

# forestry report

October 1982 (No. 26)

Northern Forest Research Centre

Edmonton, Alberta

## Saskatchewan's forests

The forest is Canada's most valuable renewable natural resource, and the benefits provided by the forests to the people of Saskatchewan are numerous.

Some benefits are intangible and difficult to assess, such as protecting agricultural crops, providing food and shelter for wildlife, regulating water flow, and creating a pleasing environment for hikers, campers, and nature lovers.

Other benefits are tangible and can be measured in terms of the various goods and services that make up the forest industry in Saskatchewan.

The tables and facts presented on the following pages attempt to provide a comprehensive, although brief, picture of this significant industry, which is the second largest manufacturing group in Saskatchewan. Information presented here is based on data collected in 1979-80.

### In this issue:

### Saskatchewan forestry facts

Area classification .....	2
Forest land ownership .....	2
Conversion factors .....	2
Volume of forest growing stock .....	3
Forest products .....	4
Destination of forest products .....	5
Direct and indirect employment .....	6
Salaries and wages .....	7
Value of shipments in the manufacturing sector .....	8
Value added—provincial .....	9
Value added—national .....	9
Corporate and personal income taxes from the forest industry .....	10
Saskatchewan Forestry Branch revenues and expenditures .....	10
Other uses of forest land .....	11
Sources .....	11



Tree planting crew in the Nisbet Forest Reserve, Saskatchewan, 1919

## Area classification

Land classification	Saskatchewan		Canada	
	'000 km <sup>2</sup>	%	'000 km <sup>2</sup>	%
Forest <sup>a</sup> —Inventoried	123	—	3 424	—
—Noninventoried	55	—	940	—
—Total	178	27	4 364	44
Agriculture	264	40	672	7
Urban and cleared	4	1	34	— <sup>b</sup>
Unclassified <sup>c</sup>	124	19	4 097	41
<b>Total land</b>	<b>570</b>	<b>87</b>	<b>9 167</b>	<b>92</b>
<b>Total water</b>	<b>82</b>	<b>13</b>	<b>755</b>	<b>8</b>
<b>Total area</b>	<b>652</b>	<b>100</b>	<b>9 922</b>	<b>100</b>

<sup>a</sup> Includes inventoried and best estimates of noninventoried forest land, with forest defined as land primarily intended for growing or currently supporting forest.

<sup>b</sup> Less than 1%.

<sup>c</sup> Primarily wild land that includes tundra, barrens, and alpine and is generally uninfluenced by human activity.

Sources: Canadian Forestry Service and Statistics Canada.

- Approximately 25% of Canada's productive forest land is found in the prairies; Saskatchewan has 6.5%.

## Forest land ownership

	Saskatchewan		Canada	
	'000 km <sup>2</sup>	%	'000 km <sup>2</sup>	%
Provincial crown	173	97	3 243	74
Federal crown	5	3	919	21
Private <sup>a</sup>	— <sup>b</sup>	0	199	5
Undetermined	0	0	3	— <sup>c</sup>
<b>Total</b>	<b>178</b>	<b>100</b>	<b>4 364</b>	<b>100</b>

<sup>a</sup> Land that is not the property of the crown.

<sup>b</sup> Information not available.

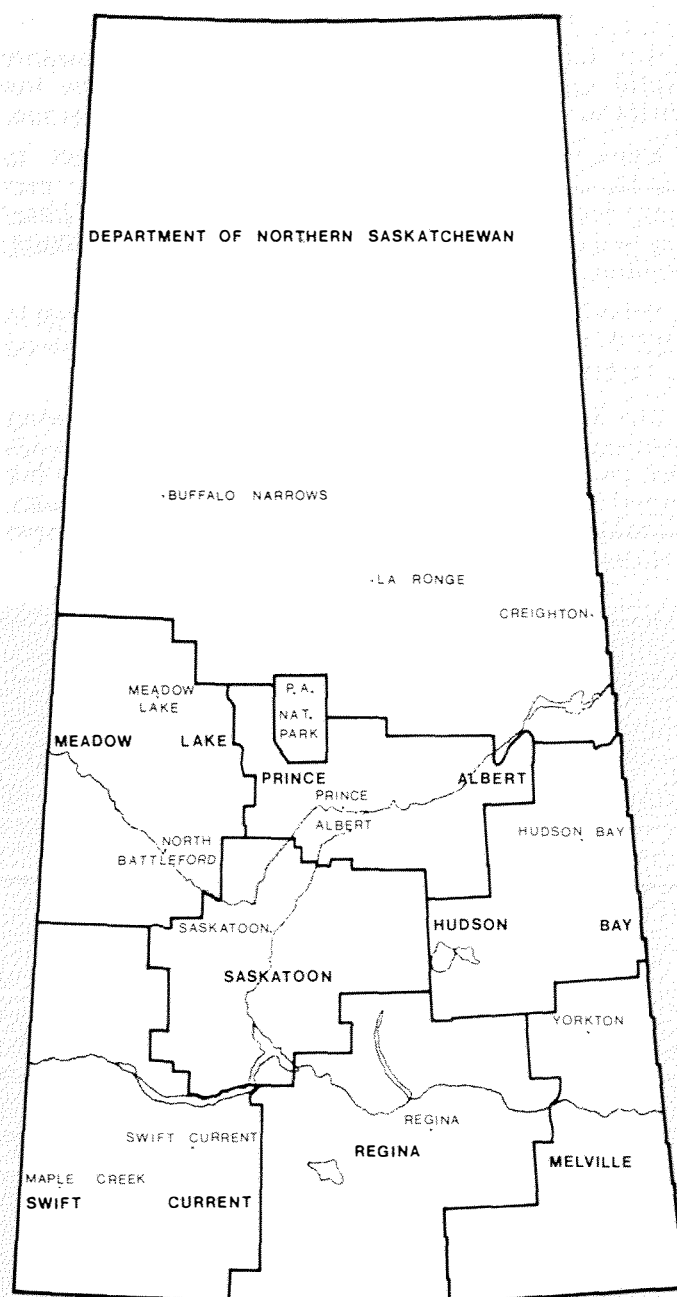
<sup>c</sup> Less than 1%.

