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WOOD SHAKES AND SHINGLES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA LIBRARY

FOREWORD

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In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to growth and prosperity. Promoting improved performance by Canadian firms in the global marketplace is a central element of the mandates of Industry, Science and Technology Canada and International Trade Canada. This Industry Profile is one of a series of papers in which Industry, Science and Technology Canada assesses, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological, human resource and other critical factors. Industry, Science and Technology Canada and International Trade Canada assess the most recent changes in access to markets, including the implications of the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the profiles.

Ensuring that Canada remains prosperous over the next decade and into the next century is a challenge that affects us all. These profiles are intended to be informative and to serve as a basis for discussion of industrial prospects, strategic directions and the need for new approaches. This 1990–1991 series represents an updating and revision of the series published in 1988–1989. The Government will continue to update the series on a regular basis.

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Michael H. Wilson Minister of Industry, Science and Technology and Minister for International Trade

Introduction

The forest products sector is a major component of the Canadian economy. In 1990, industries in the Canadian forest products sector had shipments totalling \$38.7 billion and exports of \$22 billion. That same year, they contributed \$19 billion to Canada's trade balance.

The forest products sector is of crucial economic importance to all regions of the country. Over 350 single-industry communities depend on it for their economic well-being. It provides direct employment for almost 300 000 people, including approximately 45 000 people in logging activities.

The forest products sector is composed of two major industry groups: paper and allied products industries and wood industries. The paper and allied products industries account for approximately 63 percent of total shipments and employ approximately 130 000 people. This group is made up of two distinct segments: firms producing pulp and paper (market pulp, newsprint, fine papers and paperboard) and those making converted or value-added paper products (packaging, coated papers, business papers and stationery, tissue and other consumer paper products).

Wood industries account for 37 percent of total shipments and employ approximately 125 000 people. This group consists of two segments: firms making commodity products (e.g., lumber, plywood, shakes and shingles, veneer, particleboard, medium-density fibreboard, oriented strandboard (OSB)/waferboard) and those manufacturing valueadded wood products (e.g., manufactured housing, doors, windows, kitchen cabinets, hardwood flooring, pallets and millwork).



Profiles regarding pulp, paper and allied products industries are available on

- · Book, Writing and Coated Paper
- · Kraft Papers, Boxboard and Containerboard
- · Market Pulp
- Newsprint and Uncoated Mechanical Printing Paper
- · Value-Added Paper Products

Profiles dealing with lumber and allied products industries are available on

- Lumber
- Value-Added Wood Products
- Wood-Based Panel Products
- · Wood Shakes and Shingles

Structure and Performance

Structure

The wood shakes and shingles industry comprises firms that produce premium residential roofing and siding products. Cedar is the material of choice because it offers several unique characteristics, including its rich, earthy colours, subtle patterns and texture, ease of installation, low maintenance and durability. In addition, because they are considered a prestigious roofing material, cedar shakes and shingles are often specified by architects for fine homes, elegant shops, churches and public buildings.

Shakes and shingles generally are laid in overlapping rows so that only a portion is exposed to weathering. Shakes are generally thicker than shingles. While shakes and shingles both can be used for roofs and walls, shakes tend to be used mainly for roofs, where thickness is an advantage in the weathering process. Shingles are sawn from blocks of wood on a carriage saw, whereas most shakes are produced from blocks of wood that have been mechanically split into very short (measuring about 60 centimetres or 24 inches) blanks and then diagonally sawn to produce two tapered shakes, each with one smooth sawn face.

The Canadian wood shakes and shingles industry consists of two subsectors: one located in British Columbia and the other in the Quebec/New Brunswick area. The larger B.C. subsector is based on western red cedar, while the much smaller eastern sector is based on white cedar.

The principal raw material used by this industry is old-growth western red cedar that is 200 to 300 years old. Such stands are found only in the Pacific Northwest of the



United States and in British Columbia; some 80 percent of the North American inventory is located in British Columbia. In 1989, the B.C. Ministry of Forests estimated the total volume of mature cedar in the province to be 875 million cubic metres. This supply would be enough cedar to support current levels of shake and shingle production in British Columbia for more than 75 years. White cedar is the principal raw material in the Eastern Canadian subsector. It is smaller in diameter than western red cedar and its properties are also somewhat different.

