

The Early Peat Industry in Canada, 1864-1945

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Volume 27, Number 2, June 2000

URI: https://id.erudit.org/iderudit/geocan27_2art02

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Publisher(s)

The Geological Association of Canada

ISSN

0315-0941 (print)

1911-4850 (digital)

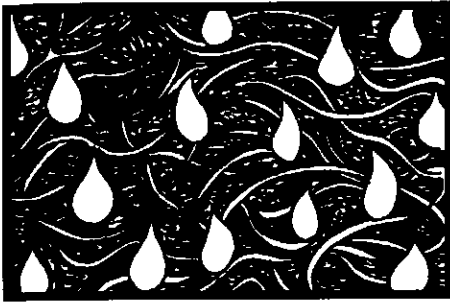
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Cite this article

Warner, B. G. & Buteau, P. (2000). The Early Peat Industry in Canada, 1864-1945. *Geoscience Canada*, 27(2), 57-66.

Article abstract

Canada is one of the leading peat-producing countries in the world although this was not always so. Commercial peat operations began in Quebec in 1864. Early attempts to commercialize fuel peat failed by the 1880s. Renewed interest in fuel peat resumed in the 1890s, mostly in Ontario and Quebec. After World War I the federal government assisted by purchasing a commercial peat plant at Alfred, Ontario. Between the wars, the industry began to move away from fuel peat production to new production of horticultural peat and other peat-based products, a trend that was greatly accelerated during and after World War II. Indeed, World War II was a major turning point for the industry. European peat exports to the large American market were no longer economically viable, thereby creating new market opportunities for Canada. Although the industry largely began in Ontario and Quebec, British Columbia was one of the largest peat-producing regions in the world for a brief period following World War II. Today, commercial operations are virtually non-existent in Ontario and British Columbia. Quebec, New Brunswick, Manitoba and Alberta are the primary peat-producing regions of the country. Despite early difficulties, Canada's peat industry has become a vibrant and important industry, nationally and internationally.



The Early Peat Industry in Canada, 1864-1945

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SUMMARY

Canada is one of the leading peat-producing countries in the world although this was not always so. Commercial peat operations began in Quebec in 1864. Early attempts to commercialize fuel peat failed by the 1880s. Renewed interest in fuel peat resumed in the 1890s, mostly in Ontario and Quebec. After World War I the federal government assisted by purchasing a commercial peat plant at Alfred, Ontario. Between the wars, the industry began to move away from fuel peat production to new production of horticultural peat and other peat-based products, a trend that was greatly accelerated during and after World War II. Indeed, World War II was a major turning point for the industry. European peat exports to the large American market were no longer economically viable, thereby creating new market opportunities for Canada. Although the industry largely began in Ontario and Quebec, British Columbia was one of the largest peat-producing regions in the world for a brief period following World War II. Today, commercial operations are virtu-

ally non-existent in Ontario and British Columbia. Quebec, New Brunswick, Manitoba and Alberta are the primary peat-producing regions of the country. Despite early difficulties, Canada's peat industry has become a vibrant and important industry, nationally and internationally.

RÉSUMÉ

Bien qu'il n'en fut pas toujours ainsi, le Canada est maintenant l'un des plus importants producteurs de tourbe au monde, la production commerciale ayant débuté au Québec en 1864. Les premières tentatives d'exploitation de la tourbe comme combustible ont échoué dans les années 1880 mais, on s'y est de nouveau intéressé dans les années 1890, surtout en Ontario et au Québec. Après la première guerre mondiale, le Canada a soutenu le développement de cette industrie en se portant acquéreur d'une exploitation située à Alfred en Ontario. Entre les deux grandes guerres, l'industrie a progressivement délaissé la production de tourbe combustible pour s'intéresser de plus en plus à des produits d'utilité horticole et autre, tendance qui s'est grandement accélérée pendant et après la seconde grande guerre. La deuxième grande guerre a vraiment constitué un point tournant pour cette industrie lorsque l'exportation de tourbe à partir de l'Europe vers le vaste marché américain s'étant tarie, tout ce marché s'est alors ouvert à l'industrie canadienne de la tourbe. Bien que cette industrie se soit surtout développée en Ontario et au Québec initialement, la Colombie Britannique fut l'une des plus importantes régions productrices de tourbe pendant une courte période après la fin de la deuxième grande guerre. De nos jours, il n'existe pratiquement plus aucune activité d'exploitation commerciale en Ontario et en Colombie-Britannique. Le Québec, le Nouveau-Brunswick, le Manitoba et l'Alberta sont les principales régions productrices du pays. En dépit de ses difficultés initiales, l'industrie canadienne de la tourbe est devenue l'une des plus vigoureuses industries tant sur le plan national qu'international.

INTRODUCTION

Canada is among the largest peat-producing nations in the world (Bergeron,

1994). A review of the historical development of the industry in Canada reveals that this was not always so. The industry had its origins in Ontario and Quebec and can be traced to the 1860s, when the first commercial peat operations began. Ironically, despite having the largest peat reserves of any Canadian region, Ontario no longer supports commercial peat production.