Source: Canadian Forestry Service.

## Conversion factors

Metric	Imperial
1 centimetre (cm)	= 0.3937 inch (in.)
1 metre (m)	= 3.2808 feet (ft)
1 cubic metre (m <sup>3</sup> ) roundwood	= 35.3147 cubic feet (ft <sup>3</sup> )
1 m <sup>3</sup> roundwood	= 0.4155 cords (solid wood)
0.0283 m <sup>3</sup> roundwood	= 1 ft <sup>3</sup>
2.4067 m <sup>3</sup> roundwood	= 1 cord (solid wood)
1 tonne (t)	= 1.1023 tons (T)
1 t (chips)	= 0.9167 bone dry units (BDU)
1 m <sup>3</sup> processed lumber	= 616 board feet (foot board measure, fbm)
0.0016 m <sup>3</sup> processed lumber	= 1 board foot (fbm)
1 m <sup>2</sup> sheet product (1 mm basis)	= 6.8 ft <sup>2</sup> (1/16 in. basis)
0.1470 m <sup>2</sup> sheet product (1 mm basis)	= 1 ft <sup>2</sup> (1/16 in. basis)
1 square kilometre (km <sup>2</sup> )	= 0.3861 square miles (mi <sup>2</sup> )
1 kilogram (kg)	= 2.2046 pounds (lb)

For definitions and uses of forest products listed in this report, refer to *Canadian woods, their properties and uses*, E.J. Mullins and T.S. McKnight (Eds.).



Saskatchewan forest regions



# Volume of forest growing stock<sup>a</sup>

Region <sup>b</sup>	% by coniferous species					Larch	Total coniferous <sup>c</sup>		% by deciduous species				Total deciduous <sup>c</sup>	
	White spruce	Black spruce	Jack pine	Lodgepole pine	Balsam fir		Volume <sup>e</sup> '000 m <sup>3</sup>	%	Trembling aspen	Balsam poplar	White birch	Other <sup>d</sup>	Volume <sup>e</sup> '000 m <sup>3</sup>	%
Department of Northern Saskatchewan	57.0	84.2	86.2	—	56.5	58.9	255 537	78.4	48.1	40.1	62.9	40.2	99 111	48.0
Meadow Lake	10.2	2.8	6.0	—	12.2	8.2	18 926	5.8	18.5	15.6	11.9	—	36 038	17.4
Prince Albert	8.0	3.6	6.0	—	8.4	8.2	18 253	5.6	7.8	7.9	5.5	5.4	15 689	7.6
Hudson Bay	24.2	9.4	1.7	—	22.1	24.6	32 302	9.9	23.5	34.7	18.4	54.4	51 782	25.1
Melville	0.5	—	0.1	—	0.8	0.1	511	0.2	2.0	1.6	1.2	—	3 807	1.8
Swift Current	0.1	—	—	100.0	—	—	283	0.1	0.1	0.1	0.1	—	156	0.1
<b>Total volume—'000 m<sup>3</sup></b>	<b>68 740</b>	<b>120 967</b>	<b>126 760</b>	<b>185</b>	<b>5 147</b>	<b>4 013</b>	<b>325 812</b>	<b>100.0</b>	<b>157 925</b>	<b>31 434</b>	<b>15 760</b>	<b>1 464</b>	<b>206 583</b>	<b>100.0</b>
<b>% of total by species</b>	<b>21.1</b>	<b>37.1</b>	<b>38.9</b>	<b>0.1</b>	<b>1.6</b>	<b>1.2</b>	—	—	<b>76.5</b>	<b>15.2</b>	<b>7.6</b>	<b>0.7</b>	—	—
<b>Annual allowable cut (AAC)—'000 m<sup>3</sup></b>	—	—	—	—	—	—	<b>4 432</b>	—	—	—	—	—	<b>3 495</b>	—
<b>1979-80 harvest—'000 m<sup>3</sup></b>	—	—	—	—	—	—	<b>3 138</b>	—	—	—	—	—	<b>369</b>	—
<b>% AAC harvested</b>	—	—	—	—	—	—	—	<b>70.8</b>	—	—	—	—	—	<b>10.6</b>

<sup>a</sup> Data for the Commercial Forest Zone only; excludes the Reconnaissance Inventory Zone of Northern Saskatchewan.

