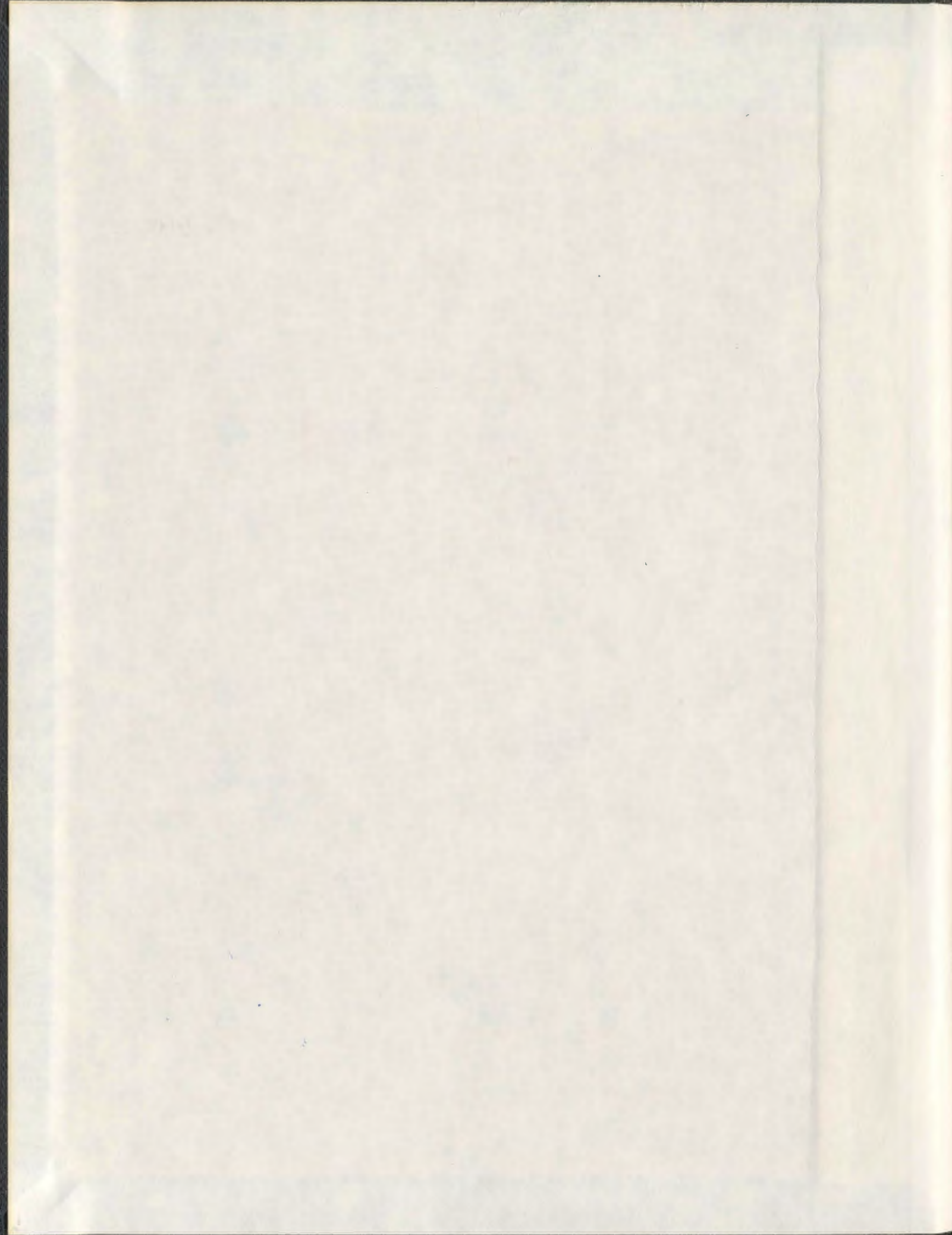


SISTERS IN TOIL:  
THE PROGRESSIVE DEVALUATION AND  
DEFEMINIZATION OF ONTARIO DAIRYWOMEN'S  
WORK AND TOOLS, 1813-1914

MEREDITH LEIGH QUAILE





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THE PROGRESSIVE DEVALUATION AND DEFEMINIZATION  
OF ONTARIO DAIRY WOMEN'S WORK AND TOOLS,  
1813-1914

by

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A thesis submitted to the  
School of Graduate Studies  
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## **Abstract**

In nineteenth and early-twentieth century Ontario, dairywomen toiled daily with cows and manure, sour milk and greasy butter, yet without improved apparatus, agricultural education, or male support. On the provincial family farm, milking, cream-separating, and butter-making chores included various time-consuming steps, physical labour, and an array of task-specific objects. This thesis analyses agriculture, and dairying in specific, as it began the transition from traditional to industrial, and consequently from female to male.

This dissertation touches on particular topics relevant to farmwomen's labour, including: agricultural education and improvement through science; public debate and perception surrounding gendered work; the government's role in promoting industrialization and thus defeminization; the concept of the dairyqueen in technological advertising; and, in particular, real farmwomen. These dairying 'sisters' include the well known, like Susanna Moodie and Catharine Parr Traill, Laura Rose, and Eliza Jones, and the unknown, such as Mary Newsam and the Hallen sisters, while focusing on Lamira Billings and her daughters Sabra and Sally.

This qualitative study reveals that by employing common dairy tools as a dominant, primary source, there are alternative perspectives from which to consider rural women's experiences. Analysis of material culture objects, like milking stools and pails, butter bowls and scotch hands, shallow separating pans and tin creamer cans, also allows for exploration of the tensions between projected male ideals and tangible female work – a question central to understanding gender and labour within a social history context. In



addition to technologies, sources like *The Farmer's Advocate*, the photographs of Reuben Sallows, and early dairy advertisements, add to our understanding of the concerns surrounding dairywomen's labour during the period discussed.

Historians have suggested that dairy work was removed from the female sphere before the turn of the twentieth century in Ontario. Male agriculture authorities, scientific experts, and government officials, indeed initiated a conscious devaluation of farmwomen's work, oriented toward the defeminization of dairying. Rather than being removed from dairy work, however, Ontario's farmwomen continued separating cream and making butter between 1813 and 1914, habitually and simply equipped with their two hands, their mother's knowledge, and their grandmother's tools.



## **Acknowledgements**

This thesis is dedicated to my Grandparents – Eldon and Iva Quaile, and Nelson (and Lyla) Patterson. Devoted to dairy farming and family, their hard work gave me an interest in agriculture that has extended throughout my life.

Thank you to everyone who made this study possible. Without the help of my supervisors, everyone at Memorial University of Newfoundland and Labrador, all the historic sites and museums, the University of Ottawa History department, my wonderful friends and family in Ontario and Newfoundland, and my incredible husband, Brad, nothing would have been researched, written, edited, or completed.

I truly appreciate my graduate supervisors; Linda Kealey, who patiently co-supervised from across an ocean; Andy den Otter, for his advice and editing expertise; and, Gerald Pocius, for his encouragement and support in publishing my first article. Each ensured that I remained realistic and focused on my dissertation. Their combined efforts made completion of the following chapters possible.

Thank you to the supportive administrative staff at Memorial's History department: Fran Warren for all her attention, Beverly Evans-Hong, Betty Ann Lewis, and Renee Lopez. Also, thanks go to the staff at Memorial's library, where they always found me the right book, article, and office space.

All the places I visited, where people ceaselessly opened files, libraries, warehouses, back barns, basements, and attics, for my interpretation and study – their guidance was invaluable. It was extraordinary to get behind-the-scenes tours at: Upper Canada Village, Milton Country Farm Park, Henry Stahl's barn, the Osgoode Township



Historical Society Museum, The Billings Estate Museum, The Central Experimental Farm Agriculture Museum, and the Agricultural Collection at the National Museum of Science and Technology. Such access allowed me to study nineteenth- and early-twentieth-century dairy objects in detail, which helped shape this argument and made all the research hours worthwhile. Thanks in particular to: Franz Klingender from the National Museum of Science and Technology; Lynn Campbell and the McLaughlin Library staff from the University of Guelph; Henry Stahl and his amazing agriculture collection from Russell, Ontario; Brahm Lewandowski and Ashley Stevens from the Billings Estate Museum; Reg Cressman, at Milton Country Farm Park; and, Ron Isaac and his helpful staff at the Osgoode Township Historical Society.

Over time, many friends and family – in both St. John's and Ottawa – have listened to me present my findings and have read pages or chapters of my thesis. Family, particularly, helped me with on-going criticism and love, sometimes providing space where I could edit and write. In Newfoundland, my in-laws, John & Donna Gover, often let me stay with them, and on my own, at their home in Sandy Cove on the Atlantic Ocean – a dream come true. In Ontario, my Mother, Marion Quaile, has frequently taken me in for extended stays and supportive chats; my Father, Elwood Quaile, even opened his “museum” farmhouse so I could focus and work. As well, my sister, Jennifer Cahill, her husband Kerry, and their growing family, profoundly supported me with laughter and love. All these people, places, and spaces positively contributed to the overall experience of my doctoral degree.



My husband, Brad Gover, who lived with me throughout this process, was loving, constantly encouraging, and very much appreciated, especially in the face of my sometimes-flagging health and spirits. Due to his motivation and support we have a chance to work at the things we love while we build a future together – thank you.

One chapter, “Dairy Pin-Up Girls: Milkmaids and Dairyqueens,” was previously presented at the Canadian History Association Congress in 2005 and was published in the *Material Culture Review*, Fall 2007 issue. As well, my experiences at Park Hill will be published as: “Desperately Seeking Lamira: A Research Day at the Billings Estate Museum,” *Basements and Attics: Explorations in the Materiality and Ethics of Canadian Women’s Archives* Waterloo: Wilfred Laurier University Press, 2011.

Financial assistance came from different sources, including: the School of Graduate Studies at Memorial University of Newfoundland and Labrador, Memorial’s History department, the *Labour/le Travail* internship program, as well as generous help from my family, and in specific, my husband and parents.

While my exposure to dairying began in the barn, I am glad it will finish in the classroom. After years of milking cows and a decade of research and study, I still conclude that dairy work is challenging, regardless of whether it is physical or academic.

To everyone who has kept an open mind regarding my research and goals – Thank you for your resilience in the face of my persistence.

