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Farming the Rock: The Evolution of Commercial Agriculture around St. John's, Newfoundland, to 1945*

BETWEEN 1750 AND 1945 THE RURAL fringe of St. John's changed significantly. During the first half of the 18th century this was a zone of "open and scrubby land", often referred to by early map makers and surveyors as "the barrens", behind the town.¹ The scrubby coniferous forest in the distance was tattered around its edges by the axes of "overwinterers", and swept bare in a few places by fires. There was little cultivated land in the area. By the end of the century, however, the beginnings of an agricultural community were evident; more than 50 farm clearings encircled the settlement of St John's, where more than 3,000 people resided year round, and local farm produce was being sold in the town. As immigration soared during the first four decades of the 19th century, St John's grew rapidly, and the farm settlement in its shadow expanded to meet the fresh food demands of this growing urban population. Milk and market garden vegetables became the primary commercial products of peri-urban farms. By the mid-19th century, 400 farms surrounded the now sizeable urban centre of 25,000 people, and travellers were beginning to notice "the picturesque hills", "yellow hayfields", "cottages" and "white ribands of admirable roads branching off in various directions" that "form landscapes of very different character" from the wharves, stores, houses and narrow streets of the town.²

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- 1 C. Grant Head, *Eighteenth Century Newfoundland: A Geographer's Perspective* (Toronto, 1976), p. 8; J. Bram and E. Scott, "A Plan of St. John's Harbour in Newfoundland, 1751", British Museum Ms., reprinted in D. W. Prowse, *A History of Newfoundland From the English, Colonial and Foreign Records* (London, 1895), facing p. 292.
- 2 Quote is by Bayard Taylor, novelist, poet, journalist and world traveller, who visited Newfoundland in 1855 to witness the laying of a submarine cable across the Gulf of St. Lawrence. These remarks are published in *At Home and Abroad: A Sketch of Life, Scenery and Men* (New York, 1880), cited in R.G. Moyles, "Complaints is many and various but the odd divil likes it": *Nineteenth Century Views of Newfoundland* (Toronto, 1975), p. 19.

The evolution of this small agricultural region on the periphery of St. John's, from its 18th century origins to its decline in the mid 20th century, is the subject of this paper. The principal aims are to outline the factors that promoted the rise of this enclave of agricultural activity in an area where the physical environment imposed significant constraints on agricultural development, to document the scale of commercial agriculture that developed, to describe the simple and efficient marketing system that was established and to explain why farmland abandonment and outmigration from this area took place in the 20th century.³ In attempting to meet these objectives, this study illuminates a process that was repeated in many other settings in North America, where immigration, the rise of towns and cities, and the spilling over of immigrants into the countryside surrounding urban centres led to the establishment of peri-urban agricultural communities that were intimately linked to nearby towns or cities.

Despite almost two centuries of occupancy, St. John's, Newfoundland was little more than a summer fishing station in the late 18th century. In 1775 fewer than 1,500 people — 200 of them women — lived there year round.⁴ They cut wood, repaired stages, constructed flakes, and collected dinnage in preparation for the summer fishing season, when several thousand migratory fishermen used the settlement's magnificent, sheltered harbour.⁵ Four decades later, however, St. John's was an important entrepot. It replaced several ports in the English West Country as the organizational centre for the fishery and became the administrative centre of Newfoundland. By 1820 it was also the emporium of island trade. Population increased accordingly. Resident merchants and their families gradually replaced the unmarried, often highly transient commission

- 3 The shallow till-based soils of the vicinity of St. John's are naturally of low fertility according to a recent soil capability for agriculture survey; they range from class 4 soils which have "severe limitations that restrict the range of crops" to class 6 soils that are capable "only of producing perennial forage crops". This physical base, in combination with a Maritime climate characterized by a mean July temperature of 14.4 degrees Celsius, an average frost-free period of 130 days and over 1400 millimetres of precipitation annually, makes it almost impossible for cereals such as corn and wheat to ripen properly. The short, cool and relatively moist summers are much more suitable for the production of potatoes, turnips, cabbage and the growth of hay and pasture crops. Department of the Environment, Lands Directorate, *Soil Capability for Agriculture* (Ottawa, 1975), St. John's 1N.
- 4 Governor's Return for 1775, Great Britain, Colonial Office Series [hereafter CO] 194/32, f. 98, Provincial Archives of Newfoundland and Labrador [hereafter PANL].
- 5 Head, *Eighteenth Century Newfoundland*, pp. 84, 147. Stages are the elevated platforms on the shore "where fish are landed and processed for salting and drying, and fishing gear and supplies are stored"; flakes are platforms that are "built on poles and spread with boughs for drying codfish on the foreshore"; and dinnage refers to "twigs, brushwood, bark, etc., placed as a mat on which a cargo of dried fish, seal pelts, etc., is laid in a vessel's hold or spread on a fish flake". G.M. Story, W.J. Kirwin, and J.D.A. Widdowson, eds., *The Dictionary of Newfoundland English* (Toronto, 1982), pp. 140, 187, 525.

34 *Acadiensis*

agents who had conducted the fish and provisions trade during the 18th century.⁶ Military officers, civil servants, physicians and lawyers formed an emerging professional class; and a wide range of artisans servicing the fishery (e.g. coopers, chandlers, blacksmiths) settled in the town. By 1810 there were approximately 6,000 people in St. John's, about 45 per cent of them women and children.⁷ St. John's had changed "from a fishery to a large commercial town" and with continuing immigration, especially from southeast Ireland during the next three decades, its population more than tripled.⁸ At the census of 1845 the population approached 21,000.⁹

Agriculture in the vicinity of St. John's began early in the 18th century when "overwinterers" kept "common kitchen gardens" and pastured livestock imported from New England on the "barrens" and woodland on the edges of the settlement.¹⁰ Civilians either cleared garden patches themselves or occupied land already improved by soldiers stationed at Fort William, overlooking the harbour. Yet this activity remained small scale; by one estimate, in 1750 there were only 50 acres of "improved" land near the settlement, which consisted of 100 dwellings housing 700 or so "winter inhabitants", mainly fishing servants.¹¹ A few hundred imported cattle, sheep and swine were pastured during late summer and early fall before they were butchered for consumption.

Gradually, as the overwintering population increased, the cultivated area around St. John's expanded until, in 1766, Governor Palliser objected that

- 6 For details about this process see John Mannion, "Patrick Morris and Newfoundland Irish Immigration", in C.J. Byrne and M. Harry, eds., *Talamh an eisc: Canadian and Irish Essays* (Halifax, 1986), pp. 180-202 and "Irish Merchants Abroad: The Newfoundland Experience, 1750-1850", *Newfoundland Studies*, 2, 2 (1986), pp. 127-90.
- 7 Census of Winter Inhabitants in St. John's, Taken by Lionel Chancey, February 1810, Newfoundland, Department of Colonial Secretary, Letter Books of Colonial Secretary's Office [hereafter L.B.C.S.O.], vol. 21, p. 156, GN 2/1, PANL.
- 8 Governor Richard Keats' Report on Various Subjects, 18 December 1813, L.B.C.S.O., vol. 25, p. 160, GN 2/1, PANL.
- 9 Census of Newfoundland, 1845. All Newfoundland census material cited for the period 1836-1945 are located at the Centre for Newfoundland Studies, Queen Elizabeth II Library, Memorial University of Newfoundland, unless otherwise noted.
- 10 Captain John Leake's Report Concerning Trade and the Fishery at Newfoundland, 1701, received 25 April 1702, CO 194/2, f. 274, PANL; Answers to Several Articles Contained in His Majesty's Instructions to the Governor of Newfoundland, no. 32, 1736, CO 194/10, f. 95, PANL.
- 11 Governor's Return for 1750, CO 194/12, f. 195, PANL. Although "improved" land is not defined in any of these estimates, or indeed, in any of Newfoundland's early censuses, the term generally refers to all land which is cleared and used for crops, tame grasses and pasture. It is distinct from unimproved woodland. See M.C. Urquhart and K.A.H. Buckley, *Historical Statistics of Canada* (Toronto, 1963), p. 343.

the indulgence formerly allowed, to officers and soldiers of the garrison of this place to make gardens and potato grounds and to build homes on the vacant ground about the fort has heretofore been greatly abused by the practice of afterwards pretending to sell the same as property in payment of debts...by which means the fort has been surrounded with buildings and enclosures made by soldiers and others affording cover for an invading enemy in all the approaches... besides causing a great increase of poor, idle, disorderly people to stay in the country and inhabit such houses¹²

Palliser immediately ordered several houses and fences knocked down and reserved 50 acres in the vicinity of the fort for the sole use of soldiers of the garrison, who were “permitted to make gardens at the discretion of their commanding officers”, providing that “no acknowledgement or rent be paid...by any person whatsoever”.¹³ However, many civilian squatters remained undisturbed. Of the six houses permitted to remain within this ordnance zone, two were owned by civilians who were long-term residents of the settlement; the others had been constructed by soldiers of the garrison. Still, as Palliser’s predecessor, Governor Graves, had noted three years earlier, “except for [these] gardens which produce most excellent potatoes and other roots” there was “little improved land” near the settlement.¹⁴

Until the last quarter of the 18th century most of the food consumed in Newfoundland had been transported over great distances. Salt beef, pork and butter came from southeast Ireland. Breadstuffs, flour and dried peas were shipped in from southern England or New England. Tea, coffee, rum, sugar and molasses were imported from the West Indies or through southwest England or mainland North American ports.¹⁵ Such arrangements, while adequate for a small, relatively transient population consigned to the fringe of an empire, whose trade was governed by the precepts of mercantilism, grew increasingly unsatisfactory with the expansion of settlement. Moreover, quickening industrialization in Britain placed greater demands on domestic agricultural surpluses and the growing dominance of the English market meant diminished food exports.¹⁶ Between 1770 and 1810 the quantity of provisions shipped from Ireland to Newfoundland actually declined as the permanent population of

12 Proclamation of Governor Hugh Palliser, 14 September 1766, CO 194/62, f. 128, PANL.

13 *Ibid.*

14 Answers to Several Queries in His Majesty’s Instructions to the Governor of Newfoundland, no.41, 1763, CO 194/15, f. 192, PANL.

15 Griffith Williams, *An Account of the Island of Newfoundland With the Nature of Its Trade* (London, 1765), p. 17.

16 E.J. Hobsbawm, *The Age of Revolution 1789-1848* (New York, 1962), pp. 44-73 and “The British Standard of Living, 1790-1850”, in A.J. Taylor, ed., *The Standard of Living in Britain in the*

36 *Acadiensis*

Newfoundland grew.¹⁷ In addition, the increased naval presence all around the North Atlantic, associated with the Napoleonic Wars and the War of 1812, disrupted traditional patterns of trade. The Navy competed for such processed food as was available and, as a result, prices were driven up. These factors induced overwintering civilians and soldiers of the garrison to turn to local agriculture as a source of fresh food.

