illustrates, mill closures occurred in all regions of the country, with the majority taking place in Ontario and Quebec. Conversely, companies have invested in operations across Canada, with the majority occurring in the west.

CANADIAN MILL CLOSURES* (April 1, 2005–March 31, 2006)			
DATE	COMPANY	LOCATION	PRODUCT / CAPACITY
April 2005	Devlin Timber (Devlin sawmill)	Kenora, Ontario	lumber
May 2005	Tembec Inc. (Marks Lumber Ltd.)	Brantford, Ontario	value-added lumber / 50 000 MBF**
May 2005	Norampac (Molson Street)	Montréal, Quebec	containerboard / 480 million square feet
May 2005	Tembec Inc. (La Sarre sawmill)	La Sarre, Quebec	lumber
May 2005	Tembec Inc. (Davidson sawmill)	Mansfield-et-Pontefract, Quebec	lumber / 55 000 MBF
May 2005	Tembec Inc. (Saint-Raymond mill)	Saint-Léonard-de Portneuf, Quebec	specialties / 68 000 tonnes
May 2005	Louisiana-Pacific Corporation (Malakwa sawmill)	Malakwa, British Columbia	lumber / 50 000 MBF
June 2005	Canfor (Hines Creek Timber)	Hines Creek, Alberta	lumber
June 2005	International Forest Products (Field sawmill)	Courtenay, British Columbia	lumber / 220 000 MBF
June 2005	Uniboard	New Liskeard, Ontario	particleboard
June 2005	Uniboard (production line 1)	Sayabec, Quebec	particleboard
July 2005	Tembec Inc. (TKL sawmill)	Témiscaming, Quebec	lumber / 15 000 MBF
August 2005	Smurfit-Stone (medium paper mill)	Bathurst, New Brunswick	containerboard / 243 000 tonnes
August 2005	Smurfit-Stone (New Richmond mill)	New Richmond, Quebec	containerboard / 235 000 tonnes
September 2005	West Fraser Timber Co. Ltd. (Seehta Forest Products Ltd. sawmill)	Red Earth Creek, Alberta	dimension, boards / 45 000 MBF
September 2005	Interact Wood Products Ltd. (laminated wood plant)	Clearwater, British Columbia	laminated wood
September 2005	Norampac (paper machine No. 1)	Red Rock, Ontario	paper / 150 000 tonnes
September 2005	International Forest Products (Fraser Reman plant / Fraser Mills)	Coquitlam, British Columbia	remanufacturing facility
September 2005	J.D. Irving, Limited (Lewis sawmill)	Weymouth, Nova Scotia	lumber / 150 MBF

* Includes both partial (machine) and full mill closures whether indefinite or permanent.