By the 1930s, Canada began to export small quantities of peat to the United States. Shortage of European exports to the United States after World War II created much larger market opportunities for Canadian peat, which essentially paved the way for the Canadian peat industry as we know it today. Interest in peat for fuel was largely abandoned and other uses for peat such as horticultural were found to be much more successful.

The post-World War II period was a major turning point for the industry. Prior to the war, the Canadian peat industry could not compete with Europe for the United States' market. After the war, Europe could no longer export peat to the United States, which turned to Canadian peat suppliers. One direct result was that the lower mainland of British Columbia became one of the largest peat-producing regions in the world, although British Columbia no longer produces peat. New Brunswick, Quebec, Manitoba and Alberta are the leading peat-producing regions in the country at present (Bergeron, 1994). While commercial peat operations have existed since the beginning in Quebec and New Brunswick, Alberta has only become a major peat-producing region since the late 1970s.

This paper traces the history and development of the Canadian peat industry during its early years, prior to the emergence in the 1950s of the modern industry. We highlight how determination and perseverance of a few dedicated entrepreneurs in these early years contributed to Canada becoming one of the most important peat-producing countries in the world today.

THE BEGINNING: 1864-1880s

James Hodges began the first commercial peat-extracting operation in Canada in 1864 (Table 1; Anonymous, 1928; Buteau, 1996). Hodges was an inventor

Table 1 Chronology of highlights of the early peat industry in Canada between 1860-1945.

1864	Hodges' fuel peat extraction operation, Victoriaville QC	Grand Valley Peat Moss Co., Guelph ON opens Luther Bog (closed in 1943)
1865-1868	Anglo-American Peat Co. peat harvesting at Wainfleet Bog ON	Arctic Peat Moss Co., opened Fort Frances Bog, Fort Frances ON
1874	Canada Fuel Peat Co., Sainte-Brigide QC	Western Peat Co., New Westminster BC
1876	Ontario Peat Co., owns Wainfleet Bog ON but no peat extraction	1942 <i>Several plants operating in 7 provinces across Canada; 10 new companies open in Baie St. Laurent</i>
~1877	Huntingdon Peat Co., Huntingdon QC by 1880 industry essentially fails	Exel Peat Co. opens Isle aux Coudres bog, Isle aux Coudres
1894-1905	Ontario Peat Co., Wainfleet Bog ON	Industrial Peat Ltd., Burns Bog, Delta BC (closed in 1943)
1901	Canadian Fuel Peat Company of Quebec, Cacouna QC	Fafard Peat Moss Co., (Poukemouch Bog) Shippagan NB
1903	National Light, Heat and Power Co., Farnham QC	Western Peat Co., Shippagan NB
1908	Victoria Road Bog near Beaverton ON; only plant producing peat in Canada	Saguenay Peat Moss Co., Chicoutimi Bog, Chicoutimi-Bagotville QC
1909	Canada Fertilizer Company, QC International Peat Engineering Co. Ltd., QC Dominion Peat Products, Brantford ON Lanark County Peat Fuel Co., Perth ON Imperial Peat Co., Guelph ON Peat Fuel Co., Chicago (using Ontario and Quebec peat)	Murphy Peat Co., St. Bernard QC Clovis Bourque Co., St. Marc des Carrieres Quebec Peat Moss Co., bogs at St. Bonaventure
	Inter-west Peat Fuel Co., Winnipeg MB	1944 <i>2 companies in New Brunswick:</i> Fafard Peat Moss Co. Shippagan Western Peat Moss Co., Shippagan
1910	Canada Fertilizer Co., Farnham QC (1910-1917) federal government plant, Alfred ON	<i>11 companies in Quebec:</i> 4 largest are Premier Peat Co., Isle-Verte, Canada Peat Co., and Rivière-du-Loup Rivière Blanche, St-Ulric QC opened
1911	formation of Canadian Peat Society private company established at Alfred ON Peat Industries Ltd., MB	<i>6 companies operating in Ontario:</i> Erie Peat Co., Welland (Wainfleet bog) Canadian Industries Ltd., Eriean (Eriean bog near Rondeau Bay) Canadian Humus Products, Puslinch (Beverly Swamp)
1912-1914	World War I causes industry to cease operation	Arctic Peat Moss Co., Fort Frances Polar Bear Peat Moss Products, Pinewood
1918	National Peat Committee established jointly by federal and Ontario governments	<i>3 companies in Manitoba:</i> Winnipeg Supply and Fuel Co., Shelley McCabe Bros. Co., Shelley McMillan Co., Lac du Bonnet
1924	Montreal Peat Fuels Ltd., Alfred ON	<i>1 company in Alberta:</i> Moss-Tex Ltd., Edmonton
1929	Hydropeat Company of Canada, St.-Hyacinthe QC (1929-1935)	<i>12 companies in Fraser Valley BC:</i> largest is Western Peat Co. (Burns Bog), Delta B.C. Peat Co., (Burns Bog), Delta Columbia Products Ltd., south side, Small Lulu Island Bog
1936	<i>These companies continue to produce into the 1940s:</i> Insulation Ltd., Isle Verte QC F. Lambert, Rivière-Ouelle QC Waterville Moss and Peat Mines, Sherbrooke QC Erie Peat Co., Wainfleet Bog ON	Nelson Peat Co., south side, Small Lulu Island Bog Western Peat Co., south side, Small Lulu Island Bog
1939-1941	World War II disrupts industry	Pacific Peat Products Ltd., north side, Small Lulu Island Bog
1939-1942	Laurentide Peat Moss Company, Rivière-du-Loup QC	Northern Peat Moss Co., north side, Small Lulu Island Bog
1940	Canada Peat Ltd. and Perfect Peat Co., Rivière-du-Loup QC Yarnaska Peatland Ltd., Saint-Bonaventure	Alouette Peat Products Ltd., Pitt Meadows Bog Excelsior Peat Ltd., Byrne Road Bog North American Peat Co., Byrne Road Bog Coast Peat Co., Byrne Road Bog Byrne Road Peat Farm, Byrne Road Bog
1941	<i>5 plants actively producing peat; industry shows major diversification and begins production of horticultural peat and other products</i> East Bideford Bog, PEI opened Caribou Bog and Cumberland Bog, NS opened Jolicure, Shippagan, Pokemouche, Escuminac and Eel bogs, NB opened or re-opened Premier Peat Moss Ltd., Isle Verte QC purchases Insulation Ltd. St. Anaclet bog, St. Anaclet QC opened Alfred Bog, Alfred ON, re-opened	1945 <i>21 companies in lower St. Lawrence</i> <i>3 companies in Ontario</i>