There were approximately 190 mills operating in the Canadian industry in 1989. They employed about 3 000 people and shipped an estimated \$85 million worth of shingles and \$160 million worth of shakes (Figure 1). This industry's shipments represent about 2 percent of the total shipments of the Canadian wood products sector.

While Canada is the world's largest exporter of wood shakes and shingles, the market for Canadian production is almost entirely in North America. Exports in 1989 totalled \$215 million, of which \$209 million went to the United States. Only about 2 to 3 percent of Canadian production is exported offshore. Imports into Canada are negligible.

In 1989, about 90 percent of B.C. shake and shingle production was exported to the United States. While California is the largest single market for B.C. shake and shingle producers, accounting for more than 50 percent of B.C. exports, Washington and Oregon are also very important markets. However, a significant share of B.C. shipments to those states are further processed before being sent on to other markets, such as California and the northeastern United States. More



than 90 percent of Eastern Canadian production is exported to nearby markets in the northeastern United States, where it is used mainly as siding. Offshore shipments make up less than 1 percent of production.

Of the 190 mills in Canada, some 150 are located in British Columbia, which turn out almost 90 percent of Canadian shake and shingle production. B.C. production comprises about two-thirds of the nation's shingle output and 100 percent of shake output. While mills are located in all parts of the province where western red cedar is found, most of the production is concentrated in the lower Fraser River valley. Four or five major brokers (most of whom are also mill owners), accounting for over half the provincial production, handle the marketing and sales for all the mills in this area. In addition, these brokers act as sales agents for up to another 50 companies in other areas of the province. In total, they account for about 80 percent of the shake and shingle exports from British Columbia.

The Eastern Canadian subsector is involved solely in the production of shingles. The output of shingles in Quebec and New Brunswick accounts for about 9 and 4 percent, respectively, of total industry production; however, eastern production represents more than 30 percent of total Canadian shingle output.

Ownership of this industry is mainly in the hands of Canadian private entrepreneurs. While there are a few large companies with multiplant operations, most companies are small, single plants, varying in size from individual operations to larger firms with more than 50 employees. While the small enterprises (fewer than 10 employees and only one to four machines) constitute over 80 percent of the establishments in the industry, the larger mills account for more than 75 percent of the annual production. Although most mills in British Columbia produce only shakes, the larger establishments produce a variety of both shakes and shingles. There is very little integration with other types of industries in the forest products sector.

The demand for shake and shingle products is driven by a combination of roofing and siding needs for new construction and reroofing and re-siding requirements for existing buildings. During average years, about one-quarter of consumption is in new construction, the remainder being used for reroofing or re-siding. The average life span for shakes and shingles is 20 to 30 years and that for treated products can be as long as 50 years.

Performance

During the past two decades, there has been a significant shift in product mix. In the early 1970s, approximately twothirds of total industry production was shingles. Since that time, market preference for western red cedar shakes has steadily grown, while that for western red cedar shingles has declined. The decline in red cedar shingle production was initially related to shortages of skilled shingle sawyers. However, inherent advantages to shake production, such as higher fibre recovery and lower requirements for labour and capital, encouraged B.C. producers to reinforce the shift away from shingle production toward shake production.

The shift in product mix continued as the market for shakes developed. Production of western red cedar shakes grew from about one million roof squares¹ in 1973 to about 2.4 million in 1989 and now represents over two-thirds of total B.C. production. Over this same period, output of B.C. western red cedar shingles fell from 1.6 million roof squares to less than one million. In Eastern Canada, however, production of shingles manufactured from white cedar increased from 350 000 roof squares in 1973 to more than 600 000 in 1989.

Recent industry performance falls into two phases. Between 1973 and 1986, Canadian production of shakes and shingles experienced very significant growth, increasing by about 70 percent to a peak of 5.3 million roof squares. This reflected generally strong North American housing starts, a preference for premium roofing and the difficulty U.S. mills were having in meeting the competition due to resource supply and quality limitations. During this period, U.S. shake and shingle output was reported by the United States International Trade Commission (USITC) to have declined by 55 percent. Canadian producers, with their better resource supply, had increased their market share to about 70 percent of U.S. consumption by 1985.