** MBF = thousand board feet

Source: Company press releases, newspaper articles

DATE	COMPANY	LOCATION	PRODUCT / CAPACITY
October 2005	Abitibi-Consolidated Inc.	Grand Falls, Newfoundland and Labrador	newsprint / 60 000 tonnes
October 2005	Abitibi-Consolidated Inc.	Stephenville, Newfoundland and Labrador	newsprint / 194 000 tonnes
October 2005	Kimberly-Clark Corp.	Saint-Hyacinthe, Quebec	hygiene products
October 2005	Western Forest Products Inc. (Saltair mill)	Ladysmith, British Columbia	lumber
October 2005	Western Forest Products Inc. (Silvertree mill)	Vancouver, British Columbia	lumber
November 2005	Interlake Papers Inc. / Cellu Tissue machine	St. Catherines, Ontario	tissue paper / 10 000 tonnes
November 2005	Domtar Inc. (Lebel-sur-Quévillon)	Lebel-sur-Quévillon, Quebec	kraft pulp / 300 000 tonnes
November 2005	Uniboard (Temiskaming Shores particleboard plant)	Temiskaming Shores, Ontario	particleboard
December 2005	Abitibi-Consolidated Inc. (planer and lumber mills)	Champneuf, Quebec	lumber / 12 000 MBF
December 2005	Fraser Papers (paperboard mill)	Edmundston, New Brunswick	recycled paperboard / 60 000 tonnes
December 2005	Abitibi-Consolidated Inc.	Kenora, Ontario	newsprint / 240 000 tonnes
December 2005	Atlas Lumber (Alberta) Ltd.	Blairmore, Alberta	dimension lumber / 30 000 MBF
December 2005	Domtar Inc. (Lebel-sur-Quévillon)	Chapleau, Ontario	lumber / 90 000 MBF
January 2006	Cascades Fine Papers Group Inc. (paper machine No. 5)	Saint-Jérôme, Quebec	uncoated woodfree, freesheet / 8000 tonnes
January 2006	Buchanan Forest Products (Great West Timber)	Thunder Bay, Ontario	lumber
January 2006	Weyerhaeuser (Prince Albert pulp and paper mill)	Prince Albert, Saskatchewan	market pulp and fine papers / 410 000 tonnes
January 2006	NEWPRO (particleboard plant)	Wanham, Alberta	particleboard / 90 million square feet
January 2006	Cascades Inc. (Cascades Fine Papers Group Inc.)	Thunder Bay, Ontario	fine paper / 175 000 tonnes
February 2006	Domtar Inc. (Grand Remous and Malartic)	Grand Remous and Malartic, Quebec	lumber / 550 000 MBF
March 2006	Cascadia Forest Products Ltd. (Island Phoenix sawmill)	Nanaimo, British Columbia	cedar
March 2006	Cascades Inc. (Pickering)	Pickering, Ontario	paper towel and bathroom tissue
March 2006	Western Forest Products Inc.	Squamish, British Columbia	northern bleached softwood kraft pulp / 275 000 tonnes
March 2006	Sturgeon Timber Ltd.	Dorion, Ontario	wood chips / 500 000 cubic metres
March 2006	TriCept Industries (planing mill)	Hearst, Ontario	lumber
March 2006	Shermag	Notre-Dame-de-Montauban, Quebec	furniture
March 2006	Domtar Inc. (PM No. 10 and PM No. 11)	Ottawa, Ontario	paper / 65 000 tonnes
March 2006	Domtar Inc. (pulp and paper mills)	Cornwall, Ontario	kraft pulp and fine paper / 425 000 tonnes

MILL INVESTMENTS (January 1, 2005 – March 31, 2006)				
DATE ANNOUNCED	ESTIMATED DATE OF COMPLETION	COMPANY	MILL LOCATION	
December 2004	Q3 2005	Abitibi-LP Engineered Wood Inc.	Saint-Prime, Quebec	
2005	Q1 2007	Ainsworth	Grande Prairie, Alberta	
Q3 2005	April 2006	Atlantic Packaging Products Ltd. (Scarborough mill)	Scarborough, Ontario	
March 2002	2005	Canfor-LP OSB Corp. (Peace Valley OSB mill)	Fort St. John, British Columbia	
June 2005	2006	Canfor	Fort Nelson, British Columbia	
December 2005	N/A	Cascades Inc. (Fine Papers Group)	Saint-Jérôme, Quebec, Sainte-Hélène-de-Breakeyville, Quebec	
N/A	Q3 2005	Catalyst Paper Corporation / NorskeCanada	Campbell River (Elk Falls), British Columbia	
N/A	January 2005	Catalyst Paper Corporation / NorskeCanada	Crofton, British Columbia	
N/A	Q3 2005	Catalyst Paper Corporation / NorskeCanada	Powell River, British Columbia	
2004	May 2005	Interfor	New Westminster, British Columbia (Queensboro mill)	
February 2005	Q1 2006	J.D. Irving, Limited (Irving Paper)	Saint John, New Brunswick	
August 2005		Kruger Inc. (Energy Group and Publication Papers division)	Brompton, Quebec	
September 2004	2005	Ced-Or Forest Products Inc.	Témiscaming, Quebec	
2005	April 2006	Pope & Talbot	Grand Forks, British Columbia	
October 2004	June 2005	Tembec Inc.	Elko, British Columbia	
November 2004	Q3 2005	Tembec Inc. - Société générale de financement du Québec (50-50 joint venture)	Amos, Quebec	
January 2005	2005	Tembec Inc.	Chapleau, Ontario	
October 2004	June 2005	Tolko Industries Ltd.	High Level, Alberta	
June 2005	Q3 2007	Tolko Industries Ltd.	Slave Lake, Alberta	
2005	2005	West Fraser Timber Co. Ltd. / Sundre Forest Products Inc.	Sundre and Hinton, Alberta	
2005	Fall 2006	West Fraser Timber Co. Ltd.	Quesnel, British Columbia	
2005	Mid-2006	West Fraser Timber Co. Ltd.	Kitimat, British Columbia	
2005	Early 2006	West Fraser Timber Co. Ltd. (West Fraser Newsprint Ltd.)	Whitcourt, Alberta	
March 2006	2008	West Fraser Timber Co. Ltd.	Hinton, Alberta	
February 2005	Early 2007	Weyerhaeuser Co.	Grande Prairie, Alberta	
March 2006	N/A	Zellstoff Celgar Limited (Castlegar mill)	Castlegar, British Columbia	