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## Acronyms

BEC	Billings Estate Collection
COA	City of Ottawa Archives
FWIO	Federated Women's Institutes of Ontario
MCFP	Milton Country Farm Park (Formerly – Ontario Agriculture Museum)
NLC	National Library of Canada (Library and Archives Canada)
NMSTC	National Museum of Science and Technology Canada
OAC	Ontario Agriculture College
OTHS	Osgoode Township Historical Society
PAO	Provincial Archives of Ontario
UGL	University of Guelph Library
UCV	Upper Canada Village

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**Dairywomen's Lament –  
A Call to Arms for Dairywomen's Scholarship**

Dairywomen harken!  
A new day has begun  
Still, You alone know  
How the daily battle is won

Before the sun you do rise  
Even though you are so tired  
Your energy and labour  
In our history are mired

Instead of great volumes  
Dedicated to Your life  
Your milking, skimming, and churning  
Have defined You as a mere farmwife

Drudgery, routine, and toil  
These are Your lot  
Children at Your knee  
Their minds must be taught/taut

Now though, the time  
It truly has come  
Choring, farming, and working  
They finally are done

Although Your diaries and tools  
Offer some details  
You left so few records  
Your path it does Traill...

Your great Work deserves  
More than must mention  
Here, it will be given  
Our entire attention

Cheer up dairywomen!  
See what here is wrought  
Within, Your efforts are presented  
Carefully and with much thought

Rest now, dear farmwife  
For Your time has passed  
But You will not fade away  
The memory of Dairywomen will last

Come all historians  
From towns and from farms  
Advance the scholarship  
of the Dairywoman –

This is a Call to Arms!

Written by Meredith L. Quaile

This poem is in the style of the poetic commentary written by Canadian farmwomen to agricultural journals and newspapers, during the latter half of the nineteenth century.

## Chapter One

### Introduction & Historiography

To the farmers' wives of America, this little book is dedicated – to my sisters in toil, the tired and over-tasked women, who are wearing their lives away in work which has little hope and less profit, and to whom the cares of the dairy form the “last straw” which breaks their already aching backs.

For many years I have been receiving letters from these weary sisters, in every State in the Union, in every Province of Canada, and their burden is always the same.

‘We are *so tired*, cannot you help us?’ Eliza M. Jones<sup>1</sup>



Fig. 1) Reuben Sallows image “A Milkmaid,” (n.d.).  
UGL 0756-rrs-ogu-ph.

Eliza Jones’ preface to her 1892 book, *Dairying for Profit, or The Poor Man’s Cow*, explicitly indicated the arduous toil associated with female dairy work. The title of her work denotes the gender of her intended audience while her introduction reveals the true dedication to farmwomen. Mrs. Jones understood what few historians have yet detailed:

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<sup>1</sup> Mrs. E. M. Jones, *Dairying for Profit Or, The Poor Man’s Cow* (Montreal: John Lovell and Son, 1892), 5. Eliza Jones was a prominent dairywoman from Brockville, Ontario. She was the author of a best-selling book *Dairying for Profit: Or the Poor Man’s Cow* dedicated “To the farmer’s wives of America and to my sisters in toil.” Eliza’s herd of purebred Jersey cows won international fame with the herd’s butter selling for record prices in New York. Her agriculture production success stemmed from her three business principles – quality, cleanliness and bookkeeping.” Quote from: Ruth McKenzie, “Brockville, Ontario woman judges dairy products at the World’s Columbian Exposition in 1893” *Family Herald* 2(January 25, 1968); and, Myrtle Johnston, *The Recorder and Times* (November 29, 1997).



that despite the sense of overwhelming progress and the availability of mechanized tools in Ontario's dairying, rarely did the province's farmwomen benefit from ideological change or technological innovation.<sup>2</sup> Despite improvements to methods and tools, in 1892, Ontario dairywomen continued to work as productive units within traditional dairy processes on the family farm without materially sharing in the progressive ideal.<sup>3</sup> The sisters in toil who laboured in the province remained hopeful throughout the century they would have better tools with which to work.

Over the course of a hundred-year period from 1813 to 1914, a dominant and overarching theme emerged in the development of Ontario agriculture: progress.<sup>4</sup> According to historian Laurence S. Fallis, Canadians embarked on an "adventure of self-improvement," incorporating the nineteenth-century ethos of progress into a set of national policies of protective tariffs, agricultural settlement, and transportation development.<sup>5</sup> Fallis's work discusses the Province of Canada's "enthusiasm for the idea

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<sup>2</sup> The terms "province," "provincial," and "Ontario" are used interchangeably throughout the thesis to describe Upper Canada (until 1841), Canada West (1841-1867), and the province of Ontario post-1867, in order to avoid confusion.

<sup>3</sup> "Process"/ "Processes" here includes all of the steps associated with each distinct dairy chore, such as milking, cheese-making, and butter-making. Process is defined as: "A course of action or proceeding, especially a series of stages in manufacture or some other operation; a natural or involuntary operation or series of changes; put (a raw material, a food, etc.) through an industrial or manufacturing process in order to change or preserve it." *Canadian Oxford Paperback Dictionary* (Don Mills: Oxford University Press, 2000), 814.

<sup>4</sup> The term "progress" during this time in Ontario referred to growth and development, specifically improvement, of agriculture in social and economic terms. Progress is defined as: "forward or onward movement towards a destination; advance or development towards completion, betterment, etc.; move or be moved forward or onward; cause to advance or move." *Canadian Oxford Paperback Dictionary* (Don Mills: Oxford University Press, 2000), 816. Within the title of this thesis the use of "progressive" is a play-on-words, indicating both that progressivism was a pervasive ideological trend and that defeminization of dairy work was still in progress at the end of the studied period.

<sup>5</sup> Laurence S. Fallis Jr., "The Emergence of the Idea of Progress in the Province of Canada, 1841-1867," (PhD Dissertation, University of Manitoba and University of Michigan, 1966), 180. For other discussions

of progress.”<sup>6</sup> His thesis states “simply that the idea of progress, broadly interpreted, provides a useful framework within which one may see displayed the dominant interests of the era.”<sup>7</sup> Women’s involvement in dairy work was both increasingly interesting to men and incompatible with this concept throughout the century. Inextricably linked with progress, the idea of improvement became an overarching pattern – promoted by male authorities and experts – visibly shaping development and affecting Ontario dairywomen’s labour roles. Explicit within this dominant idea existed concepts for change linked to science, agriculture, and education. “It was an age of Improvement; it was an era of progress.”<sup>8</sup> Agriculturalists and government both adopted improvement as a way to propel the province into future prosperity and to enable competition upon world-wide, agricultural-exchange export markets. A two-pronged effect emerged, with both real and perceived shifts occurring regarding Ontario dairywomen’s work. While the idea of progress did not result in immediate work changes, the campaign was highly effective in altering prescribed social norms relating to women’s work.

Perceptions regarding women’s dairy work changed dramatically during Eliza Jones’ lifetime. Jones’ 1892 dairy advice cut to the crux of the problem. While a progressive movement in Ontario initiated change within agriculture, farmers invested first in the infrastructure of their farms, rather than in dairying, because they believed

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of progress see: David Wood, *Making Ontario: Agricultural Colonization and Landscape Re-Creation Before the Railway* (McGill-Queen’s University Press, 2000); Heide Inhetveen, “Women Pioneers in Farming: A Gendered History of Agricultural Progress,” *Sociologia Ruralis* 38, 3(1998): 26.

<sup>6</sup> Fallis, 18.

<sup>7</sup> Fallis, 182.

<sup>8</sup> Fallis, 21-22.

they could physically build stability and prosperity. Farmers therefore invested in clearing lands, fencing fields, animal husbandry, and cropping machinery with the much-promoted shift toward specialized dairying in the province. Although overall change occurred in Ontario agriculture and dairying, where there needed to be change none occurred; for within the farmwoman's workplace there was little transition in terms of technology as it related to female-identified work.<sup>9</sup> Dairywomen often had to 'make-do' with what they on-hand, in terms of method, tools, and knowledge, due to their lack of financial autonomy. Historian Sally Shortall, whose articles and studies have greatly influenced this thesis, indicated that women's "position within dairying was insecure as long as they did not control the resources of the industry."<sup>10</sup> Eliza Jones understood mechanization was not available to farmwomen and sought to offer advice on dairy methods, techniques, temperatures, feed, organization, and other relevant subjects. Jones also made clear the understanding that her female audience remained the primary and dominant producers in the farm dairy and that they had to work without mechanized tools. As a dairywoman herself, she knew improvements to the male agricultural sphere equaled more work for the farmwife; hence the long-standing and wearied calls for help from the farmwomen of Ontario.

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<sup>9</sup> For this discussion, the terms "technology" and "tool" are interchangeable, differentiated by the terms mechanized or unmechanized. Mechanized or unmechanized simply references what propels the tool. Is it hand- or woman-power? If so, then it is unmechanized. Is it some form of harnessed horse-power, be it a horse, sheep, dog, steam engine, water-wheel, etc? If so, and the power comes from a source other than hand-power, then it is mechanized and harnesses energy through a mechanical means. Alternately, mechanize/mechanization is defined as to "equip with or make reliant on machines or automatic devices." *Oxford Concise Dictionary*, (2007).

<sup>10</sup> Sally Shortall, "In and Out of the Milking Parlour: A Cross-National Comparison of Gender, the Dairy Industry and the State," *Women's Studies International Forum* 23, 2(2000): 249.



Due to the arduous nature of unmechanized agricultural labour, "Sisters in Toil" responds to questions surrounding the history of dairywomen's work. The overarching research question here, asks whether Ontario dairywomen were indeed removed from their traditionally-gendered dairy work by the turn of the twentieth century, as socio-economic historians have suggested, or if this was simply a perception as projected by dominant contemporary social trends? This thesis, then, demonstrates how during a dynamic period of agricultural advancement affecting women's work between 1813 and 1914, Ontario dairywomen persisted in their traditionally-gendered work within the dairy production process on the family farm, despite forces working to remove them. Thus, during the nineteenth- and early-twentieth-century, male authorities and experts devalued Ontario dairywomen's work to defeminize the province's dairy labour, in order to industrialize agriculture.<sup>11</sup> Ontario farmwomen's dairy work did not, however, entirely change from female- to male-gendered work as early as suggested by other historians. Despite the availability of technological improvements in the province, some dairy work processes – specifically butter-making – remained mostly unaffected, overwhelmingly unmechanized, and female-dominated throughout the period discussed. The majority of Ontario dairywomen from 1813 to 1914 worked in deplorable conditions, with inadequate tools, and an ever-increasing workload. The failure to adopt new dairy technologies resulted in an incomplete industrial transition of the dairy process, and maintained

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<sup>11</sup> Defeminization – In the specific case of Ontario dairying, "defeminization" refers to the trend toward removal of farmwomen from dairy work in order to regender this type of agricultural labour as male. This definition as applied to the development of Ontario dairying clearly indicates that women were not removed from dairying, simply that the form of dairying they were familiar with was denounced and discarded; and, that the removal of women was not necessary in terms of work, but the prevention of female involvement in the newly-developing industry was required for defeminization.