In June 1986, following an investigation under Section 201 of the U.S. *Trade Act of 1974*, the United States imposed a five-year program of tariffs, starting at 35 percent, on imports of western red cedar shakes and shingles. These tariffs do not apply to shingles of other species, such as those of eastern white cedar produced in Quebec and New Brunswick. As a result, Canadian exports by 1988 had declined by 34 percent from the 1986 level to a low of 2.6 million roof squares. In 1989, with a reduction in the tariff from 35 to 20 percent and a decrease in prices for shakes and shingles, there was a modest improvement in exports, which increased by 12 percent over 1988 levels.

Since 1986, overall production performance has paralleled exports, as Canadian production is heavily exportoriented. The drop in exports was reflected in total shipments and employment (see Figure 2). For 1989, the production of western red cedar shakes and shingles was estimated at 3.3 million roof squares.

¹A roof square represents sufficient shakes or shingles to cover 100 square feet (9.29 square metres) of surface area.





Building codes in some American cities, especially those in Texas and California, now restrict the use of wood roofing by requiring wood roofs to be treated with fire retardants. The increased cost (20 to 30 percent) of treating wooden shakes and shingles has given other forms of roofing an opportunity to compete and increase their market share. Manufacturers of steel, concrete tile and asphalt shingles have introduced new products designed to imitate the appearance of cedar shakes and shingles. The inherent fire resistance of these products (and, in some cases, their lower cost) has further intensified competition for Canadian wood shake and shingle producers.

The financial performance of the Canadian industry is difficult to gauge because most operations are privately owned firms that do not publish financial reports. The imposition of the 35 percent tariff on western red cedar shingles and shakes in June 1986 did not translate into an equivalent price increase in the marketplace. An analysis of prices f.o.b. (free on board) the mill gate, including the duty, showed that the average price of shakes increased from U.S.\$39 in May 1986 to U.S.\$51 in May 1987, an increase of just over 30 percent. The average price of shingles for the same period increased from U.S.\$54 to U.S.\$62, an increase of 15 percent. These figures indicate that a substantial portion of the tariff was absorbed by the mills, the wood suppliers and the distributors in the form of lower profit margins.

In 1990, the Canadian industry showed a modest improvement in performance relative to 1989 output. Although the North American economies and housing starts had significant downturns in the second half of 1990, two major factors influenced Canadian demand. The reduction in the U.S. tariff rate from 20 percent in 1989 to 10 percent in 1990 stimulated a slight increase in exports. In addition, two major storms in the United States, which destroyed thousands of shake and shingle roofs, also resulted in an increased demand for Canadian exports in 1990.

The 1991 outlook is for a further decline in housing starts in both the United States and Canada. This trend is expected to result in some decrease in output for the wood shakes and shingles industry, although elimination of the tariff in June 1991 will help to soften the decline.

Strengths and Weaknesses

Structural Factors

On average, Canadian mills are slightly larger than their U.S. competitors due, in part, to the larger resource supply available to most Canadian mills. Resource availability is a major competitive factor, since about 50 percent of the total production cost is accounted for by round logs.

Although the volume of western red cedar available to the industry is relatively assured well into the next century, the B.C. subsector generally has little control over the wood supply. It relies on logs for more than 70 percent of its raw material but does not own or have access to any significant amount of harvesting rights. It is almost totally dependent on the open log market for the bulk of its raw material. As a result, the B.C. subsector is vulnerable to factors affecting the kind and volume of logs available on the market at any given time. The volume of logs reaching the market could depend on such factors as the logging plans of harvest tenure licensees and competing markets for lumber.

The white cedar material used by the Eastern Canadian subsector is converted into products with a lighter colour than those made from western red cedar. Because of the strong demand related to favourable market acceptance and tariff-free access to U.S. markets, the white cedar shingles subsector has expanded production to near the theoretical maximum possible, based on the resource supply available in Canada and imports from Maine. Little resource potential exists in Eastern Canada to support significant expansion of this subsector.

The industry in the United States is facing considerable difficulty regarding the quantity and quality of western red cedar. American production of shingles from white cedar is very limited.

While the industry is labour-intensive, there has been a declining employment trend, which reflects the higher proportion of shake production and the impact of automated sawing equipment. Employees can be trained in a relatively short period of time and the piecework rate or wage rate is



sufficiently high to be attractive. In periods of peak demand, however, there may be shortages of suitable skilled personnel. The level of technology is essentially the same in Canada as in the United States.