	DESCRIPTION OF INVESTMENT	PRODUCT	ANNUAL CAPACITY AFFECTED*	AMOUNT INVESTED
	New-engineered wood facility	Value-added wood	187.5 million square feet	\$13 million
	New-second line OSB plant	OSB	+600 million square feet; overall capacity increases to 1.3 billion square feet	\$170 million (\$250 million total for all years)
	Expansion-installation of new recycled corrugating medium machine	Containerboard	200 000 tonnes	N/A
	New-mill and facility	OSB	820 million square feet	\$200 million
	Modernization-new dryers, emission control and other equipment	OSB	+115 million square feet	\$25.6 million
	Modernization-new press; optimization of mill	Specialty paper; pulp	N/A	\$9 million
	Expansion-new equipment	Pulp	+17 000 tonnes	\$8.3 million
	Modernization-upgrades to facility	Pulp	+21 000 tonnes	\$6.9 million
	Modernization-conversion from newsprint to specialty paper	Specialty paper	N/A	\$5.1 million
	Rebuild	Lumber	53 million board feet	\$15.1 million (\$25.8 million total for all years)
	Expansion-new equipment	Specialty paper (supercalendered)	210 000 tonnes	\$220 million over last 3 years
	New-biomass co-generation plant	Biomass/Pulp	+23 megawatts	\$85 million
	New-mill	OSB	210 million square feet	\$68 million
	Expansion and modernization	Lumber	255 million board feet (lumber); +95 million board feet (plane)	N/A
	Modernization-upgrade primary saw lines and secondary processing equipment	Lumber	+18 million board feet	\$17 million
	New-laminated veneer lumber (LVL) plant	LVL	55.2 million board feet	\$130 million
	Expansion-install new boiler and kiln	Lumber	+36 million board feet	~ \$14 million
	Modernization-upgrade sawmill	Lumber	200 million square feet	\$65 million
	New-OSB plant	OSB	600 million square feet	\$250 million
	Modernization-new scanning equipment	Lumber	281 million board feet (Hinton); 255 million board feet (Sundre)	~ \$100 million
	Rebuild	Lumber	+120 million board feet	\$46 million (\$120 million total for all years)
	Expansion-new equipment to generate electricity for mill consumption	Electricity	+20 megawatts	\$16 million
	Modernization-upgrade equipment	Newsprint	N/A	\$6 million
	Modernization-upgrade the No. 2 pulp machine to increase its speed and productivity	Pulp	N/A	\$20 million
	Modernization-new recovery boiler	Pulp	+30 000 tonnes	\$129 million
	Modernization-capital plan to improve efficiency and reliability and reduce operating costs	Pulp	+40 000 tonnes	\$28 million

*The +/- sign indicates change in capacity; otherwise figures indicate total capacity of mill.