

The Institute also undertakes contract research projects on a cost reimbursement basis for individual companies or groups of companies in the pulp and paper or allied fields. The larger of these co-operative contracts have been concerned with problems of particular segments of the Canadian pulp and paper industry, such as the investigation into the causes of corrosion in alkaline pulping equipment and the recent study of the rapid deterioration of paper machine wires.

A further function of the Institute is to provide a broad range of technical information services to the industry and, to some extent, to other industries and the public. It maintains a specialized library for this purpose which supplies bibliographies, abstracts, translations and critical reviews to the scientific staff and the industry.

Section 5.—Forest and Allied Industries

This Section is concerned with the many industries employed in the felling of timber in the forest and its transformation into the numerous utilitarian shapes and forms required in modern living. The basic industries provide the raw material for sawmills, pulp and paper mills and for a wide range of secondary industries that convert the products of the basic industries into more highly manufactured goods such as veneers and ply-woods, sash and doors, furniture, and a vast range of industries using wood in any form in their processes. These industries, especially the pulp and paper industry and the lumber industry, contribute substantially to the value of the export trade of Canada and thereby provide the exchange necessary to pay for a large share of the imports purchased from other countries, particularly the United States.

Subsection 1.—Woods Operations

In connection with operations in the woods, the forests provide not only the raw materials for the sawmills, pulp mills, veneer mills, charcoal, excelsior and other plants, but also the logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products that are finished in the woods ready for use or export. A number of minor forest products help swell the total, such as Christmas trees, cascara bark, balsam gum, resin, etc.

Estimates of woods operations attempt to give actual production figures for all items and are based partly on provincial forest service data for volume. Value, as currently estimated, excludes transportation costs.

7.—Value of Woods Operations, by Product, 1955-59

Product	1955	1956	1957	1958	1959
	\$	\$	\$	\$	\$
Logs and bolts	393,860,833	443,888,332	409,226,544	311,746,286	344,424,102
Logs for pulping	38,985,790	33,581,745	25,827,900	21,489,973	32,114,964
Pulpwood	330,490,498	385,889,223	314,407,202	253,663,933	288,129,343
Fuelwood	34,361,586	37,097,923	36,656,139	29,105,108	26,519,755
Poles and piling	17,082,451	23,219,870	20,930,794	8,146,102	7,495,040
Round mining timber	3,432,932	3,615,647	3,032,954	2,568,121	2,136,621
Fence posts	2,071,988	2,286,222	2,644,749	2,369,596	2,955,812
Hewn ties	627,082	626,481	664,683	317,262	235,131
Fence rails	248,359	292,183	326,877	275,820	267,970
Wood for charcoal	370,947	847,847	502,170	459,750	448,000
Miscellaneous roundwood	408,275	130,445	102,759	803,355	1,514,855
Other products	7,631,973	8,026,684	8,731,727	7,665,202	9,474,407
Totals	829,572,714	939,142,602	823,054,498	638,610,508	715,716,000