Ontario dairywomen within their traditionally-gendered, dairy-centered work roles on the family farm until at least 1914. What was at the root of the persistence of women in dairy production? Rethinking the processes through which Ontario dairywomen's work transitioned towards male domination provides the analytical foundation for reconceptualizing this gender-shift in work.

Significant to this study, setting it apart from other work on rural women, is the analysis of dairy tools employed throughout the century, which dictated the structure and form of dairy work and the farmwoman's day. The toilsome existence of farmwomen labouring within dairying will be illustrated through material culture, such as dairy objects and tools, as well as other historical primary sources like: historical ephemera, agricultural journals, historical photographs and images, and farm diaries. The push for progress and all its connotations had great implications for the status, work, and perception of Ontario dairywomen, yet had little effect on their arsenal of dairy tools, effectively halting comprehensive mechanization and industrialization of the newly-developing dairy industry. It was a lack of change over time, specifically the lack of transition toward mechanized tools in Ontario dairying, which perpetuated farmwomen's traditional roles.

To organize this discussion of nineteenth- and early-twentieth-century Ontario dairywomen's work and tools, this introductory chapter fulfills three purposes: to introduce the time periods covered by the study, to explore the agricultural history and some historiography of Ontario, and to present the chapter outlines. First, it divides the thesis chronologically. Three distinct eras frame this analysis of dairywomen's work and

help to identify devaluative trends within dairy development. These periods each represent approximately one generation: the settlement period from 1813-1850, the transitional period from 1850-1885, and the scientific period from 1885-1914. Essentially, these dates are flexible and do not indicate any rigid division explicitly identifiable within women's work; rather, they represent a chronology to deconstruct and better understand trends implicit in the past as grasped by this historian. The introduction of particular Ontario dairywomen who exemplify each era further suggested the division of this study into chronological periods. Lamira Dow Billings, who settled near Bytown, Upper Canada, represents the settlement period from 1813 to 1850; sisters Sally and Sabra Billings, daughters of Lamira, demonstrate the transitional period from 1850 to 1885; and the life and work of Miss Laura Rose, a respected dairywoman, expert, and educator, defines the scientific period from 1885 to 1914. Secondly, this opening chapter presents both an historical and an historiographical discussion of dairywomen and their work. The second section also provides a brief outline of the agricultural history of the province, the role of women in dairying, and the relationship of agriculture to government during each time period. Thirdly, this chapter outlines the other seven chapters comprising this dissertation. Each chapter illustrates the devaluation of dairywomen's work linked to the broader defeminization of dairying, as required for the industrialization of Ontario's agriculture. A loss of perceived value for farmwomen's work became apparent after 1850 with a clear socio-ideological shift by about 1885; the earlier pre-1850 era therefore illustrates the foundation from which perceived and tangible change to provincial dairying emerged. The overall purpose of this thesis is to illustrate the



persistence of Ontario farmwomen in their traditional dairy work between 1813 and 1914.

Book-ended by conflicts and war, the century of dairy work from 1813 to 1914 was characterized by change. The year 1813 was chosen as the starting point for this study not simply because that was the year Lamira Billings married and began dairying, but for other more broad-reaching reasons. After the War of 1812 and until mid-century, a major wave of settlement, overwhelmingly oriented towards rural and agricultural areas, occurred in the province. At the end of this period, transportation growth and development meant greater access to markets and accelerated social and economic change. From approximately 1850 to 1885, improved transportation networks and expansion in the dairy sector enhanced the institutionalization of scientific knowledge and state-interested agricultural development, greatly affecting rural interests and work. The period from 1885 to 1914 has been defined by the inauguration of a nation-wide string of new Federal Department of Agriculture scientific research stations indicating the strength of scientific and progressive forces for transition to agricultural work.

This discussion of Ontario's dairywomen and their work is made richer through interaction with the history of an impressive and formidable farmwoman, Lamira Dow Billings. After 1783, United Empire Loyalists began to settle and farm in Upper Canada.<sup>12</sup> Additionally, with a great wave of Irish settlement in Ontario, beginning at the turn of the 19<sup>th</sup> century and accelerating until the end of the 1840s, Ontario's agriculture continued to grow from a common foundation.<sup>13</sup> During this settlement period in

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<sup>12</sup> David Densmore, "In the Beginning," *Seasons of Change* (Toronto: Summerville Press, 1987), 14.

<sup>13</sup> "Economic and political upheaval in the British Isles, the Napoleonic Wars, and famine in Ireland brought a second great movement of people to British North America (BNA), chiefly of English, Irish, and

Ontario's agricultural history, a mixed type of farming emerged in the woods.

"Agriculture was the cornerstone of pre-Confederation Ontario."<sup>14</sup> Pioneer farmers and their wives employed basic tools for clearing the forest and building log homes. While settlement in Upper Canada began to increase as early as the 1780s, when Lamira Dow Billings arrived in Gloucester Township in 1813, she had no neighbour for, "40 miles from any house on one side and 7 on the other, no road either way, not one house in the town but our own."<sup>15</sup> In this frontier society, Lamira had a multi-faceted role; she was, among other things, a wife, soon-to-be mother, cook, cleaner, washerwoman, and dairywoman.

Only a few weeks after her arrival, 17-year-old Lamira Dow Billings waved goodbye to her new husband on the banks of the Rideau River. She was left alone in the woods for weeks, with her new but crude log home for shelter, while her husband Braddish Billings went to fetch a cow at Bytown, now Ottawa. Lamira and Braddish Billings' primary investment, a cow, was commonplace among Upper Canadian settlers: "One of the first investments many Upper Canadian households made was to buy a cow. This assured the family of milk, butter and other dairy products and once a small herd had

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Scottish families. This influx for the most part occurred after the American migration, reaching its peak in the 1830s and 1840s." Alison Prentice, *et al.*, *Canadian Women, A History, Second Edition* (Montreal: Harcourt Brace Canada, 1988), 59. See also: Wendy Cameron, Sheila Haines and Mary M. Maude (eds.), *English Immigrant Voices: Labourers' Letters From Upper Canada in the 1830s* (McGill-Queen's University Press, 2000).

<sup>14</sup> John McCallum, *Unequal Beginnings* (Toronto: University of Toronto Press, 1980), 3.

<sup>15</sup> "Lamira's Account of Life in the Ottawa Valley," <http://www.collections.ic.gc.ca/billings/bac/bac-7.htm> (accessed September 19, 2005).

been established, fresh meat for the pantry.”<sup>16</sup> Lamira’s dairying career began in 1813 with the coming of this first cow. While men were occupied with clearing trees, burning stumps, planting crops, and building or maintaining shelter for their animals and families, Upper Canadian farmwomen milked and hand-manufactured cheese and butter. In other words, they were responsible for the entire dairy process among other, arduous agricultural and domestic chores. “In the first half of the nineteenth century, it was usually the farm wife, or her surrogate, who was responsible for managing the dairy.”<sup>17</sup> Historians have demonstrated the various household duties of women, including rearing the children and nursing the sick, with which settler women to this province had to contend:

This included feeding and milking the cows, separating the cream and then making butter. Dairy equipment during this period was primitive, and working conditions – churning in the kitchen-parlour or on the porch, frequently interrupted by children – were difficult.<sup>18</sup>

During the settlement period, as long as a farming family had only a few cows the level of physical labour and time these tasks consumed was tolerable and could be managed in addition to other domestic work.

During Lamira Billings’ pre-1850 settlement period, agricultural journals began to publish an exchange of ideas and information. These public discussions help distinguish the connection between agricultural understanding and formalized knowledge with patterns of change in the province. Dairywomen from all over Upper Canada, New York

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<sup>16</sup> Elizabeth Jane Errington, *Women and their Work in Upper Canada* (Ottawa: Canadian Historical Association, 2006), 16-17.

<sup>17</sup> Errington, 16-17.

<sup>18</sup> Errington, 16-17.



State, and elsewhere in the United States (US) often submitted recipes, articles, and letters, and exchanged ideas and advice in the pages of farming periodicals. The sharing of information augmented dairywomen's access to the knowledge for improvement of practical methods. An 1834 article from *The Farmer's Advocate* explicitly titled "To Dairywomen," for example, illustrates this exchange: "Salt the milk as soon as it is taken from the cows; I mean the evening's milk, which is kept in pans during the night in order to be mixed with the new morning's milk."<sup>19</sup> The art of home-dairy milking and butter making was firmly enshrined within the sphere of farmwomen within the settlement period.

Ontario's agricultural development was greatly influenced by transitions toward better farming practices initiated and devised in England during the eighteenth century, markedly linked with improvement and progress. With movement across the Atlantic, emigrants from the British Isles and Western Europe transplanted their own familiar farming practices and techniques to Canada. This early agricultural orientation predetermined the direction of Ontario's development. Not all tools or techniques brought from overseas seemed applicable in Canada, however, due to differing soil compositions, terrains, and weather. Nonetheless, British models of basic farm arrangement, crop-planting and rotation, and animal husbandry, including dairy practices, took root in North America. In Ontario, agricultural specialization was uncommon for

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<sup>19</sup> *The Farmer's Advocate* I, 4(July 14, 1834), 1. Please note the citation of *The Farmer's Advocate*, throughout this thesis, as it was such a long-running publication, is somewhat complicated. Not all of the different years or editions were numbered or even catalogued in a systematic way over time. Just as the title of *The Farmer's Advocate* went through transitions, so too did the tracking of issues and years. For that reason, I have cited whatever information was provided on the original copy of the issue and in the catalogue, as held in the Library and Archives Canada collections, Ottawa.

the farmer during the settlement period and most planted various crops, and kept different types of livestock. An increase in local craftspeople capable of making crude butter bowls, tin creamers, coopered dash churns, and other dairy implements, made for better home-dairy butter quality as well, through better-constructed tools. Yet, a lack of overall technological transformation and the continued use of existing tools characterized this period. Between about 1813 and 1850, a period of intense settlement, newcomers like Lamira and Braddish Billings continuously wrested land from the grasp of nature to live and farm, beginning new lives on promising soil.