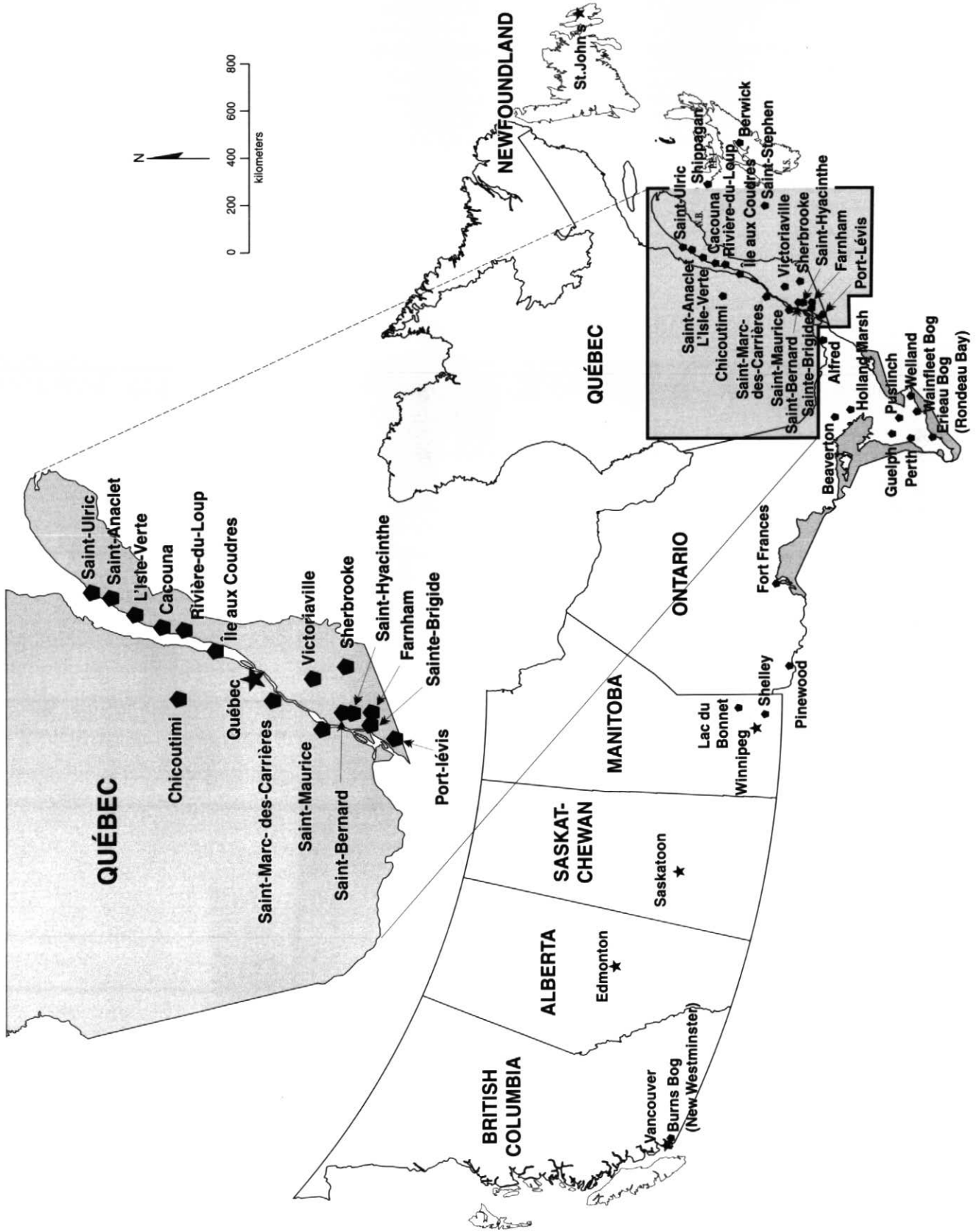


Figure 1 Map showing the location of peat-producing sites referred to in the text and Table 1.