In 1775 in anticipation of the completion of Fort Townshend one mile west of Fort William, the "ordnance zone" defined in 1766 was extended to encompass another 150 acres. All occupiers of land within this zone were ordered by Governor Duff to prove their respective titles or have their fences "laid open".¹⁸ Still, encroachments persisted, and by the end of the century civilian use of this area far surpassed that of the garrison. A map of St. John's, completed by Thomas Eastaff in 1806, describes civilian encroachments on ordnance property in the vicinity of the forts, depicts the expansion of urban gardens since 1775 and documents the location of several of the earliest farms established on the outskirts of town (Figure 1).¹⁹ Some 370 acres, comprising 100 plots of land which ranged in size from less than one to as many as 25 acres, were included in Eastaff's survey. Most plots were planted in some combination of potatoes, turnips, carrots and hay; the larger lots also included some "rough pasture". Little woodland remained in this garden fringe by this date; three-quarters of the plots surveyed by Eastaff were cleared of timber. One-fifth were used for soldiers' gardens and other ordnance purposes (woodyard, artillery shed, etc.); another fifth were held by butchers and farmers. But the majority were utilized by townsmen — merchants, shopkeepers, civil servants, doctors and artisans — who either sublet the land, hired gardeners and labourers to operate it or worked the ground themselves.

Industrial Revolution (London, 1975), pp. 75-82; Brinley Thomas, "Feeding England During the Industrial Revolution: A View from the Celtic Fringe", *Agricultural History*, 56, 1 (1982), pp. 333-7.

- 17 During the first decade of the 19th century the volume of butter exported to Newfoundland from Ireland was "half the total sent in the 1770s, pork was down to one-quarter and beef had virtually disappeared". John Mannion, "The Waterford Merchants and the Irish-Newfoundland Provisions Trade, 1770-1820", in L.M. Cullen et P. Butel, eds., *Négoce et Industrie en France et en Irlande aux XVIIIe et XIXe Siècles* (Paris, 1980), p. 34.
- 18 Governor Robert Duff's Proclamation on Ordnance Land, 7 August 1775, L.B.C.S.O., vol. 6, p. 69, GN 2/1, PANL.
- 19 A legend to Eastaff's map which documents land use in this zone can be found in the Schedule of Ordnance and Adjoining Lands in the Vicinity of St. John's (for 1806), 1813, L.B.C.S.O., vol. 24, pp. 311-3, GN 2/1, PANL. For land use within the town see John Mannion, "St. John's, 1806", Plate 27, in R. Cole Harris, ed., *Historical Atlas of Canada, Vol. 1: From the Beginning to 1800* (Toronto, 1987). A copy of T.G.W. Eastaff's "Plan of the Town and Harbour of St. John's", 12 September, 1806, is located at PANL.

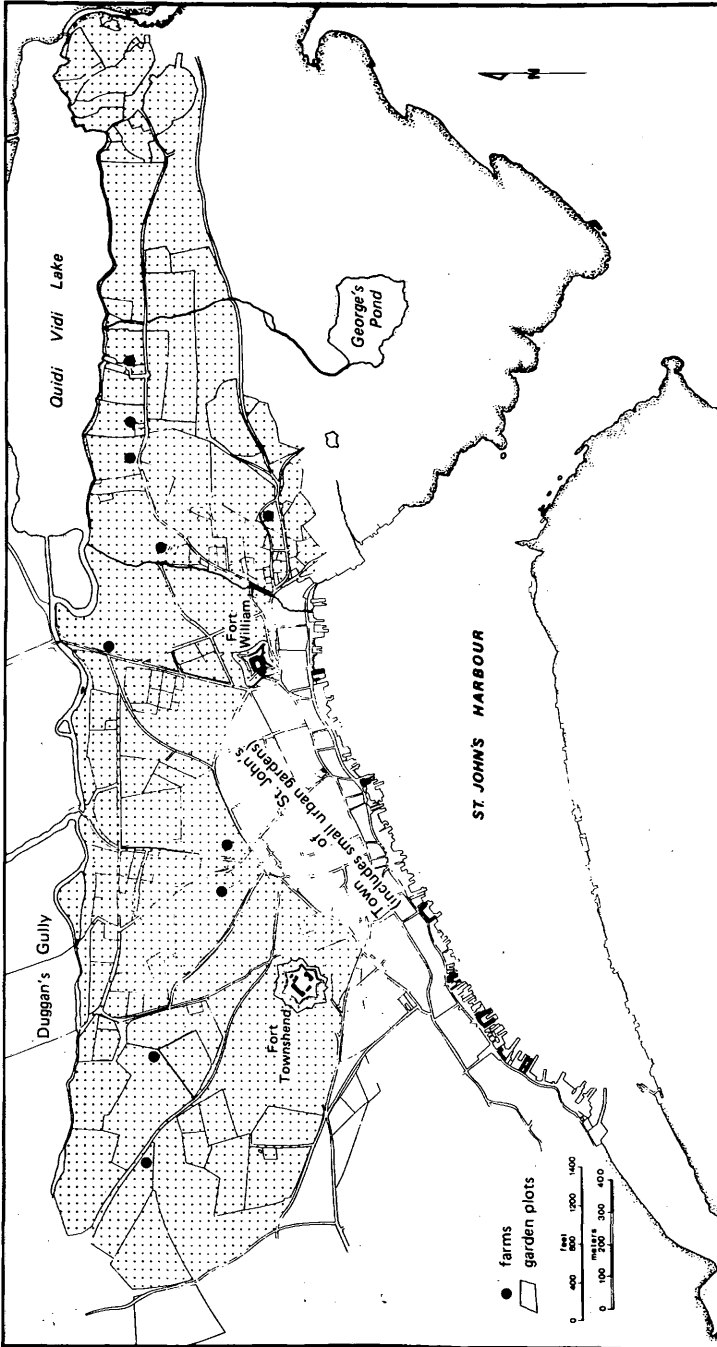


Figure 1: Farms and Gardens in the Ordnance Zone, 1806 (after Eastaff).

Beyond these garden plots and several farms there were another 45 farms within about a one and a half mile radius of the town (Figure 2).²⁰ Several had existed before 1780 and approximately half the remainder were established during the last two decades of the century. Most of these early farms, like the gardens in the vicinity of town, were established by British Protestant members of the middle class of St. John's who worked in the town. Farm owners included nine military officers, eight merchants, five local officials, three physicians and three butchers; of the 40 whose occupations are known, only 12 can be considered full-time farmers. On average, these farms contained approximately 25 acres with seven improved, but farm size varied considerably. Roughly half of the 40 farms for which land use information survives had five acres or so cleared in 1810, twelve had between six and 10 acres cleared, five between 11 and 15 and only three, more than 20 acres. Only a fraction of the land on most farms was under cultivation; the remainder was used for pasture, rough grazing and timber. Virtually all of these farms were still being cleared in 1810; few of them could have produced a significant surplus.

Imported foodstuffs continued to sustain most families in St. John's. But the local hospital, the jail and the garrison (comprising several hundred troops), as well as troops aboard "Her Majesty's Ships" stationed at St. John's, competed for such fresh food as was available and prices were high. Dan Campbell received £15.4.5 for supplying six quarts of milk per day and 30 lbs. of potatoes and vegetables to the naval hospital between July and October 1810, while a local butcher, John Williams, who also operated a farm, was paid £21.7.6 for providing 733 lbs. of fresh beef and mutton during the same period.²¹ During the same year

- 20 Figure 2 is based on several sources that document land alienation and use in the vicinity of St John's during this period, including: A List of Persons With Houses or Enclosed Land in St John's, 31 July 1797, L.B.C.S.O., vol. 12, p. 47, GN 2/1, PANL; An Estimate of the Ground in the Vicinity of St. John's, Newfoundland and of the Produce: Taken in 1807, 1813, L.B.C.S.O., vol. 24, pp. 3-9, GN 2/1, PANL; Schedule of Land Enclosed Near St. John's for which Possessors Have No Legal Authority, 1 October 1812, L.B.C.S.O., vol. 23, p. 135, GN 2/1, PANL and Return of Land Enclosed and Houses Built in the Vicinity of St. John's, 1813, L.B.C.S.O., vol. 24, pp. 333-4, GN 2/1, PANL. A list and description of all farms documented in the vicinity of St. John's in these and other sources between 1750 and 1810 is contained in R. A. MacKinnon, "The Growth of Commercial Agriculture Around St. John's, 1800-1935: A Study of Local Trade in Response to Urban Demand", M.A. thesis, Memorial University of Newfoundland, 1981, pp. 103-5.
- 21 Provisions Supplied to the Naval Hospital, 23 July - 10 October 1810, Governor John T. Duckworth Papers, Files 14/173 and 14/174, P1/5, PANL. Although the evidence is scanty, it appears that commercial arrangements such as these were often of a longer term than the accounts cited above indicate. In 1811 a receipt signed by David Duggan, Surgeon at the Naval Hospital, indicates, for example, that John Campbell received £27.14.2 for providing 155 gallons of milk and about six barrels of potatoes and vegetables (15 bushels) to the Naval Hospital during a six month period. Receipt, 13 August 1811, Duckworth Papers, File 14/371, P1/5, PANL. Similarly, John Williams, "butcher", and the names of other known farm operators, are regularly listed in the

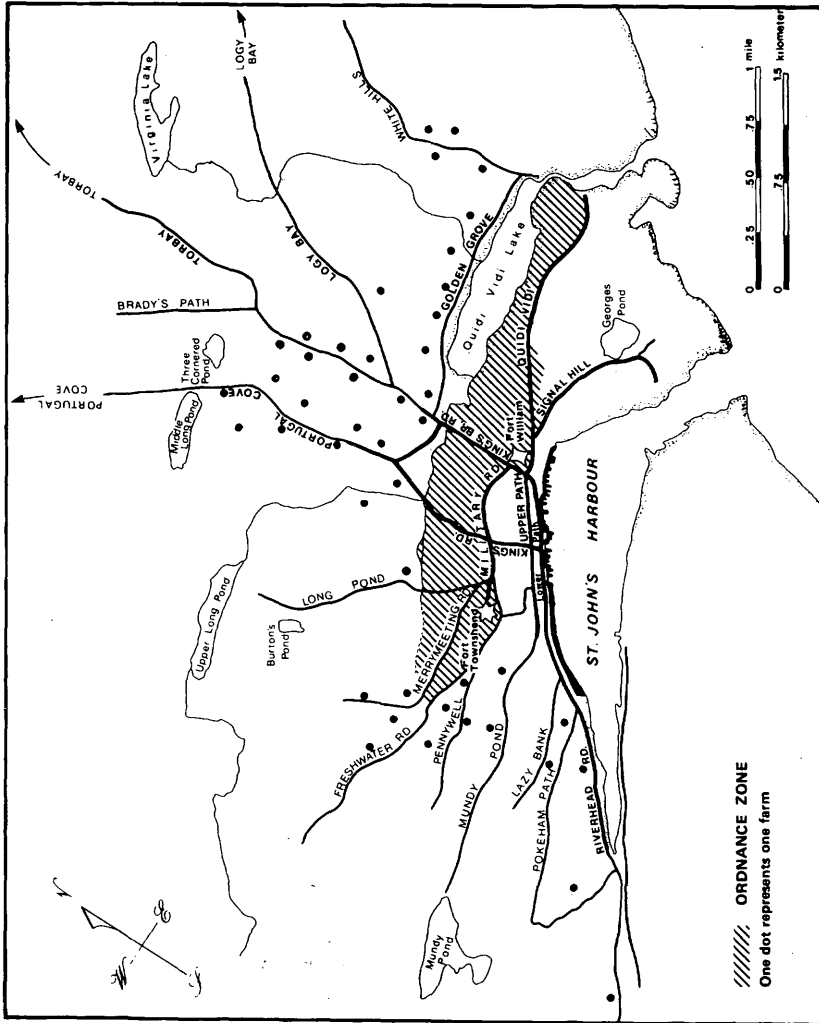


Figure 2: Farming Fringe of St. John's, Newfoundland, circa 1810.

