Cultural Stereotypes and Highland Farming in Eastern Nova Scotia, 1827-1861

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Contemporary observers and more recent writers have been critical and narrow in their treatment of Highland farming practices in general and of Catholics in particular. Not only has it been argued that Highland Catholic farmers were backward and unprogressive, but it has even been asserted that their output and efficiency were substantially inferior to that of their English, Lowland Scottish and Highland Presbyterian neighbours. Poor and inadequate comparisons of farming in Antigonish — a county overwhelmingly Highland Catholic in the nineteenth century — and Pictou, where the majority of people were Highland and Lowland Presbyterians, have been employed. This paper will examine these stereotypes and demonstrate the extent to which they have led to significant distortions about the nature of development in Pictou and Antigonish.

Des observateurs contemporains et des chercheurs plus récents ont été critiques et peu ouverts dans leur analyse de l'agriculture des Hautes-terres en général et celle des catholiques en particulier. On a affirmé que les agriculteurs catholiques des Hautes-terres étaient rétrogrades et peu progressifs et on a même déclaré que leur production et leur productivité étaient substantiellement inférieures à celles de leurs voisins Anglais, Écossais des Basses-terres et presbytériens des Hautes-terres. Des comparaisons inadéquates et de piètre qualité de l'agriculture à Antigonish (un comté très majoritairement catholique des Hautes-terres durant le XIX^e^ siècle) et à Pictou, où la majorité des individus étaient des presbytériens des Hautes et des Basses-terres, ont été utilisées. Ces stéréotypes seront examinés dans cet article afin de démontrer jusqu'à quel point ils ont conduit à des distorsions significatives sur la nature du développement de Pictou et d'Antigonish.

Cultural stereotypes have been one of the main stumbling blocks to a better understanding of nineteenth-century agriculture, both in central Canada and the Maritimes. They have led to numerous distortions with respect to Irish farmers in Upper Canada, French Canadian farmers in Lower Canada, and Highland Scottish farmers in Eastern Nova Scotia, particularly those in the counties of Pictou and Antigonish.[1]

The contemporary descriptions of early agriculture in Eastern Nova Scotia fall under two natural headings: travel literature and local accounts. Within the travel literature, one

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1. For a discussion of these stereotypes and a reconsideration of the farming abilities of the Irish in Ontario, see Donald H. Akenson, *The Irish in Ontario* (Montreal: McGill-Queen's Press, 1984), Chapters Four and Five. Frank D. Lewis and Marvin McInnis have shed much light on many long-held misconceptions concerning French Canadian farming. See Lewis and McInnis, "Agricultural Output and Efficiency in Lower Canada, 1851," Institute for Economic Research (Kingston, Ont.: Queen's University, 1981); and McInnis, "A Reconsideration of the State of Agriculture in Lower Canada in the First Half of the Nineteenth Century," in Donald H. Akenson, ed., *Canadian Papers in Rural History*, Vol. III (Gananoque, Ont.: Langdale Press, 1982).

of the most frequently cited accounts is that of Lt. W. Moorsom who visited Pictou and Antigonish in the late 1820s.[2] Although positive about the fertility of the land, Moorsom had nothing but censure for the Highland farmer.

> ...the settlers being chiefly Highland Scotch and *accustomed to large sheep walks* [italics mine] rather than to tillage farms, exhibit, with few exceptions, very inferior attainment in almost every branch of agriculture.[3]

Since sheep farming was never a major occupation of Highland farmers in Scotland, Moorsom's suggestion that it was casts doubts on his reliability, though few writers have allowed this inconsistency to overshadow their use of his statements as evidence.[4] What is noteworthy, however, is that Moorsom links the inferior level of "attainment" in Nova Scotia's Scottish settlers to farming practices and conditions in Scotland.[5] This is a common theme which runs through much of the literature, and is a product of the perception that, in Scotland, Lowland farmers were more progressive and industrious than their Highland counterparts.

This perception was clearly incorporated in Thomas C. Haliburton's history of Nova Scotia, *An Historical and Statistical Account of Nova Scotia* (1829). He wrote:

> The Highlanders are not so advantageous a class of settler as their Lowland neighbours. Their wants are comparatively few, and their ambition is chiefly limited to the acquirement of the mere necessities of life... Their previous habits have fitted them better for the management of [live] stock than the cultivation of the soil, and they are consequently more attached to it... The Lowlanders, on the contrary to the frugality and industry of the Highlanders, add a spirit of persevering diligence, a constant desire of improvement, and a superior system of agriculture, which renders them a valuable acquisition to this Province.[6]

The Lowlanders were characterized as progressive and industrious farmers, while the Highlanders were described as having a strong attachment to livestock raising as well as being largely subsistence-oriented.

Local observers like the Presbyterian Minister, Rev. Thomas Trotter, President of the Sydney County Agricultural Society from 1818 to 1825,[7] were less polite in their comments about the Highlanders.

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2. Lt. W. Moorsom, *Letters From Nova Scotia; Sketches of a Young Country* (1830). His descriptions have been cited by D. Campbell and R.A. MacLean, *Beyond the Atlantic Roar* (Toronto: McClelland and Stewart, 1975), pp. 58-9, 63-4; R. Louis Gentilcore, "The Agricultural Background of Settlement in Eastern Nova Scotia," *Annals of the Association of American Geographers*, 46, No. 4 (Dec. 1956), pp. 398-9; and Charles W. Dunn, *Highland Settler* (Toronto: University of Toronto Press, 1974), p. 109.

3. Moorsom, *Letters From Nova Scotia* ..., p. 1982. See also p. 344.

4. While Gentilcore recognizes this inconsistency, he chooses to dismiss it and accepts Moorsom as a reliable observer.

5. This suggests that Moorsom was evaluating these settlers not in the context of Nova Scotian conditions, but rather on his own faulty understanding of nineteenth-century Scotland.

6. Thomas C. Haliburton, *An Historical and Statistical Account of Nova Scotia* (1829; rpt. Belleville, Ont.: Mika Publishing, 1973), p. 279. Cited also in Campbell, *Beyond the Atlantic Roar*, p. 64. Writing in the 1870s, Rev. George Patterson made similar comments about the Highlanders.

> Accustomed to extreme poverty, the [Highlanders] readily endure hardships; but it is said that they are apt to be content with a condition but little beyond what they had previously enjoyed, and do not show the same eagerness for further progress that others do.

Rev. George Patterson, *A History of the County of Pictou* (1878; rpt. Belleville, Ont.: Mika Studio, 1972), p. 174.

7. During this period, Sydney County consisted of two districts: Antigonish was the Upper District and Guysborough the Lower District.