Both the American and Canadian red cedar-based subsectors are located some distance from their major markets in California and the northeastern United States. Therefore, producers face transportation cost disadvantages when competing with producers of alternative roofing and siding products in those markets. This transportation cost is reduced to some extent by the extensive use of backhaul trucking for fruit and vegetables brought north to the state of Washington and British Columbia. Eastern Canadian mills have a relative transportation cost advantage, since they are closer to markets in the northeastern United States than producers who also serve that market from British Columbia and the northwestern United States.

A number of methods are used to sell cedar shakes and shingles to the U.S. market. Most of the larger mills and some of the medium-sized producers have established close customer relationships and sell on a direct basis to customers in the United States. The majority of sales are made through brokerage firms, many of which operate their own mills and, in addition, act as sales agents for the smaller establishments. They have developed experienced sales organizations and extensive networks of sales contacts in the United States. The brokerage firms represent the mills under a number of different contractual arrangements. They may buy the product outright from the smaller mills and take title to it, assuming all risk and responsibilities associated with the sale, or they may sell on a commission basis for rates that are negotiated.

The brokers perform a variety of services in addition to generating sales. The most common of these involves consolidating small quantities from the various producers they represent into loads that can be shipped economically. They may also provide other services, including furnishing raw materials, extending credit, or providing further processing services such as kiln-drying, fire-retardant treatment, preservative treatment and remanufacturing.

Cedar shakes and shingles are generally sold on an f.o.b. basis. Prices are determined by negotiation between buyers and sellers or their agents.

Comparative price information on competing products shows that cedar shakes and shingles are approximately double the price of asphalt shingles. However, because cedar shakes and shingles compete in the more prestigious medium- to high-priced market that is interested in aesthetic appeal as much as price, its main competitors are other upscale products such as clay tile, slate, certain fibre cements and other artificial products. These products generally are comparable in price or are more expensive. While most of the production is shipped green in strapped bundles, some Canadian mills manufacture products with more value-added. For example, shakes may be treated with fire retardants, and shingles for home siding may be sanded, grooved and kiln-dried. In 1989, fire-retardant shakes and shingles accounted for about 12 percent of total production in response to code specifications and building by-laws of an increasing number of key regional markets in the United States.

Concerns about protecting the environment have a strong impact on this industry. The most important immediate issue is the disposal of mill waste. Residue chips produced have always been at the low end of the chip market because of cedar's low density and high resin content. They can usually be sold to pulp mills only during periods of exceptional demand. Cedar shavings have limited use and are virtually unsalable as fuel because of the high moisture content and the texture of cedar bark. While burning and landfill are the traditional means of disposal, these are becoming increasingly unacceptable due to environmental constraints.

Trade-Related Factors

Prior to June 1986, trade with the United States was duty-free, and non-tariff barriers did not exist. Production in both countries is graded to similar product standards.

Following the 1986 petition by the U.S. cedar shakes and shingles industry for protection from imports and the subsequent investigation by the USITC, sales of Canadian red cedar shingles and shakes were curtailed by the new U.S. tariff. It invoked a 35 percent tariff for a 30-month period, falling to 20 percent for the next 24 months and to 8 percent for the final six months of the five-year program. As part of the original measure, the President of the United States was to decide by 6 December 1988 whether the program of declining tariffs should be terminated or revised. His decision was to revise the tariff schedule and, from 7 December 1988, the rate was reduced to 20 percent for a period of one year, before being reduced again to 10 percent until 6 December 1990 and to 5 percent for the final six months.

The impact of the 35 percent tariff was twofold: prices in the United States increased, reflecting in part the added tariff, and demand for Canadian western red cedar shakes and shingles declined. As a result, Canadian exports to the United States between 1986 and 1988 declined by more than 1.3 million roof squares.

In addition, a good market developed for western red cedar lumber during this period, which encouraged sawmills to purchase some of the lower-quality logs previously processed only by the shakes and shingles industry. This practice added to the upward pressure on raw material wood costs for shake and shingle producers.



These changes to Canada's competitive position allowed producers of competing non-wood roofing products as well as the U.S. shakes and shingles industry to increase their market shares. U.S. production grew by more than 600 000 roof squares, and Canadian shake and shingle operations found it increasingly difficult to compete. An estimated 20 Canadian plants employing over 400 people closed during this period. At the same time, white cedar shingle exports, which are not subject to the tariff, rose by about 10 percent (50 000 roof squares) between 1986 and 1988. Although export markets improved somewhat in 1989 and 1990, it is too early to tell whether the market share lost to competing products throughout this period will be recovered.