Richard Reed's "Friendly Hall", on the Portugal Cove Road, yielded agricultural products valued at £135.²² Much of this was probably in milk (which sold at 6d per quart), hay (£4 per ton), vegetables (5s. - 6s. per bushel), pork (6d per lb. or £5 per barrel) and beef (7d per lb. or £5.14.0 per barrel).²³ His stock included six cattle as well as two horses and two pigs.²⁴ According to the newly arrived Governor Keats, the "neat, cultivated and productive little farms" that stretched over the hills behind the town had "considerably more than 1,000 acres in cultivation and as many more perhaps enclosed" in 1813, the produce of which included "hay, oats, potatoes and vegetables of all kinds".²⁵ Many of these early farms were occupied by their owners only during the summer months. Labour was supplied by "farm servants" or hired labourers.²⁶ In the fall, if the property was not occupied by a farm servant, or left vacant, it was offered for rent.²⁷

The early emergence of these farms along the roads leading to Quidi Vidi, Upper Long Pond and Middle Long Pond is suggestive of their nature and function. Here, proximity to the forts and town, clear freshwater streams and scenic locations had encouraged the development of such well known farms and "country retreats" as "Golden Grove", "Pringlesdale" and "McKie's Grove" as well as "Friendly Hall".²⁸ "Golden Grove", for example, had been established in the 1750s on a 200 acre grant

District Accounts as suppliers of manure for the Governor's garden, of firewood for Government House, of cartage for the Commissariat and other branches of the Colonial government and of fresh water for the military personnel aboard Naval ships stationed at St. John's. See, District Accounts, 1814 -16, L.B.C.S.O. vol. 25, p. 401; vol. 26, p. 387; and vol 27, pp. 478-9, GN 2/1, PANL.

- 22 Administrator of Elizabeth Reed Estate vs. Executor of Late Richard Reed, 20 December 1810, Newfoundland Supreme Court, Central District, Minutes, GN5/2/A/1, PANL.
- 23 Charles Pedley, *The History of Newfoundland From the Earliest Times to the Year 1860* (London, 1863), p. 236.
- 24 *Royal Gazette* (St. John's), 12 July 1810.
- 25 Governor Richard Keats Report on Various Subjects, 18 December 1813, L.B.C.S.O., vol. 25, p. 160, GN 2/1, PANL.
- 26 Collector of Customs Peter McKie, for example, placed an advertisement in the *Royal Gazette* on 28 April 1814 requesting "a servant man...one who understands farming and managing a horse and cart" to work on his farm, "McKie's Grove", located on the road leading to Upper Long Pond from Fort Townshend (presently Bonaventure Road). By 1820 physician and politician William Carson was employing two labourers full-time to work his farm "Rostellan", situated between Portugal Cove Road and Strawberry Marsh Road on the south side of Middle Pond (near present-day Rostellan Street). William Carson to Governor Charles Hamilton, 19 September 1822, reprinted in J. R. Smallwood, ed., *Dr. William Carson, The Great Newfoundland Reformer, His Life, Letters and Speeches, Raw Material for a Biography* (St. John's, 1967), p. 63.
- 27 See, for example, "Gaden's Marsh" farm, *Royal Gazette*, 27 September 1810 and "Friendly Hall" farm, *Mercantile Journal*, 20 June 1822.
- 28 Established respectively by Captain Griffith Williams and Lieutenant Robert Pringle of the local garrison, Collector of Customs Peter McKie and Scottish merchant Richard Reed.

Farming the Rock 41

to Captain Griffith Williams along the north shore of Quidi Vidi which offered scenic views across the lake.²⁹ Though estimated to have suffered £2,000 worth of damages during the brief French occupation of St. John's in 1762,³⁰ it was one of the largest farms on the outskirts of town at the end of the century (Plate 1).³¹ In 1807 it was occupied by five tenants; it had more than 80 acres cleared and yielded at least 100 tons of hay and 260 barrels of potatoes (650 bushels), far above the average even in the most productive of the farming districts surrounding St. John's.³² With such



Plate 1: "Golden Grove" Farm, Quidi Vidi Lake, circa 1790.

29 Governor R. Edwards to Captain Griffith Williams, 14 October 1757, L.B.C.S.O., vol. 2, p. 399, GN 2/1, PANL.

30 Memorial from Major Griffith Williams, St. John's, to the Commissioners of Trades and Plantations, n.d., received 30 August 1780, CO194/20, f. 19, PANL.

31 This sketch was probably done by Colonel Thomas Skinner, Commanding Royal Engineer of the garrison, who later raised and commanded the Royal Newfoundland Fencibles and established a farm to the west of "Golden Grove" which he called "The Cottage". D.W. Prowse, *A History of Newfoundland*, pp. 399, 427, 654, 690. A copy of this sketch is located at PANL (Map Collection 41/55).

32 William Thomas, a Newfoundland born merchant, was probably the owner of "Golden Grove" during this period, *Royal Gazette*, 14 October 1813; Patrick Morris, *Observations on the Government Trade, Fisheries and Agriculture of Newfoundland* (London, 1824), p. 17. The 18 farms documented in the Quidi Vidi district in 1807 averaged 17 tons of hay and 198 bushels of

42 *Acadiensis*

other crops and livestock as it produced (the quantities of which are not known) it was likely one of the most important farms of the period. On the roads leading to Torbay, Mundy Pond and Riverhead, relatively remote from the town, clustered at the east end of the harbour, were the least productive farms.

Following the outbreak of war in 1812, prices rose steadily as trade with New England, long a source of food and provisions for Newfoundland, was halted. Furthermore, crewmen aboard the “twenty-one frigates” and “thirty-seven sloops, brigs and schooners of war” recently assigned to St. John’s placed additional demands on available foodstuffs.³³ With provisions scarce, during the summer of 1813 food prices reached unprecedented levels — potatoes were selling at 12s. per bushel, flour between £6.0.0 and £6.6.6 per barrel, beef 8d. - 9d. per pound (£7.0.0 - £7.7.0 per barrel) and pork 11d. - 1s. per pound (£9.0.0 - £10.0.0 per barrel). This prompted Governor Keats to make “urgent representations” to the Secretary of State to assist in procuring provisions for both the military and civilian population of the island.³⁴ Although shipments of food from nearby British North American colonies and from England ultimately “replenished the stores, brought down prices, and removed all apprehension of famine for the ensuing winter”, such inflationary conditions greatly stimulated interest in local agriculture.³⁵

Even though British laws officially discouraged agricultural settlement in 18th century Newfoundland, the indulgence of successive colonial governors had created a *de facto* system of land distribution on the island. In practice, well-known permanent residents requiring land often petitioned the Governor. Generally the application included a description of property boundaries, “surveyed by three or four ancient inhabitants of the town”.³⁶ If they were successful, their grant was noted in the Governor’s records.³⁷ Should a petition fail, property might be

potatoes, the 22 farms in the Upper Long Pond, Freshwater Valley and Portugal Cove Road districts averaged less than 10 tons of hay per farm and 133 bushel of potatoes, and the 15 farms scattered throughout the western environs of town averaged eight tons of hay and 122 bushels of potatoes. “An Estimate of the Ground in the Vicinity of St. John’s and of the Produce: Taken in 1807”, 1813, L.B.C.S.O., vol. 24, pp. 3-4, GN 2/1, PANL.

33 Prowse, *History of Newfoundland*, p. 387.

34 Pedley, *History of Newfoundland*, p. 284.

35 *Ibid.* pp. 284-5.

36 Governor Waldegrave to David Duggan, 11 October 1797, L.B.C.S.O., vol. 13, p.319, GN 2/1, PANL; Governor Waldegrave to John McCurdy, 11 October 1797, L.B.C.S.O., vol. 13, p. 317, GN 2/1, PANL; Governor Waldegrave to David Duggan, 18 October 1797, L.B.C.S.O., vol. 13, p. 396, GN 2/1, PANL; Governor Waldegrave to Richard Reed, 21 September 1797, L.B.C.S.O., vol. 13, p. 240, GN 2/1, PANL; Richard Reed to Governor Waldegrave, 13 October 1797, L.B.C.S.O., vol. 13, p. 341, GN 2/1, PANL.

37 Head, *Eighteenth Century Newfoundland*, p. 146. Sometimes, in an effort to provide an incentive for the Governor to accept the application, the lot was enclosed, cultivated and built upon even before application was made, as in the Memorial of Major John Murray, 20 January 1807, CO 194/46, f. 5, PANL.

acquired through lease or purchase. By the turn of the 19th century properties on the periphery of St. John's were being "bought and sold with the same confidence in title as in England" despite the legal ambiguity of their ownership.³⁸ Finally, potential settlers — especially those short on capital or status — could acquire land by squatting. By 1813 Governor Keats was ready to admit the widespread breach of the regulations: "proclamations made by my predecessors forbidding persons to take possession of lands have been disregarded", he wrote. So, too, in cases "where grants or leases...[had] been obtained from government, the limits...[had] commonly been exceeded".³⁹ In the face of these circumstances, in 1813 the Colonial Secretary sanctioned the granting of 110 crown leases to "industrious individuals for the purpose of cultivation".⁴⁰ This official reversal of British policy toward agricultural settlement in Newfoundland made Crown Lands far more accessible to immigrants during the second and third decades of the 19th century.

Between 1810 and 1830, with the arrival of more than 15,000 immigrants, many of whom were "young Irishmen ... full of the desire to acquire land and settle down", the area of farmland around the town expanded rapidly.⁴¹ At the first colony-wide census of Newfoundland in 1836, there were over 350 farms on the fringe of St. John's; they included 9,000 acres, 3,500 of which were "under cultivation".⁴² This was a third of all cultivated land in Newfoundland. The majority of these farms had been established by settlers from the Irish counties of Waterford, Wexford, Kilkenny and Tipperary.⁴³ Nearly 20 per cent had been established by English immigrants and the remainder by a handful of lowland Scots and some settlers from the Maritimes. Some of them, said the Governor,

38 Chief Justice Richard Routh to Secretary of State, 9 May 1797, CO.194/39, f. 320, PANL; see also Report of John Reeves on the Government and Judicature of the Island of Newfoundland, 28 November 1791, CO 194/38, f. 322, PANL.

