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Bovine Tuberculosis and Federal Regulatory Power in 1920s Prince Edward Island

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Résumé de l'article

Le présent article retrace l'évolution du programme fédéral d'éradication de la tuberculose bovine au début du 20e siècle, la dynamique de la bataille que l'Île-du-Prince-Édouard livra pendant deux ans pour y participer et les motifs à l'origine de la décision inattendue du gouvernement fédéral de tester les vaches de l'Île-du-Prince-Édouard après plusieurs refus catégoriques. Au lieu de faire le récit des progrès accomplis, l'article révèle la montée de la réglementation de l'État, de concert avec l'autorité des sciences vétérinaires, exercée pour briser l'unité de la dissidence régionale. Par conséquent, la désignation de l'Î.-P.-É. comme zone exempte de tuberculose bovine était autant une affaire de politique et de profit, qu'une question de santé publique et de progressivisme.

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The Udder Side of Maritime Rights: Bovine Tuberculosis and Federal Regulatory Power in 1920s Prince Edward Island

JANE JENKINS

Le présent article retrace l'évolution du programme fédéral d'éradication de la tuberculose bovine au début du 20^e siècle, la dynamique de la bataille que l'Île-du-Prince-Édouard livra pendant deux ans pour y participer et les motifs à l'origine de la décision inattendue du gouvernement fédéral de tester les vaches de l'Île-du-Prince-Édouard après plusieurs refus catégoriques. Au lieu de faire le récit des progrès accomplis, l'article révèle la montée de la réglementation de l'État, de concert avec l'autorité des sciences vétérinaires, exercée pour briser l'unité de la dissidence régionale. Par conséquent, la désignation de l'Î.-P.-É. comme zone exempte de tuberculose bovine était autant une affaire de politique et de profit, qu'une question de santé publique et de progressivisme.

This article traces the federal program to eradicate bovine tuberculosis during the early 20th century, the dynamics of Prince Edward Island's two-year battle to participate, and the motivation behind the unexpected decision to test PEI cows after steadfast refusals. Rather than a progress narrative, the article reveals the rise of the regulatory state in tandem with the authority of veterinary science – wielded in order to fracture the unity of regional dissent. The establishment of PEI as a zone free of bovine tuberculosis was thus as much about politics and profit as it was about public health and progressivism.

THE OFFICIAL MOTTO OF PRINCE EDWARD ISLAND (PEI) – Parva sub ingenti ("the small under the protection of the great") – summed up both the challenges and opportunities faced by the Island after joining Confederation in 1873. J. Walter Jones, an Island-born dairy farmer, politician, and premier (1943-1953), explained the challenges as being the product of the Island being "off one end of the country and outside the main stream of commercial activity." This was certainly the case at the beginning of the 20th century when Prince Edward Island, along with her Maritime neighbours, felt the injustice of high freight rates, low federal subsidies, and weak representation in Parliament. Sometimes, however, being small had its advantages. Premier Jones crowed that government in Prince Edward Island was closer to the people, making it more democratic. And small size and an island

1 J. Walter Jones, "Parva Sub Ingenti (Small Under the Great)" in *The Empire Club of Canada Speeches 1952-1953* (Toronto: The Empire Club Foundation, 1953), 97. A version of this paper was presented at the 18th Atlantic Canada Studies Conference held at the University of Prince

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geography had advantaged the agricultural economy of PEI by making it easier to eradicate noxious weeds and animal diseases, including bovine tuberculosis.

The initiative to eradicate bovine tuberculosis from the island province, undertaken in the 1920s, had been a bold one, and would have been an impossible one for the small province to accomplish without the financial and logistical support of the federal government. Prince Edward Island officials had used the province's small size and geographic status as an island when it lobbied the federal government to be included in the federally run "Restricted Areas Plan." This plan certified large zones as free of bovine tuberculosis after diseased animals had been identified and slaughtered. It was a bold plan that brought several benefits. Not only did it give farmers access to export markets that required disease-free certification, but it also protected the public's health by eliminating infected meat and milk from food supplies. The key to ensuring these benefits and the program's long-term success lay in the vigilant maintenance of boundaries to prevent entry of untested, and therefore potentially diseased, cattle.

Surrounded on all sides by water and with few ports of entry (thus easily controlled), Prince Edward Island was uniquely situated to take full advantage of the Restricted Areas Plan. Beginning in the fall of 1923, however, repeated requests to participate in the plan, which had been launched the previous year, were turned down. This article traces the development of the federal bovine tuberculosis eradication policy, the dynamics of Prince Edward Island's two-year battle to participate in the plan, and the motivation behind the federal government's unexpected decision to test PEI cows after years of steadfast refusals. Rather than interpreting the implementation of this policy in PEI as an achievement of early-20th-century progressivism in the agriculture industry or in public health reform, the aim of this article is to situate the scientific management of this animal disease within the context of the economic and political dynamics of early-20th-century Canada. What emerges is not a progress narrative but rather a story revealing how the divergent economic and political interests of Prince Edward Island and the Dominion governments, interwoven with the authority of veterinary science, were promoted under the discursive guise of public health reform. As such, it serves as a regional case study documenting the rise of the federal regulatory state in Canada, which extended and entrenched its political authority by enlisting the ostensibly non-aligned expertise of veterinary science just when this nascent science was seeking to bolster its professional status. Furthermore, this study reveals how these mutually legitimating and intersecting authorities of state and science, promoted jointly by an astute Prime Minister William Lyon Mackenzie King and an ambitious Dominion veterinarian John G. Rutherford, were advanced and legitimated by discourses of public health and practices of technical expertise in the disease management of dairy cows in the Dominion's smallest province.

Edward Island (1 May 2009). The author would like to thank all those who provided feedback during and following this conference and, in particular, David Frank for his insights into the federal response to the Great Delegation event. Many thanks are also extended to Steve Turner and three anonymous reviewers for very helpful comments and suggestions. Funding was provided through research grants from the New Brunswick and Atlantic Studies Research and Development Centre (NBASRDC) and St. Thomas University.

While other studies of the growth of regulatory authority in late-19th- and early-20th-century Canada reference the role of scientific knowledge in contributing to the growth of state power, most have represented science as unproblematically objective with an implicit and well-established authoritative status wielded in the service of the state. This study, however, examines the dynamic between science and state using an idiom of co-production or mutual legitimation.² This dynamic of federal political power and veterinary practice and expertise was further interwoven with the interests of a small province intent on its economic survival as well as a burgeoning public health movement and a dairy industry seeking new export markets. Standing at the nexus of these interests – of federal-provincial relations, veterinary authority, public health reform, and the agricultural industry - was the dairy cow. As both a whole-animal product for export markets and a producer of milk and meat for food markets, the cow serves in this view as a socio-political text that reveals dynamic relations and shifts in regulatory practices and structures governing federal-provincial relations, public health initiatives, the dairy industry, and developments in veterinary medicine and scientific practice.³

This article's examination of the complex linkages among knowledge, expertise, power, and biological entities is broadly framed within the political and economic logic of the Maritime Provinces in general, and Prince Edward Island in particular, and is part of the growing trend in the social studies of medicine to contextualize public health reform.⁴ Characteristic of these studies is the recognition that the

- 2 Stéphane Castonguay's study of the power dynamic between science and state uses a similar model to expose the "self-reinforcing character of these sources of legitimacy." See his "Naturalizing Federalism: Insect Outbreaks and the Centralization of Entomological Research in Canada, 1884-1914," Canadian Historical Review 85, no. 1 (March 2004): 1-34. For more on the co-productionist model as used in science and technology studies scholarship, see Sheila Jasanoff, ed., States of Knowledge: The Co-Production of Science and Social Order (London: Routledge, 2004).
- 3 See Margaret Derry, Ontario's Cattle Kingdom: Purebred Breeders and Their World, 1870-1920. (Toronto: University of Toronto Press, 2001) for a study that uses purebred cattle as cultural texts, providing living expressions of breeding and market strategies. Other studies that focus on the narratives of the objects of study as a means to extend understanding of the very nature of the study itself include the following: A.N.H. Creager, The Life of a Virus: Tobacco Mosaic Virus as an Experimental Model, 1930-1965 (Chicago: University of Chicago Press, 2002), and Jim Endersby, A Guinea Pig's History of Biology: The Plants and Animals Who Taught Us the Facts of Life (Cambridge: Harvard University Press, 2007).
- 4 Recent studies of public health policy, a growing component of social studies of medicine in Canada, have focused on the development of universal health care policy in Canada, identified as a defining characteristic of the Canadian identify. A recent issue of *Canadian Bulletin of Medical History* devoted exclusively to the policy history of Canadian medicare is testament to the engagement by social historians of medicine in the political and policy histories that intersect with the development of public health. See *Canadian Bulletin of Medical History* 26, no. 2 (2009) for full coverage of this. For an early example of this intersection, see C. David Naylor, *Private Practice, Public Payment: Canadian Medicine and the Politics of Health Insurance, 1911-1966* (Montreal and Kingston: McGill-Queen's University Press, 1986). For more recent studies, see Gregory P. Marchildon, *Health Systems in Transition: Canada* (Toronto: University of Toronto Press, 2006); Tom McIntosh, Pierre-Gerlier Forest, and Gregory P. Marchildon, eds., *The Governance of Health Care in Canada* (Toronto: University of Toronto Press, 2004); Aleck Ostry, *Change and Continuity in Canada's Health Care System* (Ottawa, ON: CHA Press, 2006); and Gerard W. Boychuk, *National Health Insurance in the United States and Canada: Race, Territory, and the Roots of Difference* (Washington, DC: Georgetown University Press, 2008).