Under the Canada-U.S. Free Trade Agreement (FTA), implemented on 1 January 1989, the United States bound the previous duty-free entry of western red cedar shakes and shingles and will restore duty-free treatment upon termination of the current Section 201 action discussed earlier. The FTA also sets out stringent preconditions for the application of such measures in the future. For instance, while either party may suspend tariff reductions on particular products, the period is limited to three years, unless the other party agrees to an extension. As well, the party taking the action must provide compensation for the suspension of duty reductions. These obligations, along with the dispute settlement provisions of the FTA, are expected to play a key role in preventing a repeat of such import restrictions in the future.

Market acceptance of Canadian shakes and shingles as a premium product in offshore markets is limited. In markets where increased sales appear possible, a substantial promotional program would be required to increase the awareness of architects, builders and consumers.

The duty on imports into the European Community (EC) is 4.9 percent and is not considered a significant impediment to trade. In the EC, the shake and shingle roofing market is restricted by building codes that ban the use of wood on urban roofs. Demand is primarily for other premium uses, such as for chalets and interior decoration in the rural areas.

Technological Factors

Production systems used by shingle mills were developed in the 1920s, and relatively few significant advances have been made over the past several decades. On the other hand, shake production technology has seen developments such as hydraulic splitters and automated sawing equipment, which were adopted in the late 1970s and early 1980s. Automated saws eliminated one or two jobs per shake production line and greatly increased productivity. Although the Canadian industry rapidly implemented this new shake technology, there has been little fundamental process change because the smaller, independent entrepreneur cannot afford to conduct basic process research. Most improvements are undertaken by the larger producers. Research and development is mainly directed toward product improvement through, for example, pressure treatments, insulation value enhancement and fasteners.

There is a significant opportunity for productivity and process improvement through the use of scanner technology to determine how best to use the raw log or bolt. Development of value-added specialty products, such as shingles with fancy butt styles (e.g., round, diagonal, octagonal, half-cove) in different sizes and prestained shingles in different colours could permit producers to create and capture market niches. Research on exterior fire retardants and wood preservatives is important to maintain the industry's market share in the face of competing materials. Such research is usually undertaken by the chemical industry; however, some of the larger shake and shingle operations have become more directly involved. They have hired research organizations to conduct testing of the products for a variety of things, including weathering, flame and fire resistance, and insect protection.

Other Factors

Conditions confronting the total forestry sector have altered appreciably since the 1987 inception of the 15 percent export charge on Canadian softwood lumber to the United States.² In the two largest lumber-producing regions, British Columbia and Quebec, the provinces introduced replacement measures (by substantially increasing the royalty charges based on stumpage) to offset in whole or in part the export charge to the United States. These measures have had a major impact on the cost of production in all forest industries in the form of a substantial increase in raw wood input costs. While the Canadian export charge was dropped in 1991, the higher provincial stumpage fees remain.

The industry has expressed concern about the relatively higher value of the Canadian dollar in recent periods vis-à-vis the American dollar (Figure 3). On the other hand, under certain economic conditions, it is widely recognized that a significantly lower value is likely to be inflationary. The resulting higher domestic costs and prices can erode, over time, the short-term competitive gains of such a lower-valued dollar.

Evolving Environment

Traditionally, the major Canadian shake and shingle markets were located on the Pacific Coast, in Texas and in

²For details, see the industry profile on Lumber.





the northeastern United States. The Pacific Coast market has increased in recent years and currently consumes more than 50 percent of total Canadian production. Texas accounted for almost 25 percent of consumption in the early 1970s, but this share has now dropped to less than 4 percent. Reasons for the sharp drop in sales to Texas, which is traditionally a shingle rather than a shake market, include concern about wood roofs as a fire hazard, the depressed state of the Texas economy, product cost and the emergence of competing products.

The trend toward limiting the use of wood shakes and shingles in residential roofing because of fire concerns is the single most critical issue confronting the industry. In August 1989, the City of Los Angeles banned wooden roofs, whether or not they had been treated. If the ban remains in effect, it could set a precedent in North America that could be very damaging to the industry if it spreads to adjacent jurisdictions and other markets throughout the United States. Industry survival could depend on isolating and countering the effect to avoid similar actions in other jurisdictions.