39 Governor Richard Keats Report on Various Subjects, 18 December 1813, L.B.C.S.O., vol. 25, p. 161, GN 2/1, PANL.

40 Secretary of State to Governor Keats, 7 April 1813, L.B.C.S.O., vol. 24, p. 171, GN 2/1, PANL and Proclamation of Governor Keats, 17 June 1813, L.B.C.S.O., vol. 24, p. 282, GN 2/1, PANL.

41 Sir C. Alexander Harris, "Newfoundland, 1783-1867", in J.H. Rose, ed., *The Cambridge History of the British Empire*, vol. 6 (Cambridge, 1930), p. 425. Customs returns recording immigrants arriving at St. John's are contained in *An Account of the Number of Emigrants Arrived in the Colony, 1830*, Governor Thomas Cochrane Papers, Ms. 2365, f. 280, Micro 971.871, PANL, though as the Customs Officer noted, "the returns...are far short of what they ought to be", Report of A.H. Brooking, 20 May 1831, Incoming Correspondence of the Colonial Secretary's Office, vol. 7, p. 397, GN 2/2, PANL.

42 Census of Newfoundland, 1836. Presumably the amount of cleared farmland was greater than that "under cultivation", given that this figure probably did not include land cleared for pasture.

43 John Mannion, *Irish Settlements in Eastern Canada: A Study of Cultural Transfer and Adaptation* (Toronto, 1974), p. 20.

44 *Acadiensis*

“even made a tolerable profit”, for though “the soil is light and gravelly”, when “well manured” it is able to produce good crops of hay, “every sort of vegetable” and “tolerable oats and barley”.⁴⁴

Under the leadership of William Carson, a medical doctor and politician, and Patrick Morris, a St. John’s merchant (both of whom owned farms on the outskirts of town), permanent residents lobbied Britain for fee simple grants, better roads and an elected assembly with powers to re-invest in Newfoundland any revenues collected in that colony.⁴⁵ In 1819, a Newfoundland Supreme Court decision concluded that the English Common Law rule of continuous occupation of Crown Land (for 60 years) was applicable to Newfoundland and within five years Imperial Statutes offered squatters legal title to land upon its registration and payment of a quit rent.⁴⁶ By 1830, grants totalling more than 8,000 acres had been registered in the vicinity of St. John’s, many of which were “confirmatory lots to those who had long been in possession of the soil”.⁴⁷ Quit rents, which earlier in the century had ranged from 2s.5d. to 5s. per acre, depending upon the location of the lot, were significantly reduced during the 1820s and, following the establishment of Representative Government in 1832, they could be waived upon payment of a lump sum to the Crown.⁴⁸ Finally, the Newfoundland Crown Lands Act of 1844 and its subsequent amendments removed remaining restrictions on Crown Land ownership and codified the system of land distribution that had evolved during the second and third decades of the 19th century.⁴⁹

As a result of these reforms, 19th century immigrants extended and developed the nuclear farming area and pushed beyond the old farming core, especially to

44 Governor Cochrane to Secretary of State, 28 April 1831, Cochrane Papers, Ms. 2365, f. 265, Micro 971.871, PANL.

45 See, for example, William Carson, *A Letter to the Members of Parliament of the United Kingdom, Britain and Ireland on the Address of Merchants and Inhabitants of Newfoundland* (Greenock, 1812) and *Reasons For Colonizing the Island of Newfoundland in a Letter Addressed to the Inhabitants* (Greenock, 1813); Patrick Morris *Arguments to Prove the Necessity of Granting to Newfoundland a Constitutional Government* (Poole, 1828).

46 A.C. McEwan, “Land Titles in Newfoundland”, *The Canadian Surveyor*, 31, 2 (1977), pp. 154-5.

47 Explanatory Statement Accompanying the Blue Book, 1830, Cochrane Papers, Ms. 2365, f. 284, Micro 971.871, PANL. Total acreage of grants is estimated from quit rents collected in 1829 recorded in *An Account of Rents Arising from Crown Lands*, 1 January 1830, Cochrane Papers, Ms. 2365, f. 136, Micro 971.871, PANL.

48 Governor Cochrane to Secretary of State, 28 December 1825, Cochrane Papers, Ms. 2363, f. 78, Micro 971.871, PANL; Governor Cochrane to Secretary of State, 4 February 1831, Cochrane Papers, Ms. 2365, ff. 228-33, Micro 971.871, PANL; McEwan, “Land Titles”, pp. 155-6; *Royal Gazette*, 21 June 1840.

49 McEwan, “Land Titles”, pp. 156-7; “Letter from Agricola”, *Morning Post* (St. John’s), 11 January 1849.

the west of town (Figure 3).⁵⁰ Many of the urban gardens established in the 18th century were either built upon or consolidated into small farms. Characterized by a wide range of farm sizes and shapes, with no consistent pattern of house and barn placement, the farming districts that emerged reflected the lack of a formal land survey in advance of settlement. At the census of 1836, potato production was estimated at 90,000 bushels, ten times the level of 1807, and the hay crop had increased sixfold over the same period to 3,100 tons. A typical farm had nine acres “under cultivation”, which produced an average of 245 bushels of potatoes, 13 bushels of oats and eight tons of hay; the remaining farmland was devoted to some combination of pasture, a kitchen garden, sometimes a small orchard, and woodland. Livestock, on average, included a horse, three cattle, a sheep or a pig and some poultry. Each farm was likely to produce milk, butter, eggs, turnips, cabbages, fruit and such vegetables as carrots, parsnips, onions and beets, but these commodities were not enumerated in the census. Nor did this enumeration record such ancillary commodities as dinnage, firewood, staves and stones for ballast, all of which were provided in part by farmers. Though farms were generally small, they were worked intensively and, by combining periodic off-farm work with small scale commercial agriculture, their occupiers could raise families and develop modest patrimonies for their children.⁵¹ Upon his arrival at St. John’s in 1834, Governor Prescott, while noting the “severe climate” and “uncongenial soil”, observed that “the industrious and hard working man, whose interests we very much have to consider” is able to “obtain a grant..., hire a newly imported servant for the season, clear the ground by his own and his servant’s efforts and raise a crop to assist in the support of his family”. It was “principally in this way”, he continued, “that the vicinity of St. John’s...assumed its smiling appearance” (Plate 2).⁵²

- 50 Figure 3 is based on several sources including: the Index to Land Grants in the St. John’s Agricultural Section of the Avalon Peninsula (Howley Building, St. John’s); large scale cadastral maps of the vicinity of St. John’s (approximately 1: 8,000), esp. nos. 305, 384 and 403 (Howley Building, St. John’s); “farm for sale” advertisements in local newspapers; and wills and estate papers (see footnote 58). The total number of farms mapped (408) is slightly greater than the total number of farmers recorded in the Newfoundland Census of 1845 (378), reflecting the underenumeration of farm owners in the published census.
- 51 Governor Cochrane noted that those who operated farms on the outskirts of town were offered a significant advantage in that they “were enabled to obtain employment for their cattle and servants when not employed in agriculture” in the town. Governor Cochrane to Secretary of State, 28 April 1831, Cochrane Papers, Ms. 2365, f. 266, Micro 971.871, PANL.
- 52 Governor Prescott to the Secretary of State, 24 November 1839, published in the *Royal Gazette*, 21 January 1840. Plate 2 is an aquatint by H. Pyall after a drawing by William Eagar, published in London in 1831. A copy is located at the Public Archives of Canada, Documentary Art and Photography Division (C-41605). It is reprinted in Charles P. De Volpi, *Newfoundland, A Pictorial Record: Historical Prints and Illustrations of the Province of Newfoundland Canada 1497-1887* (Sherbrooke, 1972), plate 19.

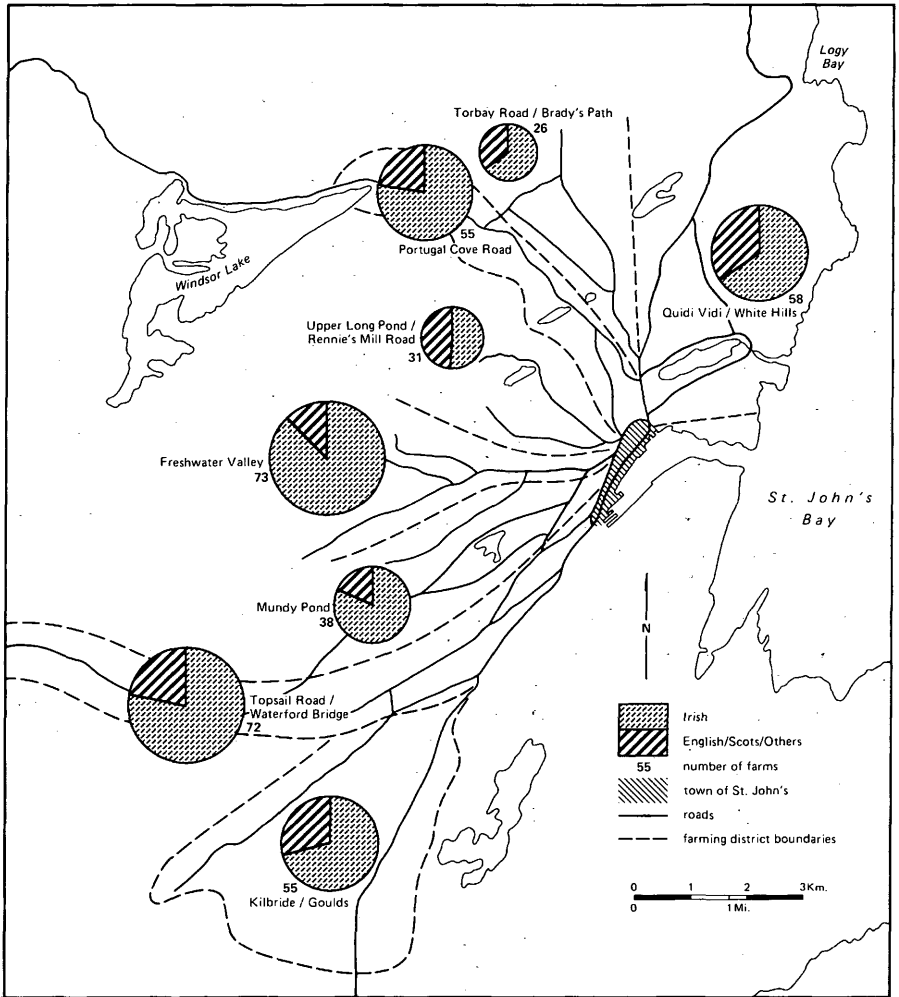


Figure 3: Farming Fringe of St. John's, Newfoundland, circa 1840.