<sup>b</sup> The Regina and Saskatoon regions do not contain significant commercial forest volumes.

<sup>c</sup> Coniferous 61% and deciduous 39% of total roundwood volume.

<sup>d</sup> Green ash, Manitoba maple, and white elm.

<sup>e</sup> Gross merchantable volume for trees 10+ cm in diameter at breast height (taken at 1.37 m), assuming a 30.5-cm stump and a 7.6-cm top diameter inside bark.

Source: Saskatchewan Tourism and Renewable Resources.

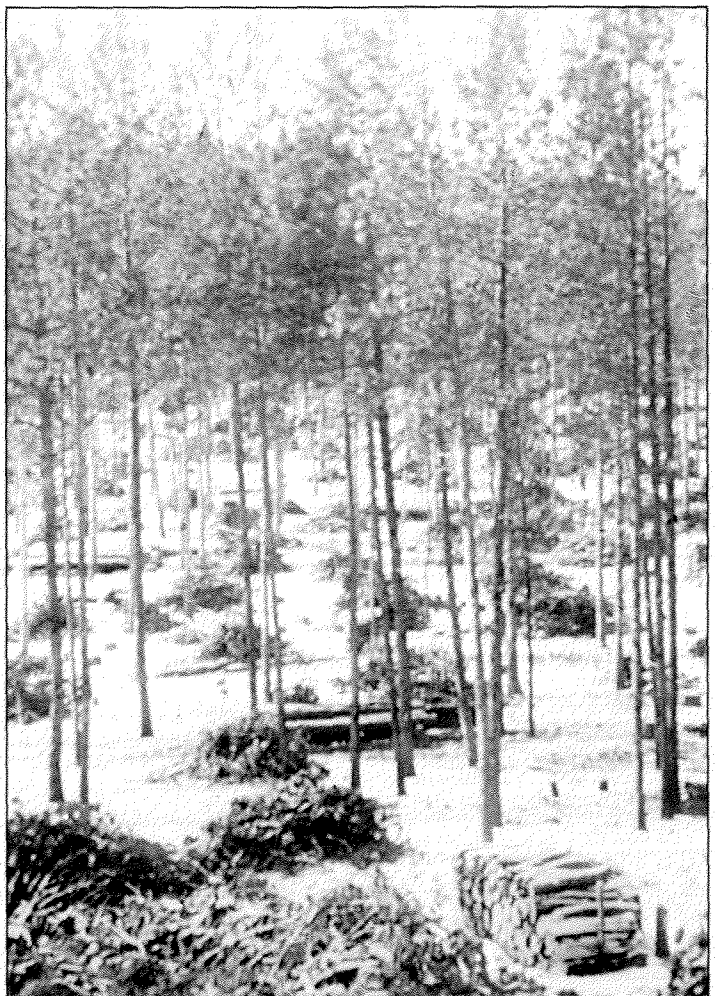
## Annual allowable cut

The annual allowable cut from Saskatchewan's forests is equal to the annual growth, assuming that cutovers fully regenerate immediately after harvesting. The intent is to utilize this annual increment and still maintain the current level of growing stock. This is similar to spending the interest earned from a bank deposit without reducing the principal.

As the level of intensive forest management (e.g., stand tending practices such as thinning and fertilizing) increases in Saskatchewan, there will be an increase in the growing stock and a corresponding increase in the annual allowable cut. On the other hand, significant forest losses due to fire, insects and diseases, and allocation of forest lands for other uses such as agriculture and recreation will reduce the annual allowable cut.

- Saskatchewan's reforestation program in 1979-80 included the planting of 11.8 million seedlings and scarification of 2940 ha. Reforestation is a growing activity that provides employment for local and northern people.

- Saskatchewan lost a total of 331 000 ha of forest land to wildfires in 1980. Some of this loss was in merchantable timber that, where economically possible, was salvaged — 210 990 m<sup>3</sup> of processed lumber in 1980.



Thinning jack pine (about 1920)