of machinery who tested his inventions on a bog near Victoriaville in the Saint Lawrence Lowlands of Quebec (Fig. 1). He extracted peat for fuel with a large auger mounted on pontoons that floated on water in drainage channels across the peatland. In addition to being used for local consumption, the peat was sold to power the Grand Trunk steam locomotives that ran between eastern Canada and the United States (Buteau, 1996). His activities, which lasted about 8 years, might be considered the first to use wet extraction techniques in Canada; wet extraction ceased being used in the early 1980s in Canada at sites around Edmonton (G. Hood, personal communication, 1998).

A year after Mr. Hodges began in Quebec, the Anglo-American Peat Company opened the Wainfleet (Weland) Bog near Port Colborne, Ontario, ceasing production by 1868 (Nagy and Warner, 1999).

There were early peat operations in Newfoundland at about the same time as those in Quebec and Ontario. A peat fuel factory operated near St. John's, Newfoundland in 1871, but had to close shortly thereafter because it was unable to dry the peat enough to burn as fuel (Anonymous, 1911).

In 1874, David Aikman founded the Canada Fuel Peat Company near Sainte-Brigide in southern Quebec. Mr. Hodges' auger extraction technique was used. This company also supplied peat to the Grand Trunk railroad and remained in business until 1877. Around the same time, the Huntingdon Peat Company near Port-Lévis, Quebec, started a fuel peat operation, but failed a few years later. Closure of the Huntingdon Peat Company in 1877 ended this early period of exploration. None of the companies could compete with low-priced coal. Also, poor knowledge about peat extraction and processing failed to establish an industry for peat fuel (Thibault, 1993).

FUEL PEAT ERA, 1890s-1918

In the 1890s, following a decade or more of virtually no activity, a few small entrepreneurs again set up some small operations in southern Ontario and Quebec. The Ontario Peat Company operated the Wainfleet Bog between 1894 and 1905 (Nagy and Warner, 1999).

They did not produce much peat, as they were largely exploring and experimenting with drying and processing techniques. In fact, much of the activity by the few companies operating at this time focussed on experimentation with drying techniques. For example, a heater-conveyor belt-fan system for drying peat was being tested at the Wainfleet Bog between 1901 and 1902. At the same time, a company

working on a peatland near Beaverton, east of Lake Simcoe, Ontario, was experimenting with a peat briquetting press and another type of conveyor belt-fan system (Nyström, 1908).

A small plant for the production of peat moss litter was built in New Brunswick in 1895 by W.F. Todd, but was destroyed by fire before it even started production. Todd waited until 1909 to

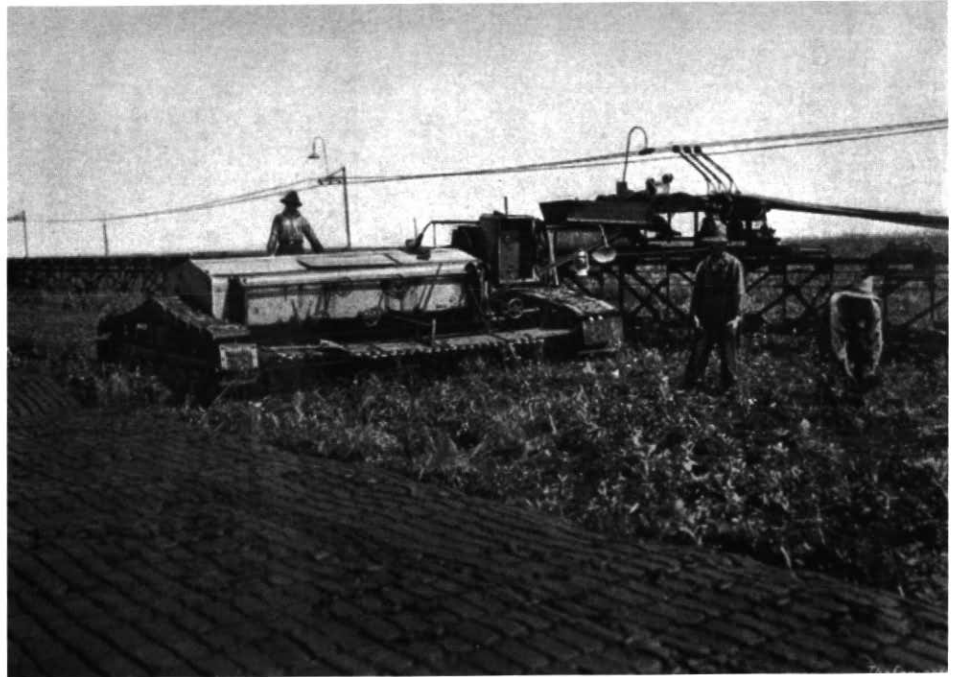


Figure 2 Spreading machine laying out peat to dry in the early 1920s at Alfred, Ontario (from Anonymous, 1928).