Among the several hundred who took up farms during this period was William Ruby. His experience reveals much of the shoestring struggle immigrants of modest means faced in establishing themselves on the land. Ruby arrived from South Devon in 1843 and worked for seven years as a day labourer in St. John's. According to his testimony before the Agricultural Committee of the House of Assembly in 1863, he never received more than 4s. a day for his efforts. With such savings as he was able to accumulate, and with £40 borrowed at five per



Plate 2: The Town and Harbour of St. John's , circa 1830.

cent interest, in 1850 he purchased land in the Goulds district approximately six and a half miles from St. John's. "At the time", he recalled "it was a wilderness...for eighteen months I had to take everything on my back for half a mile before there was a road made near my house".⁵³ For the first year Ruby lived in a "tilt", built with the help of neighbours.⁵⁴ Initially, he cleared but a single acre, which he set with four or five barrels of potatoes (10-13 bushels). During the following six years he worked his farm "only at intervals" because he was cutting wood, making brooms (which he sold to merchants in St. John's) and gardening and farming (elsewhere) to earn money. Yet he cleared 10 acres in 10 years. In 1860 his farm generated 13 tons of hay which sold for £71.10.0 (£5.10.0 per ton), 60 barrels of potatoes (150 bushels) which provided £22.6.0 (2s.11d. per bushel) and cabbage worth £5.⁵⁵ By this date Ruby had paid off both the principal and interest on his loan, purchased two 50 acre lots for his sons and constructed a new house, with a stone foundation and root cellar, and barn. Within less than 20

53 William Ruby's Testimony Before the Agricultural Committee of the House of Assembly, 4 March 1863, *Newfoundland Journal of the House of Assembly* [hereafter N.J.H.A.] (1863), Appendix, pp. 1014-7.

54 A tilt is "a small single-roomed hut constructed of vertically-placed logs". Story *et al.*, *Dictionary of Newfoundland English*, p. 567.

55 Given typical yields per acre these sales levels meant that there would have been little land left on Ruby's farm to provide for the subsistence of his family. Even allowing for the extremely high yield of three tons of hay per acre Ruby says his fields produced, it is likely that seasonal or part-time work off the farm was still necessary.

years, William Ruby and his family had successfully established a farm on the periphery of St. John's.

The lack of any reference to livestock or milk sales by Ruby suggests that his farm was beyond the threshold of commercial milk production in the mid-19th century. Due to the perishable nature of milk and the generally poor quality of cart and waggon roads in this recently-settled district, Ruby and his neighbours had to concentrate on less perishable livestock, vegetables and even hay, which could easily be transported to market, at least until road and bridge improvements took place.⁵⁶ For the most part, dairying in the 1850s was confined to a zone which extended, at maximum, five miles from town. With fewer livestock to care for, farmers in recently-settled districts such as this section of the Goulds, generated income for farm improvements through seasonal or part-time employment, either on nearby established farms or in the town of St. John's.⁵⁷

Estate inventories, land papers and "farm for sale" advertisements relating to 135 farms in operation between 1840 and 1850 allow a more detailed examination of mid-19th century fringe farming than census data permit.⁵⁸ On average, the farms recorded in these sources comprised 40 acres, approximately one-third of which was improved. Nearly half had fewer than 10 acres improved, and most of these properties were valued at less than £100; about a third had between 11 and 20 acres and generally ranged in value from £150 to £500. Only 16 had between 21 and 50 acres "improved", and a handful, more than 50 acres. The estimated cash value of these larger farms ranged from £501 to £2,500. Among the best known of this group were "Bally Haly" (worth £2,500), "Rostellan" (£1,000) and "Mount Pearl" (£800), established earlier in the century by Colonel William Haly of the local garrison, Dr. William Carson and Sir James Pearl respectively. Such large farms offered full-time and seasonal employment to recent immigrants and occupiers of smaller operations.

56 Main roads were still being opened in the Goulds district in the 1850s; see *The Patriot* (St. John's), 22, 29 March 1852.

57 In his testimony before the Agricultural Committee, William Ruby emphasized the importance of supplementary work while land clearing was underway: "A poor man cannot succeed to clear land, unless he has some way to earn something for his support during intervals while clearing the land". William Ruby's Testimony, 4 March 1863, N.J.H.A. (1863), Appendix, p. 1017.

58 Unlike the mid-19th century censuses of Nova Scotia, New Brunswick, Canada West and Canada East, the manuscript schedules of Newfoundland's early censuses have never been located. Furthermore, because farming was not the primary occupation of the majority of Newfoundlanders, the published census returns are much less detailed than those of the mainland colonies where the majority of household heads listed their occupation as "farmer" for most of the 19th century. Sources used to compile this sample include: Newfoundland Supreme Court, Registry of Wills, 1830-1850 (Court House, St. John's); Newfoundland Supreme Court, Administration Bonds, 1838-42, GN5/2A/9, PANL; Newfoundland, Department of Colonial Secretary, Registry of Crown Grants, 1833-1850, vols. 1-3 (Howley Building, St. John's); *Morning Courier* (St. John's), 1844-50; *Morning Post*, 1846-50; *Royal Gazette*, 1830-50; *The Newfoundlander* (St. John's), 1830-43; *The Patriot*, 1840-50; *The Times* (St. John's), 1832-45.

The smallest farms — those with six to 15 acres cleared — were largely run by Irish settlers. The typical farm in this group produced about 40 barrels of potatoes (100 bushels), 50 or 60 barrels of turnips (125-150 bushels), several hundred pounds of cabbages (1/4 to 1/2 ton) and several tons of hay. Livestock usually consisted of a horse, four or five cows, a calf or two and some poultry. Buildings typically comprised a small farmhouse with a root cellar underneath, a barn and one or two sheds.⁵⁹ The farm established by John O'Brien in the Freshwater Valley to the northwest of town between 1815 and 1820 exemplifies the type.⁶⁰ With only 14 of his 50 acres "improved" in 1850, O'Brien operated a small holding which he worked intensively.⁶¹ About 10 acres were devoted to hay production and an acre each to potatoes, oats, and the combination of turnips and cabbages.⁶² Given average yields, annual farm production would have included about 15 tons of hay, 120 bushels of potatoes, 15 or 20 bushels of oats, 70 bushels of turnips and approximately 1,000 pounds of cabbages. Apart from a small low-lying marshy field kept as permanent pasture, O'Brien devoted little land to summer grazing. His five or six cattle grazed the woodland portion of the farm.

By contrast, the largest farms had substantial houses, more than one barn, a separate root cellar, several storage sheds and sometimes an ice house for storing milk.⁶³ Generally they were operated by English and Scots and had from 25 to 75 acres improved. Some produced more than 400 bushels of potatoes, a similar amount of turnips, two or three tons of cabbages and 30 to 50 tons of hay, three times the quantities produced on the small Irish farmsteads. Their livestock might include two or three horses, 25 or more cattle (including several calves and bullocks), some poultry and, less frequently, swine. Typically, two or three men were employed, either seasonally or full-time, to operate the farm while the owner practised an urban profession. "Heathfield", established in the 1820s by St. John's tailor William Cluny on a 75 acre grant four miles from town, is representative of this type (Plate 3).⁶⁴ Initially occupied as a "country residence"

59 For examples see Plates 1a and 1b in MacKinnon, "The Growth of Agriculture", pp. 39-40.

60 Details about O'Brien's pioneering experiences are provided in John Mannion, "John O'Brien", in *Dictionary of Canadian Biography*, vol. 8 (Toronto, 1985), pp. 658-9.

61 *Morning Courier*, 11 August 1849.

62 Mannion, *Irish Settlements*, p. 63.

63 For examples see: William Carson's "Rostellen", *The Patriot*, 29 March 1843; *The Newfoundlander*, 4 May, 20 July 1843; Bishop Fleming's "Carpasian", *The Newfoundlander*, 9 October 1845; *Public Ledger* (St. John's), 27 February 1849; *The Patriot*, 21 September 1850; Sir James Pearl's "Mount Pearl", *The Newfoundlander*, 26 May 1856; C.F. Bennett's "Woodlands", *Public Ledger*, 18 August 1857; and Charles Simm's "Willowdale", *Public Ledger*, 7 July, 15 September 1863.

64 Although settled in the 1820s, William Cluny's land was not registered until 6 June 1832, just six months before it was advertised for sale. Registry of Crown Grants, Land Grant no. 447, vol. 1

during summer, it was later purchased by James Gibson, an immigrant from Lanark, Scotland, who transformed the farm into one of the most productive mid-19th century operations. When Gibson became the owner of “Heathfield” all of its 75 acres were “well fenced with a fine longer fence”, 25 acres were “improved” and the farmstead consisted of a well built “cottage, cowhouse and stable”.⁶⁵ By mid-century, “Heathfield” had 50 acres or so “improved”. With 25 acres devoted to hay, three or four acres under oats and six or seven planted in potatoes and vegetables, this farm and its equivalents were roughly comparable to some of the more substantial farms in mid-19th century Nova Scotia.⁶⁶



Plate 3: “Heathfield” Farm, Topsail Road, circa 1900.

A, f. 109 (Howley Building, St. John’s); *Public Ledger*, 4 January 1833. This photograph was brought to my attention by Professor John Mannion, Memorial University of Newfoundland, to whom it was submitted as part of an undergraduate essay on the Cowan family of St John’s, who subsequently acquired the farm.

- 65 *The Patriot*, 10 March 1835. A “longer fence” was a simple but effective type of fence characteristic of the Avalon Peninsula; “a post or stake was driven into the ground every 8 feet or so and 2 or three horizontally placed posts or ‘longers’, each around 16 feet in length, were tied to the posts with withes or gads”. Mannion, *Irish Settlements*, pp. 85-6. A picket fence variant of the “longer fence” usually enclosed the front garden. See Plate 3.
- 66 See discussion of John Murray’s “New Rhyne” farm in Pictou county and Nathan Woodworth’s farm in Kings county in Robert MacKinnon and Graeme Wynn, “Nova Scotian Agriculture in the ‘Golden Age’: A New Look”, in Douglas Day, ed., *Geographical Perspectives on the Maritime Provinces* (Halifax, 1988), pp. 55-6.

Regardless of farm size or acreage under cultivation, farming methods and the basic mix of stock and crops varied little. Farm technology was simple. Spades, shovels, mattocks, ploughs, picks, axes, forks, scythes and sickles appeared in most farm inventories. Horse-drawn mowing machines and rakes were not used in Newfoundland until later in the 19th century. Field boundaries were irregular and fields were protected by strips of uncleared woodland. In broad terms, about three-quarters of the “improved” land on any farm was under hay and pasture and the remainder was sown in potatoes, turnips and cabbages. A variety of other vegetables, including carrots, beets, onions and parsnips, were produced in a kitchen garden close to the farmhouse and local fruit was grown in a “front garden”.⁶⁷ These were mainly consumed by the family, although small quantities were occasionally sold. Because milk was the most important commercial product on most farms close to town, the main objective of their crop rotation scheme was to maximize hay and fodder production. A field of potatoes was followed by oats and hayseed and then hay was cultivated, perhaps for four years, before the land was ploughed again and planted with turnips and cabbages.⁶⁸ During the summer, livestock grazed in the woods and, when field crops were harvested, cattle were allowed in to graze the stubble of the meadows. Heifers were normally retained for milking and breeding and young bulls were sold. Sheep were the least important animals in the fringe of St. John’s. Raised mainly in the outports north of town, they provided wool and meat for domestic consumption and were sold in St. John’s.