> I do not know what to make of our Society. We have few active people but the Highlanders are ignorant and lazy and the Yankees are conceited and there are one or two people of some influence who would wish to hurt the Society from Pique against myself.[8]

This report has been also cited as evidence of the unprogressiveness of the Highland farmer.[9] Unfortunately, Trotter's observation has been used in a rather selective fashion. R. Louis Gentilcore's essay did not even include the full passage and stopped after "lazy". Several other writers have followed Gentilcore's example by focusing solely on the comments about the Highlanders, and have totally ignored the context in which the statement was made.[10]

The criticisms found in these contemporary sources were based on two closely associated ideas. First, the presumption that perceived differences in farm craft between the Highland and Lowland Scots of the old country were easily, and almost automatically, transferred and continued in Nova Scotia. Secondly, that Highlanders gave insufficient attention to the cultivation of the soil (i.e., they did not grow enough wheat) and that excessive time and energy were devoted to raising livestock, an activity which was deemed backward and which was generally attributed to the Highlander's cultural background. Historians have largely accepted these contemporary accounts as reliable reports without considering that these observers had little or no agricultural experience, and that none of them was of Highland extraction or Catholic. Moreover, it is these accounts which comprise the bulk of evidence upon which several writers have based their interpretations of early farming.[11]

Most recent studies have made the farmers' cultural backgrounds the main factor in shaping agricultural development in Pictou and Antigonish. In his essay, "The Agricultural Background of Settlement in Eastern Nova Scotia," Gentilcore accepts many of the earlier writers' premises. While he too admits that the Highland Catholics of Antigonish were "hardy pioneers", he is critical of their farming.[12] Gentilcore argues "farming was regarded as a last resort [by Highlanders]. If other activities were available, be they fighting or kelp manufacture in the old country or lumbering in the new, agriculture was forsaken."[13] Though he asserts that the timber industry distracted the Highlanders from farming, in another passage, he observes that they "knew little of timber and made poor woodsmen."[14] As a result, Highland farmers "sought little but the means of subsistence" and gave most of their attention to livestock raising which "came much more easily to the Highlander than the cultivation of the soil."[15] Gentilcore suggests that this activity, at least for a time, fit conveniently (and not by intention) with the needs of the military establishment during and after the War of 1812.[16] Moreover, he censures the Highland farmers of Antigonish

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8. Thomas Trotter to John Young, March 20, 1820, Sydney County Agricultural Society, Antigonish, Public Archives of Nova Scotia [henceforth cited as P.A.N.S.].

9. See Campbell, *Beyond the Atlantic Roar*, p. 88; Gentilcore, "The Agricultural Background ...," p. 339; and Dunn, *Highland Settler*, p. 109.

10 For a detailed treatment of the formation of the local agricultural societies in Pictou and Antigonish, and the reasons for their subsequent collapse see MacNeil, "A Reconsideration of the State of Agriculture in Eastern Nova Scotia, 1791-1861," M.A. thesis, Queen's University, 1985, Chapter Two.

11. Writers have generally ignored the positive remarks about farming in Pictou and Antigonish made by Joseph Howe in his "Western and Eastern Rambles" (1830). See M.G. Parks, ed., *Western and Eastern Rambles; Travel Sketches of Nova Scotia* (Toronto: University of Toronto Press, 1973), pp. 158, 179-80.

12. Gentilcore, "The Agricultural Background ...," p. 394.

13. *Ibid.*, p. 396.

14. *Ibid.*, p. 396.

15. *Ibid.*, p. 399 and see pp. 396-7.

16. *Ibid.*, p. 397.

for keeping too many cattle which, he contends, resulted in feed shortages and poorly kept animals.[17]

In their study, *Beyond the Atlantic Roar* (1975), D. Campbell and R.A. MacLean depend on culture and religion to explain the differences between Pictou and Antigonish.[18] In Pictou's case, they claim that the "strength of Presbyterianism, especially among the Lowlanders, supplied considerable motivation through the constant emphasis placed on industry and frugality."[19] This, they argue, led to more progressive attitudes on farming and greater production in Pictou than in Antigonish. Their picture of the latter county is, however, a contradictory one. While Campbell and MacLean suggest "many [Highlanders] engaged in farming simply to survive and were content with a marginal subsistence," in the next paragraph, they note that county exports included "horses, cattle, sheep, grain, butter and pork."[20] This begs the question of how marginal agriculture was in Antigonish at this time. Like Gentilcore, Campbell and MacLean attribute the greater importance of livestock raising in Antigonish to cultural factors, and observe that Highlanders took to this activity because it involved less work.[21]

The historian and geographer, Andrew Hill Clark, also stresses the influence of culture on Highland farming areas in Nova Scotia.[22]

> If the Highlanders brought no strong affinity for sheep raising with them they took to it with alacrity in Nova Scotia; they did bring a prejudice against pig-keeping that is believed to have had a profound affect in the east. Those of English, Irish or German origin seem to be freer of predilections for or against sheep or pigs.[23]

Unfortunately, Clark's article was only a preliminary investigation and it offered no hard evidence to support his suggestion that Highlanders had any greater aversion to swine than other farmers in Nova Scotia. As will be seen later, there is evidence which indicates that no such prejudice existed.

Other writers employ culture in less sophisticated ways to explain the perceived weaknesses of Highland farming. In *Highland Settler* (1974), Charles W. Dunn writes:

> Some of the settlers did not concern themselves greatly with the problems of adaptation and self-improvement. After undergoing the strain of parting from Scotland and surviving the first difficult years in the new world, they were content to relax from any further effort beyond the minimum ... for themselves and their families.[24]

Dunn argues, however, that the Highlanders were not lazy, but just misunderstood.

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17. *Ibid.*, p. 397.
18. Much of their information was, in fact, taken from Gentilcore's essay.
19. Campbell, *Beyond the Atlantic Roar*, p. 55. They base their conclusion on the grounds that the farmers of Pictou received less criticism from contemporary observers than their opposites in Antigonish. See p. 64.
20. *Ibid.*, p. 86.
21. *Ibid.*, pp. 86-8.
22. Andrew Hill Clark, "The Sheep/Swine Ration As a Guide to a Century's Change in the Livestock Geography of Nova Scotia," *Economic Geography*, 38 (1962), pp. 38-55. Clark uses the sheep/swine ratio as an index to agricultural development in Nova Scotia from 1851 to 1951. It should also be pointed out, however, that Clark does not rely solely on cultural factors to explain development, but includes resources, relative density of rural settlement, stage of economic development and market conditions. See p. 39.
23. *Ibid.*, pp. 41-2.
24. Dunn, *Highland Settler*, p. 108.

> Their previous environment had encouraged an attitude towards life that demanded only a very meager standard of living so long as there was ample opportunity for amusement and happiness. The Highlander was thus more an artist than a labourer...[25]

This romantic generalization adds little to our understanding of the nineteenth-century settler/farmer.