Figure 3 Peat storage yard and elevator for loading peat onto railway cars in the early 1920s at Alfred, Ontario (from Anonymous, 1928).

build a new factory near St. Stephen, New Brunswick, for manufacturing peat moss litter and mull (Anonymous, 1909).

In 1901 near Cacouna in south-eastern Quebec, the Canadian Fuel Peat Company of Quebec was operating successfully. It was purported to have had the capacity to produce 15 tons of fuel peat in 10 hours, which was impressive for the day. Peat was mixed with crude petroleum and other combustible materials. The Quebec Mines Inspector reported that this fuel had high calorific value. In the autumn of the same year, a fire completely destroyed the plant, and the operation was never re-opened (Buteau, 1996).

The National Light, Heat and Power Company in 1903 was manufacturing fuel peat briquettes on the same bog near Sainte-Brigide used by Mr. Aikman about 25 years earlier. After transforming the peat into a warm sludge, it was compressed into cylindrical shapes, which were later cut into briquettes approximately 6 cm in diameter (Buteau, 1996). It primarily supplied the local community for domestic use only.

In 1909, the Canada Fertilizer Company and the International Peat Engineering Company Limited produced air-dried fuel peat at the Farnham bog, near Montreal. In 1910, Peat Industries Limited took over the production of fuel peat and continued until 1917, which was the last year fuel peat was produced on that site (Risi *et al.*, 1953).

Many of the fuel peat operations were small, only providing jobs and fuel for local residents in the surrounding community. Canadian peat production was nowhere near maximum production capacity, based on estimates of the known commercial peat resource in the country, because the lack of a cost-effective technology for drying and processing the peat continued to be an obstacle. Pressure on the government to assist with establishing a national peat industry was growing. This prompted the Geological Survey of Canada to send Mr. Nyström to Europe in 1907 to investigate practices and costs of the peat industry there (Nyström, 1908; also *see* Moore, 1908). The federal government purchased a small commercial plant from Sweden and set up the experimental station on a peatland at Alfred, Ontario (Figs. 2, 3).

The federal Bureau of Mines spent \$50,000, a considerable amount of money at the time, for its establishment and maintenance (Anonymous, 1908).

The first commercial shipments from the Alfred site were ready in 1914 when the outbreak of World War I disrupted markets and traffic and delayed further production (Chicanot, 1923). The government dropped its interest in the peat industry between 1914 and 1918, and finally sold the experimental station to a private company in 1923 (Haanel, 1923). Again attempts to establish a fuel peat-based industry were set back.

At approximately the same time as much of the activity at Alfred, Ontario, a peat litter plant was erected in 1911 at the Julius Shelly bog in southern Manitoba. The company was Peat Industries Limited, which was granted about 2800 ha from the government (Anonymous, 1911).

Growing interest in the use of peat led to the formation of the Canadian Peat Society, with its first annual meeting held in Ottawa on 28 March 1911. Dr. Eugene Haanel of the Geological Survey of Canada was elected its first president. Membership was close to 100 members (Anonymous, 1911; also *see* Anrep, 1915).

During World War I, two large peatlands in New Brunswick, one at Musquash and another at Beaver Lakes, were being used for the production of peat surgical dressings. Mosses and peat were gathered by local schoolgirls under the supervision of William McIntosh, the curator of the Natural History Society of New Brunswick. The material was then taken to members of religious groups who packed the surgical dressing for shipment to European hospitals close to the battlefields (Anonymous, 1918).

It was becoming clear that the future for fuel peat was not good and if the industry was to succeed, it would have to diversify and develop other peat products.

TRANSITIONAL YEARS FROM FUEL PEAT TO OTHER USES, POST-WORLD WAR I—MID 1940s

The years between the two World Wars were still largely a period of exploration and experimentation. There were shortages of oil and coal owing to economic and transportation disruptions caused by

the war. Up until this time, Canada depended almost solely on imported coal for fuel (Chicanot, 1923). The federal government, seeing the problems of depending upon foreign supplies, explored domestic fuel supplies, which led, once again, to an even greater interest in the use of peat for fuel. Thus in 1918, a National Peat Committee was established jointly by the federal and Ontario governments. This committee was responsible for surveying the peat resources in the country and assessing the potential for fuel (Haanel, 1925). Auer's (1930) survey of the peatlands in eastern Canada was a direct outcome of the federal government's interest to explore the nation's peat reserves.