Roads were an essential link between St. John’s peri-urban farms and the market for their produce in the town. From the 18th century on, farm products were taken to St. John’s via a network of paths, cart tracks and roads, which expanded gradually in response to the needs of the settlers in the vicinity of the town.⁶⁹ For example, the Quidi Vidi path, which connected “The Forest” farm to St. John’s, was widened into a wagon and carriage road by its owner James Gill, Colonel William Haly widened and improved the road leading to his farm, “Bally Haly”, and the first cart road from the western environs of town was financed by merchant Henry Thomas as a means of reaching his farm “Brookfield”.⁷⁰ Not until the 1820s did the colonial government regularly assign funds

67 Occasionally more exotic species were attempted in these gardens. Merchant and politician Edward Morris, for example, raised marrow, cucumber, French beans, spinach, cauliflower, lettuce, mustard, thyme, sage, savoury and parsley in addition to the traditional Newfoundland crops of potatoes, turnips, cabbages, parsnips, carrots, oats and hay. Edward Morris Diary, 1851-87, Maritime History Group Archives, Memorial University of Newfoundland.

68 Mannion, *Irish Settlements*, p. 63 and p. 65 for a map that illustrates the rotation system practised on the O’Brien farmstead in Freshwater Valley.

69 For detailed maps that illustrate the evolution of the road network in the vicinity of St. John’s between 1780 and 1850 see MacKinnon, “The Growth of Agriculture”, pp. 61-2.

70 R. Hibbs, *The Newfoundland Road Booster* (St. John’s, 1924), p. 33 and “First Roads Built in

for the construction and upkeep of roads, bridges and drains in the environs of St. John's. This shift occurred largely as a result of the efforts of individuals like Patrick Morris and William Carson and the influence of Governor Thomas Cochrane.⁷¹ By 1834 there were cart and waggon roads leading into St. John's from Topsail, Portugal Cove, Torbay and Logy Bay, and a full-time road commissioner had been appointed. Road work continued during the 1830s and 40s and by 1844 the St. John's *Morning Courier* boasted of the "well formed roads branching out in all directions" from the town, which greatly facilitated commercial interaction between local farmers and St. John's.⁷²

Unlike larger urban centres, St. John's had no regular formal marketplace for the sale of local farm goods.⁷³ Instead, farmers themselves were the chief retailers of local agricultural produce. They simply disposed of their produce along city streets in an informal manner and in this trade fresh milk was the most important commodity. It provided the farmer with a weekly cash income but, because its production was seasonal, trade in other commodities was necessary to supplement farm income. During the summer, the larger milk surpluses were either churned into butter or warmed into "scalded cream"⁷⁴ for both home consumption and sale. In the fall and winter, when milk yields were declining, farmers supplemented their income by butchering and selling fat stock.⁷⁵ Potatoes and other vegetables stored in root cellars as well as "pitted cabbages"⁷⁶ could also be

Newfoundland", *Newfoundland Quarterly*, 40, 1 (1940), pp. 29-33; Howard F. Barnes, "Roads of Newfoundland to 1854", M.A. thesis, Acadia University, 1970, p. 57.

71 Governor Cochrane implemented a programme of road construction and improvement shortly after taking up residence in Newfoundland. In 1826 more than 800 of the labouring poor were employed in repairing the Portugal Cove Road and other approaches to town at a cost of £1,750; and by the 1830s the government was spending approximately £5,000 per year on road building and maintenance. Barnes, "Roads of Newfoundland", pp. 51, 55.

72 *Morning Courier*, 4 November 1844.

73 A central marketplace may have functioned periodically during the 1850s. See Laurence O'Brien, *Remarks Upon the Capabilities of the Soil and Climate of Newfoundland for Agricultural Production* (St. John's, 1850), p. 4; *Royal Gazette*, 31 May 1850; *Public Ledger*, 12 March 1852; *Morning Post*, 10 September 1853; and *Royal Gazette*, 27 May 1856. The reasons for its failure remain obscure, but it probably received stiff competition from those local merchants who regularly held "wharf auctions" where imported livestock, butter, cheese and other provisions were offered for sale.

74 "Scalded cream" (also called Devonshire cream or clotted cream) refers to cream formed from cool strained milk warmed slowly in a pan over low heat. A thick layer of cream forms below the "yellow skin" that appears on the surface; "A Devonshire Dumpling", *Nova Scotia Journal of Agriculture*, 1, (May 1870), p. 542.

75 O'Brien, *Remarks Upon the Capabilities of the Soil and Climate of Newfoundland*, p. 18; *Evening Telegram* (St. John's), 14 January 1881.

76 Cabbages were stored in shallow drills covered with soil (and sometimes hay and straw) thick enough to keep out the frost until they were dug up and trimmed for sale. Catherine Noseworthy, "Farm Life in the Goulds-Kilbride Area", Memorial University of Newfoundland Folklore and Language Archives [hereafter M.U.N.F.L.A.], Ms. 72-119, p. 13.

released gradually throughout the fall, winter and early spring to provide yet another source of supplementary income. This seasonality of production permitted farmers to provide milk to regular customers year round and to supply potatoes, vegetables and fresh meat seasonally.

The farmer's chief customer was the urban housewife. Making regular trips to town, the farmer parked his "express waggon" (or less frequently a two-wheeled "jingle" or milk cart) in front of her house and filled her milk container from a one pint measure. Vegetables were also first made available for sale to the housewife and were generally sold by the sack or the bunch (i.e. carrots, beets, etc.). The number of regular customers varied from as few as 15 or 20 to as many as 100, depending upon the scale of a farmer's enterprise. Customers were generally clustered in particular areas of the town, but rarely were all residents of a single street served by the same farmer.⁷⁷ These patterns bore many resemblances to 19th century milk retailing systems elsewhere.⁷⁸ More formal trade arrangements linked farmers and retail grocers and shopkeepers whose main trade was in imported goods and foodstuffs. Flour, rolled oats, cornmeal, and salt pork, beef and fish were among the items offered for sale by grocers. Staples such as seeds, pre-mixed dairy rations and salt, as well as such luxury items as sugar, molasses, tobacco and rum were also available. By bartering for local produce the grocer could diversify his line. Such trade was convenient because farmers were generally willing to "take up" in goods the value of their produce.⁷⁹

Trade between farmers and dealers in agricultural produce (i.e. butchers, butterine factories, schooner captains and crew) was the least informal. It involved the collection and redistribution of agricultural produce and, in this trade, unlike the shopkeeper trade, the medium of exchange was always cash.

77 Frederick Smallwood, "Marketing, Hawking and Peddling Practices in St. John's", M.U.N.F.L.A., Ms. 67-17, pp. 2-4; 9-10. This pattern, described for the early 20th century by Smallwood, could not have been significantly different from the marketing system that was in place throughout the 19th century. References which support this premise include: W. Coughlan vs. Estate of J. Kavanagh, 26 December 1808, Newfoundland Supreme Court, Central District, Minutes, GN5/2/A/1, PANL; and "New Milk", *The Newfoundlander*, 12 January 1832. Although it is difficult to measure accurately, the income generated by door to door peddling by some farmers could be substantial. One farmer in the 1890s was averaging \$20.00 per week from milk sales alone; "Lookout Farm", *Evening Telegram*, 4 March 1893.

78 P.J. Atkins, "The Retail Milk Trade in London, 1790-1914", *Economic History Review*, 33, 4 (1980), pp. 522-37; Hans J. Teuteberg, "The Beginnings of the Modern Milk Age in Germany", in A. Fenton and T. M. Owen, eds., *Food in Perspective, Proceedings of the Third International Conference on Ethnological Food Research* (Edinburgh, 1981), p. 296; P. Horn, "The Dorset Dairy System", *Agricultural History Review*, 26, 2 (1978), pp. 100-7; John Benson, *The Penny Capitalists: A Study of Nineteenth-Century Working Class Entrepreneurs* (Dublin, 1983), pp. 35, 38; J.A. Ruddick, "The Development of the Dairy Industry in Canada", in H.A. Innis, ed., *The Dairy Industry in Canada* (Toronto, 1937), p. 69 and John Benson, "Hawking and Peddling in Canada, 1867-1914", *Histoire sociale-Social History*, 18, 35 (1985), p. 79.

79 Smallwood, "Marketing, Hawking and Peddling Practices in St. John's", p. 2.

Local livestock, mainly cattle and, less frequently, swine and sheep, were driven to the butcher's abattoir. Butchers also travelled through the hinterland purchasing livestock from local farmers, but because butchers dealt in imported livestock and preserved meat as well, they frequently found themselves in competition with local farmers.⁸⁰ This, in no small part, explains the small amount of beef and pork produced locally for the St. John's market. In the 1880s the establishment of two "butterine" factories created an additional market for fresh milk.⁸¹ These factories purchased milk on a first-come, first-serve basis but, because milk constituted only 10 per cent of "butterine", the demand was never large.⁸² Most farmers involved in this trade sold only the surplus remaining after their regular customers were served. Captains and crewmen aboard Labrador fishing schooners also purchased some agricultural produce from local farmers. They arrived in St. John's each October to sell their dried fish catch and, before returning home, purchased winter supplies for themselves and other families in the outports, mainly in northeastern Newfoundland (Conception, Trinity and Bonavista Bays). This provided farmers with an important outlet to dispose of potatoes and other vegetables not already dispensed to regular customers or grocers.