history of developments in public health policy can only be written with an awareness of the distinctive role of unique regional factors.⁵

What this article reveals is that the federal government was able to diffuse the potential damage that might have been caused from regional protest by offering concessions to the weakest member of the regional unit: Prince Edward Island. The testing of PEI cows in 1925 was a token offered to the small province in order to garner both political favour and to break the regional union. The utilization of a federal plan to split the regional Maritime Rights Movement has been identified in other studies as a strategy used in 1929.6 The present study, however, finds evidence that this was not the first time such a strategic concession was offered, but that this strategy had been employed some four years earlier. In sum, this study shows that the establishment of Prince Edward Island as a zone free of bovine tuberculosis was as much about politics and profit as it was about public health and progressivism.

Dairy cows have been an important part of Canadian history from the time of European settlement. In the early years, they provided families with the milk, butter, and cheese that formed an essential part of a nutritious diet. As the human population grew, so too did markets for these dairy products. By the mid-19th century, commercial cheese factories were established, and subsequently butter factories or creameries, to supply both local markets in growing urban areas as well as export markets in Britain and the United States. Dairy products became increasingly important as a key component of Canada's export portfolio, in keeping with the Dominion government's "staples" mode of economic development that focused on the marketing of basic food commodities.⁷ Towards the end of the 19th century, increased export demand for dairy products was met by dairy farms in Ontario and Quebec – especially where failing grain markets had shifted farmers' interest to the dairy industry.8 The federal government, having applied the factory production model to the dairy industry, had seen the latter's scale of production increase to the point that, by 1890, specialized regulatory agencies were established

- 5 For the initial rallying call to recognize the importance of region in Canadian medical history, see Megan J. Davis, "Mapping 'Region' in Canadian Medical History: The Case of British Columbia," Canadian Bulletin of Medical History 17, no. 1 (2000): 73-92. For an expansion of the issues and questions related to such a regional focus, see the issue dedicated to the theme of health and region in Canada in Journal of Canadian Studies 41, no. 3 (Fall 2007). To date, studies of this nature have examined the developments of health care policies in central and western Canada as well as Newfoundland and Labrador.
- 6 Ernest R. Forbes, "P.E.I. Opts Out," Acadiensis VI, no. 1 (Autumn 1976): 113-14. The federal strategy of offering concessions to split the regional movement is also discussed in Ernest R. Forbes, "The Origins of the Maritime Rights Movement," Acadiensis V, no. 1 (Autumn 1975): 54-66, and Ernest R. Forbes, The Maritime Rights Movement, 1919-1927: A Study in Canadian Regionalism (Montreal: McGill-Queen's University Press, 1979).
- 7 For analyses of the historical development of Canada's dairy industry, see H.A. Innis, ed., The Dairy Industry in Canada (Toronto: Ryerson Press, 1937), 1-11; Vernon C. Fowke, Canadian Agricultural Policy: The Historical Pattern (Toronto: University of Toronto Press, 1946), 188-219; Carman D. Baggaley, The Emergence of the Regulatory State in Canada, 1867-1939 (Ottawa, ON: Economic Council of Canada, Technical Report No. 15, 1981), 126-29; Roy C. Barnes, "The Rise of Corporatist Regulation in the English and Canadian Dairy Industries," Social Science History 25, no. 3 (Fall 2001): 389-97; and Derry, Ontario's Cattle Kingdom, 3-13.
- 8 Barnes, "The Rise of Corporatist Regulation," 392; Derry, Ontario's Cattle Kingdom, 3-13.

under the auspices of the federal Department of Agriculture to deal exclusively with the dairy industry. Prior to this, the primary focus of the department had been the protection of the commercial interests of the livestock (or beef cattle) industry; but the growing export market in cheese and butter induced the aggressive promotion of the management of dairy products to protect and enhance the interests of the dairy industry as well. ¹⁰

These market-driven interests of the Department of Agriculture kept it focused primarily on improving the production, transportation, and marketing of the dairy industry. It achieved these goals in several ways, including offering dairy schools and printing instructional brochures to educate farmers in the skills necessary to produce high quality cheese and butter. Deliberate endeavours to improve the quality of animal feed and the animals themselves were carried out at federally run experimental farms, the first of which was established in 1886.¹¹ The federal department also sank money into developing new refrigeration technologies, especially for railway cars, and subsidized the building of cold storage facilities to preserve the quality of dairy products awaiting export.¹² Federal inspectors enforced policies to standardize grades of cheese and butter, and financial support was provided for the construction and operation of more dairy-product factories.¹³

Everyone in the dairy industry knew that in order to maintain top-quality cheese and butter attention had to be paid to the cows producing the raw milk for these products. Healthy cows were good for business. They produced more milk, of higher quality, and were themselves more marketable. Since a large part of trade in both cattle and their products was international, and was such a key part of the national economy as a whole, the federal Department of Agriculture assumed institutional and regulatory responsibility for managing cattle diseases. And during the late 19th century there were various bovine "scourges" to tackle, including rinderpest, foot and mouth disease, pleuro-pneumonia, and bovine tuberculosis. In 1890 the chief inspector of stock for the Dominion Department of Agriculture, Duncan McEachran,

- 9 The first branch, established in 1890, was the Dairy Commission, renamed the Agriculture and Dairying Commission in 1895 and subsequently the Commission of Agriculture and Dairying in 1897. When established as a result of Confederation in 1867, the primary mandate of the federal Department of Agriculture was the prevention of livestock diseases in order to facilitate the trade in live cattle. This was accomplished primarily through the control of imports by means of inspection and quarantine protocols. See Fowke, *Canadian Agricultural Policy*, 189-211.
- 10 Of the 250 million pounds of cheese produced in Canada in 1904, 234 million pounds were exported (mostly to Britain). This significant increase (from the previous year's export of 34 million pounds of butter) is clearly linked to the development of refrigeration technologies. See Fowke, *Canadian Agricultural Policy*, 212.
- 11 For the history of Canada's experimental farm system, see T.H. Anstey, One Hundred Harvests. Research Branch. Agriculture Canada. 1886-1986 (Ottawa, ON: Agriculture Canada Historical Series No. 27, 1986), and Julie Harris and Jennifer Mueller, "Making Science Beautiful: The Central Experimental Farm, 1886-1939," Ontario History LXXXIX, no. 2 (1997): 103-23.
- 12 For more on the early institutional responsibilities of the Dairy Commission, see Fowke, *Canadian Agricultural Policy*, 215-18, and Innis, *Dairy Industry in Canada*, 116-20.
- 13 Beginning in 1892, and until 1895, the federal government subsidized, in the form of paying equipment and operational costs, 28 cheese factories and 2 creameries on Prince Edward Island. See Fowke, *Canadian Agricultural Policy*, 216, and Innis, *Dairy Industry in Canada*, 102.
- 14 Fowke, Canadian Agricultural Policy, 188-219.

reported that bovine tuberculosis was "prevalent in cattle in various parts of the Dominion" and recommended that "the necessary action be taken to rid the entire Dominion" of this disease. The recommendation was easier to pronounce than to implement given the many hurdles such a scheme would face, including the necessity of meeting stiff international trade regulations, accommodating divergent priorities of economic and public health interests, and addressing tense relations between federal and provincial governments as well as facing outright resistance from dairy farmers and even from officials within the Department of Agriculture.