During Lamira Billings' time, the 1837 rebellions erupted in Upper and Lower Canada and Queen Victoria ascended the throne. Problems with rebellion drew the Queen's attention to the colonies and brought greater interest in the area's agricultural possibilities. In *Profiles of a Province*, Harold Innis pointed to increased population, improved transportation – and consequently better access to markets – linked with the problems of the Rebellions brought up in Lord Durham's 1839 report, to account for Ontario's specific patterns of development based upon the agricultural nature of the province.<sup>20</sup> In that same year, the colonial government decided to attempt the collection of “reliable data on all matters relevant to entry into agriculture.”<sup>21</sup> To promote settlement in North America, government authorities directed the rapidly-increasing population of immigrants toward agricultural settlement and claimed that land was still cheap and

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<sup>20</sup> H. A. Innis, “An Introduction to the Economic History of Ontario from Outpost to Empire,” in *Profiles of a Province* (Toronto : Ontario Historical Society, 1967), 151.

<sup>21</sup> Robert E. Ankli, and Kenneth J. Duncan, “Farm Making Costs in Early Ontario,” *Canadian Papers in Rural History*, Vol. IV (Gananoque: Langdale Press, 1984), 34.

abundant and of good quality during this period.<sup>22</sup> Other than encouraging settlement, conducting land surveys, and boosting Ontario's agricultural potential, the state did not involve itself directly with the lot of dairywomen or their work in Ontario.<sup>23</sup> Over time, however, official government interest in agriculture did increase. Due to the Rebellions in the 1830s, Britain's need to understand the problems within the colony subsequently resulted in official studies that reported Ontario was suited for agriculture. With the union of Upper and Lower Canada, development occurred rapidly and government involvement in agriculture increased. Still, "when Britain 'reunited' Lower and Upper Canada, the colony was still very much a frontier society" and its "civil institutions remained simple if not primitive."<sup>24</sup> Not long after, in 1846, the Upper Canada Board of Agriculture was established. Also in that year, the first provincial agricultural exhibit was held in York, now Toronto. Clearly, Ontario and its governing agencies viewed agriculture as the driving force for growth; agrarian interests guided development.

By the beginning of the transitional period in 1850s Ontario, some gradual change had occurred in terms of dairy work and tools, as well as increased state involvement in

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<sup>22</sup> Lord Durham toured the colony in 1838, after the rebellions, and tabled his report upon his return to England in 1839, discussing the merits and problems with colonial settlement. Durham recognized in his report how the best land had already been taken-up and largely monopolized by the elite and land speculators, though the frontier continued to expand.

<sup>23</sup> For more on Ontario's agricultural past: C.C. James, *History of Farming in Ontario* (Toronto: Glasgow, Brock, 1914); R. L. Jones, *History of Agriculture in Ontario, 1613-1880* (1946); Kenneth Kelly, "The transfer of British ideas on improved farming to Ontario during the first half of the nineteenth century," *Ontario History* 63(1971):103-111; J. J. Talman, "Agricultural Societies of Upper Canada," *Ontario History* 27(1931):545-52; Robert E. Ankli and Wendy Millar, "Ontario Agriculture in Transition: The Switch from Wheat to Cheese," *Journal of Economic History* (1982): 207-215; for an alternative perspective, which avoids discussion of dairying, Douglas McCalla, *Planting the Province: The Economic History of Upper Canada 1784-1870* (Toronto: University of Toronto Press, 1993).

<sup>24</sup> Allan Greer and Ian Radforth, eds., *Colonial Leviathan, State Formation in mid-Nineteenth Century Canada* (Toronto: University of Toronto Press, 1992), 257.

agricultural affairs. Historian David Wood went so far as to argue that in 1850 “for over half a century, Ontario had struggled as an agricultural colony with an elite, colonial oligarchy that governed with its own interests in mind rather than those of farmers.”<sup>25</sup> If farmers had not been on the mind of government, then the interests of women in dairying or farmwomen in general were likely a lesser priority. By mid-century, though, transportation in the colony had improved, some land had been cleared, farms had been established and prospered, and markets had become increasingly accessible for the province’s agricultural products and by-products. Efforts of progressive agriculturalists had paid off, and “by the middle of the century, Ontario was a major agricultural producer in international terms, comparing favourably with the most productive part of the US at the time.”<sup>26</sup> With greater emphasis on agriculture, many settlers believed that stimulation and improvement of this area of the colony’s development would provide maximum growth, change, and progress.

During the transitional period, women such as the sisters Sabra and Sally Billings, daughters of Lamira, strove to live, work, and produce for their families. “The settler’s sons and daughters were: simple, parochial, limited but healthy, contented, marked by a wisdom close to the soil.”<sup>27</sup> Between about 1850 and 1885, farmwomen particularly “struggled to create rich, meaningful and happy lives with rapid and radical change

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<sup>25</sup> J. David Wood, *Making Ontario, Agricultural Colonization and Landscape Re-Creation Before the Railway* (Montreal: McGill-Queen’s University Press, 2000), 3.

<sup>26</sup> Wood, 7.

<sup>27</sup> Kathy Seaver, *History of the Billings Family*, (COA BEC MG2-11-2), 38-39.



quickly occurring in Ontario's political economy."<sup>28</sup> The Billings sisters worked on their family farm, and after working in the dairy since youth, both took on the role of 'overseer' or dairy manager by the mid-1840s. Sabra and Sally, neither of whom ever married, inherited part of the family farm from their father. There were seven Billings children in total, four boys and three girls. The boys all received acreage from their father. Lamira J., the middle daughter, was married and living elsewhere when her father died. Even as early as 1851, before their father's 1864 death, Sally and Sabra began running the dairy farm jointly with their mother. The Billings women employed four or five girls to help with making cheese and butter and with milking their fifty-six cows.<sup>29</sup>

Illustrating the powerful force for industrial change during the transitional period, the first cheese factory opened in Oxford County, Ontario, in 1863. This factory ushered in the first wave of industrialization to the province's dairying. Shortly before that time, the Billings sisters had gradually scaled back their large cheese-making operation, and with the many cheese factories in the region by 1871, halted on-farm production.<sup>30</sup> Yet, a number of female hired hands were employed on the farm at least until 1881, as recorded in the family account books, indicating on-

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<sup>28</sup> Leo Johnson, "The Political Economy of Ontario Women in the Nineteenth Century," in Janice Acton, Penny Goldsmith, and Bonnie Shepard, eds., *Women at Work, Ontario 1850-1930* (Toronto: Canadian Women's Educational Press, 1974).

<sup>29</sup> Martha Phemister, *The Evolution of the Gatehouse- Structural and Functional Analysis*, (COA BEC 363.6PHE, Fall 1985), 22. This is a paper created at the Billings Estate Museum, by staff, for interpretive and research purposes.

<sup>30</sup> Due to the relatively early removal of cheese-making from home to factory work, this dairy process requires its own study and is omitted from detailed description in this thesis.

going dairy production of milk and butter.<sup>31</sup> Sally and Sabra continued making butter by hand themselves and provided milk for the Ottawa market into the 1890s. Together, they set an example of outstanding production and quality for butter and fluid milk, as evidenced in their accounting records. Neither gender barriers nor negative social perceptions appeared to have affected their output.

As the dairy achievements of Sabra and Sally Billings attest, the transitional period witnessed a generation of competent and productive dairywomen armed with still-unmechanized tools. While some dairy specialization emerged during the latter part of this period, mixed-farming practices still prevailed:

Prior to the 1870s at least, dairying was rarely the central part of a farm's production, but was mainly intended for household consumption and to provide a little extra income from any surplus there might be. Because of this, and because women, who controlled the dairying operations, generally had little control over capital expenditures, dairying was often ignored when capital improvements were being considered. Farms seldom had a dairy room and equipment was often primitive.<sup>32</sup>

Dairywomen milked and made butter on their front porches, in dusty cellars, and in drafty milkhouses, without control over their tools or work, or its development. Dairy farming and "dairy products assumed importance throughout the period" with this type of agriculture generally viewed as a prosperous endeavour.<sup>33</sup> Farmwomen and their work, therefore, should have gained importance accordingly. As the period advanced, men progressively chose dairying as a type of agricultural specialization with the result that

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<sup>31</sup> (COA BEC MG2-2-5).

<sup>32</sup> Marjorie Griffin Cohen, "The Decline of Women in Canadian Dairying," in Alison Prentice and Susan Mann Trofimenkoff, eds., *The Neglected Majority*, Vol. 2 (Toronto: McClelland and Stewart, 1985), 66-7.

<sup>33</sup> McCallum, 49.

farmwomen could not reject these chores. “There is one duty in particular belonging to the farm-house that in most instances falls almost exclusively on females to perform, that of milking the cows and attending to the dairy” stated the *Canadian Agriculturalist* in 1855. This type of comment indicated that dairywomen’s work was firmly ensconced within the female sphere on the family farm.<sup>34</sup>

The transitional period, from 1850 to 1885, experienced increased government control over land with greater general involvement in agrarian interests. As agriculture emerged as a potent force for economic growth and development, the provincial government established the Bureau of Agriculture and Statistics. Within a few years, the bureau became a separate government department. In 1868, one year after the Confederation of British North America, an Act created the Department of Agriculture for the Dominion of Canada, its purpose for research and development. Within decades, the department had clearly marked the division between scientific and traditional knowledge. A new era of systematic, measured, and accurate agriculture was unfolding.

The beginning of the scientific period, about 1885, revealed a heightened emphasis on pure scientific agricultural training, and the end of blending both traditional and prevailing concepts of dairying. A shift toward the valuation of scientific knowledge alone had begun in earnest. With economic, ideological, and political interests aimed toward the development of a commercialized, mechanized, and industrialized dairy industry in the province, dairywomen’s work was on the cusp of change.

Miss Laura Rose exemplified the new scientific agriculture for the scientific period. Rose assumed the post of head dairy instructor for the Ontario Agricultural

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<sup>34</sup> “The Months – March,” *The Canadian Agriculturalist* VII, 3(March 1855), 82-83.