The most formal and well documented trade was that between farmers and such public institutions as the garrison, hospitals, the "lunatic asylum" and the jail. From the early 19th century contracts had been available to farmers for the daily and weekly supply of milk, meat and vegetables to these institutions.⁸³ By

- 80 Memorial of Captain John MacDonald, 30 August 1806, CO 194/46, ff. 11-3, PANL; L. A. Anspach's Answers to Inquiries Made at Newfoundland, 1810, Duckworth Papers, File 22/163, f.19, P1/5, PANL; Carson, *Reasons for Colonizing Newfoundland*, p.14.
- 81 John L. Joy, "The Growth and Development of Trades and Manufacturing in St. John's, 1870-1914", M.A. thesis, Memorial University of Newfoundland, 1977, p. 216; H.M. Mosdell, ed., *When Was That? A Chronological Dictionary of Important Events in Newfoundland Down to and Including the Year 1922* (St. John's, 1923), p. 14. A third factory was established in 1925 by the Newfoundland Butter Company owned by Sir John C. Crosby. The original companies, Harvey and Company and Robert A. Brehm Ltd., amalgamated in 1932 as Harvey-Brehm, Ltd. See Joseph R. Smallwood, ed., *The Book of Newfoundland*, vol. 2 (St. John's, 1937), pp. 379-80 and *Encyclopedia of Newfoundland and Labrador*, vol. 1 (St. John's, 1981), p. 585; Welf H. Heick, "Margarine in Newfoundland History", *Newfoundland Studies*, 2,1 (1986), pp. 30-1.
- 82 Butterine was an imitation butter manufactured from oleomargarine (invented in France in 1868) churned up with fresh milk. Edward L. Shapsmeier and Frederick H. Shapsmeier, *Encyclopedia of American Agricultural History* (Westport, Conn., 1975), p. 255 and *The Oxford English Dictionary*, vol. 1 (Oxford, 1933), p. 1220.
- 83 J. Williams to Governor Duckworth, 25 November 1810, Duckworth Papers, file 22/58, P1/5, PANL; J. and R. Brine to Governor Duckworth, 30 July 1812, Duckworth Papers, file 22/121, P1/5, PANL; *Royal Gazette*, 2 April 1812, 21 April 1814; *Mercantile Journal*, 22 June 1826; *Royal Gazette*, 11 April 1829, 22 December 1835, 14 April 1840, 11 June 1850. On similar contracts available to farmers in the hinterland of Boston see David C. Smith and Anne E. Bridges, "The Brighton Market: Feeding Nineteenth-Century Boston", *Agricultural History*, 56, 1 (1982), p. 3.

the middle of the century the quantities involved were substantial; in 1850 the recently constructed asylum spent £275 on milk, meat, butter, onions, turnips and firewood.⁸⁴ The Commissariat advertised for 40,000 lbs. of oats, “to be delivered at Fort Townshend in bags of 100 lbs. each” in 1852,⁸⁵ and in 1859 the civilian hospital received tenders for the supply of 40 barrels of potatoes, 30 barrels of turnips and eight barrels of carrots.⁸⁶ As was the case with the contract offered by the Board of Works in 1860, “to supply 5 gallons of milk daily to the Lunatic Asylum for 12 months”, payment was made in cash, either monthly or quarterly, and bonds of security were required.⁸⁷ Clearly, only farmers with the most commercialized enterprises participated in this trade for only they could afford to extend credit this long. For the majority of farmers, the simple, individualistic marketing system described earlier was the norm because, given the small scale of most farm enterprises, regular weekly returns in cash or kind were necessary for the continued functioning of the farm.

Agricultural colonization in the shadow of St. John’s was virtually complete by the mid-19th century. By this time districts such as Quidi Vidi, Upper Long Pond, Freshwater and Mundy Pond contained “many old settlers”,⁸⁸ while the Topsail and Waterford Bridge roads, extending through the western environs of town, were “studded with farms of considerable extent”.⁸⁹ An Agricultural Society, founded in 1842, regularly imported seeds, implements and livestock for its members and sponsored annual exhibitions, and a grist mill, recently established on a stream near the town, converted locally raised oats and barley into meal in return for “cash, bran or firewood”.⁹⁰ In total, there were between 6,000 and 7,000 acres of cleared farmland on the outskirts of the town.⁹¹ Though farm clearings were, on average, slightly larger than in 1836, the emphasis on fresh

84 *The Patriot*, 13 April 1850. This figure represents more than 25 per cent of the total expenditures made by the asylum in 1850.

85 *Public Ledger*, 15 March 1852.

86 *The Newfoundlander*, 17 October 1859.

87 *Morning Post*, 27 April 1860.

88 Road Commission Report, District of St. John’s, 1840, N.J.H.A. (1841), Appendix, p. 190.

89 *The Patriot*, 5 April 1852. Road commission reports indicate that, from 1850 on, road maintenance and the construction of “cross roads” between agricultural districts in the vicinity of St. John’s began to account for a larger share of the annual budget voted for road work than had previously been the case when new road construction in recently-settled districts was underway. Road Commission Reports for the District of St. John’s appear annually in the N.J.H.A. Appendix.

90 Prowse, *History of Newfoundland*, p. 657; *Royal Gazette*, 28 November 1848; *Morning Courier*, 24 October 1849; *Morning Post*, 17 November 1849 and 10 September 1853.

91 Because “improved” acres includes land “under cultivation” as well as improved pasture (see footnote 11), this figure is not directly comparable to the number of acres “under cultivation” enumerated in 1836. The “acres under cultivation” figure recorded for the vicinity of St. John’s at the 1845 Census (17,830 acres) and the “improved” acres figure listed in 1857 (10,400) are

milk and vegetable production for the nearby urban market persisted. According to the 1857 census, the 400 families or so who owned farms kept, on average, six cattle (three more than in 1836), one horse, and four swine and sheep (combined), and averaged 10 tons of hay, 16 bushels of oats and other grains and 115 bushels of potatoes and turnips. Only at the southern end of the Kilbride-Goulds district, six or seven miles from town, was pioneering still taking place during the 1850s, although land clearing continued on most farms into the 20th century.⁹² In 1911 some 450 farms had nearly 10,000 “improved” acres (an average of 22 acres each). Labour productivity had undoubtedly improved with the introduction of horse-drawn mowers and rakes on some farms in the late 19th century. But between 1911 and 1935, more than 200 farms and 5,000 “improved” acres were abandoned, and this trend continued during subsequent decades. At the last census taken before Newfoundland entered Confederation in 1949, only 200 farms with about 3,600 acres of “improved” land remained in the shadow of St. John’s.⁹³

In general, crop and livestock production on the fringe of St. John’s gradually increased throughout the second half of the 19th century and peaked, according to commodity, in the first or second decade of the 20th century. Potato production — which, in total, dropped off significantly after the blight of the late 1840s, as it did elsewhere in eastern North America — rose from 51,000 bushels in 1857 to 70,000 in 1921 (to an average of 165 bushels per farm). Turnip production differed only slightly; following a small decline in production between 1891 and 1901 this crop reached an unprecedented yield of 61,000 bushels in 1911 (136 bushels per farm), several times that of 1857. Though the number of cattle enumerated on the fringe of town dropped from 2,800 to 2,400 between 1857 and 1901, and continued to decline to 2,000 or so in 1921, the proportion of “milk cows” more than doubled over the same period (from 40 per cent in 1857 to 82 per cent in 1921). Similarly the 1,320 horses recorded on farms on the outskirts of St. John’s in 1921 were twice as many as in 1857. Hay production, however, did not keep up with the general increases in livestock and crop production after the turn of the century. Its production rose from 3,500 tons in 1857 to 7,000 tons in 1901 (an average of 16 tons per farm) but slumped during the following two decades.⁹⁴ This reflects the increasing dependence of local farmers, as well as

obviously incorrect, given the levels of production enumerated in these censuses. Therefore, the “improved” acres figure for the mid-19th century is based on estimated production yields and pasture acreage. Errors in these categories in these and other Newfoundland censuses have been noted elsewhere. See Phillip Tocque, *Newfoundland As it Was in 1877* (Toronto, 1878), p. 436 and *Census of Newfoundland* (1901), p. xxvi.

92 Hon. Lawrence O’Brien’s Testimony Before the Agricultural Committee of the House of Assembly, 16 March 1863, N.J.H.A. (1863), Appendix, pp. 1024-5.

93 *Census of Newfoundland and Labrador* (1945).

94 By 1921 less than 4,000 tons of hay was raised on the periphery of St. John’s. *Census of Newfoundland and Labrador* (1921).

those who owned horses in the town of St. John's, on hay and fodder produced elsewhere. Throughout the 19th century, hay, along with butter, wool, mutton and vegetables, was regularly carted or shipped to St. John's from nearby outports (Logy Bay, Middle Cove, Outer Cove, Portugal Cove and Topsail) when residents came to town for supplies.⁹⁵ In addition, hay was among the considerable range of products regularly imported from Nova Scotia, Prince Edward Island and the eastern United States. The only farm commodities that showed an overall increase in production between 1911 and 1945 were cabbages, swine, milk and eggs.

These trends suggest increasing specialization throughout the agricultural hinterland of St. John's after 1900. Like their counterparts in eastern Canada, farmers in the vicinity of St. John's steadily increased their production of fresh milk, eggs and other commodities for which there was a steady local market in the face of increasing competition from other areas. Although the government provided support for agriculture in the form of relatively high tariff protection for those products that were raised locally, food imports continued to grow during the early 20th century.⁹⁶ In addition, with the completion of the Trans-Newfoundland Railroad in 1897, farm produce raised elsewhere on the island obtained more direct access to the St. John's market. These circumstances stimulated the expansion of dairy herds on a smaller number of farms and led to the rise of "specialist farmers" who became well known locally for their particular "specialty crops".⁹⁷ So, while farmland was abandoned between 1911 and 1945, milk production more than doubled, cabbage production became more important

95 For a discussion of "outport" trade in St. John's see MacKinnon, "The Growth of Agriculture Around St. John's", pp. 76-7 and Smallwood, "Marketing Hawking and Peddling Practices in St. John's", pp. 4-8.

96 See tables showing total imports into Newfoundland for selected years between 1888 and 1913 in Testimony of Hon. Michael Patrick Cashin, Minister of Finance and Customs, 28 July 1914, *Dominions Royal Commission on the Natural Resources, Trade, and Legislation of Certain Portions of His Majesty's Dominions*, vol. 11, Minutes of Evidence Taken in Newfoundland in 1914 (London, 1915), pp. 88-97. In the face of rising imports the tariffs placed on imported potatoes, turnips and cabbage nearly tripled between 1905 and 1935 (from 10 to 29 cents per bushel on potatoes, 20 to 45 cents per bushel on turnips and 1 to 2.5 cents per lb. on cabbage). Although these were specific duties, calculated in percentage terms they averaged 18 per cent in 1935. By comparison, in 1920 there were *ad valorem* duties of 20 per cent on imported cattle, horses and poultry, 10 per cent on barley and 30 per cent on onions and cucumbers. The specific tariffs on hay (\$3.00 per ton), eggs (5 cents per dozen) and butter (3.5 cents per lb.) represented between eight and nine per cent of their respective retail prices in 1920. Report of the Newfoundland Agricultural Board for 1920, N.J.H.A. (1921), Appendix, pp. 3-59; A.W. Shaw, chairman, *Report of the Newfoundland Royal Commission on Agriculture* (St. John's, 1956), p. 48.