The first steps toward the domestic management of bovine tuberculosis were undertaken in 1893 when the minister of agriculture recommended that a newly developed test that could identify the presence of bovine tuberculosis even in healthy-looking animals should be made available for use on Dominion cattle. 16 The following year the Department of Agriculture required that all cattle imported into Canada be subject to the new tuberculin test, with any reactors either returned to their country of origin or slaughtered. Then, in 1896, the federal Department of Agriculture showed that it was willing to share the responsibility of identifying this animal disease when it offered to supply tuberculin free of charge to any Dominion dairy farmer who requested it and who allowed his local, private-practice veterinarian to test his herd. Requests for tuberculin soon exceeded the government's supply; it seems that both officials and farmers came to accept that bovine tuberculosis was a disease with serious repercussions. This is not surprising, for not only did its presence in a dairy cow reduce her ability to produce large quantities of milk but it also reduced the percentage of milk fat content in the milk (with both of these disease-related reductions negatively impacting the manufacture of dairy products for export). Furthermore, trade barriers against the disease were being thrown up in Britain and in the United States, which passed regulations in 1898 requiring cattle crossing its borders to be certified as having been tested and found to be free of the disease. By the end of the 19th century, therefore, the Dominion government's disease management strategy was primarily a corollary of international trade realities while remaining relatively passive when it came to dealing with the disease in domestic herds. Federal veterinarians only tested cattle on their way in or out of the country while the onus for testing domestic herds was handed over to

- 15 Louis M. Barnes, comp., "1890. Tuberculosis," Health of Animals Division Sourcebook (Ottawa, ON: Department of Agriculture, Health of Animals Division, typewritten, 1961), Amicus no. 11531616, Library and Archives Canada (LAC). McEachran was appointed the Department of Agriculture's first chief veterinary inspector when that post was created in 1896. He held the position until 1902.
- The tuberculin test was developed by German scientist, Dr. Robert Koch, who identified the tuberculosis bacillus in 1882 and had developed tuberculin with hopes that it would serve as a cure. Although it turned out to have no therapeutic value, tuberculin (a sterilized protein extract of the cultured bacillus) became a valuable diagnostic tool for the presence of the disease in both humans and animals. For the historical development of tuberculin by Koch and its early use in Britain, see Keir Waddington, "The Science of Cows: Tuberculosis, Research and the State in the United Kingdom, 1890-1914," *History of Science* 39, pt. 3, no. 125 (September 2001): 355-81. The Dominion Department of Agriculture procured tuberculin from Koch's laboratory in 1893 and tested it on dairy cattle at the Central Experimental Farm in Ottawa. See Barnes, "1893. Tuberculosis" and "1894. Tuberculin," *Health of Animals Division Sourcebook* (Ottawa, ON: Department of Agriculture, Health of Animals Division, typewritten, 1961), Amicus no. 11531616, LAC.

individual farmers and their local veterinarians, who were left to identify sick animals and have them slaughtered. Federal institutional attention to the domestic management of bovine tuberculosis, therefore, was primarily promotional and only minimally regulatory. Responsibility for disease management was deflected to farmers while regulatory attention was focused mostly on the standardization and inspection of export products. The management of the disease in domestic herds amounted to the free distribution of federally produced tuberculin.¹⁷

Even if the federal government had wanted to eradicate the disease from the Dominion, a host of practical reasons militated against the nation-wide testing of dairy cattle. With close to a million cattle on Dominion farms, testing them all would not only have cost an enormous amount of money but would be a logistical nightmare. Furthermore, some veterinarians speculated that upwards of 30 per cent of the country's cattle might be carrying bovine tuberculosis, fueling fears that the economic loss suffered when reactors would have to be slaughtered would devastate the export market and perhaps even produce a milk famine. In 1903, Dr. John G. Rutherford, who had taken over from Duncan McEachran in 1902 as the country's chief veterinary inspector, voiced these concerns when he stated: "The enormous expense and stupendous labour involved in attempting wholesale measures of testing and slaughter throughout the Dominion render the adoption of such a scheme utterly impracticable even if there were, as there is not, a reasonable certainty, that it would achieve the desired end." 19

During the early years of the 20th century, therefore, any tuberculin testing done by the federal Department of Agriculture was motivated by market interests and was performed only on imported or exported cattle. Gradually, however, federal regulatory oversight expanded to include domestic dairy cows. Although testing on a nation-wide scale was still deemed impractical, testing and disease management of domestic animals increasingly fell under the purview of federal regulatory oversight. In 1903, for instance, a new federal policy put in place to protect export markets from infected cows required that reactors not exhibiting symptoms be spared slaughter but ear-marked with the letter "T" cut into the right ear, a mark that prohibited them from export. This policy was a concession to purebred cattle breeders, who had complained about earlier regulations that required slaughtering of all reactors whether they exhibited symptoms of the disease or not.²⁰

- 17 For an analysis of the link between government regulation and economic activity, see Baggaley, *Emergence of the Regulatory State in Canada*, 273.
- 18 The process of testing dairy cows with tuberculin was long and involved. Since a positive reaction to a tuberculin injection (indicating presence of tuberculosis) was indicated by a rise in temperature (an immune response), the pre-injection, base-line temperature had to be taken at least three times before injection. After injection the animal's temperature was taken every two hours for up to twelve hours. The full details of the testing process are presented in "The Tubercular Cow. A Real Danger in Keeping Her," *The Maritime Farmer and Co-operative Dairyman* 29, no. 21 (5 August 1924): 1.
- 19 Barnes, "1903. Tuberculosis," *Health of Animals Division Sourcebook* (Ottawa, ON: Department of Agriculture, Health of Animals Division, typewritten, 1961), Amicus no. 11531616, LAC.
- 20 Derry, *Ontario's Cattle Kingdom*, 65-70. One way to avoid slaughtering asymptomatic reactors was to keep them in isolation to avoid infecting healthy animals until, in some cases, they recovered from the disease. Sometimes the symptoms did not appear until after the animals were scheduled for slaughter, and this no-kill alternative lost its viability as a solution. But it did placate farmers of expensive purebred animals.

The management of bovine tuberculosis in domestic cattle was expanded further in 1905 with the creation of the "Supervised Herd Plan," which offered tuberculin testing of entire herds to any farmer who requested it. While testing would still be free, this new plan required that they could only be performed by federally employed and federally certified veterinarians - thus extending federal control of tuberculin and the testing of domestic dairy herds. The Department of Agriculture, which had been producing tuberculin at its experimental farm in Ottawa since 1893, and had distributed it free of charge since 1896, had gradually increased its regulatory control until it had complete oversight of the testing process from production to application of tuberculin.

The new requirement that the testing of herds be done by federally approved veterinarians resulted in slowing the testing process down because of the small number of certified veterinarians and the time involved in traveling from farm to farm. These reasons, however, only partially explain the limited success of the plan as there were also two, more significant reasons. There was the difficulty of protecting herds, once tested and deemed free of bovine tuberculosis, from coming into contact with infected animals (either through cross-fence contact or new additions to herds). And the low compensation rates for reactors dissuaded farmers from participating in the plan. In the end this policy, set in place to reduce the number of domestic cattle with bovine tuberculosis, seemed merely to confirm that a national eradication campaign would not work.

Economic concerns continued to sustain Canada's comparative inertia towards the eradication of bovine tuberculosis in domestic herds until strident appeals from physicians and public health officials called for a national campaign. Acknowledging the causal link between bovine tuberculosis and non-pulmonary forms of human tuberculosis, the Canadian Medical Association began in 1908 to lobby the federal Department of Agriculture to implement a test-and-slaughter campaign.²¹ The association argued that eliminating the disease in cows would benefit the public's health and especially children since they were the primary consumers of milk and were, therefore, especially vulnerable to the risks of drinking infected milk from diseased cows. The response from John G. Rutherford, Canada's top veterinarian, was steadfastly negative. This was not because he denied the public health risks posed by consuming infected meat or milk; he had been a personal witness to the tragedy that accompanied this cattle disease having lost his own young son, who died after drinking milk infected with bovine tuberculosis.²² On a

- 21 The American bacteriologist, Theobald Smith, identified Mycobacterium bovine in 1898, 16 years after Robert Koch's identification of Mycobacterium tuberculosis - the pathogen responsible for pulmonary tuberculosis in humans. Although Koch made the shocking claim, in 1901, that the bovine bacterium posed no danger to humans, it was widely accepted and confirmed by international commissions that humans could be infected by bovine tuberculosis by consuming the meat or milk of infected animals. It was estimated that between 15-20 per cent of all human cases of tuberculosis were caused by the bovine strain of the tuberculosis bacterium. See R.M. Price, "Milk and its Relation to Tuberculosis," The Canadian Dairy and Ice Cream Journal 13, no. 5 (May 1934): 19-20.
- 22 Margaret Derry, "John Gunion Rutherford," Dictionary of Canadian Biography Online (DCB Online), http://www.biographi.ca/. Rutherford replaced McEachran in 1902 as chief veterinary inspector. In 1904 the title of this position, held by Rutherford until 1912, changed to veterinary director general.

professional level as well he was confident of the connection between bovine and human tuberculosis, even claiming he had been aware of the bovine-human link "long before Dr. Robert Koch made his first pronouncement in 1882."²³