College's (OAC) Dairy School in 1897. She epitomized the ideal dairywoman, combining both empirical and scientific values with practical and academic training and skills.<sup>35</sup> She encouraged dairywomen to embrace scientific information and acknowledged and broadcast the advancements in dairying brought about through science. Rose also taught that even the most overlooked, skeptical, or diffident of Ontario's farmwomen could learn how to achieve the seemingly unattainable standards and controls of the scientific dairy. In 1901, she wrote on "the subject of practice and knowledge as applied to butter-making" in *The Farmer's Advocate*<sup>36</sup>:

We must accept every fact, no matter how it may conflict with our dearest notions. Knowledge will add pleasure to our work, and helps materially. It enables us to do things better, more gracefully, and secure better results. Knowledge enables us to give reasons for our actions. Practice alone cannot do this. Butter-making is no longer the guesswork it used to be. Science has done more for dairying during the last few years than for any other industry.<sup>37</sup>

Just as she encouraged them to make changes, Laura Rose understood what Eliza Jones had written about a decade earlier; even at the turn of the twentieth century, dairywomen

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<sup>35</sup> Empirical knowledge is discussed here as the accumulated wisdom of dairywomen's use of their sense and experience in dairy work. More specifically as: "Regarding sense data as valid information; deriving knowledge from experience alone." *Canadian Oxford Dictionary*, 312.

<sup>36</sup> *The Farmer's Advocate* was self-described in 1867 as: "A little spicy paper, printed at London, by Dawson & Bro., and edited by W. Weld, a practical farmer, is at hand. It is neatly got up, full of original matter of an interesting and useful character, and well worthy of receiving the support of the farming community." As proprietor and editor of *The Farmer's Advocate* William Weld's wish was to provide farmers with a paper that advocated advancement in their industry as well as: "An agricultural paper that will give a fair and reliable representation of requirements, position and progress, and that will afford a space in its columns for communications from farmers and to expose the many and various plans that are practiced to lead farmers astray." From: "The Farmer's Advocate" [sic], *The Farmer's Advocate* II, 7(July 1867), 65. William Weld ran his office in London, Ontario until the time of his death in 1891, when his nephew took over and continued its publication. Weld felt that a farmer could increase profits with a subscription to *The Farmer's Advocate*. Circulation in 1897 was printed on the front page of the December 17<sup>th</sup> edition as "5000 delivered copies" but cannot account for overall circulation amongst the province's rural population.

<sup>37</sup> Miss Laura Rose, "Knowledge in Butter-making," *The Farmer's Advocate* (February, 1901), 85.



continued to toil without mechanized tools, outside support, scientific knowledge, or formal education. Through her published words of encouragement for change Laura Rose tried to reach Ontario's tired dairywomen, to offer them help and hope. She wrote extensively about the need for rural women to accept and even embrace new butter-making advancements, and she advocated dairy education for both men and women. While Ontario's dairywomen laboured at butter-making and other such unmechanized and unimproved work, Laura Rose spoke of the elevation of institutionalized knowledge over practical experience, yet emphasized hands-on training in her OAC courses.

Between approximately 1885 and 1914, government action regarding agricultural education and the promotion of scientific agriculture adversely affected Ontario dairywomen's work. Sally Shortall noted that in the United States, the state capitalized upon American dairywomen's relationship to property – or lack thereof – to bring about farmwomen's changed role in the developing dairy industry:

The state's invocation of Victorian domestic ideology clearly legitimated a course of action that moved dairying to the male domain; it was too harsh, and inappropriate for women, and it was undesirable to have women occupying positions of prestige in public spaces. ... In many respects, the transformation of the dairying industry represents a classic patriarchal process. Men appropriated a lucrative component of women's sphere of work, and men and a male state, forced women out.<sup>38</sup>

Driven by the ideal of progress, the Ontario government focused economic development within the agricultural sector on dairying. The gender shift from female to male butter production did not occur in pre-1914 Ontario. Improvement and development required the industrialization and mechanization of farming, including dairying. Before

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<sup>38</sup> Shortall, "In and Out" 256.

mechanizing the dairy industry, however, the farmwomen who dominated this increasingly lucrative sphere had to be replaced by men, since male authorities associated progress with masculine qualities. The result was the devaluation of female workers. As Shortall concluded, "the role of the state in moving women out of dairying, and moving men in, is obvious."<sup>39</sup> While her analysis is US-based, similar trends of state-encouraged devaluation and gendered-work shifts parallel this development within Ontario's dairy industry. From Lamira Billings to Laura Rose, dominant devaluative and defeminizing trends negated the perception of their work experiences and attempted to alter the lives of rural Ontario women.

Part two of this chapter includes contemporary views of and toward dairywomen, as well as the relevant and contextual historiographical discussions surrounding dairywomen's work. As previously noted, despite systematic devaluation and defeminization of certain aspects of dairying, butter-making especially, remained within the farmwife's realm of work. Contemporary discussions concerning tools, work roles, education, and other important topics of the day illustrate the debate surrounding women's rapidly-altering positions in the workplace.

Throughout the settlement period, extending to mid-century, a general acknowledgement of the importance of women's dairy work and contributions was apparent. In general, society accepted, understood, and recognized the dairywoman as the dairy processor on the farm. From approximately 1850 to 1885, during the transitional period, empirical knowledge remained dominant. Some dairy specialization and the subsequent introduction of scientific agriculture and dairy technologies, however,

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<sup>39</sup> Shortall, 247.

began to erode the worth of dairywomen's experience and work. Over time, the dairywoman's effort was less acknowledged and eventually debased. Many dairywomen still improved their methods based on their practical experience combined with scientific principles, disseminated through agricultural publications and word-of-mouth. Regardless, scientific precision and the hope of technological innovation denigrated dairywomen's folk wisdom in the scientific period. Farmwomen themselves commonly perceived their work as toilsome and monotonous and their equipment as outdated. Their work, then, was censured as imprecise and "old-fashioned" thereby rendering the dairymaid, her work, and her product, valueless. Dairywomen's work descriptions, surrounding discourse, and physical tools, provide insight into their laborious and valuable contributions to farm life throughout the century from 1813 to 1914.

Conversely, generations of dairywomen in the nineteenth and early-twentieth century recognized their workload was increasing but its value and the value of their traditional knowledge was decreasing. During the settlement period especially, both on the family farm and in broader society, dairying was considered unspecialized, but decidedly female, labour. Women incorporated dairy-specific chores into their domestic rhythms of work. From roughly 1850 to 1885, as farms began to specialize in dairying, higher milk production equaled greater work responsibilities for farmwomen. During the final phase of analysis, from about 1885 to 1914, Ontario farmwomen persisted within their gendered work roles without benefit or advancement, as the advertisement and availability of scientific dairy information and technologies grew. A detailed study indicates that during this one-hundred-year period from 1813 to 1914, dairywomen's



work did not improve at the same pace as other agricultural work and was rather resistant to certain changes relative to other aspects of farm labour. Essentially, farmwomen did not have the opportunity to employ technologies to the same degree as men.

Dairywomen consequently decried their disproportionately heavy dairy workload and their lack of access to labour-saving dairy technologies, while improvements within the male agricultural sphere were evident.

As scientific method crept into the Ontario farmyard, expert or authoritative male voices condescendingly criticized farm-made butter and its producers. In short, this devaluation was a means to defeminize the Ontario dairy process and instigate a shift to male labour. An analysis of dairy technologies reveals, however, that Ontario women continued to dominate the work force until at least 1914, especially in terms of butter-making. Declining butter quality and rejection of Ontario butter on the export market in the late-nineteenth-century deemed butter production, while in women's hands, as a losing investment. The quality of Ontario farmwomen's butter – on numerous occasions described as “grease” – and its unscientific ways of production made investment into this aspect of the dairy process seem counter-productive especially during the most intense phase of dairy industrialization after 1885. The dairywomen themselves, according to scientific agriculture's accepted and exalted wisdom, were relics from an unscientific past whose presence within the dairy production process was considered mutually exclusive from progress.

By the mid-1880s, the order of the day emphasized scientific methods, precision, and standardized results, all qualities that required mechanization – machines that male



partners did not provide to dairywomen. In fact, contemporary periodicals and other literature became increasingly hostile toward female dairy workers. Agricultural journals advocated standardized and scientific farming methods and scorned hands-on dairy wisdom and practices. By the 1890s, farmwomen themselves admitted that the quality of their butter had deteriorated but they laid the blame on ever-increasing milk quantities produced through improved animal health and growing herd sizes. Moreover, in the agricultural press, Ontario farmwomen charged that farmers denied them access to adequate tools to deal with greater milk volume. With increased workloads but without mechanized tools dairywomen argued they had little time or energy to pay attention to butter quality. Farmwomen blamed male family members who held financial control over the farm – usually husbands. Men, in turn, failed to recognize, let alone acknowledge, that the work of their wives contributed to agricultural progress or was a significant asset to the family farm. This largely disapproving view of the contribution of dairywomen to farm productivity dominated contemporary thought in late-nineteenth-century development of the dairy industry. To better understand how the emphasis on machinery and scientific farming devalued and defeminized the province's dairying one must examine the views of the dairywomen themselves in addition to those of others.

Critics, supporters, and dairywomen's own views from the past illustrate how perceptions of dairy work altered over time. Contemporary viewpoints of this work alone, however, are not enough to understand Ontario dairywomen's labour. For this reason, interpretations of modern historians give this thesis context. What do historians have to say about these women and their work? Historians have utilized three common

analytical themes in the study of dairywomen's work: technology, gender, and economics. They and other scholars have applied these literatures, i.e. studies of technologies, gender, and economics, to analyse markets, social and work relationships, as well as changes over time in terms of rural women's work. Two specific histories discussing the period around 1813 to 1850 challenged and informed this dissertation. These studies examined women's work through their technologies. Joan Jensen's combination of social history, quantitative methodology, and especially material culture regarding Pennsylvania dairywomen – their butter-trade, and technologies within a rural domestic economy – reinforced the importance of studying daily work, even if that work appeared perfunctory.<sup>40</sup> Jensen documented a large rise in nineteenth-century butter production, and how women's refinements of butter-making techniques contributed to this rise. In her study of domestic tools, Ruth Schwartz Cowan similarly positioned technology as a forceful explanation in women's history, recognizing both production and consumption as economic variables.<sup>41</sup> Both of these analyses placed women at the centre of the study and used work to gain an understanding of a female agricultural past.

Within the last two decades, historians have begun to recognize a study of women's work is possible without imposing those assumptions associated with separate

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<sup>40</sup> Joan Jensen, *Loosening the Bonds, Mid-Atlantic Farmwomen, 1750-1850* (Westford: Murray Printing, 1986).