It is evident from this brief examination that writers have, to a great extent, simply restated the criticisms of earlier observers. The Highland Catholic, in particular, has been deemed a poor and backward farmer because of cultural factors, the lack of a progressive work ethic, and the writers' biases against an agricultural economy based largely on livestock raising and dairy production rather than on large scale wheat cultivation. This last element can probably be attributed to the heavy emphasis placed on the 'wheat staple' in Canadian history. Moreover, writers have found the cultural stereotypes so attractive that they have not only treated farming in a superficial and simplistic way, but have also overlooked how location and market accessibility affected agricultural development. It is these same blinders which have led them to rely heavily on impressionistic evidence and inhibited them from even making the most basic comparisons between the two study areas and the province, much less anywhere else.

In an article such as this, it is not possible to include all aspects of agricultural development in the two counties between 1827 and 1861. Other issues like marketable surpluses, regional development, and interprovincial and external trade will be discussed in greater detail elsewhere. Here, three important dimensions of development will be considered. First, an examination will be made of the extent to which agricultural production was influenced by cultural biases. This will involve comparisons not only between Pictou, Antigonish and the aggregate figures for Nova Scotia, but also with three nearby counties (Cumberland, Colchester and Hants) which largely constitute an area Clark identifies as the province's "agricultural core."[26] Secondly, the issue of livestock care will be addressed through an evaluation of the availability of feed in Pictou and Antigonish. The last section will be concerned with the gross value of production in these two counties. This will enable us to look at output and productivity less impressionistically than has hitherto been done. Before discussing these indices of development, it is necessary to look briefly at the demographic background of the two study areas, as well as their geography, local markets and industries.

Immigration to this part of the province began in the 1770s and increased markedly after 1790. By the 1820s, Pictou and Antigonish were largely settled.[27] In 1827, the population of the two counties numbered 13,949 and 7,103 respectively, and by 1861, the population of the two had risen to 28,785 and 14,871.[28] As mentioned, most of Pictou's people were either Presbyterians or members of the Church of Scotland. In Antigonish, the inhabitants were largely Highland Catholics, though Acadian Catholics provided a

25. *Ibid.*, p. 109.

26. Clark, "The Sheep/Swine Ratio ...," Figure 1, p. 40. Included in this 'core' are the fruit growing areas of Annapolis and Kings Counties. Unfortunately, Clark does not provide any dates for his map.

27. For descriptions of immigration and settlement in Eastern Nova Scotia see Patterson, *A History of the County of Pictou*, Chapters Four through Nine; Rev. D.J. Rankin, *A History of the County of Antigonish, Nova Scotia* (1929; rpt. Belleville, Ont.: Mika Studios, 1972), Chapter One; Campbell, *Beyond the Atlantic Roar*, Chapters One and Two; J.M. Bumsted, *The People's Clearance* (Winnipeg: The University of Manitoba Press, 1982), Chapters Three through Eight.

28. Censuses of 1827 and 1861.

significant minority.[29] Table 1 shows the proportional distribution of the main religious denominations for the two counties in 1827 and 1861. As is evident from this table, there was relatively little change in the religious makeup of the two counties between 1827 and 1861.

Table 1 **Proportional Distribution of Main Religious Denominations in Pictou and Antigonish, 1827 and 1861**

Area	Roman Catholic	Church of England	Church of Scotland & Presbyterians	Other
Pictou, 1827	7.26	1.84	89.10	1.80
Pictou, 1861	7.80	4.31	84.47	3.42
Antigonish, 1827	80.75	4.15	15.10	—
Antigonish, 1861	83.60	2.48	11.41	2.51

Source: Censuses of 1827 and 1861

Geographically, Pictou and Antigonish formed a distinct area which until mid-century developed independently from the rest of the province. The mountains and uplands bordering Pictou and Antigonish made travel difficult even under the best of conditions, and greatly hampered land communications with Halifax. Travel by water provided the only practical alternative. As a result, these counties were linked more closely with the Gulf of St. Lawrence than they were with Halifax.

There were few towns, and most of the villages were small. In Pictou, the main centres were the Towns of Pictou and New Glasgow, while in Antigonish the only major centre was the Town of Antigonish. Unfortunately, neither the Census of 1827 nor that of 1861 included population figures for the counties' towns and villages. It is certain, however, that Pictou's population tended to be less dispersed rurally than that of Antigonish, especially later in the century. This is reflected in the proportions of the two workforces engaged in farming. In 1861, 60.5 percent of Pictou's workforce were enumerated as farmers or farm labourers, while in Antigonish the figure was 71.1 percent.[30]

There is little precise information about early industrial activity in Pictou and Antigonish.[31] In both counties, timber, ship building and the local fisheries were important. One historian reports that by 1810 the timber trade brought Pictou merchants annual gross sales of £80,000.[32] Within two decades, however, both the timber stands and the local fisheries were near depletion, though some wood and fish products were still being exported in the 1850s.[33] Pictou also benefited from having a superb harbour and large quantities of

29. Unfortunately, neither census provided good information about the ethnic background of the two counties, though all sources concur about their general character.

30. Census of 1861.

31. For a study of the mercantile-industrial transition of the Pictou economy in the late nineteenth century see L.D. McCann, "The Mercantile-Industrial Transition of the Metal Towns of Pictou County 1857-1931," *Acadiensis*, 10, No. 2 (Spring 1981), pp. 29-64.

32. Rosemary E. Ommer, "Anticipating the Trend: The Pictou Ship Register, 1840-1889," *Acadiensis*, 10, No. 1 (Autumn 1980), p. 72.

33. *Ibid.*, p. 72. Ralph Murray Guy, "Industrial Development and Urbanization of Pictou County to 1900," M.A. thesis, Acadia University 1954, pp. 27-30. According to the Census of 1851, there were ninety-three saw mills in Pictou and forty-five in Antigonish still in operation.

coal. The harbour was one of the best in the province. It facilitated the export of timber, coal and agricultural surpluses from both Pictou and Antigonish, and it attracted much Gulf shipping.[34] The early discovery of coal prompted the General Mining Association to invest large sums of money into Pictou's local economy.[35] Both the port and the coal mining operations led to some diversification of the Pictou economy and provided the farmers with a small local market. Antigonish's economy was less diversified and its trade was hampered by shallow harbours which permitted only small ships to visit.[36]

The conditions outlined above affected agricultural development in several important ways. First, the local markets were too small to absorb all of the farm surpluses, especially in Antigonish. Secondly, geography and poor communications excluded the important centre of Halifax as a viable outlet for trade. Even if communications had not been a major obstacle, the competition from counties closer to the capital would have forced the merchants and farmers of Eastern Nova Scotia to turn to other markets, namely, Newfoundland, St. Pierre and the timber camps of New Brunswick's North Shore.[37] Since wheat did poorly in this region and could not be exported on a large scale, farmers focused their energies on the production of high density, highly valued goods like oatmeal, barreled meats, live animals and butter. This is confirmed by the aggregate data found in the Censuses of 1827 and 1861.