There were several factors driving Rutherford's rejection of a nationwide plan to eradicate the disease. The first was economic, and this had not changed since 1903 when he had first argued against the idea. The bottom line was that it would cost too much and put too much strain on the dairy industry, revealing that economic realities still trumped public health concerns. The second factor fueling his rejection was tied to his position as the Dominion's chief veterinarian, responsible for protecting and promoting the nascent central power and monopoly of scientific authority housed in the Health of Animals Branch of the Department of Agriculture and wielded by veterinarians. Requiring that only experts, trained in veterinary medicine and certified by the department, could carry out tuberculin testing built a practical barrier to a campaign that would require the testing of millions of cattle. If only experts could do it, then it could not be done. But that was only part of the problem because, he claimed, scientific experts were divided about the etiology and incubation periods of bovine tuberculosis, which led to further disagreement about the reliability of the tuberculin test. Rutherford confirmed this position in a speech he gave on 1 October 1908 to the International Congress on Tuberculosis in Washington, DC. While acknowledging the public health lobbying underway by "many of our medical friends and some vets," he dismissed their demands for broad eradication campaigns by observing that "their zeal outruns their discretion." What was needed, he suggested, was caution, noting "our knowledge of tuberculosis, the tuberculin test, and of their vagaries, has all along been defective and incomplete and undoubtedly is so today." Therefore, he maintained, "before taking any definite departmental action involving the large interests which are at stake in such a country as Canada, it is reasonable that we should 'look before we leap' and guard, as far as may be, against the possibility of having to recede, more or less ignominiously, from a position once taken." Rutherford, as he had five years earlier, concluded "the policy of compulsory testing and slaughter is not a practicable one."24

By pointing to division in the profession, however, the champion of veterinary medicine seemed to be questioning its very authority. But it was this very maneuver of pointing to a dearth of the necessary procedural and bacteriological expertise needed to carry out a national campaign that enabled Rutherford to get exactly what he wanted and bring the management of bovine tuberculosis under the exclusive authoritative umbrella of federal regulatory and scientific control.

While the minister of agriculture still considered it impractical to take special measures to eradicate bovine tuberculosis across the nation, by 1912 the authority of veterinary medicine had been solidified by Rutherford. Government reluctance to oversee regulatory control of the disease domestically had been sustained by the strength of the dairy and agriculture industries. But now these same economic concerns began to erode federal recalcitrance as the lobbying for disease-free cattle

²³ As quoted in Derry, Ontario's Cattle Kingdom, 69.

²⁴ J.G. Rutherford, *The Control of Bovine Tuberculosis*. A paper read before Section VII of the International Congress on Tuberculosis, at Washington, DC 1 October 1908 (Ottawa, ON:: Department of Agriculture), 5, 8.

was not coming from physicians or public health officials but from within the livestock industry itself. At its annual convention in 1912, the National Livestock Association passed a resolution recommending the formulation of a national eradication program.²⁵ As it was, the case-by-case process of testing cows awaiting export to the United States was creating a bottleneck effect at the border, and a nation of cattle free of bovine tuberculosis would streamline and speed up the entire process of moving cows across the border. These calls were amplified two years later when physicians affiliated with the Canadian Tuberculosis Association also lobbied the government to institute regulations ensuring safe milk supplies.²⁶ The combined lobbying efforts of the livestock and public health interests paid off in May of 1914, when the federal government established the "Municipal Tuberculosis Order." This was a plan that offered federal monetary assistance to municipalities seeking a disease-free milk supply by testing and removing diseased cattle, thereby avoiding the expense of building pasteurization plants.²⁷

If the Municipal Tuberculosis Order was a concession to the public health lobby, the establishment of the "Accredited Herd Policy" in 1919 delivered to the livestock industry an expanded reiteration of regulatory control of bovine tuberculosis for economic purposes. This was an explicitly market-driven plan that tested entire herds and slaughtered or removed infected cows until the entire herd could be certified as free of bovine tuberculosis. As such, it was geared to the large, purebred dairy herds of Ontario and Quebec that fed the export pipeline. Regulations to have herds accredited were more specific and rigidly adhered to than all earlier policies. Only farmers with purebred herds could apply to have their herds tested, and the accreditation process was carefully controlled and overseen by the federal department. The testing could only be performed by federally licensed veterinarians, who would only travel to test herds of at least 12 purebred cattle (including a purebred bull). This was a market-driven plan serving to increase the economic advantage of large dairy farmers hoping to move cattle across the border with the United States. Unlike the Municipal Tuberculosis Order, which responded to public health demands for safe milk in urban centers, this plan grew out of export market demands. By May 1922, 63 federal veterinary inspectors had accredited over 1,000 herds across Canada.²⁸

- 25 Barnes, "1912. Tuberculosis," *Health of Animals Division Sourcebook* (Ottawa, ON: Department of Agriculture, Health of Animals Division, typewritten, 1961), Amicus no. 11531616, LAC.
- 26 The lobbying by physicians to recognize the impact of bovine tuberculosis on human health was unique to Canada. In Britain, as early as the 1860s, it had been elite veterinarians more than physicians who were most vocal in exposing the health risks of consuming meat and milk products of cattle infected with bovine tuberculosis. This has been interpreted as a maneuver to raise the professional status of veterinary medicine by imbuing it with a new and authoritative role in preserving public health. See Michael Worboys, "Germ Theories of Disease and British Veterinary Medicine, 1860-1900," *Medical History* 35, no. 3 (July 1991): 308-27; Anne Hardy, "Pioneers in the Victorian Provinces: Veterinarians, Public Health and the Urban Animal Economy," *Urban History* 29, no. 3 (2002): 372-87; and Keir Waddington, *The Bovine Scourge: Meat, Tuberculosis and Public Health*, 1850-1914 (Cambridge, UK: Cambridge University Press, 2006), 36-51.
- 27 A 1917 amendment to the Municipal Tuberculosis Order allowed for the licensing of untested herds as long as their milk was pasteurized.
- 28 William R. Motherwell, Dominion Minister of Agriculture, monthly summary, 15 April 1923, RG 17, vol. 3010, file 37-7-4 (1), LAC.

The extension of strengthened federal regulations to manage bovine tuberculosis across the Dominion was bolstered by the expanding scientific authority of veterinary medicine, which in turn enjoyed an increase in its authoritative stature having been enrolled by the state to help build a strong Canada with a distinct national identity.²⁹ The essential role played by veterinarians in strengthening regulatory control of the dairy industry was in the application and interpretation of tuberculin tests on cows. Each of the three versions of the test required training for proper administration as well as expertise for the accurate interpretation of results. Nonetheless, there was great variability in reliability and consistency of results from all three versions. Each version differed in the injection site of tuberculin: under the animal's skin (the subcutaneous test), into the skin folds around the anus (the intradermic test), or into the eye-lid (the ophthalmic test). The subcutaneous test required monitoring of body temperature every two hours for three hours before the test and every two hours after testing for as many as twelve hours. An increase in temperature indicated a reaction to the tuberculin, and therefore confirmed the presence of tuberculosis infection. However, since other factors – including a high ambient temperature, recent calving, other infections, or agitation – could cause an elevated temperature, the risk of error and either false-positive or false-negative results was quite high. The intradermic test did not require temperature monitoring and indicated a positive reactor if local swelling around the injection site persisted longer than 24 hours. Although anyone could monitor the site for swelling, the application of the test required a certain degree of skill. The ophthalmic test was deemed the most unreliable. A positive reaction would induce an immune response in the form of an abnormal flow of tears, but this was not always a reliable indicator and so the ophthalmic test was considered unreliable as the only test used mostly to confirm a positive reaction to one of the other tests. It was widely acknowledged that all versions of the test were reliable only "when the reaction is intelligently interpreted by an experienced expert."30

Exclusive control of the tuberculin test was confirmed by the veterinary director general, who observed in 1912 that "the tuberculin test is not merely a matter of temperatures, to be measured with a thermometer, and which anyone can apply; it is a system . . . [that] is reliable in proportion to the skill of the person using it, and should naturally be entrusted to those whose scientific training and experience of animals peculiarly fit them for the task, namely the veterinary surgeons." Professional associations of veterinarians, for their part, had been working to gain for their members a professional status similar to that enjoyed by physicians, and had showcased the technical skill needed to perform the tuberculin test as evidence of the special expertise of veterinarians almost since the test had first been made available in Canada. At its annual meeting in 1897, for instance, the Ontario Veterinary Association had passed several resolutions related to the test, including

²⁹ The legitimization of federal regulatory institutions by mobilizing technical expertise is also the focus of Castonguay's study of entomological research in Canada during the late 19th and early 20th centuries. See Castonguay, "Naturalizing Federalism."

³⁰ For contemporary accounts of the testing procedure, see "Tuberculin Test for Cattle," *Maritime Farmer and Co-operative Dairyman* 28, no. 16 (22 May 1923), and "TB Taking Off Many Dairy Cattle," *The Maritime Farmer and Co-operative Dairyman* 28, no. 23 (4 September 1923).

the following: "That the Tuberculin test requires to be safeguarded by certain precautions not possible to those without professional experience" and "That it is not in the interest of the farmers of this Province to have [merely] any person authorized to instruct them in the use of tuberculin as a test for tuberculosis, as it is liable to cause unnecessary alarm concerning the health of cattle."31 The best man for the job was, of course, a trained and licensed veterinarian.