<sup>41</sup> It is important to note that Cowan's analysis of domestic technologies indicates there was an assumption that mechanized tools/technologies would lessen women's workloads. She found, however, that new devices often made women more efficient and thus capable of undertaking more work. The concept of progress was so dominantly coupled with science and technology that the lack of male investment into female work reveals startling contrasts between experience and representation.

spheres ideology, such as Nancy Grey Osterud's New York research.<sup>42</sup> Rather than overlaying the concept of separate spheres upon nineteenth-century dairywomen, Osterud insists these rural women developed strategies of mutuality in kinship and working relationships that overcame such defined and rigid gender roles. Her optimistic view of New York farmwomen demonstrated female consciousness of gender-imposed limitations upon lives and work. Sally McMurry also focused on the economic change within the New York farm household and its effect on the lives of women. McMurry documented change resulting from increased milk production similar to that in Ontario. She indicated that before 1885, common complaints from US dairywomen concerning their work paralleled problems consistent with the development of Ontario's dairy process during this transitional phase.<sup>43</sup>

Studies centered on the last chronological period, from 1885 to 1914, often research and analyse dairywomen's market contributions, since dairying rapidly altered and began industrialization from approximately 1885 until World War I. In her socio-economic analysis of women's nineteenth-century, non-wage labour in Ontario, Marjorie Griffin Cohen tracked the patriarchal relations of dairy production. Cohen's work on cheese demonstrated that women were removed from the economic cycle – or, more accurately, cheese-making was removed from the farm – as men increasingly made cheese in an

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<sup>42</sup> "The concept of 'separate spheres' was based on the separation of home and workplace that had accompanied the industrial revolution. Prior to this, production had taken place within the family unit. Farm families, however, retained many of the characteristics of this earlier family economy. Even among quite well-to-do families the labour of women was important in farm work." From: Beth Light and Alison Prentice, eds., *Pioneer and Gentlewomen of British North America, 1713-1867*, (Toronto: New Hogtown Press, 1980), 114.

<sup>43</sup> Sally McMurry, "Women's Work in Agriculture: Divergent Trends in England and America, 1800 to 1930." *Comparative Studies in Society and History*, (1992), 249.

industrial manner. What applied to cheese-making did not apply to butter-making.

Cohen found that due to lack of economic control over their work, historical purse-string theory applied, since dairywomen continued to employ rudimentary technology and produced relatively low yields.<sup>44</sup> Her conclusions are partly true, only the concept of low yields is not applicable in the case of Ontario dairywomen's butter output. The obvious distinction between Cohen's work and this study is based in sources; she used statistics, this work employs objects. While Cohen recognized the participation of dairywomen in butter-making beyond 1900, her acceptance of contemporary descriptions and evaluations of dairywomen's butter product as inferior indicates how an alternate source, such as hand tools, and an understanding of the method and use of those tools, can reveal alternate information about dairywomen's daily work as well as projected stereotypes.

Marjorie Griffin Cohen could have challenged agricultural expert and professor L. B. Arnold when he delivered an 1885 speech entitled "Wife-Killing Arrangements." Arnold reported that only three per cent of Canada's butter was made in creameries (creamery factories), and the rest by struggling farmwomen. Cohen and Arnold concur that dairywomen did not have access to the necessary tools required to keep up with ever-higher milk production and the increased demand for butter, yet at the time of his address Arnold stated that "...50,000 lbs. of butter are produced annually in Canada." Arnold

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<sup>44</sup> Purse-string theory: "The assumption is...that the male farmer controlled capital expenditure on the family farm, even though the dairy work was in the female domain." Marjorie Griffin Cohen, *Women's Work, Markets, and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), 100. Purse-String control can also be described as: "The lack of adequate equipment and/or help can be attributed to dairying's historically insignificant role in the farm operation. It was not considered a major source of income, rather an extra source of cash and therefore often the last to get necessary capital investments. For example, although cream separators were available in the 1880s, they were not a common feature of Ontario farms for many years after." This was due to male control over farm finances, and the lack of investment into female-dominated work. From: Sue Bennett and Lynn Campbell, *Rural Women, Labour and Leisure, 1830s-1980s* (Ontario Agriculture Museum, unpublished, 1986), 29, 31.



also explained that butter “is chiefly made on farms from milk of small dairies, the work being mostly done by hand labour and by the woman folks.”<sup>45</sup> Cohen’s assertion of Ontario farmwomen’s removal from dairying mainly reinforces the strength and effectiveness of altered contemporary perceptions regarding restricted feminine dairy roles rather than confirming the disappearance of farmwomen from dairy work.

While Marjorie Griffin Cohen’s, *Women’s Work*, inspired the present thesis, her view of dairywomen as cheese-makers, through an economic lens, omitted the study of the actual and practical work of these women. The process and product, tools and work, along with people’s perceptions of them, as opposed to the quantification of butter exports and census data, offers a different perspective on the social history of these women who left few records. While farmwomen’s role within the dairy process diminished over time, the continued presence of Ontario farmwomen in butter-making indicates they were not simply removed from the productive process of which they had so long been a part.

A summary of the relevant historiography indicates that regardless of the era, studies emphasizing the importance of economic, gender, and, technological factors in terms of dairywomen’s work readily seek to answer similar questions. Historians agree there was a change in Ontario dairying during this period, and contemporaries perceived that the nature of the work had altered. “Research on all of the countries,” Sally Shortall stated, “note the difficulties of dating the changed nature and gender of dairying.”<sup>46</sup> This

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<sup>45</sup> Prof. L. B. Arnold, “Wife-Killing Arrangements,” *The Farmer’s Advocate* (June 1885), 165.

<sup>46</sup> Sally Shortall, *Women and Farming, Property and Power* (New York: St. Martin’s Press, 1999), 73.

question of applying a chronological framework to this gendered shift remains a challenge facing all historians of dairywomen. In fact, over the century, Ontario dairywomen produced ever more butter and remained within their traditionally-gendered dairy chores, especially cream-separating and butter-making, which is perhaps why this question remains unanswered. This study demonstrates how dairying and its associated work did not so clearly, easily, or cohesively transfer from female to male, from art to business, from hand tools to mechanization, from home to factory, or from family farm to industry.

Historian Sally Shortall stated that “dairying was valued work,” especially between the War of 1812 and the 1880s, but once the perception of the significance of dairying altered, the gendered division of labour changed.

The state played a key role in promoting dairying as men’s work. It stressed an important change in the nature of dairying: it became a ‘scientific’ occupation and therefore more worthy of the attention of serious farmers than it had been before. Women’s dairying, on the other hand, was presented as an instinctive sort of process.<sup>47</sup>

Historians have acknowledged this lack of scientific application in early Ontario farmwomen’s dairying, but have also recognized dairywomen’s pre-industrial work. Male scientific and technological authorities of the day considered instinctual and feminine attributes inappropriate for the dairy industry. ‘Natural’ alteration to traditional work implicitly excluded women from the industrial process based on gender. Ontario agriculture was projected as scientific and male and therefore in opposition to and superior to traditional dairying ways. Sally Shortall indicated that dairying “was one area

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<sup>47</sup> Shortall, 81.

of work where women did receive recognition, status, income, and a certain degree of power. It was unusual in many respects, and to move or be moved out of this field had particular significance for women.”<sup>48</sup> Understanding why this push for removal of dairywomen from their traditional work existed in Ontario indicates broader trends, one of which was a significant devaluation of farmwomen’s labour.

Throughout the nineteenth and into the early-twentieth century, the already-existing concept of a division of agricultural work along gender lines was generally accepted in Ontario. The concept of separate spheres, wherein women and men worked at independent, yet often complementary, productive tasks actually eased the removal of women from certain dairy roles. Historians often view gender and prescribed social norms as linked. Historians Janet Guildford and Suzanne Morton looked at nineteenth-century Maritime women’s history, and they suggested why separate spheres as an analytical concept is so necessary for this study. They elaborated that “paradoxes within separate spheres ideology and tensions generated by its use as a prescriptive ideal, a hegemonic doctrine and an historiographic debate can only be understood by looking at the lives of actual women.”<sup>49</sup> They also asserted separate spheres confined farmwomen to the home or domestic areas, cutting across lines of race, class, and age, constraining and oppressing women, making this concept especially useful for understanding these

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<sup>48</sup> Shortall, “In and Out,” 248.

<sup>49</sup> Janet Guildford and Suzanne Morton, eds., *Separate Spheres, Women’s Work in the nineteenth-century Maritimes* (Fredericton: Acadiensis House, 1994), 20.

dairywomen from Ontario's past.<sup>50</sup> Sally Shortall additionally noted that Victorian attitudes of gender ideology "seeped into farmyards and farm households" and affected women's roles, thereby restricting their sphere of work and influence. Shortall also linked the increased significance of dairying with economic growth, which consequently "affected the gendered division of labour."<sup>51</sup> This already-existing understanding of separate spheres, or the division of work by gender, affected agricultural knowledge; it partitioned men and women, allowing for the ideological elevation of one over another, especially regarding the development and improvement of the dairy sector.<sup>52</sup>

Shifting from discussions surrounding dairywomen, this third section briefly introduces the purpose of the individual chapters and details the overall organization of the dissertation. The purpose and main question of each chapter is linked it to the overall research question. A description of the focus of each of the chapters will address specific thematic trends, indicating the progressive devaluation and defeminization of Ontario dairying. These overarching trends are presented through gendered discussions of: Ontario dairywomen and their lives and work; the method, process, and tools of butter-making; the introduction of scientific method and technology onto the family farm and its link to devaluation; the development of dairy education and its relationship both to

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<sup>50</sup> Morton acknowledged some farmwomen's own manipulations of the concepts of separate spheres, demanding justice and protection based on respectability and rooted in domesticity. Overwhelmingly, however, she indicated separate spheres constrained women.

<sup>51</sup> Shortall, *Women and Farming*, 72.

<sup>52</sup> Historian Rusty Bitterman indicates that Prince Edward Island's poor, rural women did not experience separate spheres. For his view see: Rusty Bitterman, "Women and the Escheat Movement: The Politics of Everyday Life on Prince Edward Island," Janet Guildford and Suzanne Morton eds., *Separate Spheres: Women's Worlds in the 19-Century Maritimes* (Fredericton: Acadiensis Press, 1994), 23-38.



industrialization and defeminization; and the changed perceptions of and toward dairywomen as recast to sell dairy technologies, which remained inaccessible to them. Clearly, Ontario dairywomen witnessed great change – although not necessarily in relation to female work – to developing agriculture and their own lives between 1813 and 1914.