The Census of 1827 is less comprehensive than that of 1861 and surveyed only nine agricultural items: cultivated land, wheat, other grains (mainly oats), potatoes, hay, cattle, sheep, swine and horses.[38] In addition to these items, the Census of 1861 included information on a wider assortment of crops, dairy products, maple sugar and cloth products. It also made the important distinction between milch cows and neat cattle. Neither census recorded data on the overall size of farms and acreage devoted to crops and pasture. This statistical data is provided in Appendix I. While all of the individual returns for 1861 are intact, the only 1827 returns which are extant are nearly half of those from Antigonish; all of Pictou's 1827 returns have been lost.[39] The lack of detailed returns for Pictou makes comparisons of average farm production in 1827 difficult, but not impossible. An alternate method, which is outlined below, has been adopted to estimate the theoretical size of farms

34. For more information about the importance of this port and its development see Ommer, "Anticipating the Trend ...".

35. In 1826, the General Mining Association invested £70,000 in its first year of operation. Parks, ed. *Western and Eastern Rambles*, p. 163.

36. Both counties did have a number of "industrial establishments" mainly involved in the processing of various agricultural products. Most were small and probably seasonally operated. Although the 1861 census does provide information on them, it is much less complete than that which is found in the Census of 1851. Excluding the previously mentioned saw mills, Pictou had forty grist mills, one steam mill, twenty tanneries, one foundry, thirteen weaving and carding mills, six breweries and forty-six "other factories," while Antigonish had twenty-six grist mills, ten tanneries, five weaving and carding mills, and two "other factories". This difference reflects not only Pictou's larger size, but also its more diverse economy in 1851.

37. Lt. Col. Cockburn commented in his 1828 emigration report that large numbers of cattle, as well as other produce, were annually sent to Halifax from Colchester and Cumberland Counties. He reported that Colchester created annual surpluses of 100,000 lbs. of beef and 100,000 lbs. of pork, while Cumberland sent six hundred head of "fat cattle," 1,500 firkins of butter, cheese and other products. "Lt. Col. Cockburn's Report on Emigration ... With Statistical information Relative to Nova Scotia," *Journals and Proceedings of the British House of Commons*, Vol. 21, 1828.

38. The term 'cultivated land' is taken to mean any land which has been cleared of trees or has undergone any improvement.

39. See RG1 Vol. 455. Census of 1827. A copy of the Antigonish returns has been reprinted in the P.A.N.S. Report for 1938.

in 1827. Since average farm production is not the sole index of comparison available, this shortcoming is less an obstacle than it first appears.[40]

In the locally published Pictou newspaper, *The Colonial Patriot* (1827-1834), there were numerous advertisements of farms for sale or lease. In many instances, these advertisements not only provided information about location, but even gave details concerning size, farm buildings and crops. From a relatively small sample of seventy-four advertisements, the theoretical Pictou farm was estimated to have approximately 35.4 cleared acres.[41] This figure does not differ greatly from Antigonish's average farm size of 30.7 acres. The Pictou figure also seems reasonable if a land clearing rate of one acre per year is permitted from the start of large-scale settlement in the 1790s.[42]

It is now possible to look more closely at farm production in Pictou and Antigonish in 1827 and 1861. Here, the intent is simply to discern the general character of farming in the two counties, and not to estimate efficiency. In addition, it is important to realize that between 1827 and 1861, there was a substantial increase in the number of farms. Nor had this increase stopped by 1871.[43] Consequently, the real size of farms, as well as the average production per farm, are considerably understated. Nonetheless, certain obvious patterns emerge from the data.

Table 2 provides the average farm size, as well as the quantity of crops raised, animals kept and dairy products made per farm in Pictou and Antigonish. Clearly, there was a greater emphasis on crop production in Pictou than in Antigonish, though the differences were considerably less marked in 1861. In 1827, Pictou farmers produced 11.3 bushels more of wheat and 40.6 bushels more of other grains (mainly oats), while in 1861, the difference shrank to 2.4 bushels and 16.8 bushels respectively. Both counties did, however, experience a dramatic decline in potato production. This decline can probably be attributed not only to the growing maturity of the farming communities, but also the farmers' harsh experiences with the potato blight which began in the mid-1840s and ended in the early 1850s. The

40. The most useful index in this respect is the value of production per acre.

41. This represents a very rough calculation. Since there were few Antigonish advertisements in *The Colonial Patriot*, it is not really possible to test the sampling procedure. The estimate does seem reasonable, however, in the light of known land clearing rates. For more details on the sampling procedure see MacNeil, "A Reconsideration of the State of Agriculture in Eastern Nova Scotia, 1791-1861," Chapter Three.

42. The land clearing rate in Antigonish for the period 1827-1838 averaged about one acre per year. See the census figures of 1827 and 1838. Also MacNeil, "A Reconsideration of the State ...," Chapter Three. Antigonish's land clearing rate compares well with that of other areas in Upper Canada and New Brunswick. See Peter A. Russell, "Forest into Farmland," *Agricultural History*, 57, No. 3 (July 1983), p. 328 and John Mannion, *Irish Settlements in Eastern Canada* (Toronto: University of Toronto Press, 1974). p. 73.

43. The increase in the number of farms for the period 1827 to 1871 is shown below:

Year	Pictou	Antigonish
1827	1,389*	1,021
1838	n.a.	1,448
1851	3,130	n.a.
1861	3,595	2,052
1871	3,810	2,311

* Represents only a rough approximation.

Source: Censuses of 1827, 1838, 1851, 1861 and 1871.

greater hay production of Antigonish farms was a reflection of their heavier emphasis on livestock raising and dairy production. In 1827, this county raised 1.8 more cattle and 2.1 more sheep, while in 1861, the figure rose to 3.2 and 3.1 animals respectively. The average Antigonish farmer also made over one hundred pounds more butter and cheese than his neighbour in Pictou. Though Pictou farmers did demonstrate a strong interest in swine raising in 1827, herds had thinned out considerably by 1861. While Clark attributes the low numbers of swine in the province to weak prices and, in the case of the east, a Scottish aversion to swine, the drop in numbers was probably more directly related to a decline in the potato crop which was one of the animal's prime sources of feed.[44] Little can be said about horses because it is impossible to ascertain at this time the number employed off the farm.