# Forest products

Product	Region								Total production <sup>a</sup>
	Dep. North Sask.	Meadow Lake	Prince Albert	Hudson Bay	Melville	Swift Current	Regina	Saskatoon	
Dimension lumber <sup>b</sup> —m <sup>3</sup>	20 724	68 484	91 888	144 741	1 548	834	0	0	328 219
Boards <sup>b</sup> —m <sup>3</sup>	9 199	10 399	4 230	17 418	187	282	0	0	41 715
Timbers <sup>b</sup> —m <sup>3</sup>	2 186	1 934	466	329	0	23	0	0	4 938
Ties <sup>b</sup> —m <sup>3</sup>	0	336	872	0	0	0	0	0	1 208
Treated lumber <sup>b</sup> —m <sup>3</sup>	0	135	2 287	0	0	0	0	0	2 422
Pallets and containers <sup>b</sup> —m <sup>3</sup>	0	0	308	0	2 597	97	2 272	1 298	6 572
Lath <sup>b</sup> —m <sup>3</sup>	16	136	128	0	0	0	0	0	280
Shakes and shingles <sup>b</sup> —m <sup>3</sup>	0	21	0	0	0	0	0	0	21
Rails <sup>c</sup> —m <sup>3</sup>	6 032	1 473	425	850	0	170	0	0	8 950
House logs <sup>c</sup> —m <sup>3</sup>	1 182	0	23	0	0	0	0	0	1 205
Posts (untreated) <sup>c</sup> —m <sup>3</sup>	17 728	0	0	113	0	0	0	0	17 841
Poles (untreated) <sup>c</sup> —m <sup>3</sup>	0	2 605	510	0	0	0	0	0	3 115
Peeler logs <sup>c</sup> —m <sup>3</sup>	0	0	0	146 827	0	0	0	0	146 827
Treated posts <sup>c</sup> —m <sup>3</sup>	0	23 449	67 572	0	0	0	0	0	91 021
Treated poles <sup>c</sup> —m <sup>3</sup>	0	57	26 054	0	0	0	0	0	26 111
Plywood cores <sup>c</sup> —m <sup>3</sup>	0	0	0	13 080	0	0	0	0	13 080
Firewood <sup>c</sup> —m <sup>3</sup>	15 251	6 742	15 556	11 041	563	563	563	563	50 842
Pulpwood <sup>c</sup> —m <sup>3</sup>	1 339 014	170 837	86 888	320 485	0	0	0	0	1 917 224
Plywood (1 mm basis) <sup>d</sup> —'000 000 m <sup>2</sup>	0	0	0	62	0	0	0	0	62
Waferboard (1 mm basis) <sup>d</sup> —'000 000 m <sup>2</sup>	0	0	0	129	0	0	0	0	129
Pulp (bleached sulfate)—t	0	0	275 793	0	0	0	0	0	275 793
Chips—t	0	25 321	20 836	70 906	0	0	0	0	117 063

<sup>a</sup> Total wood volume harvested in 1979-80 was 3 507 000 m<sup>3</sup>.

<sup>b</sup> Processed lumber; volume based on the actual size of the sawn product (i.e., 3.8 × 8.6 cm or 1 1/2 × 1 3/8 in.) and not on the nominal size (i.e., 5.1 × 10.2 cm or 2 × 4 in.).

<sup>c</sup> Roundwood.

<sup>d</sup> Sheet product.

Source: The Northern Forest Research Centre.

- In 1979-80, 3.5 million m<sup>3</sup> of wood were harvested in Saskatchewan, which was the seventh largest harvest in the nation.
- The sawmill industry produced approximately 370 000 m<sup>3</sup> of lumber, enough to build 24 400 homes.
- Of the \$355 million value of shipments of forest products produced in Saskatchewan in 1979-80, 42% was exported to the USA, 37% was consumed in Saskatchewan, 6% went to neighboring provinces of Alberta and Manitoba, 6% went to the rest of Canada, and 9% went to others, overseas, and elsewhere.



Loading tree-length logs on truck

## Destination of forest products

Product	Destination						Total production <sup>a</sup>
	Sask. %	Alta. %	Man. %	Rest of Canada %	United States %	Other Foreign %	
Dimension lumber <sup>b</sup> —m <sup>3</sup>	22	6	7	12	53	0	328 219
Boards <sup>b</sup> —m <sup>3</sup>	59	3	7	2	29	0	41 715
Timbers <sup>b</sup> —m <sup>3</sup>	81	4	15	0	— <sup>c</sup>	0	4 938
Ties <sup>b</sup> —m <sup>3</sup>	14	61	0	25	0	0	1 208
Treated lumber <sup>b</sup> —m <sup>3</sup>	35	32	33	0	0	0	2 422
Pallets and containers <sup>b</sup> —m <sup>3</sup>	100	0	0	0	0	0	6 572
Lath <sup>b</sup> —m <sup>3</sup>	89	5	6	0	0	0	280
Shakes and shingles <sup>b</sup> —m <sup>3</sup>	100	0	0	0	0	0	21
Rails <sup>d</sup> —m <sup>3</sup>	74	21	5	0	0	0	8 950
House logs <sup>d</sup> —m <sup>3</sup>	100	0	0	0	0	0	1 205
Posts (untreated) <sup>d</sup> —m <sup>3</sup>	100	0	0	0	0	0	17 841
Poles (untreated) <sup>d</sup> —m <sup>3</sup>	37	50	13	0	0	0	3 115
Peeler logs <sup>d</sup> —m <sup>3</sup>	100	0	0	0	0	0	146 827
Treated posts <sup>d</sup> —m <sup>3</sup>	59	32	9	— <sup>c</sup>	0	0	91 021
Treated poles <sup>d</sup> —m <sup>3</sup>	34	33	33	0	0	0	26 111
Plywood cores <sup>d</sup> —m <sup>3</sup>	100	0	0	0	0	0	13 080
Firewood <sup>d</sup> —m <sup>3</sup>	100	0	0	0	0	0	50 842
Pulpwood <sup>d</sup> —m <sup>3</sup>	100	0	0	0	0	0	1 917 224
Plywood (1 mm basis) <sup>e</sup> —'000 000 m <sup>2</sup>	34	2	8	40	0	16	62
Waferboard (1 mm basis) <sup>e</sup> —'000 000 m <sup>2</sup>	16	16	16	12	37	3	129
Pulp (bleached sulfate)—t	0	0	0	5	75	20	275 793
Chips—t	81	0	19	0	0	0	117 063

<sup>a</sup> Total wood volume harvested in 1979-80 was 3 507 000 m<sup>3</sup>.

