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INDUSTRY PROFILE

Industry, Science and Technology Canada
Industrie, Sciences et Technologie Canada

Malting

Canada

INDUSTRY PROFILE

MALTING

1988

FOREWORD

In a rapidly changing global trade environment, the international competitiveness of Canadian industry is the key to survival and growth. This Industry Profile is one of a series of papers which assess, in a summary form, the current competitiveness of Canada's industrial sectors, taking into account technological and other key factors, and changes anticipated under the Canada-U.S. Free Trade Agreement. Industry participants were consulted in the preparation of the papers.

The series is being published as steps are being taken to create the new Department of Industry, Science and Technology from the consolidation of the Department of Regional Industrial Expansion and the Ministry of State for Science and Technology. It is my intention that the series will be updated on a regular basis and continue to be a product of the new department. I sincerely hope that these profiles will be informative to those interested in Canadian industrial development and serve as a basis for discussion of industrial trends, prospects and strategic directions.

Robert de Cotret

Minister

Canada

1. Structure and Performance

Structure

The Canadian malting industry comprises three firms primarily engaged in the conversion of whole grain barley into malt. Malt is produced from selected premium-quality barley which has been cleaned, steeped, germinated and dried to effect biochemical changes within the grain. Malt is used by the brewing, distilling and various food and confectionery industries.

Malt production is both a small and mature industry. Since 1984, shipments have not exceeded $200 million annually. Exports over the same period have been falling and are estimated at less than $50 million, although recently they have shown some improvement. Imports tend to be specialty malts and are negligible. Total employment has also been declining in the industry and is not likely to exceed an estimated 600 people.

In 1986, approximately 460 000 tonnes of malt was produced in Canada. Approximately 320 000 tonnes of this total was used domestically and the remaining amount was exported. In that year, virtually all Canadian malt for domestic use was purchased by the brewing industry, with distilling and food processing concerns purchasing only 7500 tonnes. Export markets for malt include the Pacific Rim (primarily Japan) and, to a lesser extent, the United States, the Caribbean area and South America.

There are five malting plants in Canada, three of which are owned by the largest firm, Canada Malting Co. Limited. A public company, Canada Malting has plants in Calgary, Thunder Bay and Montréal, which collectively represent about 65 to 70 percent of total industry capacity. Prairie Malt Limited and Dominion Malting Ltd. each owns and operates a single plant in Saskatchewan and Manitoba respectively.

The industry is largely Canadian-owned. Malt producers have longstanding business affiliations with Canadian brewing firms. Dominion Malting is chief supplier to Carling O'Keefe, while Labatt Breweries of Canada Limited and Molson Breweries of Canada Limited are the two largest corporate shareholders of Canada Malting. Prairie Malt is a Saskatchewan Crown corporation which exports about 70 percent of its production.

Production takes place in fairly large, capital-intensive facilities. The cost of malting barley generally makes up at least 60 to 65 percent of the product's final selling price to the domestic brewing industry. Processing costs make up another 20 to 25 percent, while fixed costs, transportation and profits account for the remainder.

Net earnings are usually less than seven percent on invested capital, but vary widely. They have traditionally been cyclical and dependent on the fluctuating prices for malting barley. Prices, volumes and quality of barley vary substantially from year to year with the weather and growing conditions in Canada as well as in other major barley-producing areas such as Australia, the United States and the European Community (E.C.).

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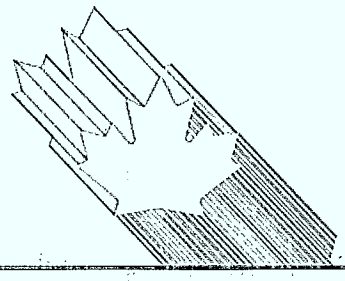


Performance

The decade ending in 1983 was characterized by generally steady growth. Total shipments of Canadian malt rose from about 450 000 tonnes in the early 1970s to 588 000 tonnes in 1983. Demand from Canadian breweries continued to grow after 1975, albeit at a slower rate, levelling off at 327 000 tonnes in 1983. Declining distillery needs during this decade were more than offset by a growing export demand which increased from about 150 000 tonnes in the early 1970s to some 257 000 tonnes by 1983.

Buoyant market conditions generated significant new industry investment as two new plants came on stream in 1978 and 1980: the first, a Prairie Malt operation in Biggar, Saskatchewan, the second established by Canada Malting in Montréal. Others were also modernized and expanded during that period. By 1983, eight plants were in operation, six of which were operated by Canada Malting.