The Meyers, a prominent family with much involvement in the peat industry around Hamburg, Germany, eventually immigrated to Canada. The family patriarch, Frederick J. Meyer, was a peat engineer who devoted his career to developing ways of producing and selling fuel peat. His two sons, Oskar and Ernst, were also involved in the peat business. Frederick Meyer died in 1912 and left the family peat business in Hamburg to his sons who, in Germany, were both prominent peat exporters. Because of the economic difficulties in Europe, Ernst first moved to New York City in 1923 to set up a peat brokerage company called Premier Brand. This eventually led him to Canada where there was a good supply of peat. In 1939, Ernst Meyer bought the Laurentide Peat Moss Company at L'Isle-Verte, near Rivière-du-Loup in Quebec, and founded Premier Peat Moss Producers Company Limited, which later became Les Entreprises Premier CDN, today one of Canada's largest peat companies (E. Bédard, personal communication; Anonymous 1912).

Activities by both government-owned and the privately owned operations began again in 1920 on the peatlands at Alfred, Ontario. Montreal Peat Fuels Ltd., a private company, in 1924 took over the government operation on the Alfred site (Chicanot, 1923).

During this period, considerable quantities of peat were being imported to British Columbia from Europe for bedding and packing material. Imports were getting expensive, so attention was directed toward determining the cost of

exploiting local British Columbia sources, which were known to exist but as yet were not being used. Interest in British Columbia peat grew, and led in 1927 to an evaluation of the economic potential of peat resources around Vancouver and in the Fraser Lowlands (Anrep, 1927, 1928). A total of 10 peatlands were identified as of economic importance. In the final analysis, however, the cost to produce local supplies turned out to be more expensive than European supplies, so efforts to expand peat production in British Columbia were postponed.

The Hydropeat Company of Canada Limited, under the ownership of H.G. Acres, started its operations in 1929 on the St-Hyacinthe bog in Quebec. It used extraction and compressing machinery from Denmark and Finland for the manufacture of peat briquettes. Like many of the small operations that existed in Quebec 10-15 years earlier, this local enterprise supplied fuel for the local

community and the region around St-Hyacinthe until it closed in 1935 (Buteau, 1996). It also provided fuel for limekilns for the manufacturing of pottery in nearby St-Dominique. Similar operations were underway on bogs at Huntingdon, Ste-Barbe, St-Isidore and St-Arsène (Buteau, 1996). Much of the peat was collected by hand, which provided employment for adults (men and women) and teenage boys.

THE BEGINNINGS OF THE MODERN PEAT INDUSTRY, 1950s

World War II caused a shortage of machinery, supplies and labour. The few companies that existed prior to the war managed to sustain themselves during the war years and quickly expanded in the post-war period. Shipments of peat increased from 4000 tons in 1938 to ~64,000 tons in 1943 (Table 2). Both big companies and small entrepreneurs, who wanted to take advantage of new oppor-

tunities, started several new companies. Five companies existed prior to the war, but by 1944 there were more than 34 companies operating in six provinces (Table 2). British Columbia and Quebec dominated Canadian production (Taylor, 1942; Girard, 1944; Leverin, 1942, 1944).

The war contributed to Canada's peat industry reaching a major milestone. European peat exports, mainly from Germany, Sweden and the Netherlands to the United States, were cut off when the United States declared war on Germany. This created great opportunity for the Canadian industry, which expanded to capture the American market. The lack of competition from Europe made the price of Canadian peat economically viable. With the expectation that Canadian competitive advantage might be temporary until European producers could recover from the war, Canadian peat producers saw the need to diversify in

Table 2 Historical estimates of peat production in Canada. Values for the early years are general estimates because calculations of total tonnages used various estimates of water content, reports do not state whether figures are metric tonnes or long tonnes, and tonnages differ depending on whether it was fuel peat or litter peat that was produced. Compare these values with modern production values of more than 1 million tons.

	New Brunswick	Quebec	Ontario	Manitoba	Alberta	British Columbia	Canada (tons)
1908			100%				ca. 500 ¹
1912		74%	25%				ca. 2700 ²
1922							5000 ³
1938							4,000 ³
1939		12%					
		(822 tons)					7,000 ³
1940							17,186 ⁴
1941							27,803 ³
1942	<5%	24%	18%	<5%	<5%	53%	53,506 ⁵
1943		25%					64,360 ⁵
		(16,116 tons, Girard 1944)					
1944	<5%	22%	16%	<5%	0	57%	63,000 ⁶
1945	3%	20%	16%	2%	0	59%	83,950 ⁷

¹ From Nyström and Anrep (1909)

² From Anrep (1914)

³ values given are total annual production from Alfred bog only (from Chicanot, 1923)

⁴ From Swinnerton (1946)

⁵ From Leverin (1944), Swinnerton (1946)

⁶ From Leverin (1946)

⁷ From Goodwin (1946)

order to remain competitive. Not only was peat litter for animal bedding produced, but also horticultural peat, peat moss fertilizer, peat packing material, and insulation materials (Leverin, 1943). For the first time in the history of the industry, interest in peat for fuel had been replaced by an interest in other peat-based products.