The person most instrumental in legitimizing veterinary science in the early 20th century by enlisting it in the service of the state, and thereby enhancing its professional status, was Dr. John G. Rutherford. He was uniquely situated to recognize the benefits of developing a mutually profitable relationship with federal regulatory powers. After training as a veterinarian, Rutherford had served as a Liberal member of the Manitoba legislature from 1896-1900 before being appointed the Dominion's veterinary director general in 1902. He maintained an intense interest in his profession, establishing and serving as first president of the Central Canada Veterinary Association and as president of the American Veterinary Medical Association (1908-09).32

Regulatory oversight of the federal agricultural bureaucracy was thus strengthened and extended in a complementary co-production with the expanding authority of veterinary science. This co-operative symbiosis was part of a trend that cemented the centralization of the Department of Agriculture, but it also had other political uses. Regulatory authority served as a form of government intervention encouraging the economic growth of the dairy industry, offering political favour to pacify regional discontent, and tying regions into a bureaucratic net regulated by federally sanctioned scientific authority. All this was camouflaged as regulatory order in the interest of public health. Here was the rise of the regulatory state in the name of the consumer, but acting for the good of the producer as deliverer of economic prosperity and national identity.

The culmination of this co-production of state and scientific authority came in 1923, when it was decided to finally establish a national campaign to eradicate bovine tuberculosis. From its tentative beginnings 20 years earlier in 1903, the process and scope of managing this animal disease in Canada had been gradually widened: from single cows to herds and finally to geographic regions. And as its scope widened, regulatory oversight narrowed to a strengthened and centralized authority in the federal Department of Agriculture.

The Restricted Areas Plan, passed as an order in council on 11 December 1922, established large geographic zones where the compulsory testing of every cow, and the slaughter of any reactors, was followed by the vigilant protection of boundaries to prohibit entry of any untested, and therefore possibly diseased, cow. Management of the plan was firmly controlled by the central authority of the Health of Animals Branch of the Department of Agriculture. Once provincial authorities applied to have a region in their province certified, all farmers owning cattle in the region had to vote on whether they wanted the testing to take place. If a two-thirds majority

³¹ F. Torrance, as quoted in A. Margaret Evans and C.A.V. Barker, Century One: A History of the Ontario Veterinary Association, 1874-1974 (Guelph, ON: C.A.V. Barker & Associates Inc., 1976), 56-7.

³² Evans and Barker, Century One, 80-4.

voted in favour of the test-and-slaughter process, compulsory testing of 100 per cent of the cows - both grade and purebred - was undertaken by federally licensed veterinarians. The compulsory testing was backed up by threat of prosecution to anyone found "obstructing, or refusing to assist Federal inspectors engaged in the work of testing cattle, and all persons who in any way refuse to obey the regulation."33 Once all cattle in the region were tested any reactors were promptly shipped for slaughter, all under the close supervision of a federal inspector. Compensation for slaughtered animals amounted to "two-thirds of the valuation put on the reacting animal by our Inspectors," with maximum valuations not exceeding \$150.00 for purebred (and registered) animals and \$60.00 for grade cows (with the understanding that these were maximum values for "only the very best animals"). No compensation at all was available for non-purebred bulls, steers, or sick animals. After the testing and removal of reactors, farmers had to clean and disinfect their premises to the satisfaction of federal inspectors. Re-testing after 60 days was required of all animals in any herds that had a reactor. Herds with no reactors still needed to be retested, but this could wait for six months. Boundaries of restricted areas were clearly designated and movement of cattle into and out of the area was closely monitored, with every new cow entering required to be tested in order to maintain the disease-free status of the area.

As an island with few ports of entry for cattle, Prince Edward Island was uniquely situated to take full advantage of the federal Restricted Areas Plan thereby ensuring both the health of its citizens and its economy (buoyed as it was by the export of dairy cows to American markets along the eastern seaboard). Beginning in the fall of 1923, however, only months after the plan had been put in place by the federal government, repeated requests from PEI officials to participate and have federal veterinarians test Island cows were turned down.

The impetus for PEI farmers to expand their dairy production beyond subsistence farming and small-scale processing for local markets had first come from the federal government in the late 19th century as part of a drive to expand the federal export portfolio. By 1900, joint federal and provincial subsidies had helped build 47 cheese and butter factories in PEI that had used over 50 million pounds of milk and produced over 4.5 million pounds of factory cheese during the previous five years. This was a quantity that exceeded production in both Nova Scotia and New Brunswick.³⁴

Dairying had become an industry on the island, an essential part of its agricultural and economic prosperity, and government oversight of the industry was formalized in 1901 with the creation of a provincial Department of Agriculture. One of this department's first initiatives was to educate farmers in the latest farming techniques and technologies. This was done through Farmers' Institutes, competitions, and farm fairs – all with an eye to nurturing excellence in agriculture. By 1919 the Island had 45,662 milk cows and a dairy industry that was described by J.A. Ruddick, the

³³ Department of Agriculture policy summary, *Bovine Tuberculosis Control Policies*, RG 17, vol. 3013, file 37-7-8 (1), LAC. The quotation is on page 8.

³⁴ Edward MacDonald, *If You're Stronghearted: Prince Edward Island in the Twentieth Century* (Charlottetown, PE: Prince Edward Island Museum and Heritage Foundation, 2000), 28-30; Innis, *Dairy Industry in Canada*, 273.

federal dairy commissioner, as "well developed" (with 15 cheese factories, 11 creameries, and 1 condensed-milk factory).³⁵ This was just the beginning of the dairy industry's emergence as the backbone of the agricultural economy.³⁶ Optimists hoped it would be enough to buoy the small province's economy, since it lacked the industry-based powerhouses that drove the economies in many of the other provinces. Instead, PEI was small, rural, beholden to the federal government for transfer payments, and – with only four seats in Parliament – a mere bit player on the federal stage. All in all, Prince Edward Island was deserving of its motto "the small under the protection of the great." And during the 1920s, along with her sister Maritime provinces, PEI was getting even smaller as young people fled the hopelessness of rural life for the promise offered in the urban factories of Central Canada or the expansive grain fields of the West.³⁷

The decade of the 1920s was generally a bleak one in the Maritime region – marked as it was by suffering due to economic decline, out-migration, and labour unrest – and the regional Maritime Rights protest movement was spawned as a result. Born of shared grievances, rooted in the pain of economic decline, and witness to the preferential treatment given to the central and western provinces, the leaders of this movement lobbied the federal government with the hope of bringing economic activity flowing into the region through higher federal transfer payments, lower freight rates, and subsidies for port improvements.

While the Maritime Rights Movement has garnered much scholarly attention and diverse interpretations, one of the features of the movement that is largely undisputed is that, of all the Maritime provinces, Prince Edward Island was its least enthusiastic member.³⁸ This was not merely a product of its small size, but a result of two additional

- 35 J.A. Ruddick, The Dairy Industry of Canada (Ottawa, ON: The King's Printer, 1920), 4, 5, 8.
- 36 The agricultural economy of Prince Edward Island was further bolstered in the 1920s by the seed potato industry, another agricultural endeavor strengthened on the Island through the collaborative efforts of producers' groups, the provincial government, and the federal experimental farm system. See MacDonald, If You're Stronghearted, 132-8.
- 37 Forbes, Maritime Rights Movement, 65. According to the Dominion Bureau of Statistics, between 1921 and 1931 over 147,000 Maritimers left the region and the number of occupied farms dropped by 12 per cent.
- 38 For various interpretations of the roots of the Maritime Rights Movement, see the following: G.A. Rawlyk, "Nova Scotia's Regional Protest, 1867-1967," *Queen's Quarterly* 75, no. 1 (Spring 1968): 105-23; Forbes, "Origins of the Maritime Rights Movement," 54-66; Forbes, *Maritime* Rights Movement; David Frank, "The 1920s: Class and Region, Resistance and Accommodation," in The Atlantic Provinces in Confederation, eds. E.R. Forbes and D.A. Muise (Toronto and Fredericton, NB: University of Toronto Press and Acadiensis Press, 1993), 233-71; and Ian McKay and Suzanne Morton, "The Maritimes: Expanding the Circle of Resistance," in The Workers' Revolt in Canada, 1917-1925, ed. Craig Heron (Toronto: University of Toronto Press, 1998), 43-86. To date, the interpretation of E.R. Forbes has dominated. A new interpretation has been developed by Don Nerbas that moves beyond a progressivist interpretation to unmask the motivation of wealthy Saint John, New Brunswick, businessmen to participate in the movement, suggesting that their rhetoric in support of movement ideals disguised their involvement in transferring money out of the region into the coffers of central Canadian capitalists. See Nerbas, "Revisiting the Politics of Maritime Rights: Bourgeois Saint John and Regional Protest in the 1920s," Acadiensis XXXVII, no. 1 (Winter/Spring 2008): 110-30, and Nerbas, "Adapting to Decline: The Changing Business World of the Bourgeoisie in Saint John, NB, in the 1920s," Canadian Historical Review 89, no. 2 (June 2008): 151-87.