By the early 1980s, market demand in most western economies, including Canada, had matured as a result of slow population growth and static consumption in alcoholic beverages. The economies of virtually all the developing countries, which account for the large majority of the world's malt imports, suffered during the global recession of the early 1980s. Developing countries began to face balance-of-payment problems and foreign-currency shortages, which made sales to these markets not only less predictable but also less profitable. In addition, E.C. production and exports were growing rapidly in competition with traditional suppliers like Canada and Australia.

During the 1982-83 peak period for Canadian malt exports, the two largest markets, Japan and the United States, accounted for 65 percent of exports, with the developing world and western Europe absorbing the rest. By 1985, export sales had fallen to 160 000 tonnes; the following year, to 140 000 tonnes, with Japan and the United States accounting for 85 percent of sales. During both 1985 and 1986, export sales to countries other than Japan and the United States, primarily to developing countries, had fallen to around 15 percent or about 20 000 tonnes.

Declining export markets, lack of domestic market growth, low returns on invested capital and the location of older plants on expensive real estate in Toronto and Winnipeg prompted some restructuring. Canada Malting closed three plants between 1985 and 1987, and, in 1988, it announced improvements and modest expansions at its remaining plants in Montréal, Thunder Bay and Calgary.

The industry is thus operating at a lower but more efficient level of production than in the early 1980s. With this rationalization, its overall financial health is good. Export markets and profit levels have shown some improvement since early 1987.

2. Strengths and Weaknesses

Structural Factors

The industry is linked with and highly dependent on developments in the brewing industry, which is the major user of malt. The level of Canadian beer sales in domestic and export markets is a key performance factor, since domestic brewers represent the largest and most stable market of the Canadian malt industry.

The Canadian Wheat Board (CWB) is the sole marketing agency for both domestic and export sales of malting barley, although it may make quantities available for export by the private trade. Canadian maltsters must therefore pay the price determined by the CWB for all malting barley of Canadian origin. This price is usually higher than that paid for this key input by their U.S. counterparts in the American domestic market.

The industry has ready access to key inputs as western Canada is a major producer and exporter of malting barley. Although weather conditions cause fluctuations in the quality and quantities available, the industry can normally count on the availability of premium malting barley. The industry also requires adequate supplies of competitively priced natural gas, and this is readily available to Prairie plants.

Export market demand for Canadian malting barley is also generally good. Most countries which have their own brewing industry increasingly have malting facilities also. Because of climatic considerations, not all countries are self-sufficient in malting barley. Canada produces excellent malting barley and, as world malting capacity grows, importing countries have the option of importing malting barley rather than malt.

The U.S. industry is constrained from being a major malt exporter by its large domestic market, which requires such great quantities of malting barley that only limited amounts are available for export. American maltsters produce more than 2.25 million tonnes of malt for domestic use. American farmers also tend to grow what have traditionally been the higher yielding, white alleurone, six-row barley varieties required in the domestic market and less of the two-row varieties required by the export market. Apart from some limited specialty purposes, Canadian blue alleurone six-row barley varieties are not acceptable to brewers in the U.S. market.

Canada thus grows more two-row barleys than the United States because it exports more of both malting barley and malt. Canadian price spreads between the six-row and the two-row varieties are smaller than in the United States. This fact enables Canadian maltsters to benefit from incremental export sales to the United States, primarily of two-row malts. These are valued at between $5 million and $10 million annually.

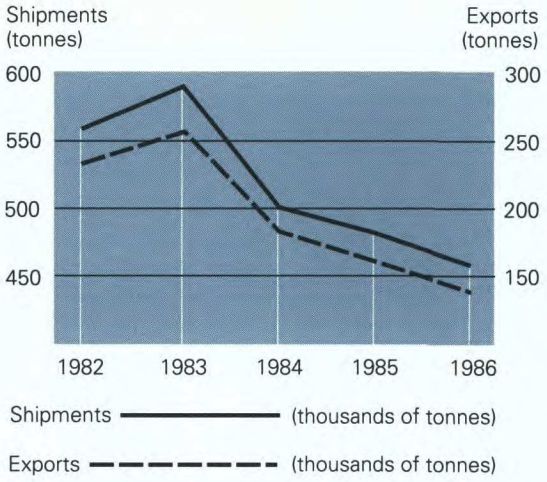
The industry faces a number of transportation constraints. Plants in the Prairie provinces are a long way from the large central Canadian market and in the case of exports, far from all-season ocean-shipping terminals. Container availability and handling costs represent an additional constraint for export shipments. As a result, the inland transportation and handling component of Canadian export sales costs is higher than that of E.C. and Australian maltsters. In addition, because Canada is off the major trading routes, transportation costs to many Latin American and African destinations are not competitive with those of major competitors.