Table 2 **Average Farm Production in Pictou and Antigonish, 1827 and 1861**

Items	Pictou		Antigonish	
	1827	1861	1827	1861
Improved Acres	35.4	32.4	30.5	38.6
Wheat (bus.)	27.5	23.2	16.2	20.8
Barley (bus.)	n.a.	6.0	n.a.	5.9
Buckwheat (bus.)	n.a.	4.9	n.a.	2.1
Oats (bus.)	70.9**	106.4	30.3**	89.6
Rye (bus.)	n.a.	.4	n.a.	.5
Peas and Beans (bus.)	n.a.	1.3	n.a.	.6
Corn (bus.)	n.a.	Inc.	n.a.	Inc.
Potatoes (bus.)	217.8	80.1	221.1	71.2
Turnips (bus.)	n.a.	14.3	n.a.	6.2
Other Roots (bus.)	n.a.	.5	n.a.	.1
Hay (Tons)	8.4	7.6	10.2	11.4
Milch Cows	n.a.	3.7*	n.a.	4.2*
Neat Cattle	n.a.	3.8*	n.a.	6.5*
All Cattle	8.4	7.6*	10.2	10.8*
Sheep	15.2	10.1*	17.3	13.2*
Swine	9.3	1.4*	4.8	2.2*
Horses	1.1	1.7	.5	1.3
Butter (lbs.)	n.a.	131.1	n.a.	174.6
Cheese (lbs.)	n.a.	20.5	n.a.	81.3
Maple Sugar (lbs.)	n.a.	8.5	n.a.	7.8
Hand Looms	n.a.	.4	n.a.	.4
Fulled Cloth (yds.)	n.a.	12.5	n.a.	18.4
Not Fulled Cloth (yds.)	n.a.	33.8	n.a.	35.3

* Post slaughter herd. "Inc." Insignificant. "n.a." Not available.
** These figures include all grains with the exception of wheat.

Source: Censuses of 1827 and 1861.

There were good reasons for the manner in which agriculture developed in the two counties. In the case of Pictou, the greater accessibility to external markets and the presence of a small, but important local market made the formation of a mixed agricultural economy

44. Clark, "The Sheep/Swine Ratio ...," p. 45.

logical. Pictou's greater emphasis on oats production can be attributed to these factors, and the substantial assistance it received in the form of provincial bonuses for the establishment of oat mills during the 1820s. The county received nine of the government's thirty-two bonuses for mill construction, whereas Antigonish, despite a number of applications, received only one.[45] Geographical factors and the lack of an adequate local market made livestock raising more important in Antigonish.

It has been asserted by most writers that livestock raising in Antigonish was a product of the Highland farmer's cultural biases. This cultural interpretation, however, has been applied in a very arbitrary fashion. There has been a tendency to focus primarily on cattle, to downplay the presence of sheep which had never been important in the 'Highland tradition' (whatever that might have been), and to ignore the keeping of swine which was allegedly a cultural taboo in the Scottish Highlands. By comparing the per capita distribution of agricultural production between Antigonish and Pictou, as well as with that of Clark's 'agricultural core' (Cumberland, Colchester, and Hants) and the provincial averages, the validity of some of the stereotypes will be tested. Also such a comparison will also demonstrate how productive farming was in Antigonish with respect to these other areas.

Appendices II and III provide the distribution of improved land, crops, livestock and dairy products per one hundred persons in 1827 and 1861. Cattle raising will be the first item considered. Although Antigonish's per capita distribution of cattle far surpassed the other areas in 1861, it is noteworthy that, in 1827, Cumberland's average was a little higher than Antigonish's and Colchester's was a little lower.[46] It is clear, therefore, that large-scale cattle raising was not merely an Antigonish phenomenon. While this sheds some doubt on the stereotypes concerning livestock raising, the evidence is not conclusive. If a cultural interpretation of development is to be accepted, then the sheep and especially the swine distribution should be lower in Antigonish than in other areas. Appendices II and III show quite clearly that this was not, in fact, the case. In both years, Antigonish had the highest sheep ratios. With respect to swine-keeping, there is no evidence to support the suggestion that Highlanders had a greater aversion to these animals than other Nova Scotia farmers. In 1827, the Antigonish ratio was well above the provincial average and ranked third among the five counties studied, while in 1861, Antigonish's figure surpassed all of the other areas. This demonstrates that serious misconceptions can arise when cultural factors are narrowly employed to explain development. This does not imply that Antigonish farmers did not benefit from their forebears' knowledge of cattle raising in Scotland, but it does illustrate that these farmers were quite capable of adapting their practices to the necessities of a new setting.

Writers have been critical of the Highland farmers' low levels of production, especially of those in Antigonish. Appendices II and III indicate otherwise. They show that production on a per capita basis in Antigonish compares favourably, particularly in 1861, with the provincial averages and the 'core' counties. In connection with dairy production,

45. In 1819, the Nova Scotia government began offering bonuses for the construction of oat mills in order to stimulate greater oat production. These bonuses were discontinued in 1825. Having acquired nine of the thirty-two bonuses during this period, it is apparent that Pictou did well. Although a number of applications were made by Antigonish, it received only one bonus. Why such a discrepancy existed between the two counties is not clear. For more information about the significance of mill construction see MacNeil, "A Reconsideration of the State ...," Chapters Two and Three.

46. The per capita distribution of cattle for these two counties in 1861 was still considerably higher than the provincial average.

Clark identifies parts of Colchester and Hants Counties as specializing in this field.[47] If this is true, then Antigonish should surely be included in this category. Not only does Appendix III show that the average production of butter and cheese per hundred persons was higher in Antigonish (3,527.7 lbs.) than in Colchester (2,090.1 lbs.) and Hants (1,586.7 lbs.) but the census also demonstrates that average dairy production per cow was higher. In 1861, Antigonish cows made 59.8 lbs. of butter and cheese, whereas Colchester and Hants made 47.6 and 46.3 lbs. respectively.[48] While these figures may appear low, they are considerably understated because the census returns did not include on-farm consumption, but merely that which was marketed.

Another stereotype connected with the alleged Highland propensity towards cattle raising is confusing and contradictory. Although Highland farmers were reputed to find cattle raising almost irresistible, they have been criticized for their treatment of their animals. Gentilcore, for instance, argues that Highland farmers were unable to keep their animals healthy because of hay shortages.[49] His methods of calculation are, however, rather crude and inadequate. He simply sets up a ratio between hay produced and cattle kept; allowances are not made for slaughtered cattle and the needs of other animals.

Before any judgement can be made concerning Gentilcore's assertion, two factors must be considered. First, the number of animals to be fed, and secondly, the winter feed requirements of these animals. Once these details are established, it will be possible to look at livestock feeding practices in a more statistically meaningful way.