<sup>b</sup> Processed lumber; volume based on the actual size of the sawn product (i.e., 3.8 × 8.6 cm or 1 1/2 × 1 3/8 in.) and not on the nominal size (i.e., 5.1 × 10.2 cm or 2 × 4 in.).

<sup>c</sup> Less than 1%.

<sup>d</sup> Roundwood.

<sup>e</sup> Sheet product.

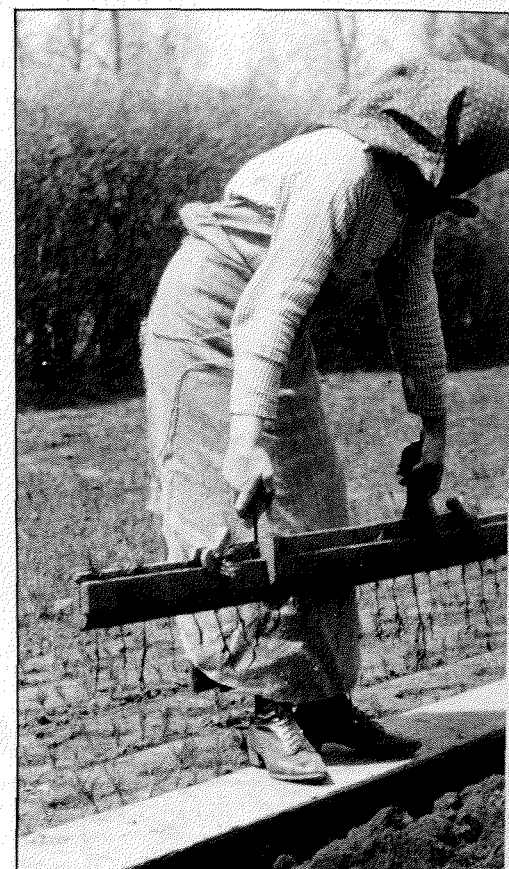
Source: The Northern Forest Research Centre.

# Direct and indirect employment

Industry	Number of firms	Direct employment Person-years	Indirect employment Person-years	Total employment Person-years	Industry multiplier <sup>a</sup>
Sawmills					
Greater than 8115 m <sup>3</sup> (> 5 MM fbm)	6	1 195	1 374	2 569	2.15
1623 – 8115 m <sup>3</sup> (1 MM to 5 MM fbm)	5	130	150	280	2.15
162 – 1623 m <sup>3</sup> (100 M to 1 MM fbm)	60	149	171	320	2.15
Less than 162 m <sup>3</sup> (< 100 M fbm)	200	77	89	166	2.15
Independent planing mills	11	28	32	60	2.15
Plywood	1	205	248	453	2.21
Wood treating	19	322	306	628	1.95
Miscellaneous wood-using industries (building logs, pallets, laths)	12	143	179	322	2.25
Pulp and paper and waferboard	2	1 381	1 768	3 149	2.28
<b>Total</b>	<b>316</b>	<b>3 630</b>	<b>4 317</b>	<b>7 947</b>	<b>—</b>

<sup>a</sup> The multipliers in this table are estimates supported by statistics of the Northern Forest Research Centre forest industry surveys and pertinent literature.

Source: The Northern Forest Research Centre.



Yale planting board being used at Indian Head.

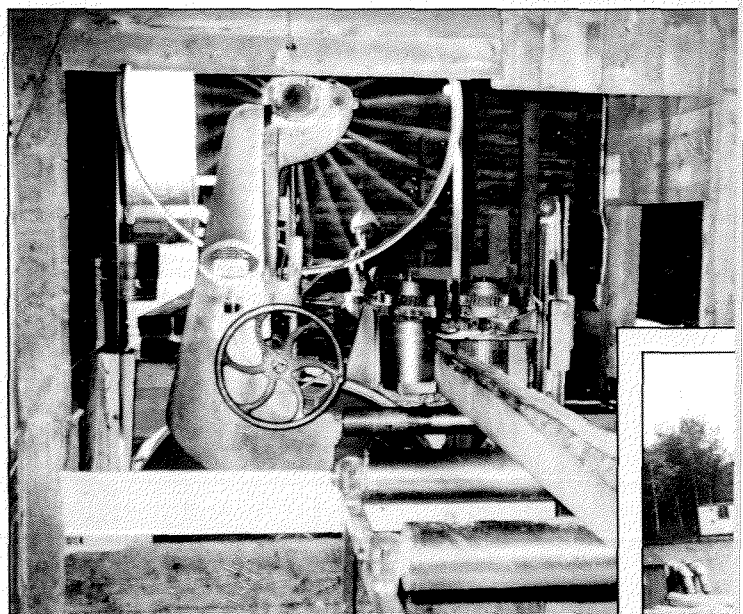
## Industry multiplier

An industry multiplier is a value that multiplied by the direct employment of a given industry indicates the total direct and indirect employment generated by that industry. Indirect employment results from economic activity associated with the manufacturing.