Mr. J.F. Irvine began the Canada Peat Company at Rivière-du-Loup in Quebec in 1940 (Figs. 4-9). Premier Peat Moss Producers Company Limited

bought this company shortly thereafter. It focussed on the production of horticultural peat and peat litter. It installed two electric presses, which produced about 200 bales of peat litter and horticultural peat per day (Goodwin, 1946; Swinerton, 1946). The peat was packed by hand in wooden crates. Much of the peat from Rivière-du-Loup was exported to New York State. The same year, the Fafard family established Tourbière Yamaska Limitée in St-Bonaventure, near Drummondville, Quebec. They were also



Figure 4 Hand-cutting of peat blocks in 1940s around Rivière-du-Loup, Quebec (Archives of Ministère des Ressources naturelles, Quebec).



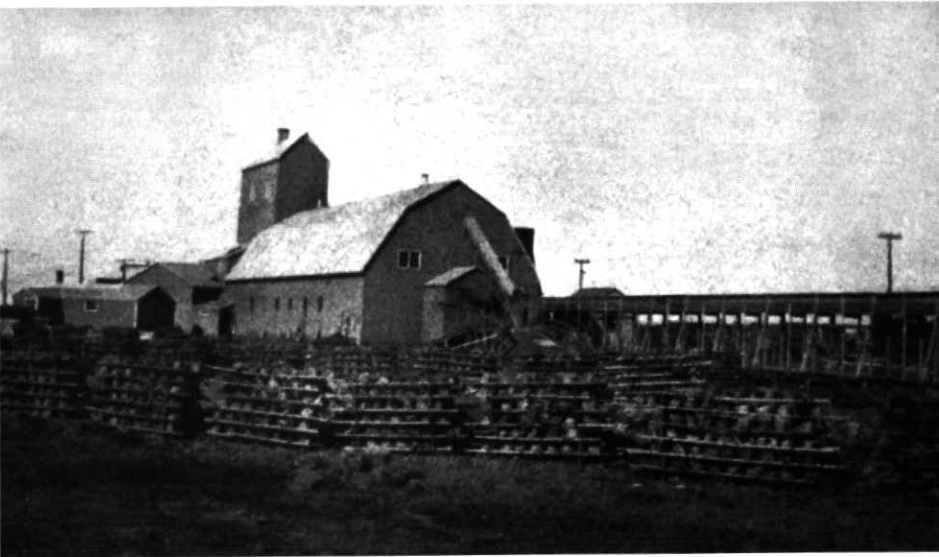
Figure 6 Peat block cutting on bogs in 1940s around Rivière-du-Loup, Quebec (Archives of Ministère des Ressources naturelles, Quebec).



Figure 5 Cutting peat by hand in 1940s, Rivière-du-Loup, Quebec (Archives of Ministère des Ressources naturelles, Quebec).



Figure 7 Hand-cutting of peat blocks and placing them on drying racks in 1940s, around Rivière-du-Loup, Quebec (Archives of Ministère des Ressources naturelles, Quebec).



granted permission to begin operations near Shippagan in December 1941, and produced 268 metric tons of peat in 1942 (Fig. 10; Lamarche and Daigle, 1999). Peat was mined for humus and “soil enrichment.” These two companies were largely responsible for shaping the Canadian peat industry as we know it today, by changing their production from fuel peat to horticultural peat. Both of these companies were responsible for shaping a whole new image for the Canadian peat industry within this new economic climate.

Until 1942, rapid expansion in Portneuf County and the Saint Lawrence lowlands in Quebec gave rise to 10 companies actively producing horticultural-

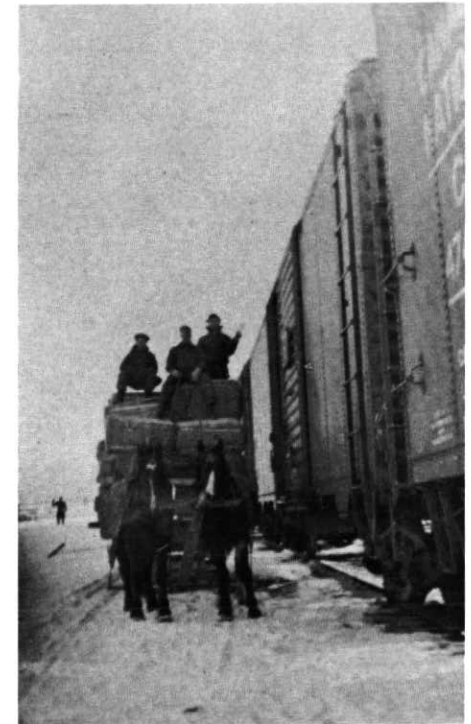


Figure 8 (at left, top) Hand cut peat blocks on drying racks around late 1940s, Rivière-du-Loup, Quebec (Archives of Ministère des Ressources naturelles, Quebec)

Figure 9 (above) Transporting peat blocks to trains for loading in 1940s around Rivière-du-Loup, Quebec (Archives of Ministère des Ressources naturelles, Quebec).

Figure 10 (at left, middle) Peat plant with peat drying on racks in the foreground in early 1940s at the Fafard Peat Moss Co., Shippagan (from Leverin, 1941).