During the non-winter and late spring months, livestock would have obtained most of their nutrients from grazing on pastures and in the woods, and would, therefore, have required relatively little feed. In the winter months, livestock were fed mainly hay. Since most surplus animals were slaughtered or sold in the fall, it is necessary to determine the size of Pictou and Antigonish herds during the winter. The Census of 1861 was made in the spring, and consequently, its figures need not be adjusted for slaughter purposes. There are no indications, however, of precisely when the Census of 1827 was made. If it is assumed that the 1827 figures represent the post-slaughter/sale animal population and it is not, then our estimates for feed consumption would be too high. This would also mean that our subsequent calculations for the G.V.P. — based in part on the value of animals slaughtered and sold — would be inflated. Instead, it has been assumed that the 1827 figures reflect pre-slaughter/sale animal population. Such an assumption seems more reasonable in view of the high number of animals kept per farm in the two counties (see Table 2). The number of cattle and sheep must now be estimated.[50] Although there are no contemporary reports on slaughter ratios in 1827, the Census of 1871 did include this information. The latter census reported that the slaughter ratios for Pictou cattle and sheep were 14.29 and 26.22 percent, while in Antigonish the ratios were 18.32 and 25.39 percent respectively.[51]

47. Clark, "The Sheep/Swine Ratio ...," Figure 1, p. 40.

48. The averages for Pictou, Cumberland and Nova Scotia were 40.0, 56.7 and 49.1 lbs. per cow respectively. Census of 1861.

49. Gentilcore, "The Agricultural Background ...," pp. 397-8.

50. Swine have been excluded from our feed estimates for several reasons. First, their diet was far more flexible than other livestock and included whey, sour milk, table scraps, rotten fruit, potatoes, etc., and probably would not have strained the existing feed supplies for other animals. Secondly, the limited data provided in the Census of 1827, and the amorphous nature of many of the above mentioned items make it very difficult to calculate feed availability for swine.

51. The provincial slaughter/sale averages for cattle, sheep and swine were 13.51, 25.95 and 49.35 percent in 1871. The slaughter ratios for swine in Pictou and Antigonish were 53.76 and 43.24 percent.

There is no reason to assume that the slaughter ratios in the two counties had changed that much between 1827 and 1871, but to be on the safe side, the ratios have been lowered to 12 and 16 percent to allow for herd expansion. A sheep slaughter ratio of 25 percent was employed for both Pictou and Antigonish. This would provide for a post slaughter/sale population of 10,297 cattle and 15,846 sheep in Pictou, and 8,815 cattle and 12,846 sheep in Antigonish.

There is relatively little information as to how much winter feed was required by different types of animals for the two periods under review. It is assumed that the winter feeding period was roughly 160 days in length. For mid-century Lower Canada, Lewis and McInnis estimate a winter feeding period of six months, or 180 days.[52] As winters in Nova Scotia are milder, my figure seems reasonable. Working within the guidelines of best twentieth-century practices as reported in L.H. Bailey's *Cyclopedia of American Agriculture* (1907-1909), Lewis and McInnis suggest that during the winter months, horses, oxen, and milch cows required 15.0 lbs. of hay daily, steers 14.4 lbs. of dry matter, calves and heifers 9.0 lbs. of dry matter, and colts and fillies 7.5 lbs. of dry matter.[53] With these guidelines, winter hay needs can be calculated.[54]

Table 3 lists the feed requirements (in hay equivalents) for cattle, sheep and horses in Pictou and Antigonish in 1827 and 1861. The figures in this table are conservative estimates, especially those for "neat cattle." Since it was impossible to calculate the number of oxen, steers and heifers-calves under this heading with any high degree of certainty, an average consumption requirement based on the needs of these three groups was computed and applied to all the animals in this category. This means that our estimates understate the number of calves and heifers who naturally would have been more predominant in the herds after slaughter. It should also be added, however, that feed requirements are given in terms of hay and exclude other feed items like straw, oats, buckwheat and root crops. Nevertheless, the figures are quite revealing.

In 1827, Pictou had sufficient hay to meet 77.2 percent of the recommended allocation, and in Antigonish, the figure was higher at 84.5 percent. By 1861, the percentages dropped to 65.4 and 76.5 percent, though the decline is less great if wheat and oat straw are included in the estimates. The decrease in hay in connection with livestock numbers was probably a reflection of the increased production of oats and other crops.[55] Although the figures may appear low, it should be remembered that they represent ideal practices.

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52. Lewis and McInnis, "Agricultural Output and Efficiency in Lower Canada, 1851," Appendix A-16 to A-22.

53. *Ibid.*, Appendix A-16 to A-22.

54. The estimated hay requirements per animal type are provided below

Animal	Hay in Pounds
Oxen	2,400
Milch Cows	2,400
Steers	2,304
Heifers and Calves	1,440
Sheep	256
Horses	2,663
Colts and Fillies	1,200

55. There are also advertisements in *The Colonial Patriot* concerning green oats which were sold as feed. Cut green, it is probable that these oats were not included in the census, but this has yet to be proven.

Table 3 **Estimated Hay Requirements for Pictou and Antigonish, 1827 and 1861**

	1827			
	Pictou		Antigonish	
	No. of Animals	Tons of Hay	No. of Animals	Tons of Hay
Horses	1,062	1,414.0	372	495.3
Colts and Fillies[1]	547	328.2	191	114.6
Neat Cattle[2]	5,231	5,356.5	5,351	5,479.4
Milch Cows[3]	5,066	6,079.2	3,464	4,156.8
Sheep	15,846	2,028.2	12,449	1,593.4
Total Requirements	—	15,206.1	—	11,839.5
Percent of Hay Available	4	77.2	—	84.5
Percent Available with Straw[4]		85.3	—	88.1
	1861			
	Pictou		Antigonish	
	No. of Animals	Tons of Hay	No. of Animals	Tons of Hay
Horses	4,068	5,416.5	1,779	2,368.7
Colts and Fillies[1]	2,095	1,257.0	916	549.6
Neat Cattle[2]	14,005	14,341.1	13,503	13,827.0
Milch Cows[3]	13,590	16,308.0	8,759	10,510.8
Sheep	36,453	4,665.9	27,113	3,470.4
Total Requirements	—	41,988.5	—	30,726.5
Percent of Hay Available		65.4		76.5
Percent Available with Straw[4]		75.2		83.1

[1] The censuses did not differentiate between adult horses, colts and fillies. It is assumed that about one-third of the animals were colts and fillies.

[2] This includes oxen, steers, two year olds and calves.