In the forest industry, direct employment includes all persons directly employed in the processing plants. Indirect employment includes all persons employed as an indirect result of forest industry activity, for example, sales personnel in local retail outlets, those employed in supplying the forestry complex with intermediate goods, and civil servants required to maintain community services.

$$\text{Direct employment} \times \text{Industry multiplier} = \text{Total employment resulting from manufacturing}$$

$$= \text{Direct} + \text{indirect employment}$$



Resawing aspen

- One job in 50 in Saskatchewan is directly or indirectly related to the forest industry.

# Salaries and wages

Salaries and  
wages for  
total activity  
\$000 000 %

## Rank by industry<sup>a</sup>

### Saskatchewan

1. Food and beverage	89	26.4
2. Forest industry <sup>b</sup> : forestry (logging), wood industries, and paper and allied industries	71	21.1
3. Machinery	35	10.4
4. Printing, publishing, and allied industries	31	9.2
5. Metal fabricating	26	7.7
6. Nonmetallic mineral products	20	5.9
7. Transportation equipment	11	3.2
8. Electrical products	9	2.7
9. Clothing	5	1.5
10. Chemical and chemical products	4	1.2
Other	36	10.7

**Total** 337 100.0

### Canada

1. Forest industry <sup>b</sup> : forestry (logging), wood industries, and paper and allied industries	5 692	18.2
2. Food and beverage	3 545	11.3
3. Transportation equipment	3 489	11.2
4. Metal fabricating	2 636	8.4
5. Primary metal products	2 432	7.8
6. Electrical products	1 925	6.2
7. Machinery	1 701	5.4
8. Printing, publishing, and allied industries	1 613	5.2
9. Chemical and chemical products	1 606	5.1
10. Clothing	1 085	3.5
Other	5 526	17.7

**Total** 31 250 100.0

<sup>a</sup> For Saskatchewan, rank relates only to industry groups for which data can be published.

<sup>b</sup> Includes values from the Northern Forest Research Centre.

Sources: Statistics Canada and the Northern Forest Research Centre.



saskatchewan, 1923



operation



# Value of shipments in the manufacturing sector

Rank by industry <sup>a</sup>	Value of shipments of goods of own manufacture	
	\$000 000	%
<b>Saskatchewan</b>		
1. Food and beverage	712	36.8
2. Forest industry <sup>b</sup> : forestry (logging), wood industries, and paper and allied industries	355	18.3
3. Machinery	131	6.8
4. Nonmetallic mineral products	111	5.7
5. Printing, publishing, and allied industries	81	4.2
6. Metal fabricating	80	4.1
7. Electrical products	35	1.8
8. Transportation equipment	32	1.7
9. Chemical and chemical products	27	1.4
10. Clothing	19	1.0
Other	353	18.2
<b>Total</b>	<b>1 936</b>	<b>100.0</b>
<b>Canada</b>		
1. Forest industry <sup>b</sup> : forestry (logging), wood industries, and paper and allied industries	26 142	16.6
2. Food and beverage	25 373	16.1
3. Transportation equipment	19 667	12.5
4. Petroleum and coal products	12 371	7.9
5. Primary metal products	11 856	7.5
6. Metal fabricating	10 397	6.6
7. Chemical and chemical products	9 531	6.1
8. Electrical products	6 661	4.2
9. Machinery	6 528	4.2
10. Printing, publishing, and allied industries	4 721	3.0
Other	23 933	15.2
<b>Total</b>	<b>157 180</b>	<b>100.0</b>

<sup>a</sup> For Saskatchewan, rank relates only to industry groups for which data can be published.

<sup>b</sup> Includes values from the Northern Forest Research Centre.

Sources: Statistics Canada and the Northern Forest Research Centre.



Lath and treated posts ready for market

## Value of shipments

Value of shipments refers to the total value of sales excluding discounts, returns, allowances, sales tax, excise duties, and the cost of transporting the product to market. The value is essentially the total revenue of the goods (shipped from the mill) of a firm or of an industry.

- During 1979-80 the forest industry in Saskatchewan
  - made up 18.3% of the value of shipments of goods of own production in the manufacturing industry, second only to the food and beverage industry
  - provided 3.3% of the total value added in the goods producing sector
  - paid salaries and wages amounting to \$71 million, making it the second largest manufacturing industry.
- In 1979-80 the forest industry in Canada contributed
  - \$26.1 billion in value of shipments of goods of own production
  - \$11.8 billion in total value added
  - \$11.5 billion net contribution to Canada's balance of payments.



Pulp logs arriving at mill



## Value added—provincial

	Saskatchewan		Canada	
	\$000 000	%	\$000 000	%
<b>Gross domestic product by sector</b>				
All goods producing	5 289	48.0	123 171	45.7
(Forest industry)	172	1.6	11 849	4.4
Service producing	5 740	52.0	146 150	54.3
<b>Total</b>	<b>11 029</b>	<b>100.0</b>	<b>269 321</b>	<b>100.0</b>
<b>Goods producing industries<sup>a</sup></b>				
Agriculture	1 758	33.2	7 957	6.5
Mining <sup>b</sup>	1 566	29.6	19 820	16.1
Construction	1 074	20.3	21 988	17.8
Manufacturing <sup>c</sup>	552	10.4	54 577	44.3
Forest industry <sup>d</sup> : forestry (logging), wood industries, and paper and allied industries	172	3.3	11 849	9.6
Electric power	154	2.9	6 012	4.9
Hunting and trapping	10	0.2	80	0.1
Fisheries	3	0.1	888	0.7
<b>Total</b>	<b>5 289</b>	<b>100.0</b>	<b>123 171</b>	<b>100.0</b>

<sup>a</sup> Value added for forest industry, mining, and manufacturing is for total activity, not just value of goods of own manufacture.