The *Western Grain Transportation Act* (WGTA) provisions help to offset some of the rail transportation costs to port. These provisions are also available to assist unprocessed malting barley exports. Thus both Canadian malting barley and Canadian malt are eligible for assistance under the WGTA.

In addition to transportation problems, the industry must deal with a regulatory environment which tends to be more demanding in Canada than in the United States. At the provincial level, malting companies are required to maintain noise and particle-emission levels within acceptable standards. At the municipal level, malting companies in some locations face special site requirements such as for the disposal of large volumes of waste water.

The technology employed in malting has reached a fairly mature level on a global basis. On a plant-by-plant basis, Canadian malting technology and the scale of operation of individual Canadian plants compare favourably with those of competing exporting countries. North American plants are fewer in number but significantly larger and generally more efficient than their European counterparts.

Corporate vertical integration of brewing and malting limits sales for independent malting companies in both Canada and the United States. Major American breweries such as Coors operate their own malting facilities. Anhauser-Busch and Miller also have some malting facilities. Brewer-maltsters which produce malt for some or all of their own breweries account for an estimated 25 to 30 percent of U.S. malt output.



Total Shipments and Exports

Malt is a freight-sensitive commodity: thus the fact that the large, well-developed American malt industry is physically closer to U.S. breweries gives it some advantage in its own domestic market. The population of the western United States has grown in recent years, with the result that the market for beer there has also grown. To meet this shift in demand, the U.S. malt industry has responded with some new plant construction in the Pacific northwest.

Trade-related Factors

World markets for barley and malt have become increasingly affected by government intervention. In the E.C., customs tariffs on malt and malting barley have been replaced by an import levy system. High variable import levies, high export restitutions (export subsidies) and other significant incentives available to community farmers under the Common Agriculture Policy to increase barley production, have had a devastating effect on Canadian malt exports. The E.C. has become not only self-sufficient but a major world supplier of malt, providing more than 60 percent of world malt exports (close to 90 percent when shipments among E.C. countries are included).

In response to these E.C. initiatives which have made that region not only a prominent world supplier of malt, but of grains generally, recent U.S. farm legislation and export policies have focused on making U.S. grain more attractive on international grain markets. Both barley and malt have been eligible and have received export-subsidy assistance under the U.S. Export Enhancement Program in 1987 and early 1988.

The existing relatively low tariffs on malt are not significant barriers to trade in North America. The Canadian tariff on malt is C$0.73 per kg and on malting barley it is C$2.30 per tonne. Tariffs on malt in the United States are US$0.66 per kg and on malting barley, US$0.23 per kg.

In the case of Japan, total imports can be stipulated by a cabinet order and, on those imports, there are no customs tariffs. Beyond the quota limit, the tariff is 25 yen per kg. Since the purpose of the Japanese quota is to protect domestic malting barley production, which is fairly small, large volumes of malt are still imported. Canadian malt has a good reputation in Japan and neither the quota nor the tariff structure restrict Canadian shipments.

Canadian federal legislation requires import licences for both malting barley and malt. Since these licences are generally granted only for minor amounts of specialty malts not available from Canadian sources, the malt industry has been able to operate in a market protected from imports.

The Canada-U.S. Free Trade Agreement (FTA) eliminates both Canadian and American customs duties on malt and malting barley over a 10-year period.

The FTA could require Canada eventually to eliminate the import licences on both U.S. malting barley and malt. This action would occur at some future point if there is concurrence that the level of government support programs in the United States for barley or malt is equal to or less than the level of government support for commodities in Canada. Canada, however, reserves the right to require end-use certificates for malting barley in order to maintain its quality grading system for grains. Under the agreement, Canada has agreed to eliminate *Western Grain Transportation Act* subsidies on products shipped to the United States through western Canadian ports. Malt shipments to the United States which are in transit to third countries will not be affected.

Technological Factors

Plants are becoming more and more capital intensive as newer equipment is designed to reduce labour, to be more flexible and to handle large volumes of grain at one time. Large plants are becoming the norm as plant designers and owners attempt to achieve optimum-scale economies.

Highly specialized malt plant technology is available to the Canadian industry but must be imported from European or American sources. Since the capital cost of a state-of-the-art malt plant is extremely high, significant new investment is hard to justify in Canada, where domestic markets are small. This is particularly true in the highly cyclical agricultural commodity markets and uncertain export markets. Given the mature condition and small size of the industry, capital investments are more likely to be limited to incremental improvements involving modernization or modest expansion of existing facilities.