[3] The Census of 1827 did not differentiate between milch cows and other types of cattle. In calculating the number of milch cows in 1827, it is assumed that the ratio of milch cows to neat cattle differed little from the 1861 ratios. The latter ratios have been applied, and therefore, the estimated number of milch cows should be seen as a rough approximation.

[4] These estimates are rather hypothetical in nature. It is estimated that a bushel of wheat would provide 20.8 lbs. of straw and bran, while oats would supply 17.0 lbs. of the same. See Appendix I for gross wheat and oats production in 1827 and 1861.

Source: Estimates based on the censuses of 1827 and 1861.

The figures, especially those for Antigonish, do, however, compare well with practices in mid-century Lower Canada. Lewis and McInnis estimate that French Canadian farmers normally had sufficient hay to meet 73 percent of the recommended allocation.[56] These findings show that Gentilcore's criticisms are unwarranted. While this may not mean that the animals of either county were well fed by today's standards, it is clear that the Highland Catholics of Antigonish were no less capable in their care of livestock than were their Presbyterian opposites in Pictou.

The last and most important index to development in the two counties concerns the G.V.P. on a per farm and acre basis. Most writers have focused on individual farm practices

56. Lewis and McInnis, "Agricultural Output and Efficiency ...," Appendix A-16 to A-22.

which seemed to justify the use of cultural stereotypes. None, however, have appraised practices in the light of the whole farming enterprise. Although they claim that Pictou farms were more productive and efficient than those in Antigonish, no attempt has been made to support this assertion with hard evidence. An examination of the G.V.P. will prove how groundless these cultural stereotypes really are.

All of the items which comprise the estimated G.V.P. for 1827 and 1861 are based on the census data. These items are: slaughtered/sold animals (cattle, sheep and pork), butter and cheese (only for 1861), wheat, oats, and other grains, potatoes, turnips (only for 1861) and hay. Horses have been excluded because it is not clear what proportion were employed off the farms in local industries. Numerous items like garden vegetables, fruit, maple sugar, hides, wool, cloth (fulled and not fulled), various meat products, lard, poultry, eggs and wood products had to be omitted from the estimates because of the lack of information on the production and value of these goods. These omissions affect the G.V.P. in several ways. First, the G.V.P. for both counties will be very conservative. Secondly, since many of the omitted items are animal products, this will bias the estimates against Antigonish farmers who placed greater emphasis on livestock raising.

Table 4 provides the unit values, gross output and the value of production for Pictou and Antigonish in 1827 and 1861. It also includes the average value of production per farm and acre. The latter calculation is particularly important since the estimated number of Pictou farms in 1827 represents, at best, only a rough approximation. If there is any merit in the argument that Highland Catholic farmers were less productive and efficient than their Presbyterian neighbours, then the value of production per farm and acre should be markedly lower in Antigonish.

In 1827, the G.V.P. per farm in Pictou and Antigonish amounted to £75 and £74 4s. for a negligible difference of about one percent. A look at the acre values for Pictou (£2 2s. 2d.) and Antigonish (£2 16s. 4d.) suggests that the very small difference in farm values can be attributed only to size and not to greater efficiency. The data for 1861 indicates that there was a large gap in the G.V.P. per farm in Pictou and Antigonish. Farm values averaged £72 6s. and £93 4s. for a difference of about 22 percent in Antigonish's favour, while acre values averaged £2 4s. 6d. and £2 2s. 9d. respectively. The results are suggestive. First, there is no evidence to support the stereotype that Highland Catholic farmers were more backward and less efficient than their Presbyterian opposites. Secondly, the similarity in Pictou's and Antigonish's acre values is striking in view of the former's heavier emphasis on grain production and the latter's greater focus on livestock. This highlights the dangers of focusing solely on grain production as an index to productivity and efficiency. Thirdly, and more tentatively, there appears to be some correlation between farm size and land use, though further research is needed in this area.

It is clear from this paper's findings that writers have been unduly influenced by cultural stereotypes and have ignored or underestimated significant determinants such as location, market accessibility and inter-regional trade. Although it is true that the Highland farmers of Antigonish were heavily involved in the raising of cattle — an activity which was not only familiar, but particularly suited to the character of the county — the evidence does show that these farmers demonstrated a strong interest in keeping sheep and swine, animals against which they were supposed to be biased for cultural reasons. Writers have also been mistaken with respect to feeding practices, agricultural output and efficiency. The statistical evidence convincingly shows that Highland Catholic farmers were by no means more backward and less efficient than their Presbyterian counterparts.

Table 4 **Gross Value of Production in Pictou and Antigonish, 1827 and 1861**

Item	Unit Value*	1827 Pictou Number	1827 Pictou Value	1827 Antigonish Number	1827 Antigonish Value
Cattle	£110.4s	1,404	£14,320	1,678	£17,115
Sheep	15s	5,282	£3,961	4,149	£3,111
Pork (lbs.)[1]	4d	885,369	£14,756	345,556	£5,759
Wheat (bus.)	5s6d	38,198	£10,504	17,378	£4,778
Other Grains (bus.)	1s9d	98,561	£8,624	28,413	£2,486
Potatoes (bus.)	1s6d	302,659	£22,699	233,277	£17,495
Hay (tons)	£2.10s	11,750	£29,375	10,012	£25,030
Gross Value of Production		—	£104,293	—	£75,774
Value of Production Per Farm		—	£75,0s	—	£74,4s
Value of Production Per Acre		—	£2.2s2d	—	£2.16s4d

Item	Unit Value*	1861 Pictou Number	1861 Pictou Value	1861 Antigonish Number	1861 Antigonish Value
Cattle	£8.	4,589	£36,712	4,993	£39,944
Sheep	15s7d	13,026	£10,149	9,227	£7,189
Pork (bls.)[2]	£3.5s	4,122	£13,396	2,409	£7,829
Butter (lbs.)	8.5d	471,486	£16,698	357,856	£12,674
Cheese (lbs.)[3]	4d	73,918	£1,231	166,763	£2,779
Wheat (bus.)	5s	83,467	£20,866	43,865	£10,966
Other Grains (bus.)	2s11d	423,884	£61,816	201,770	£29,424
Potatoes (bus.)	1s	288,109	£14,405	146,206	£7,310
Turnips (bus.)	1s	48,310	£2,415	51,530	£2,576
Hay (tons)	£3.	27,494	£82,482	23,535	£70,605
Gross Value of Production		—	£260,170	—	£191,296
Value of Production Per Farm		—	£72.6s	—	£93.4s
Value of Production Per Acre		—	£2.4s6d	—	£2.2s9d

* Based on local market prices for 1828. Though *The Colonial Patriot* did not report market prices in 1827, it is assumed that prices changed little in the space of a year.

** Local newspapers did not report market prices in the 1860's. These unit values are based on the reported values given in the Trade Returns.