97 Among the best known of these "specialist farmers" were the O'Deas, O'Neils and Roses (cabbage), the Bairds and Winters (poultry), the Rubys (cabbage and turnips) and the MacDonalds (pigs). MacKinnon, "The Growth of Agriculture", p. 53 and Smallwood, *The Book of Newfoundland*, vol. 2, p. 510.

commercially than potato and turnip production combined and poultry and egg producers began to close the gap between imports and local production.⁹⁸ The high transportation costs associated with milk and eggs (because of their perishability) and cabbage (resulting from its bulky nature and low value) provided natural barriers against outside competition. Overall, swine production also increased between 1911 and 1945 but the small number of pigs raised by local farmers (four each on average) suggests that such specialization as there was was limited. Commercial pork production on a larger scale had to await the government sponsored construction of a swine breeding station, a modern cold storage plant and an abattoir for this purpose a decade later.⁹⁹

Apart from small pockets of agriculture in Conception Bay and, after 1875, on the west coast, there were no farm settlements in 19th century Newfoundland comparable to those which developed on the periphery of St. John's. But, as technological and political developments integrated St. John's with the rest of the island and, indeed, continental North America, fringe farming and gardening around St. John's were undermined. Government efforts to diversify Newfoundland's economic base in the late 19th and early 20th centuries, which, among other strategies, included cash bonuses for land clearing in certain designated agricultural areas, free land grants, the appointment of an Agricultural Board (to coordinate Agricultural Society activities) and the creation of a Department of Agriculture and Mines (to implement these development programmes), achieved a modicum of success.¹⁰⁰ But these strategies did little to offset agricultural decline in the fringe of St. John's after 1911. Between 1880 and 1921 agriculture's share of Newfoundland's estimated gross value of production increased threefold to 28 per cent, a level equal to that of Canadian agriculture, and by 1939 agricultural products still accounted for a sizeable 16 per cent of Newfoundland's gross value of production.¹⁰¹ Much of this increase in production, however, was in direct competition with produce raised in and around St. John's. Land "under cult-

98 The 708,000 gallons of milk estimated to have been produced in 1945 on the periphery of St. John's had a value of \$743,000; this was nearly double the value of all arable crops combined. *Census of Newfoundland and Labrador* (1945). Retail prices for 1945 are found in W.B. Temple and L.J. Harnum, *Information Booklet of Newfoundland and Labrador* (St. John's, 1946), pp. 30-1.

99 H.W.R. Chancey, "Agriculture", in R. I. McAllister, ed., *Newfoundland and Labrador: The First Fifteen Years of Confederation* (St. John's, 1964), p. 137.

100 For a summary of government development programmes aimed at the agricultural sector see *Report of the Newfoundland Royal Commission on Agriculture*, pp. 28-36; Peter Crabb, "Agriculture in Newfoundland: A Study in Development", Ph.D. Dissertation, The University of Hull, 1975, esp. chapters 3 and 4 and G. Espie, "The History of Agriculture in Newfoundland", unpublished ms., Agriculture Canada, 1983.

101 David Alexander, "Economic Growth in the Atlantic Region, 1880-1940", *Acadiensis*, 8, 1 (Autumn 1978), pp. 56-60. In 1915 the aggregate value of agricultural production in Newfoundland was estimated to be \$5,100,000, while the value of cod exports in the same year totalled

ivation” on the periphery of St. John’s comprised 31 per cent of total land “under cultivation” in Newfoundland in 1836; by 1921 this had dropped to less than nine per cent and the number of farmers elsewhere on the island had increased sixfold (to nearly 3,000).¹⁰²

The construction of the Trans-Newfoundland Railway provided an added incentive to those interested in establishing farms elsewhere on the island. As well, a uniform freight rate of 25 cents per barrel levied on vegetables and other agricultural produce in 1909 (originating from any point within the colony) allowed farmers from as far away as the Humber and Codroy valleys to compete effectively with farmers near St. John’s; by 1914 this trade was considerable.¹⁰³ More than 30 railroad stations across the island collectively shipped to St. John’s 35,000 bushels of potatoes, 10,000 bushels of turnips, 35 tons of cabbage, 150,000 pounds of beef, pork and mutton, 13,000 pounds of butter, 400 live cattle, 3,500 poultry and about 100 sheep, pigs and horses.¹⁰⁴ For some commodities this trade represented less than 20 per cent of total production on the periphery of St. John’s in 1911 (turnips, cabbage, cattle, poultry and other livestock) but for others (notably potatoes and eggs) it represented between 50 and 75 per cent. Butter and wool shipments to St. John’s by rail were greater than local production.¹⁰⁵ By 1950 less than a third of the potatoes, poultry and eggs consumed in St. John’s was produced locally, and imported evaporated and powdered milk was beginning to replace whole milk in the local market.¹⁰⁶ Between 1938 and 1948 per capita consumption of evaporated milk in Newfoundland almost tripled (from .65 to 1.75 ounces per capita per day).¹⁰⁷

From the 1920s on, agriculture in the vicinity of St. John’s gradually declined, despite developing specialization in dairy, poultry and cabbage farming. Although

\$7,300,000. Obviously the total value of the fishery was larger than this, but it is remarkable how similar these figures are, given the traditional view that agriculture was insignificant relative to the fishery. See Report of the Newfoundland Agricultural Board for 1915, N.J.H.A. (1916), Appendix, p. 447.

102 Census of Newfoundland (1836); *Census of Newfoundland and Labrador* (1921).

103 Report of the Newfoundland Agricultural Board for 1910, N.J.H.A. (1911), Appendix, p. 390.

104 Report of the Newfoundland Agricultural Board for 1914, N.J.H.A. (1915), Appendix, pp. 744-53.

105 Figures for eggs (62,361 dozen) and wool (12,710 pounds) are from the Report of the Newfoundland Agricultural Board for 1915, N.J.H.A. (1916), Appendix, pp. 496-7.

106 *Report of the Newfoundland Royal Commission on Agriculture*, pp. 115, 161, 169-70.

107 W.R. Akroyd *et al.*, “Medical Resurvey of Nutrition in Newfoundland, 1948”, *Canadian Medical Association Journal*, 60 (1949), pp. 329-52, cited in Crabb, “Agriculture in Newfoundland”, p. 93. This trend continued throughout the 1950s as the price gap between evaporated milk and fresh milk widened with the removal of protective tariffs. In 1955 fresh milk was being sold in St. John’s for 35 cents a quart while a quart of evaporated milk could be purchased for 20 cents. C.I. Johnston and L.E. Drayton, Food Purchases, St. John’s, Newfoundland, 1955, *The Economic Annalist*, 29, 4 (1959), p. 93.

the bottling of milk was introduced in the 1930s, and two farmer-owned dairy companies began to purchase milk in bulk from local farmers in the 1940s, the informal door-to-door delivery of milk, eggs and vegetables by farmer-retailers continued.¹⁰⁸ In 1955 the Royal Commission on Agriculture reported that “while direct marketing has been rapidly declining”, “a considerable part of the milk going to the St. John’s market is delivered in unpasteurized form at the consumer’s door by producer-distributors”, and that even among those who regularly supply the dairies “certain farmers sell a few quarts to relatives or special friends while en route to the dairy with the daily milk delivery”. Indeed, the Commissioners remarked, “it is still true that much of the vegetables pass directly from farmer to final consumer”.¹⁰⁹

With Confederation in 1949 the tariff protection afforded Newfoundland produce was removed, and farmers on the fringe of St. John’s, as well as those in more recently established farming communities such as Brown’s Arm, Haricot, Lourdes, Markland and Midland, found it difficult to compete with less expensive mainland produce.¹¹⁰ Some farmers left the land for the rapidly expanding mining, pulp and paper and service sectors (greatly stimulated by the second World War), others sought a niche in the declining fishery, many left the province. By 1950 there were fewer than 200 farms on the fringe of St. John’s. Full-time commercial operations were gradually transformed into part-time subsistence holdings and, as the city encroached on their margins, the pressure to subdivide them into suburban housing lots became intense. Family farms that had supported several generations were subdivided into building lots and this tiny agricultural region that was once characterized by landscapes of a very different character from the town of St. John’s gradually became indistinguishable from the nearby urban area.

The rise and decline of this small farming region in an area far better known for its commercial fishery than for its agriculture was repeated in variant, but essentially similar, forms on the fringes of many other 18th and 19th century American cities where peri-urban farms were established to supply fresh food to urban dwellers. Everywhere the interdependence between urban centres and their rural peripheries — with the towns and cities providing capital, services and imports and their rural peripheries supplying both food products and labour — was significantly altered, as this case study illustrates, by technological

108 These dairies pasteurized the milk before it was distributed. *Report of the Newfoundland Royal Commission on Agriculture*, p. 109.

109 *Report of the Newfoundland Royal Commission on Agriculture*, pp. 34, 109. In the same manner, the Commissioners noted, “quite a few of the poultry raisers in the vicinity of St. John’s not only candle and grade their own eggs but deliver them once or twice a week at the consumer’s home”.

110 W.C. Shipley, “The Market for Farm Products in Newfoundland, 1948-1950”, *The Economic Annalist*, 23, 3 (1953), pp. 53-7.

developments that reduced the time and cost of movement, and overcame the perishability of farm produce.¹¹¹ As changes in the efficiency of ocean and inland transport transformed the costs of importing from distant agricultural regions, agricultural imports competed with and, in many cases, replaced domestic production.¹¹² Technological developments in agricultural production and processing favoured the concentration of production in better endowed farming areas.¹¹³ And the spatial structure of land use that had emerged around many central places in the 19th century — with a thin zone of intensive milk and vegetable production surrounded by zones of more extensive livestock and crop production — was reshaped.¹¹⁴ Thus, the fields and farmsteads that once ringed St. John's and provided a foothold on the island for several thousand people are occupied today by a university, suburban streets and C.M.H.C. housing. Only here and there do isolated farms stand as vestiges of an earlier age, reminders of the importance of connection, distance, technology and market demand in shaping lives and landscapes, as much on "the rock" of Newfoundland as on the good soil of the continental interior.

- 111 Tariffs which attempted to protect domestic production from foreign imports were artificial political barriers. Once removed, technology had its way, as it did on the outskirts of many other cities in North America. The few historical studies of urban-rural fringes in North America all point to technological change in transportation (ie. canals, railroads, highways), interregional integration and urban growth as key factors that explain the decline of fringe agriculture. See T.D. Seymour Bassett, "A Case Study of Urban Impact on Rural Society: Vermont, 1840-80", *Agricultural History*, 30, 1 (1956), pp. 28-35; Michael P. Conzen, *Frontier Farming in an Urban Shadow: The Influence of Madison's Proximity on the Agricultural Development of Blooming Grove, Wisconsin* (Madison, 1971) and Roberta B. Miller, *City and Hinterland: A Case Study of Urban Growth and Regional Development* (Connecticut, 1979). I am not aware of a single study that explicitly examines the 19th century urban-rural fringe of a Canadian city.
- 112 J. Richard Peet, "The Spatial Expansion of Commercial Agriculture in the Nineteenth Century: A Von Thunen Interpretation", *Economic Geography*, 45, 4 (1969), p. 293.
- 113 Edgar C. Conkling and Maurice Yeates, *Man's Economic Environment* (New York, 1976), p. 44.
- 114 William Norton, "The Relevance of Von Thunen Theory to Historical and Evolutionary Analysis of Agricultural Land Use", *Journal of Agricultural Economics*, 30, 1 (1979), pp. 39-47.