The Western Red Cedar Shake and Shingle Market Development Program, initiated in 1987 with support from the federal government as well as from the Canadian and U.S. industries, is designed to enhance product image and acceptance in the United States, thereby recovering lost market share over the long term. The B.C. Shake and Shingle Association represents the industry's interests, working closely with the Cedar Shake and Shingle Bureau of Bellevue, Washington. Product image and market acceptance are being enhanced through an educational campaign delivered via selected media, as well as through personal contact with builders, architects, contractors, insurance agents, firefighters, legislators and regulatory officials. Its aim is to increase awareness in the roofing market that treated red cedar shakes and shingles meet U.S. building code requirements.

In addition, a major initiative to further enhance product image and market acceptance was implemented on 1 January 1991 when the majority of the western red cedar industry contracted out quality control responsibilities to an independent third-party inspection agency. The western red cedar industry's agreement to give up self-inspection is a major step forward in ensuring consistent product quality.

While the FTA did not affect the five-year program of U.S. tariffs established in 1986, provisions governing the nature of any additional or subsequent restrictive measures will improve security of access to the U.S. market in the future.

The by-products of shake and shingle mills constitute an environmentally sensitive disposal problem, which will have to be addressed. The future thrust will be to use mill wastes for fibreboard and power cogeneration, together with cleaner-burning facilities.

At the time of writing, the Canadian and U.S. economies were showing signs of recovering from a recessionary period. During the recession, companies in the industry generally experienced reduced demand for their outputs, in addition to longer-term underlying pressures to adjust. In some cases, the cyclical pressures may have accelerated adjustments and restructuring. With the signs of recovery, though still uneven, the medium-term outlook will correspondingly improve. The overall impact on the industry will depend on the pace of the recovery.

Competitiveness Assessment

The Canadian western red cedar shakes and shingles subsector is very competitive with its counterpart in the western United States, especially in terms of resource supply and cost. However, the imposition of the 35 percent tariff had a major impact on the position of the British Columbia western red cedar subsector. Exports decreased significantly and in 1990 were down by almost one million roof squares from the 1986 level. Producers of competing products were given an opportunity to increase market share and have continued to directly position their product against cedar shakes and shingles, on safety and durability attributes as well as on appearance. The introduction in recent years of better-guality artificial shingles with added thickness and an expanded range of colours and shadings has increased the degree to which these products compete with cedar shakes and shingles.



Competing products have been outperforming the shakes and shingles industry. Market share declined from 11 percent in the late 1970s to about 5 percent of the total U.S. market in 1989. To deal effectively with this decline in market share, the shakes and shingles industry must continue to represent itself as a manufacturer of a specialty, high-value, high-quality product. Product treatment processes using fire-retarding and decay-inhibiting chemicals are continuing to be developed and upgraded as treated products become increasingly more important to address emerging market concerns regarding product safety and longevity.

With the elimination of U.S. tariffs on Canadian western red cedar shakes and shingles in 1991, the western subsector is expected to be in a better cost-competitive situation. Because the U.S. tariff did not apply to white cedar shingles, this subsector gained an advantage in its marketplace and had some modest growth; it is expected to continue to dominate markets for white cedar shingles. White cedar shingle production is limited by constraints on the supply of raw material, and the outlook for expansion is moderate at best. However, the value-added specialty shingle products being developed will provide the industry with the opportunity to create and capture new markets.

For further information concerning the subject matter contained in this profile or in the initiative listed on page 12, contact

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PRINCIPAL STATISTICS^a

	10725	1004	1095	1090	1007	1000	1000
	19/30	1904	1900	1900	1907	1900	1909
Establishments	130	220	220	210	190	190	190
Employment	2 600	3 500	3 500	3 400	3 000	3 000	3 000
Shipments (\$ millions)	90	298	291	300	245	240	245
(millions of roof squares)	3.0	5.2	5.3	5.2	4.3	3.7	3.9

aISTC estimates. For complete industry statistics, see *Wood Industries*, Statistics Canada Catalogue No. 35-250, annual (SIC 2511, shingle and shake industry).
bData for this year are not strictly comparable with data for other years shown, due to changes in the definition of the industry that were introduced in the revised edition of *Standard Industrial Classification*, 1980, Statistics Canada Catalogue No. 12-501.