Chapter Two, “Dairywomen: Their Own History,” details the lives and work of specific Ontario farmwomen: Lamira Dow Billings and her daughters Sabra and Sally Billings. While these farmwomen exemplify outstanding achievements in dairying, the Billings women’s access to tools and methods was little different from other women labouring at dairying in the province. Lamira Billings controlled dairying on her farm from her arrival in 1813, until relinquishing the more physical labour to two of her daughters, Sabra and Sally, in the early 1850s. Day to day and year to year, Ontario dairywomen continually and persistently milked, churned, salted, and stored their dairy product, just as the women in this study, such as Eliza Jones and the Billings women, illustrate.

Chapter Three, “Butter & Technology,” highlights dairywomen’s quotidian, and as historian Joan Jensen expressed it, “ubiquitous,” work and tools while describing and analysing the arduous process of hand butter-making and its technologies. The purpose is to indicate through one of dairywomen’s most time-consuming and labour-intensive chores just how little change occurred in their dairy worlds, despite massive and rapid change to dairying in general. Joan Jensen presented the methodological problem of rural

women as undocumented workers twenty years ago.<sup>53</sup> She also clarified her method of analyzing and discussing women's dairy work through their tools. Here, process and tools illustrate physical labour rather than economic production or consumption alone.

Chapter Four, "Scientific Dairying," deals with the devaluation of traditional knowledge, in favour of scientific or authoritative voices, and introduces the fourth dairywoman who chronologically structures this dissertation – Laura Rose. Progressive scientific ideology emphasized dairy mechanization and industrialization and thereby altered popular perceptions of dairywomen's work between 1813 and 1914. Deborah Valenze noted this common and visible trend in her British study – also apparent within Ontario's dairying – referring to "the farmer's wife in her dairy." Valenze stated how, "a cursory look at the eighteenth and nineteenth centuries reveals startling contrasts: why were female workers praised for their industriousness in the eighteenth century, but a century later, damned or pitied?"<sup>54</sup> The patriarchal and paternal state systematically perpetrated a similarly startling damnation and pity towards female dairy workers in the province. This form of attack indicated a devaluation of unmechanized work, unscientific practice and product, essentially targeting women's work. Defeminization of the dairy process seemed necessary to effect agricultural industrialization as a means of progress. A transition in the estimation and appraisal of traditional wisdom was the basis for a platform of systematic devaluation of Ontario dairywomen's work and their character.

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<sup>53</sup> Joan M. Jensen, "Butter-making and Economic Development in Mid-Atlantic America from 1750 to 1850," *Signs: Journal of Women in Culture and Society* 13, 4(1988), 813. Note: Joan Jensen studies butter-making in the Philadelphia hinterland from 1750 to 1850.

<sup>54</sup> Deborah Valenze, *The First Industrial Woman* (New York: Oxford University Press, 1995), 3.

Chapter Five, “Butter-Making Debates,” shifts from discussion of the general tenets surrounding scientific agriculture to specific butter-making dialogue from the period and its effects upon female labour. A negative atmosphere of blame and reluctance surrounded the progressive development of butter methods and technologies during the nineteenth and early-twentieth centuries. What debates and changes most concerned those in authority and those labouring in dairying? Although farmwomen continually made butter on provincial farms, the concerns of male scientific experts and male agricultural authorities constantly superceded those of female producers. Analysis of what agricultural experts, official government policy, and farmwomen discussed, reveals diametrically opposed progressive hopes for an Ontario dairy industry while dairywomen unscientifically toiled on the family farm. Consequently, the burden of female dairy work greatly increased without appropriate parallel changes to labour-saving methods, knowledge, or tools.

Chapter Six, “Educating Dairywomen,” discusses the control of authoritative “experts” over agricultural education, and its male-oriented development in Ontario, which was ultimately based upon an American model. Since knowledge and the perceived lack of it among dairywomen was an obstacle to agricultural improvement, and as they held productive control over dairy processes, the state considered agricultural education as key to removing women from dairy work and essential to Ontario’s agrarian progress. This education standard highlighted policy, development, curriculum, and gender inequities. The chapter emphasizes the considerable state involvement in developing dairying as an industry, while it reinforced the newly-assigned male nature of

agriculture, reflected in provincial dairy education. Until the 1870s, there was no formal state-run agricultural education in the province, at least not until dairying was strongly linked with science and technology, profit and industry. Historians have noted the importance of “government efforts” for “educational promotion” amongst male farmers.<sup>55</sup> Once introduced in the province, dairy education institutionalized the gap between empirical and scientific knowledge and male and female authority over dairying. Even with the availability of new technologies, new tools required new skills. Science, machinery, and even new agricultural education became associated with the dominant, ideological, male agricultural domain. Prevailing negative perceptions toward traditional dairying helped devalue associated, female knowledge for its lack of method, process, and control over product output. The division between denigrated empirical female knowledge and legitimized scientific male knowledge increased through institutionalized learning in the province.

Chapter Seven, “Dairy Pin-Up Girls: Milkmaids & Dairyqueens,” combines all the topics of the previous chapters: women, work, tools, and perceptions. The exploration of these themes indicates a pervasive and effective devaluation of female dairy work. Analyses of dairywomen’s discussions from contemporary agricultural journals, as well as dairy advertisements and tools, indicate the ultimate transition for these women was from dairy labourer to dairy icon as their work was hidden and pushed aside in order for the new scientific agriculture to take hold. Change and transition forged ahead and, “while many women continued...their involvement in dairying in Canada, the perception

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<sup>55</sup> Shortall, 254.



of their role had changed completely, to one of mere assistance.”<sup>56</sup> This was a strange and ironic refeminization and regendering of dairywomen’s roles – as idealized Victorian images selling dairy technologies – especially considering dairywomen continued making butter by hand at least until the end of the period studied. By 1914, however, dairywomen’s working and practical knowledge was so discounted by new dairy “experts” that the only visible and supposedly tangible link remaining between women and dairying were images of domestic and dairy bliss. Dairy queens consequently smiled from advertisements for new dairy equipment, which most Ontario farmwomen would never have the opportunity to use.

From the settlement to the scientific period, numerous alterations in dairywomen’s work occurred, especially characterized by an increase in the physicality and time-consuming nature of dairy work and a stagnation of technology in the family dairy. Dairywomen laboured and endured continual male devaluation of their work and product. A dearth of adequate tools meant farmwomen made more and more butter but continued to use the same unmechanized apparatus – similar or perhaps slightly modified versions of their mother’s and grandmother’s tools. Some dairywomen certainly bought personal items with butter profits, like the Billings who purchased black silk for dresses. Without the on-farm decision-making power or ability to provide themselves with better dairy tools, farmwomen’s compromised butter quality reinforced the devaluation of Ontario dairywomen’s work and product, aiding the overall perception of defeminization for the burgeoning industry.

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<sup>56</sup> Shortall, “In and Out,” 254.

From 1813 to 1914, a dynamic period of male agricultural and technological alteration affected female work but Ontario farmwomen maintained their traditionally-gendered roles within the dairy production process on the family farm. Despite some improvement in skill, techniques, and methods by dairywomen – achieved by blending empirical and new authoritative knowledge – they would be increasingly hard-pressed to maintain adequately high butter output while retaining flavour and quality in a progressive and industrializing province, particularly with the introduction of creameries in the 1870s. Two unanticipated situations developed in Ontario dairying, which prevented the complete industrialization of the dairy processes. Reluctance surrounding scientific and technological change meant mechanization did not occur to butter-making and women remained as primary producers; without the mechanization of tools, butter-making labour was not redefined as male and subsequently remained within the female sphere. Left without technological expertise, or access to agricultural education, and lacking new skills later required for government standardization of butter-making, dairywomen were continually and systematically denied a role in the province's developing dairy industry. Patriarchal authority devalued dairywomen, despite their traditionally-gendered association with these farm chores and their actual participation in that work. Their function within the dairy process persisted yet was devalued in the name of development and progress for Ontario agriculture.

The full relation of this historical narrative, along with the social and technological history of this province's dairywomen, must begin with a detailed study of the principal

characters in the dairy process, the women; my study therefore opens in 1813 with the arrival of Lamira Dow Billings to Gloucester Township, Ontario.

## **Chapter Two**

### **Dairywomen: Their Own History**

Lamira Dow Billings arrived at her new home not far from Bytown, Upper Canada, in late October 1813. The crude shanty and dense surrounding brush along the Rideau River that greeted her was disillusioning for the 17-year-old, newly-married girl. Her resolve, however, was apparent from the outset. "... And then we began the world," she wrote in her diary.<sup>1</sup> Lamira echoed the sentiments of other Canadian pioneers considering their early circumstances. With her husband, Braddish Billings, Lamira was the first female, Euro-Canadian settler in the Gloucester Township area. After beginning their world, Lamira sat down and cursorily wrote of their precarious honeymoon travel up the river. She also listed the disappointing and dilapidated assembly of hand-made tools she was expected to employ in looking after herself, Braddish, thirteen workmen, a fourteen-year-old boy, and a cow. From her on-going efforts, and her written sources, it is clear Lamira worked incredibly hard with access to few and limited tools. During her life of dairy work she gave birth to nine children, seven of whom survived, and five who stayed near the homestead along the river. Lamira expanded the family dairy herd from one cow in 1813 to 56 cows by 1850. In those 38 or more years, she produced thousands of pounds of cheese and butter each year, while continually employing her own hand-power and hand-made tools in the dairy and caring for an increasingly-large family. Hard-working, busy, and intelligent, Lamira constantly toiled to improve her own life and especially the lives of her children. Lamira Billings's writings provide invaluable insight

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<sup>1</sup> Written by Lamira in descriptive, letter form as a reminiscence in her diary a few months after her arrival. (COA BEC MG2-11-2).



into of nineteenth-century and early-twentieth-century century Ontario dairywomen's tools and work.