factors. First, with an economy more reliant on a vibrant silver fox farming industry than the heavy industry of her sister Maritime provinces, PEI had been spared some of the economic recession that had hit other parts of the region more reliant on manufacturing. A second factor explaining Prince Edward Island's tepid membership in the movement was rooted in an Island mentality that was more comfortable with an identity as "the garden in the Gulf" than as political agitator. Reluctant to tangle with larger jurisdictions, the little province had developed other strategies that relied on "supplication, persuasion, and manipulation" to garner favour.³⁹

Even though not militant in its support of the Maritime Rights Movement, Prince Edward Island nonetheless threw its support in with the other provinces in the region in the hope of sharing in potential gains. It had not placed all its bets on the agitation movement, however, in order to have its small voice heard at the federal level. Albert C. Saunders, a Liberal politician who would serve as premier of PEI (1927-30), had hatched a clever plan to put the PEI stamp on one of the Dominion's most powerful political figures. In 1919, when William Lyon Mackenzie King won the leadership of the federal Liberal party and needed a seat in Parliament, Saunders offered him a safe one in the federal constituency of Prince County, PEI. Not surprisingly, King was elected to the seat by acclamation in the by-election that year and hope was raised among Islanders of favours to be gained now that they had a federal representative who was leader of the opposition in the House of Commons. And they also had another champion of Island interests in Ottawa in A.E. MacLean, a strong proponent of the Maritime Rights cause, who was elected to Parliament in the 1921 election.

When King took over as prime minister of Canada after the 1921 elections, however, he did so with a minority government. Islanders quickly saw their hopes fade as King preserved his minority by catering to the Progressives, who had won second place in the election and held the balance of power. With the Progressive interests rooted in the West, King turned his attentions there and essentially ignored Maritime concerns.⁴¹

Nonetheless, PEI officials continued to do what they could to obtain federal favour and take advantage of federal programs. ⁴² Shortly after the federal Restricted Areas Plan was set up in late 1922, the island province sought to participate. The request came from lawyer, businessman, and former lieutenant-governor of Prince Edward Island, Donald MacKinnon, who was serving his third stint as a Liberal in the Parliament of 1921. ⁴³ A tireless promoter of Island economic prosperity, MacKinnon had pushed for transportation and electricity projects on PEI. Recognizing the economic advantages of disease-free cows, he wasted no time after

³⁹ MacDonald, If You're Stronghearted, 146.

⁴⁰ Forbes, Maritime Rights Movement, 83.

⁴¹ Forbes, Maritime Rights Movement, 83-91; MacDonald, If You're Stronghearted, 147.

⁴² This strategy had also been used successfully in the 1920s to bring an infusion of federal monies into the province to cover the expenses of road improvements. See MacDonald, *If You're Stronghearted*, 116-21.

^{43 &}quot;Donald Alexander MacKinnon," *DCB Online*, www.biographi.ca. MacKinnon served in the federal government as a Liberal Member of Parliament for one year in 1900, from 1901-04 and, for the last time, between 1921-25.

the unveiling of the Restricted Areas Plan to write the federal Minister of Agriculture William R. Motherwell to request that the entire province of Prince Edward Island be made one of the first restricted areas in the Dominion. Draping his request in a health narrative, MacKinnon noted that it was "time to have the little province of PEI made an area for cattle free from tubercular diseases"; he ended his appeal with some speculative flattery, suggesting "when this is accomplished the Island will be much healthier and happier for you being Minister."44

Motherwell's response was prompt, but it was not the response for which MacKinnon was hoping. Motherwell reported in his letter to MacKinnon that the Department of Agriculture recognized that islands offered distinct advantages when it came to ease of boundary protection, applauded MacKinnon for wanting to proceed with such a campaign, and revealed that the department would indeed soon undertake a test-and-slaughter campaign on Vancouver Island. He explained that overtures had already been made by the premier of British Columbia for this testing, and that he had "practically assured" the premier that "we would take this on as one of our first operations." Furthermore, the more moderate climate there meant that testing could proceed across the whole island throughout the entire year – even the winter months. Adding a reassuring note to his refusal, Motherwell stated: "After Vancouver Island has been completed, we might be in a better position to consider your request on behalf of PEI." This, he explained, was because he was "very much in sympathy with this work, and you may rest assured that just as soon as we have the finances to go on with, we shall consider very seriously your plea on behalf of making a restricted area of the province of PEI."45

MacKinnon was sufficiently optimistic to make a second request about a month later, in early November of 1923, suggesting that there was no reason why testing could not be done on both of the Dominion's great islands. He went so far as to suggest that concurrent testing of both islands would be of political benefit, noting "Canada would appreciate the evenness of your judgment which will keep the country well balanced." Falling again into a health discourse, MacKinnon suggested that the source of most of the tuberculosis cases in the province was with its diseased cows and that the "application of the tubercular test to all cattle will be a master stroke for you and generations unborn will yet bless you for it." Furthermore, he argued that "the Island is but small and the cost would not be too great."46

The response from Motherwell was another refusal, justified with the claim that his hands were tied: "When it comes to a matter of finance you can understand that we are somewhat handicapped." MacKinnon's spirits must have faded when he read the closing lines of Motherwell's letter in which he stated bluntly that MacKinnon should "hold out no immediate hope that we can commence this work in Prince Edward Island."47

By this time, others had become involved in the lobbying. A dairy farmer and spokesman for the PEI Ayrshire Breeders Club, Earle McRae, conveyed to Deputy

⁴⁴ D.A. MacKinnon to W.R. Motherwell, 2 October 1923, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁴⁵ W.R. Motherwell to D.A. MacKinnon, 3 October 1923, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁴⁶ D.A. MacKinnon to W.R. Motherwell, 9 November 1923, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁴⁷ W.R. Motherwell to D.A. MacKinnon, 11 December 1923, RG 17, vol. 3013, file 37-7-8 (A), LAC.

Minister of Agriculture J.H. Grisdale, in the spring of 1924, a resolution passed by the dairy club "to ask the Health of Animals Branch to take steps to establish a disease-free area of PEI using the whole province as a unit."⁴⁸ The deputy minister's reply was prompt, succinct, and again in the negative.⁴⁹

MacKinnon's frustration with the federal government's refusal to help his little province became more evident in his third request, written on 24 March 1924, in which he lined up a host of reasons to support his cause: besides its inconsequential cost, MacKinnon argued that the plan would reduce out-migration from PEI, the incidence of human tuberculosis, and be "a great blessing to future generations." All in all, it would offer the little province the chance to "start afresh." Furthermore, it was a need dictated by "the scientific knowledge of the day." And chastising the minister for his government's monetary attention to frivolous projects such as finishing the Peace Tower on Parliament Hill, MacKinnon lamented that he "may as well go home if you cannot do it." ⁵⁰

His threat fell on deaf ears and Minister Motherwell again refused, suggesting once more that his refusal was underscored by a shortfall of money: "To make the whole province of PEI a restricted area would mean a considerable expenditure of public money" unless "there would be some assistance forthcoming from the Provincial Government of the Island." Given the province's dire financial situation, this last suggestion silenced the PEI campaign until early the following year when the provincial Minister of Agriculture John Myers took up the cause and wrote to Motherwell requesting the eradication program. Rather than relying on a health narrative as earlier campaigners had, Myers put his cards on the table and declared that "we consider it a great advantage to us commercially, to have our cattle given a clean bill of health." 52

But even Myers's more explicit tactic had no impact, and Motherwell refused once more. Yet again, the reason given in his letter written in late January 1925 was that "we will not have the necessary funds to take on any more work of this nature during the present or the next fiscal year." The first restricted area had already been established in Manitoba and "for information and statistical purposes" it had already been decided that the second area to be established would be in the province of Quebec, home to "one of the most successful Ayrshire and dairying localities in

⁴⁸ Earle McRae to J.H. Grisdale, Deputy Minister of Agriculture, 16 April 1924, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁴⁹ J.H. Grisdale to Earle McRae, 23 April 1924, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁵⁰ D.A. MacKinnon to W.R. Motherwell, 24 March 1924, RG 17, vol. 3013, file 37-7-8 (A), LAC. The Peace Tower, which had been under construction in 1921, was completed in 1922 but money was still being put aside for its column bases, which were laid by Prime Minister King, Governor General Byng, and Opposition Leader Meighen in 1925. For background on the development of government oversight of public health on PEI, see Douglas O. Baldwin, "Volunteers in Action: The Establishment of Government Health Care on Prince Edward Island, 1900-1931," Acadiensis 19, no. 2 (Spring 1990): 121-47. The provincial government had lobbied the federal government in 1916-18 for money to build an extension to the Dalton Tuberculosis Sanatorium. With one of the highest pulmonary tuberculosis rates in Canada, the sanatorium was very much needed; when in 1922 federal funds were not forthcoming, however, the sanatorium (the only one on PEI) was closed. See Baldwin, "Volunteers in Action," 129-30.