<sup>b</sup> Includes metals, petroleum, and coal before refining into products.

<sup>c</sup> Wood industries and paper and allied industries are excluded from the manufacturing total and are included as part of the forest industry total.

<sup>d</sup> Includes values from the Northern Forest Research Centre.

Sources: Statistics Canada and the Northern Forest Research Centre.



Forest access using a rail speeder (about 1920)

## Value added

In the process of creating manufactured goods, a number of intermediate goods and services are purchased by firms and are used during production.

A few examples of intermediate goods and services in the forest industry include fuel and electricity, wood-preserving chemicals, veneer adhesives, pulp treating chemicals, contractor fees, and lawyer and accountant fees. Without the use of these purchased intermediate goods and services, the forest product firm could not produce the form of output demanded by consumers.

Value added is defined as the difference between total revenue and the cost of all purchased materials, supplies, and services. Value added therefore includes payments to labor, depreciation, profits, and taxes. The relationships can be shown as follows:

$$\begin{aligned} \text{Value added} &= \text{Wages and salaries} + \text{Depreciation} \\ &\quad + \text{Profits} + \text{Taxes} \\ &= \text{Total revenue} - \text{Cost of purchased intermediate goods and services} \end{aligned}$$

## Value added—national

	All goods producing \$000 000	Forest industry \$000 000	Forest industry as % of goods
Newfoundland	2 006 <sup>a</sup>	X <sup>b</sup>	X
Prince Edward Island	278	X	X
Nova Scotia	2 285	246	10.8
New Brunswick	2 178	460	21.1
Quebec	25 807	3 087	12.0
Ontario	44 918	2 570	5.7
Manitoba <sup>c</sup>	3 834	189	4.9
Saskatchewan <sup>c</sup>	5 289	172	3.3
Alberta	22 238	381	1.7
British Columbia	13 724	4 558	33.2
Yukon and Northwest Territories	614	X	X
<b>Canada</b>	<b>123 171</b>	<b>11 849</b>	<b>9.6</b>

<sup>a</sup> Due to confidentiality, forestry (logging) data for Prince Edward Island are included with those for Newfoundland.

<sup>b</sup> Confidential.

<sup>c</sup> Includes values from the Northern Forest Research Centre.

Sources: Statistics Canada and the Northern Forest Research Centre.

# Corporate and personal income taxes from the forest industry<sup>a</sup>

Tax	Estimated taxes paid <sup>b</sup>	
	Saskatchewan \$000 000	Canada \$000 000
Corporate income		
Provincial	1.3	262
Federal	2.4	484
Personal income		
Provincial	6.5	332
Federal	12.5	674

<sup>a</sup> Forest industry includes forestry (logging), wood industries, and paper and allied industries.

<sup>b</sup> Includes values from the Northern Forest Research Centre

Source: Statistics Canada

- In 1980-81, the provincial governments and private industry spent approximately \$16 million and \$12.7 million, respectively, on forest research and development.
- In 1980-81 the Canadian Forestry Service spent \$51.7 million on forest research across Canada.
- In 1980-81 the Northern Forest Research Centre spent \$4 million fulfilling its forestry research, development, and technology transfer roles in the three prairie provinces and the Northwest Territories.



Timber forwarder

## Saskatchewan Forestry Branch revenues and expenditures

Revenues		\$000
Royalties and fees		
Pulpwood—license areas		420
—nonlicense areas		41
Sawtimber—license areas		1 658
—nonlicense areas		378
Other wood products—license areas		131
—nonlicense areas		1 106
Regeneration fees		44
Licenses and permits		107
Penalties and interest		12
Fire protection levy		34
Miscellaneous—sales and services, ground rentals		41
<b>Total forestry revenues</b>		<b>3 972</b>

Expenditures		\$000
Forest inventory		1 097
Silviculture		2 494
Forest management		238
Salaries and wages		2 750
Administration		152
Fire protection		2 535
<b>Total forestry expenditures</b>		<b>9 266</b>

Source: Saskatchewan Tourism and Renewable Resources.

## Other uses of forest land

### Fish

Angling licenses—'000	198
Estimated revenue—\$000	729
Commercial fish catch—'000 kg	4 753
Estimated market value—\$000	5 157