T	RA	DE	STA	TIST	FICS	

	1973 ^a	1984	1985	1986	1987	1988b	19895
Exports ^c (\$ millions)	80	265	257	268	218	211	215
Domestic shipments (\$ millions)	10	33	34	32	27	29	30
Importsd (\$ millions)	-	2	3	4	4	4	4
Canadian market (\$ millions)	10	35	37	36	31	33	34
Exports (% of shipments)	89	89	88	89	89	88	88
Imports (% of Canadian market)	-	6	8	11	13	12	12

^aData for this year are not strictly comparable with data for other years shown, due to changes in the definition of the industry that were introduced in the revised edition of *Standard Industrial Classification*, 1980, Statistics Canada Catalogue No. 12-501.

It is important to note that data for 1988 and after are based on the Harmonized Commodity Description and Coding System (HS). Prior to 1988, the shipments, exports and imports data were classified using the Industrial Commodity Classification (ICC), the Export Commodity Classification (XCC) and the Canadian International Trade Classification (CITC), respectively. Although the data are shown as a continuous historical series, users are reminded that HS and previous classifications are not fully compatible. Therefore, changes in the levels for 1988 and after reflect not only changes in shipment, export and import trends, but also changes in the classification systems. It is impossible to assess with any degree of precision the respective contribution of each of these two factors to the total reported changes in these levels.

"See Exports by Commodity, Statistics Canada Catalogue No. 65-004, monthly.

dSee Imports by Commodity, Statistics Canada Catalogue No. 65-007, monthly.





SOURCES OF IMPORTS^a (% of total value)

	1984	1985	1986	1987	1988	1989
United States	100	100	100	100	100	100

^aSee Imports by Commodity, Statistics Canada Catalogue No. 65-007, monthly.

DESTINATIONS OF EXPORTS^a (% of total value)

	1984	1985	1986	1987	1988	1989
United States	99	99	99	98	98	97
European Community	1	1	1	1	1	1
Other		-	-	1	1	2

^aSee Exports by Commodity, Statistics Canada Catalogue No. 65-004, monthly.

REGIONAL DISTRIBUTION^a (average over the period 1986 to 1988)

	New Brunswick	Quebec	British Columbia	
Establishments (% of total)	5	13	82	
Employment (% of total)	4	15	81	
Shipments (% of total)	4	9	87	

aISTC estimates.





MAJOR FIRMS

Name	Country of ownership	Location of major plants
Anglo-American Cedar Products Ltd.	Canada	Mission, British Columbia
Clayton Cedar Products Ltd.	Canada	Pitt Meadows, British Columbia
Fraser Cedar Products Ltd.	Canada	Maple Ridge, British Columbia
Green River Log Sales Ltd.	Canada	Mission, British Columbia
Langley Forest Industries Ltd.	Canada	Clearbrook, British Columbia
Maibec Industries Inc.	Canada	Sainte-Foy, Quebec
Meeker Cedar Products (1967) Ltd.	Canada	Mission, British Columbia
Parker Cedar Products Ltd.	Canada	Surrey, British Columbia
Scott Cedar Products Ltd.	Canada	Mission, British Columbia
Sovebec Inc.	Canada	Charny, Quebec
Vedder River Shake & Shingle Ltd.	Canada	Maple Ridge, British Columbia

INDUSTRY ASSOCIATION

B.C. Shake and Shingle Association 9414A - 288th Street MAPLE RIDGE, British Columbia V2X 8Y6 Tel.: (604) 462-8961 *Fax: (604) 462-9386*





SECTORAL STUDIES AND INITIATIVES

The following initiative has been recently supported by Industry, Science and Technology Canada.

Western Red Cedar Shake and Shingle Market Development Program

The Western Red Cedar Shake and Shingle Market Development Program is designed to enhance product image, awareness and acceptance in the United States and thereby recover lost market share. Program activities are directed to industry development, research and development, quality control and standards, building codes, advertising and product promotion. The overall thrust centres on an educational and awareness campaign delivered in selected media as well as by direct contact with builders, architects, code authorities and other related regulatory bodies such as fire marshals, legislators and of course wholesalers and distributors.

The program was initiated in May 1987 and it is to be completed on or before 31 May 1992. It is financially supported by the Government of Canada as well as by Canadian and U.S. industry contributions.