⁵¹ Motherwell to MacKinnon, 2 April 1924, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁵² John H. Myers to Motherwell, 21 January 1925, RG 17, vol. 3013, file 37-7-8 (A), LAC.

Canada." The bottom line was that "from the financial outlook, it may be many a day before we can make any additional progress, so far as areas are concerned," even though the minister acknowledged that PEI was "a Province so essentially suited to it because of its water boundaries and consequent minimal danger of re-infection."53

It looked as though there was no hope that Prince Edward Island would ever have its cows tested, nor certified as free of bovine tuberculosis. Beginning in the fall of 1923, PEI officials had pleaded, cajoled, and threatened federal officials in an attempt to have Island cows tested. And for almost two years, the arm-twisting continued as they lobbied the federal government, predicting that the Island, without a Restricted Areas Plan, would result in the deaths of cows, children, and old people, lead to the decline of the dairy industry and export markets, and ultimately in the decline of the entire province itself. But after two years and five firm refusals, federal officials had not budged and PEI was left to feel as though it was, yet again, living up to its motto of being the small (and disregarded) under the (limited) protection of the great.

In Ottawa, Prime Minister King's minority government had been able to hang onto power thanks to the support of the Western-based Progressive party. But King saw support slipping away as Progressives turned their backs on him. And with growing unrest in the Maritimes, King knew he was in trouble. Disillusionment in the Maritimes had set in when King began courting western interests back in 1921 and had grown in step with King's disregard of the Maritimes until the winter of 1925, when leaders of the Maritime Rights Movement became fed up. Looking for a way to strengthen their united front and intensify their agitation for recognition and redress, more than 300 business and labour leaders of the movement climbed aboard a train in February 1925 and set off for Ottawa. Once there, they demonstrated on Parliament Hill - calling attention to their demands for greater political representation, more federal transfer payments, and lower transportation costs.

Representation from Prince Edward Island in this so-called "Great Delegation" amounted to Member of Parliament A.E. MacLean, who played a prominent role in the rally, and Nelson Rattenberry, who was compared in a newspaper account to the fictional briar-patch rabbit known for his wily tendency to "lay low and [say] 'nuffin'."⁵⁴ Even though Prince Edward Island officials had generally supported the wide range of claims made by the movement since its inception, their minimal participation in the Great Delegation is perhaps a better barometer of the province's quiet reluctance to stand shoulder to shoulder with some of its more outspoken members who were going so far as to call for outright secession from the Dominion.

It certainly looked as though Maritime delegates had taken the time, trouble, and expense to carry their regional woes to Ottawa for naught, and that King and the ruling Liberals were too pre-occupied with keeping power to be bothered by a few hundred grumbling Maritimers. However, recently uncovered correspondence revealing King's contact with PEI politicians regarding the testing of Island cows suggests that the Great Delegation visit in February 1925 may have given the prime minister an idea that would strengthen his position while weakening Maritime disaffection. It had

⁵³ Motherwell to John H. Myers, 27 January 1925, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁵⁴ This is quoted in Forbes, Maritime Rights Movement, 148.

become increasingly difficult for him to ignore the growing outspokenness of Nova Scotia and New Brunswick business and labour leaders against the deal they had gotten at Confederation. Having turned a deaf ear to the murmurings from the Maritimes after the 1921 election, he now saw an opportunity to both quash the regional unrest and strengthen the central power of the Dominion. Speculating that Prince Edward Island's poor showing at the Great Delegation demonstration exposed a weak link in the Maritime Rights Movement, King hatched a plan to undermine the Maritime Rights Movement by courting PEI's favour. If successful, his plan would drive a wedge into the regional protest movement and render it impotent.

Prince Edward Island's fortunes were about to change. On 15 March 1925, a short month after the march of the Great Delegation and six weeks after the minister of agriculture had said there was no money to test Island cows – not "in the present or the next fiscal year" - PEI MP Donald MacKinnon received a letter from the Deputy Minister of Agriculture J.H. Grisdale summoning him and the other three Island MPs to the parliamentary office of the minister of agriculture on Parliament Hill. As requested, the next morning at 10:30 am sharp, PEI MPs MacKinnon, Sinclair, MacLean, and Hughes gathered dutifully in the minister of agriculture's office in the East Block. They must have been surprised upon arriving to see that the minister had also invited all the Dominion government's top agriculture officials. Minister of Agriculture W.R. Motherwell records in his correspondence that besides his Deputy Minister J.H. Grisdale and the four PEI politicians, others present at this meeting were federal Livestock Commissioner Mr. Arkell, Veterinary Director General Dr. George Hilton, and Director of Experimental Farms E.S. Archibald. Once the introductions and niceties were over, Minister Motherwell made the surprising announcement that Prince Edward Island was to be made a "Restricted Area." Over the course of the next hour the details of testing Prince Edward Island cattle were hammered out. A letter written later that summer by MP Sinclair provides sufficient evidence to reasonably infer that this was a tactic proposed by Prime Minister King to fracture the strength of the Maritime region protest movement by throwing PEI the veterinary largesse of the federal government.

For his part, the minister of agriculture explained the sudden turnaround in his letter to his provincial counterpart by making a sheepish claim: "We have made somewhat more rapid progress in our Quebec work than I anticipated when writing you under date of January 27th." Stating also that he had "found a few days ago that the Quebec area work was practically completed," he confirmed that PEI would finally get its wish and be made a Restricted Area. The rest of his letter outlines the terms of the arrangement, including logistical details once the testing was ready to proceed and compensation rates for any infected cows that would be slaughtered. He concluded his letter with the directive that PEI farmers will reap "only part of the benefits" of the eradication program unless they cull "the grade or scrub bull curse" from cattle herds. Therefore, part of the arrangement would require PEI farmers with grade bulls to agree to get rid of them and not to get any more. Federal inspectors would keep records of all grade bulls tested during the sweep of the Island, noting their age and any distinctive markings. There was no question that the federal

Department of Agriculture would use the occasion of sweeping the Island for bovine tuberculosis as a means to establish centralized quality control of the dairy industry in that province.

Over the next few months, planning for the testing proceeded. Following federal guidelines, information about the program was distributed by school teachers to all of their students living on farms. Teachers also coordinated the voting that was required in order to determine whether at least two-thirds of farmers supported the testing.⁵⁶ By late June 1925, once the voting was complete, the provincial minister of agriculture sent a telegram to MP MacLean in Ottawa reporting that the required two-thirds majority had voted in favour of the test and that official application had been made to the federal Department of Agriculture for the process that would make PEI a Restricted Area.⁵⁷ In his letter acknowledging receipt of the formal application from Prince Edward Island, the minister of agriculture was careful to set out the specifics of compensation rates, feeling "that it is important in order to avoid any dispute or trouble that might arise at a later date . . . that you clearly understand that these are the rates of compensation to be paid, or that no compensation is to be paid in certain cases."58 Federal authority was thus clarified and confirmed.

In response, the PEI minister of agriculture played the supplicant and attempted to sooth the worries of federal officials by reassuring them that "our people are fully cognizant of the conditions set forth" and that federal officials had no cause to worry since "the vote taken has been practically unanimous." He recorded that dairy farmers on Prince Edward Island were "anxious to see an early beginning of the work."59 But they were not the only anxious ones, for according to correspondence recently uncovered by the author in federal Department of Agriculture files the prime minister of Canada was also eager to see the campaign underway; this lends further credence to the claim that King used the bovine tuberculosis eradication campaign to win PEI's favour and lure it away from the Maritime Rights Movement. King's interest in the bovine tuberculosis eradication program was conveyed to the PEI minister of agriculture by MP John Sinclair in a letter written in the late summer of 1925, when time was running out on completing the PEI campaign that year. In this letter, Sinclair writes that after speaking with Minister Motherwell "about the carrying out of the inspection work in connection with the Restricted Area for P. E. Island" he had had "an opportunity to discuss the matter with the Prime Minister." This conversation led Sinclair to "think it is better to get the first inspection over as

⁵⁶ The voting was done by school district and, after a majority had voted, results indicated that 6,600 votes were in favour of the testing and just over 200 were either neutral or against the test. See W.R. Shaw, Live Stock Commissioner, Prince Edward Island, to W.R. Motherwell, Minister of Agriculture. 12 June 1925, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁵⁷ J.H. Myers, Minister of Agriculture, Prince Edward Island to A.E. MacLean, Member of Parliament, Ottawa. 25-26 June 1925, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁵⁸ J.H. Grisdale to J.H. Myers, 2 July 1925, RG 17, vol. 3013, file 37-7-8 (A). The Department of Agriculture sent a follow-up telegram to the provincial minister of agriculture to advise again that no compensation would be given for grade bulls or steers. This is perhaps in response to a strongly negative reaction against this policy of non-compensation that the federal department had experienced in its dealings with the province of Alberta. In fact, it had been a deal-breaker.