### Game

Hunting licenses—'000	165
Estimated revenue—\$000	2 038

### Trapping

Trapper licenses—'000	26
Estimated value of harvest—\$000	9 125

### Outdoor recreation<sup>a</sup>

Visitors—'000	3 758
Campers in parks—'000	439
Estimated permit revenue—\$000	894

### Grazing

Animal unit months <sup>b</sup> —'000	66
Estimated revenue—\$000	78

### Hay cropping

Tonnes (forest and parks)	3 694
Estimated permit revenue—\$	4 030

### Watershed benefits

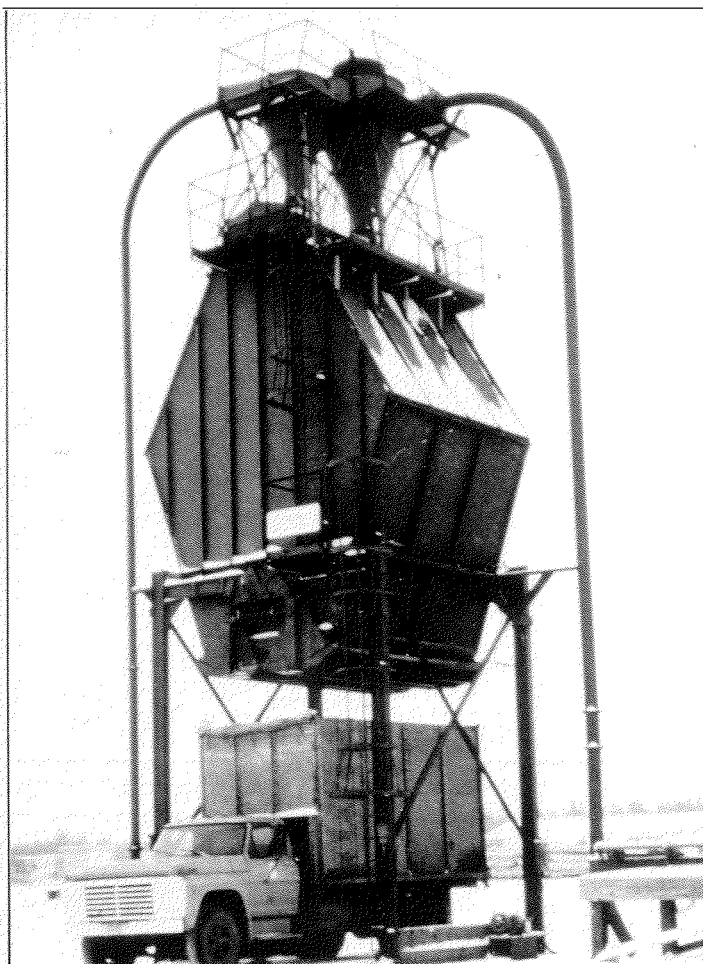
Net mean annual yield <sup>c</sup> in river discharges —'000 000 m <sup>3</sup>	42 589
--	--------

<sup>a</sup> Provincial and national parks, 1979-80.

<sup>b</sup> An animal unit month is the amount of forage provided for one animal unit for one month. One animal unit is defined as one mature cow with calf or their equivalent. Statistics include sheep and horses.

<sup>c</sup> Difference between outflow and inflow river discharges, with the majority of water being produced in a forested area.

Sources: Saskatchewan Energy and Natural Resources and Parks Canada.



Hog fuel storage bin

## Sources

Bonnor, G.M. 1982. Canada's forest inventory—1981. Environ. Can., Can. For. Serv., For. Stat. Syst. Branch, Ottawa, Ont.

Mullins, E.J. and T.S. McKnight (Eds.). 1981. Canadian woods, their properties and uses. 3rd ed. University of Toronto press, Toronto, Ont.

Ondro, W.J., R.A. Bohning, H.M. Stewart, and G.R. Stevenson. 1981. A directory of primary wood-using industries in Saskatchewan, 1980. Environ. Can., Can. For. Serv., North. For. Res. Cent., Edmonton, Alta. Inf. Rep. NOR-X-232.

Parks Canada, Western Region. 1980. Visitor Services figures for 1979-80, Calgary, Alta.

Saskatchewan Tourism and Renewable Resources. 1980. Annual report 1979-80. Sask. Tourism Renewable Resour., Regina, Sask.

Statistics Canada. 1980. Canada year book 1979-80, Cat. No. 11-202; Canadian forestry statistics 1979, Cat. No. 25-202; Corporation taxation statistics 1979, Cat. No. 61-208; Logging 1979, Cat. No. 25-201; Manufacturing industries of Canada, national and provincial areas 1979, Cat. No. 31-203; Survey of production 1979, Cat. No. 61-202; System of national accounts, provincial economics accounts, experimental data 1979, Cat. No. 13-213. Stat. Can., Ottawa, Ont.





Loading logs on a sleigh "scooter," 1921

## Credits

The Northern Forest Research Centre gratefully acknowledges the cooperation of the forest industry in Saskatchewan and its participation in the survey that produced some of the information reported here.

Detailed results of the survey were published in *A directory of primary wood-using industries in Saskatchewan, 1980*, Information Report NOR-X-232.

This Forestry Report was prepared by the Forest Economics group: W.J. Ondro, T.B. Williamson, R.A. Bohning, J.P. De Franceschi, and H.M. Stewart.

Editors: Judy Samoil and Gordon Turtle

© Minister of Supply and Services Canada 1982  
Cat. No. Fo29-3/26-1982E  
ISBN 0-662-12224-0  
ISSN 0709-9959

Northern Forest Research Centre  
5320 - 122 Street  
Edmonton, Alberta T6H 3S5  
(403) 435-7210

Canada



**Environment  
Canada**

**Canadian  
Forestry  
Service**

**Environnement  
Canada**

**Service  
canadien des  
forêts**