[1] It is estimated that one swine carcass produced 136.8 lbs. of meat, a conservative figure by North American standards. For more information on meat yields see MacNeil, "A Reconsideration of the State of Agriculture in Eastern Nova Scotia, 1791-1861," Chapter 4.

[2] One bl. = 196 lbs.

[3] No precise information exists for cheese in this year. Generally, the price of cheese was half that of butter.

Source: Censuses of 1827 and 1861.

This paper also demonstrates the need for more local and regional studies in this field, especially of a comparative sort. Although numerous studies have been made of Nova Scotia's fishing, timber and shipbuilding industries, its carrying trade and its mining operations, relatively little attention has been given to agriculture. As a result, little is really known about early farming practices, food consumption and agricultural surpluses, marketing procedures and inter-provincial trade. More attention should also be given to Eastern Nova Scotia's live animal trade with the Gulf markets. All of this would add immeasurably to our knowledge of nineteenth-century Nova Scotia.

Appendix I **Agricultural Production in Pictou and Antigonish, 1827 and 1861**

Item	Pictou		Antigonish	
	1827	1861	1827	1861
Improved Land (acres)	49,181	116,576	31,411	89,264
Wheat (bus.)	38,198	83,467	17,378	43,865
Oats (bus.)	98,561**	382,713	28,413**	183,973
Barley (bus.)	n.a.	21,703	n.a.	12,192
Buckwheat (bus.)	n.a.	17,676	n.a.	4,431
Rye (bus.)	n.a.	1,792	n.a.	1,174
Indian Corn (bus.)	n.a.	203	n.a.	131
Peas and Beans (bus.)	n.a.	4,985	n.a.	1,385
Potatoes (bus.)	302,659	288,109	233,277	146,206
Turnips (bus.)	n.a.	48,310	n.a.	51,530
Other Roots (bus.)	n.a.	1,973	n.a.	387
Hay (tons)	11,750	27,494	10,012	23,535
Milch Cows	n.a.	13,590*	n.a.	8,759*
Neat Cattle	n.a.	14,005*	n.a.	13,503*
All Cattle	11,701	27,595*	10,493	22,262*
Sheep	21,945	35,453*	16,598	27,113*
Swine	12,945	5,079*	5,053	4,531*
Horses	1,609	6,163	563	2,695
Butter (lbs.)	n.a.	471,486	n.a.	357,856
Cheese (lbs.)	n.a.	73,918	n.a.	166,763
Maple Sugar (lbs.)	n.a.	30,705	n.a.	16,019
Hand Looms	n.a.	1,463	n.a.	948
Fulled Cloth (yds.)	n.a.	45,126	n.a.	37,786
Not Fulled Cloth (yds.)	n.a.	119,058	n.a.	72,541

* Post slaughter/sale animal population
** Includes other grains.

Source: Censuses of 1827 and 1861.

Appendix II **Distribution of Improved Land, Crops and Livestock Per 100 Persons in Selected Counties, 1827**

		Improved Land Acres		Wheat (bus.)		Other Grain (bus.)		Potatoes (bus.)		Horned Cattle		Sheep	
	Population	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.
Pictou	13,949	49,181	352.5	38,198	273.8	98,561	706.5	302,659	2,169.7	11,701	83.8	21,128	151.4
Antigonish	7,103	31,411	442.2	17,378	244.6	28,413	400.0	233,277	3,284.2	10,493	147.7	16,598	233.6
Colchester	7,703	29,135	378.2	18,644	242.0	64,078	831.8	292,231	3,793.7	10,177	132.1	12,713	165.0
Cumberland	5,416	29,308	541.1	14,152	261.2	34,076	629.1	269,897	4,983.3	8,266	152.6	11,576	213.7
Hants	8,627	37,531	435.0	18,520	214.6	43,328	502.2	227,948	2,642.2	9,475	109.8	14,863	172.2
Nova Scotia	123,848	292,009	235.7	152,881	123.4	447,626	361.4	3,398,146	2,743.8	110,818	89.4	198,364	160.1

		Swine		Horses	
	Population	Number	Per 100 P.	Number	Per 100 P.
Pictou	13,949	12,945	92.8	1,609	11.5
Antigonish	7,103	5,053	71.1	563	7.9
Colchester	7,703	6,912	89.7	1,440	18.6
Cumberland	5,416	3,533	65.2	1,264	23.3
Hants	8,627	5,927	68.7	2,486	28.8
Nova Scotia	123,848	69,479	56.1	12,951	10.4

Appendix III **Distribution of Improved Land, Crops, Livestock, and Dairy Products Per 100 Persons in Selected Counties, 1861**

		Improved Land Acres		Wheat (bus.)		Oats (bus.)		Potatoes (bus.)		Milch Cows		Neat Cattle	
	Population	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.
Pictou	28,785	116,576	404.9	83,467	289.9	382,713	1,329.5	288,109	1,000.8	13,590	47.2	14,005	48.6
Antigonish	14,871	89,264	600.2	43,865	294.9	183,973	1,237.1	146,206	983.1	8,759	58.8	13,503	90.8
Colchester	20,045	78,232	390.2	27,360	136.4	192,976	962.7	358,001	1,785.9	8,789	43.8	12,585	62.7
Cumberland	19,533	100,896	516.5	54,412	278.5	134,355	687.8	336,877	1,724.6	7,074	36.2	12,514	64.0
Hants	17,460	64,818	371.2	22,217	127.2	128,924	738.3	166,384	952.9	5,974	34.2	8,280	47.4
Nova Scotia	330,857	1,028,032	310.7	312,081	94.3	1,978,137	597.8	3,824,814	1,156.0	110,504	33.3	151,793	45.8

		Cattle		Sheep		Swine		Horses		Butter (lbs.)		Cheese (lbs.)	
	Population	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.	Number	Per 100 P.
Pictou	28,785	27,595	95.8	36,453	126.6	5,079	17.6	6,163	21.4	471,486	1,637.9	73,918	256.7
Antigonish	14,871	22,262	149.7	27,113	182.3	4,531	30.4	2,695	18.1	357,856	2,406.4	166,763	1,121.3
Colchester	20,045	21,374	106.6	27,494	137.1	3,757	18.7	3,923	19.5	398,229	1,986.6	20,756	103.5
Cumberland	19,533	19,588	100.2	22,122	113.2	4,265	21.8	3,753	19.2	383,954	1,965.6	17,869	91.4
Hants	17,460	14,254	81.6	19,655	112.5	2,309	13.2	2,919	16.7	258,835	1,482.4	18,224	104.3
Nova Scotia	330,857	262,297	79.2	332,653	100.5	53,217	16.0	41,927	12.6	4,532,711	1,369.9	901,296	272.4