⁵⁹ J.H. Myers, provincial minister of agriculture to W. R. Motherwell, federal minister of agriculture, 6 July 1925, RG 17, vol. 3013, file 37-7-8 (A), LAC.

quickly as possible . . . even if it requires you to put on a double Staff of Inspectors." The prime minister, it seemed, was in a hurry. If the campaign could not be completed in 1925, Sinclair indicated "the Prime Minister was of the opinion that it would be better not to start it this year." Certainly the preference seemed to be for a speedy completion, for "having gone this far, however, I do not think it would be wise to stop it and strongly recommend that the inspection be rushed along as soon as possible." ⁶⁰

It needed to happen fast, but not so as to save PEI cows or children but to solicit political favour so as to save King's sinking ship. Whispering in MP John Sinclair's ear, King nudged him to lobby the federal minister of agriculture into speeding up the process of testing Island cows. He hoped this would placate Island voters and, knowing that another election threatened on the horizon, rebuild eastern support (even if it was only one PEI cow at a time). From the moment the Progressives had thrown their support behind him, King knew he had to appease agrarian interests. After the 1921 election he had worried about western farm interests, but as Progressives pulled away from his Liberals, he turned his attention to the eastern farm interests of Prince Edward Island as a last ditch effort heading into another election. Known for its less than enthusiastic backing of the regional protest movement, King sought to garner the Island's support – support that would do double duty in both shoring up his federal position as well as destroying the unity of the regional agitation movement.

Although King was still in power after the 1925 election, he had to settle for another minority government. This was, in part, because Maritime voters had shown their disdain for the prime minister and voted against him. But there had not been a blanket rejection across the region. In Prince Edward Island the vote had split evenly with two seats going to King's Liberals and the other two going to the Conservatives. While Liberal representation had been reduced on the Island, it had not been annihilated; this is perhaps evidence that King's strategy of offering a federal benefit to the Island had worked.

After the election, and perhaps realizing that he needed to rebuild trust in the region, Prime Minister King struck a royal commission on 26 April 1926 and appointed lawyer Andrew R. Duncan "to undertake a task of national importance in inquiring into Maritime Province grievances." He hoped the commission would "result in clearing away any misunderstanding or lack of appreciation of one another's problems." When the Duncan Report was submitted in September 1926, it recommended that the Maritimes receive money, trade subsidies, and port development. In terms of Prince Edward Island specifically, the report recommended that the province receive a lump sum payment of \$125,000 to make up for past discrepancies in federal transfers. Prince Edward Island officials quickly set out to solidify the financial arrangements and began negotiating with federal officials. In the fall of 1927, newly elected Premier A.C. Saunders (the politician

⁶⁰ J.E. Sinclair to W.R. Motherwell, 17 July 1925, RG 17, vol. 3013, file 37-7-8 (A), LAC.

⁶¹ Andrew Rae Duncan, Report of the Royal Commission on Maritime Claims (Ottawa, ON: F.A. Acland, 1927), 4.

⁶² Forbes indicates that this lobbying "was pursued most vigorously by the government of Prince Edward Island." See Forbes, *Maritime Rights Movement*, 185.

who had negotiated the deal to have King parachuted into the PEI riding for the 1919 by-election) lobbied King in a confidential memo for an even greater payout than the one recommended in the Duncan Report. Saunders made his case by stressing that the revenue his province got from taxes and the federal subsidy were its only two sources of revenue, and simply did not cover expenditures. Having laid out the province's dire economic balance sheet, he then played the health card. Lamenting that expenditures outstripping revenue was not the sole challenge, he went on to paint an even bleaker picture:

To add to our unfortunate conditions, we have never been able in the history of this Province to do anything for public health. We have today over 700 cases of persons suffering from tuberculosis, with no Sanitorium or other place to take care of them or give them proper treatment. We are losing on an average about 100 persons annually dying from this disease.

Saunders's rhetoric drew attention to the need for public health reform in the province, specifically referencing the hundreds of helpless, sick, and elderly Islanders doomed to slide further towards death without assistance from the federal government. He was emphatic that "we positively have not the revenue . . . and we naturally must suffer as a result." Here was the deft use of a health discourse designed to maneuver for increased federal funding. But Saunders's maneuvering was not confined to rhetorical devices to garner sympathy, for he was ready and willing to go behind the backs of the other Maritime provinces, and make a separate deal with Prime Minister King if it gave an advantage to his home province.

Federal officials had quietly suggested that Prince Edward Island might get a better deal if it came to the federal bargaining table alone, rather than as part of a united front with the other Maritime provinces. Saunders was willing to do so. He and the Island's two Liberal MPs, John Sinclair and A.E. MacLean, had met with the federal finance minister to work out an arrangement to increase federal subsidies. The lobbying continued, and in a letter to the federal Minister of Finance J.A. Robb, on 7 October 1929, Saunders reassured the finance minister that he was no longer aligned with the other provinces, indicating that he had "on different occasions declined to cooperate with Premier Rhodes [of Nova Scotia] and Premier Baxter [of New Brunswick] in a joint presentation." He went on to point out that he had also distanced himself from the organization deemed to be the chief instigator of the Maritime Rights Movement, stating that, "I have also declined to have anything to do with a proposed meeting of the Maritime Board of Trade in this connection."

Perhaps Sinclair and MacLean, who had been involved four years earlier in the deal that signed PEI into the federally funded bovine tuberculosis eradication program, were using their past experience to choreograph another windfall for their province. Sinclair had particularly been privy to Prime Minister King's strategy of offering concessions to garner support and weaken opposition when King had used

⁶³ Saunders to King, 17 December 1928, as quoted in Forbes, Maritime Rights Movement, 186.

⁶⁴ The entire letter from Saunders to Robb appears in Ernest R. Forbes, "P.E.I. Opts Out," *Acadiensis* VI, no. 1 (Autumn 1976): 113-14.

him in 1925 to speed up the eradication campaign so that its benefits could be felt before PEI farmers headed to the polls.

Other scholarly studies have documented King's tactic of offering strategic concessions in 1929 as a means to diminish the irritation of regional agitation and split the unity of the Maritime Rights Movement.⁶⁵ The present study offers new evidence suggesting that federal tactics to undermine the unity of the movement had been in play years earlier when, in March 1925, federal officials in the Department of Agriculture made an abrupt about-face and offered the fully funded federal testing of PEI cows in order to eradicate bovine tuberculosis from the Island. This turnaround, after years of steadfast refusals, came mere weeks after the Great Delegation rally on Parliament Hill. Noticing PEI's anemic membership, King saw an opportunity to entice PEI away from the breakaway regional rights movement by offering it a concession. Having lobbied for this concession for two years using primarily a discourse of health reform, Saunders used a similar narrative in 1928 – perhaps indicating that he had seen the successful results that came after his provincial predecessors had used a rhetoric of health to lobby for the bovine tuberculosis testing program.

In this view, then, the decision to test PEI cows for bovine tuberculosis and declare the province a restricted area was a politically motivated maneuver, choreographed by federal officials to eliminate regional dissension. This was a maneuver that brought to bear the recently centralized scientific authority of the Department of Agriculture as wielded by federally licensed veterinarians, who spread across the country establishing federal control of the agriculture industry – an industry increasingly important for the Dominion economy. It did not hurt that the interests motivated by politics and profit could be masked behind the newly emerging interest in public health reform.

Politics and profit also motivated the politicians and dairy farmers on Prince Edward Island as they did their own maneuvering to participate in the Restricted Areas Plan. Working behind the screen of a health narrative, this certification policy promised security for the dairy export market. In the end, the veneer of the health narrative was too thin by itself to attract federal testing of its cows. What it did offer was an opening for federal officials to use for their own advantage as they strengthened federalism with the authoritative armour of science. Seeing PEI's poor turnout in the Great Delegation as a sign of weak commitment to regionalism, federal officials saw the multiple advantages of finally granting tuberculosis testing for PEI cows: it strengthened the central authority of one of its most important departments as it drove a wedge into the unity of regional dissent, all the while dovetailing with PEI's narrative of public health reform. This was a brilliant maneuver. Both sides were able to claim a success to the nobler causes of healthier cows and citizens at the same time that they each gained for their individual causes, more focused on economic prosperity or federalism. Thus, this case study reveals several things. First, federal attempts to split the Maritime Rights Movement were in play at least four years earlier than previous studies have indicated. Second, the

newly emerging public health reform movement could be - and was - flown as a rhetorical banner to disguise the less altruistic economic aims. And third, this case study demonstrates how the authority of veterinary science was twinned with the centralization of the state regulatory authority. In this way, the rise of regulatory power was an inexorable process, a protean and irresistible movement turning everything to its advantage in a co-operative manner that wove together the growing prestige of scientific authority, veterinary expertise, and progressive notions of public health reform.