The characteristics of malting barley largely determine the nature and quality of the beer produced. The starch converting and germinating qualities of malting barley also greatly affect production costs for both malt and beer production. Research has resulted in the development of new improved varieties of barley. In the recent past, this work has included efforts to produce malting barleys which can increase the shelf life of beer or reduce cloudiness in the beverage. Varietal development and plant breeding in barley is an area in which Canada has been recognized as a leader.

3. Evolving Environment

The future of the Canadian malting industry will continue to be shaped by developments in the brewing industry and the continued ability of that industry to compete in domestic and export markets. These developments will be strongly linked to changing consumer tastes (i.e., competition with other beverages), demographics, social views toward consumption of alcoholic beverages and changes in brewing production techniques such as the use of more adjuncts (substitution of malt with other commodities such as corn).

The extent to which world markets improve and agricultural policy conflicts between the European Community and the United States are resolved will have a major bearing on future industry investment. Increased export sales will largely depend upon the ability of developing countries to improve their living standards sufficiently to permit sustained consumption of non-essentials such as beer. Debt loads in developing countries have an impact on the capability of brewers to import essential inputs such as malt.

The FTA is not expected to have a major impact on the industry's primary customer, the Canadian brewing industry, and its effect on the malt industry is also expected to be minimal. The prospect of eventual elimination of import licences under the agreement could result in a narrowing of malting barley prices between Canadian and U.S. domestic markets. This is expected to discourage two-way trade in such freight-sensitive commodities as malt or malting barley. Additionally, different malting barley varieties used in the two countries and corporate linkages between malting and brewing interests, would mitigate against changes in cross-border sales patterns.

The loss of *Western Grain Transportation Act* freight rates for shipments bound for the U.S. Pacific Coast market as required under the FTA is not considered significant for the malt industry as sales into that region have not been large.

4. Competitiveness Assessment

The malt industry operates in a highly regulated environment and enjoys a strong position in the domestic market. It is expected to continue to have limited success on the export market. The availability of quality malting barley, cost-efficient plants and competent management will enable Canadian firms to retain their share of traditional North American and offshore markets. However, strong competition from other barley-producing regions with well- developed malt industries in the European Community, Australia and the United States, limit Canadian prospects for increasing export market share which has historically been around five percent to 10 percent of total world exports.

As noted above, the FTA is not expected to have a major impact on the malt industry. Its main customer, the Canadian brewery industry, maintains its existing marketing and production practices under this agreement. Even should import licensing eventually be eliminated, the impact of the agreement is expected to be largely neutral. Both countries have large, well-developed malt industries capable of serving their domestic market, and it is not expected that this will change under the FTA.

For further information concerning the subject matter contained in this profile, contact:

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PRINCIPAL STATISTICS — SIC(s) COVERED: 1089 (1970) and 1094 (1980)*

	1973	1982	1983	1984	1985	1986
Establishments	6	8	8	8	7	6
Employment	N/A	approximately 600				
Shipments ($ millions)[e]	65	215	230	200	190	180
('000 tonnes)	462	560	588	501	479	457

TRADE STATISTICS

	1973[e]	1982[e]	1983[e]	1984[e]	1985[e]	1986[e]
Exports ($ millions)	18	85	95	50	40	40
('000 tonnes)	154	232	257	180	162	140
Domestic shipments ($ millions)	47	130	135	150	150	140
Canadian market ($ millions)	47	130	135	150	150	140
Exports as % of shipments (volume)	33	41	44	36	34	31
Canadian share of international market — %	6	9	9	7	6	5

REGIONAL DISTRIBUTION — Average over the last 3 years

	Atlantic	Quebec[e]	Ontario[e]	Prairies[e]	B.C.
Establishments – % of total	—	15	25	60	—
Employment – % of total	—	13	34	53	—
Shipments – % of total	—	13	34	53	—

MAJOR FIRMS

Name	Ownership	Location of Major Plants
Canada Malting Co. Limited	Canadian	Calgary, Alberta; Thunder Bay, Ontario; Montréal, Quebec
Dominion Malting Ltd.	Partly foreign, but Canadian-controlled	Winnipeg, Manitoba
Prairie Malt Limited	Canadian	Biggar, Saskatchewan

[e] Estimate
N/A Not available
* Part of SIC 1089 (1970) and 1094 (1980).

Note: Statistics Canada data have been used in the preparation of this profile.

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