Figure 11 (at left, bottom) Loading railway cars from conveyer belt, New Westminster, British Columbia (from Leverin, 1941).

tural peat. This number had increased to 21 by 1946 (Buteau, 1996). New production began in the Lac Saint-Jean, Eastern Townships, Abitibi and Charlevoix regions.

Activities continued to expand in Quebec. In the meantime in the lower mainland coast of British Columbia (Fig. 11), Mr. E.E. Carncross of Industrial Peat Limited established an operation on the Burns (Delta) Bog in 1942 to produce peat for its parent company, Basic Magnesium Limited of Las Vegas, Nevada (Goodwin, 1946; Swinnerton, 1946). Establishment and expansion was very rapid because European peat was no longer available, and Basic Magnesium Ltd. had to quickly find an alternative source. In less than 9 months, 800 ha were cleared and 500,000 bales of peat were extracted. Industrial Peat Limited was the largest peat company in the world at the time. The 1943 season was the last for Industrial Peat Limited, however, as Basic Magnesium Limited ceased using peat in its processing of magnesium (Swinnerton, 1946).

Mr. Carncross also operated Western Peat Company Limited on the south end of the Small Lulu Island Bog, the second largest peat company in the lower mainland. At the same time, Western Peat Company was operating on a bog at Shippagan, New Brunswick. Using the same conveyor belt system as developed for use in British Columbia, the Shippagan bog was expected to

produce more than 50,000 bales in 1945 in its first production year.

By the late 1940s, only three companies remained in Ontario: Erie Peat Company near Welland (Fig. 12), Arctic Peat Moss Company at Fort Frances, and Polar Bear Peat Moss Products at Pine-wood. Activities in Ontario could not take advantage of the post-war peat boom.

The peat industry continued to expand rapidly throughout Quebec and New Brunswick. Peat production also started in Nova Scotia in 1949 at Berwick, at the current site of Annapolis Valley Peat Moss Limited (Anderson and Brougham, 1988). New companies were established in the Prairie region. Expansion of the peat industry in Newfoundland was difficult because of the presence of the "golden nematode," which meant that export of peat off the island was not feasible. Canada had finally assumed its presence as a major peat producing nation and exporter of peat (Table 2).

CLOSING COMMENTS

In view of its shaky beginnings, it seems remarkable that there is any peat industry in Canada today. The early industry suffered because of inexperience, lack of knowledge about peat extraction techniques, and inability to compete with coal prices.

This review shows that there have been major geographic shifts in the peat industry. Quebec has always been a steady

force in developing the industry. Indeed, the first commercial operations began in Quebec, and although Ontario and British Columbia had the spotlight for short periods of time, Quebec quickly assumed dominance in Canada during the post-World War II resurgence of the industry.

The modern peat industry in Canada is young, hardly more than 50 years old. World Wars I and II affected the industry dramatically. World War I essentially obliterated it, whereas World War II created new opportunities and was the impetus underlying much of the success of the modern industry. Clearly, diversification of the industry at the end of World War II and beyond was a wise move. Not only could the industry take over Europe's customers after the war, but Canadian peat producers offered a variety of new products (Leverin, 1943).

Today, many of the peatlands that supported early peat extraction activities have long been abandoned. A remnant of a once much larger Burns Bog, which at one time supported the world's largest peat extraction operations, remains in the densely populated lower mainland of British Columbia as a testament to a bygone era. Probably every local citizen at the height of the industry's activity in the region was either directly or indirectly connected to it in one way or another. Today most residents hardly realize that a peat industry ever existed, and probably even fewer realize the profound importance the peat industry played in shaping the local economy.

A similar story is true for the Wainfleet Bog in southern Ontario. Today it remains as Canada's most southern true bog and is less than one-fifth of its original size. It was one of the first peatlands in Canada to be mined for peat, and supported commercial operations from the 1890s to the 1980s, the longest life of any bog in the country. It too once played an important role in the local economy. Old rail tracks and peat brick wagons, possibly from the days of the Ontario Peat Company or the Erie Peat Company, still remain on the site. These peatlands are important examples of our cultural heritage, and on this basis alone merit recognition, conservation and protection. Cultural and industrial heritage values, in addition to natural



Figure 12 Extracting peat by hand, Wainfleet Bog, Welland, Ontario (from Leverin, 1941).

heritage values, should not be overlooked or underestimated. Local communities, government and representatives of the peat industry should be encouraged to work together to designate such sites as Burns Bog or Wainfleet Bog as industrial heritage sites with interpretive trails and exhibition centres. Also possible would be outdoor activities for local school children, or special events on international days such as World Bog Day or World Wetlands Day that would celebrate the dedication and perseverance of our ancestors who were determined to establish a peat industry in this country.

ACKNOWLEDGMENTS

This paper benefited from discussions with E. Bédard, J.-Y. Daigle and G. Hood. T. Malterer and J. Thibault as journal reviewers provided many helpful comments that greatly improved this paper.

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Accepted as revised 26 April 2000