The farmwomen who dairied in Ontario during the one-hundred years discussed, define the parameters of this study. While details of the dairy process, such as butter-making, are the focus of other chapters, this chapter illustrates the first steps required for butter – cream-separating – and the changes to this chore's methods and tools from 1813 to about 1885. This analysis is comprised of two sections, one for each time period – settlement and transitional – and is illustrated particularly by the Billings women: Lamira, and her daughters, Sabra and Sally. These sections narratively and historically outline the lives and dairy work of these women, in conjunction with other contemporary farmwomen's dairy descriptions. Although the emphasis here is on what work occupied dairywomen with cream separating, it is also important to outline not only who the particular women were but also what work and tools typified their days. Lamira represents the basis for dairy practice, tools, and work, while Sabra and Sally reflect the transitions in method and knowledge characteristic at mid-century. Unlike many Ontario farmwomen, they came from relatively comfortable circumstances, and benefited from higher-than-average levels of education. Thus, each woman left written records allowing for historical study. Despite their relative affluence, their dairy tools dictated and limited the chores Lamira and her daughters completed – the same tools their fellow dairywomen used. The Billings women, reflecting upon their choices and deeds, were all progressive, especially in terms of agricultural direction, even if they would not have characterized themselves in this manner. Each witnessed and experienced a lack of mechanization

within their home dairy work spheres. Lamira's and Sabra and Sally's contributions, work, and tools, however, remain representative of Ontario dairywoman's daily work. The work of these and other contemporary dairywomen illustrates that technological changes occurred in the industry during this period but that dairywomen did not necessarily share in the introduction of labour-saving devices. The continued toil of this isolated sisterhood of dairywomen cut across social and economic divisions and united farmwomen through production.

Lamira Dow Billings' dairy chores set the basis for our understanding of dairy work in Ontario during the century under discussion. Within her traditionally-gendered labour, Lamira used conventional dairy hand-tools, and the same basic principles, methods, and objects of the dairy process as women had for hundreds of years – employing gravity separation, open vessels for cream separating, hand-milking and milk processing, among other traditional chores. What differences, if any, did Sabra and Sally, and their contemporaries' experience in their dairy work as compared to Lamira? Obstacles the settlement-era farmwife faced remained present throughout the periods discussed. More milk equaled more work, and the rising milk production trend was steady in Ontario agriculture throughout the century.<sup>2</sup> Dairy

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<sup>2</sup> "The first record of total butter made in Canada was for the year 1871 when the farm butter, which was the only kind, amounted to 74,190,000 pounds. In 10 years it had increased to more than 100 million pounds, and in another 10 years it increased about 10 million pounds more. In 1901 the record for creamery butter first appeared and the quantity made was 36,000,000 pounds, which added to the farm butter made the total of butter, 141,410,000 pounds." From: T. R. Pirtle, *History of the Dairy Industry* (Illinois: Mojonier Brothers Limited, 1973), 194. "By 1891 111.6 million pounds of butter and 6.3 million pounds of cheese were home produced in Canada..." From: Prentice, *et al.*, "Chapter 5: Continuity and Change in Women's Work," *Canadian Women: A History Second ed.* (Toronto: Harcourt Brace and Company), 123.

work was challenging for farmwomen, and became increasingly so, considering most persisted without machinery or general improvements to ease their labour.

The concept of “sisters” is applied throughout this thesis, as dairywomen collectively endured difficult working circumstances and utilized crude tools while completing difficult physical labour. Sharing a commonality of work historically bound dairywomen together throughout this period. As well, their sisterhood extended through their work, to their common tools used throughout the century. Intertwined in the symbolic sorority of isolated pioneer women, it is not surprising that Lamira Billings’ experience was similar to other settlement-era farmwomen. After mid-century, Sabra and Sally Billings, two of Lamira’s daughters, worked as partners on their family dairy farm, employing a number of local women.<sup>3</sup> Generally, the Ontario dairywoman had settled in or was from a rural area of the province. She could be anywhere from the age of five to 85. Most often, she was white and English-speaking, and considered herself a Christian in some form. A dairywoman by definition worked at this particular agricultural labour but could variously be any woman working on the family farm or employed both as a milkmaid or domestic worker in all associated chores or simply at one aspect of this labour. Dairy work was comprised of many related jobs and this work would have occupied much of dairywomen’s days. An understanding of the steps in each chore, of the tools associated with each task, and how those tools worked and subsequently impacted dairy labour offers much to the researcher. Regardless of the era, women

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<sup>3</sup> A Billings household account book contains a list of well over a dozen names of various women and the wages they received. (COA BEC MG2-2-5).

worked at the same chores and used the same tools, even though over time their workload considerably increased.

The words of Susanna Moodie and Catherine Parr Traill have resonance for those seeking to understand the lives of women settling in Ontario. Alternate sources, such as the Billings and other pioneer families, well-illustrate the farm family's working life. Even a young girl's words from the 1830s can emphasize the intrinsically traditional nature of dairying during the settlement era. Born January 19, 1823, Eleanora Hallen began her personal, childhood diary while still living in England. This twelve-year-old girl's observations of her new surroundings offer glimpses of female, settlement-era dairy work. By 1836, Eleanora and the Hallen family had settled north of York, near Desoronto, Upper Canada. Eleanora noted in her diary how her family's new neighbours, the Steeles, also recently settled, had begun dairy work, and had arranged their farm work by gender.

May 15 Sat (1836) – Mr. Steele has a very large clearing; it his [sic] a great deal enlarged by what he has done this winter. Mrs. Steele took us into her dairy: there was a great deal of milk which looked very comfortable.<sup>4</sup>

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<sup>4</sup> Caroline Perry, *Eleanora's Diary: The Journals of a Canadian Pioneer Girl* (Toronto: Scholastic, 1994), 162. See also: Barbara Williams, ed., *A Gentlewoman in Upper Canada: The Journals, Letters, and Art of Anne Langton*, (Toronto: University of Toronto Press, 2009).





**Fig. 1) Profile sketch of Eleanora Hallen at age 11, done by her sister Mary.<sup>5</sup>**

Eleanora's childhood observations of the "comfortable" milk implied Mrs. Steele's dairy was tidy and that she could see the fluid milk, likely separating in open, shallow pans.<sup>6</sup> Settlement-era women's work is often difficult to glean from such rare written sources. Since dairy work was unpleasant and assumed as a female responsibility,

those who kept journals rarely wrote of such smelly and difficult labour. On the "very nice morning" of June 15<sup>th</sup>, 1837, however, Eleanora Hallen commented how Sarah, her oldest sibling, worked, and how that effort affected her, "We jenerally [*sic*] have dinner at 12 o'clock. Sarah churned – their [*sic*] is 6 pounds 6 oz very nicce [*sic*] butter indeed..."<sup>7</sup>



**Fig. 2) Image of Sarah Hallen Drinkwater (n.d.).<sup>8</sup>**

Sarah Hallen Drinkwater, Eleanora's older, butter-making sister, mentioned her own dairy objects, as well as her sister-in-law Anna's dairy chores, helping to illustrate dairywomen's butter-making methods and tools. Sarah was 22 years old and recently married when she wrote in her own 1840 diary. She and her husband had taken up

<sup>5</sup> Perry, 11.

<sup>6</sup> Whether Mrs. Steele used terra cotta, earthenware, or wooden pans it is impossible to know but she certainly used shallow containers, as no other cream separating method was applied at this point in the province and Eleanora noted how the milk "looked" indicating she could see it in the open vessels.

<sup>7</sup> Perry, 166.

<sup>8</sup> Perry, 186.

residence on their farm in the fall of that year. A few months later, the busy farmwife sat down to describe her new surroundings.

1840 December 20<sup>th</sup>: Alas! Poor journal, it is now two months since I wrote in you. I shall put down in as brief a way as I can what little events have occurred [*sic*]. We began with nothing but the farm which consists of between 40 and 50 acres cleared, some cows, steers and heifers and oxen, a barn and cattle shed. ...Melted the lard, a milkpan full, two bladders and a little more .... Anna milks and gives us milk and butter – very kind as we have no girl.<sup>9</sup>

Sarah mentioned milk cows and milkpans, as well as gender-specific dairy work and products. Clearly much occupied with farm and domestic work, Sarah referred to the lack of social news to report. Only a few days after the New Year, Sarah wrote again, thankful for generous gifts from her parents who lived close to her new homestead, asserting the dominion of dairy work over farmwomen's working and even leisure hours.

1841 January 4<sup>th</sup>: My father gave me a Pound to buy what I liked; bought three milk pans – a small one, a scrubbing brush and a tin pot. My mother bought me a dear little jug – how kind of them.<sup>10</sup>

Sarah Drinkwater purchased what she needed with the Christmas present of cash from her father, such as the domestic dairy implements she listed. Sarah worked variously during her life in the roles of "daughter, sister, wife, mother, and farm hand."<sup>11</sup> She also kept writing in her journal, sometimes complaining of her lot. On September 6<sup>th</sup>, 1845, Sarah succinctly wrote what many provincial farmwomen likely felt: "feel very

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<sup>9</sup> Sarah Hallen Drinkwater, "Personal Diary, 1840-1879," (PAO F1247-MU840 I-D-# Acc. 6737).

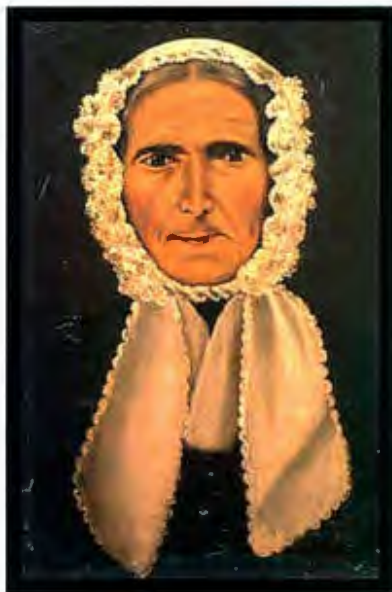
<sup>10</sup> Drinkwater, (Acc. 6737).

<sup>11</sup> Perry, 186.

dull, mine is a miserable life of work, work, though I suppose I should not grumble.”<sup>12</sup>

Lamira Billings was another farmwife faced with such a life of rural labour in pre-1850 Ontario.

Lamira Dow was one of six children of American, Quaker parents. Born at Cambridge, New York in 1796, Lamira and her family moved to Vermont, and then to Merrickville, Upper Canada, after several of her father’s business attempts faltered. Lamira’s father, Samuel Dow, was able to purchase a two-hundred-acre farm a few miles from Merrickville upon their arrival in the area. Orphaned in 1806 at the age of 11, Lamira and her siblings apparently stayed on at Merrickville, since she was working as a schoolmistress when she met her future husband. In October 1813, Braddish and Lamira married at Kitley, not far from Merrickville.<sup>13</sup>



**Fig. 3) Lamira Dow Billings, portrait from approximately 1850s, painted by a family member. COA BEC.**

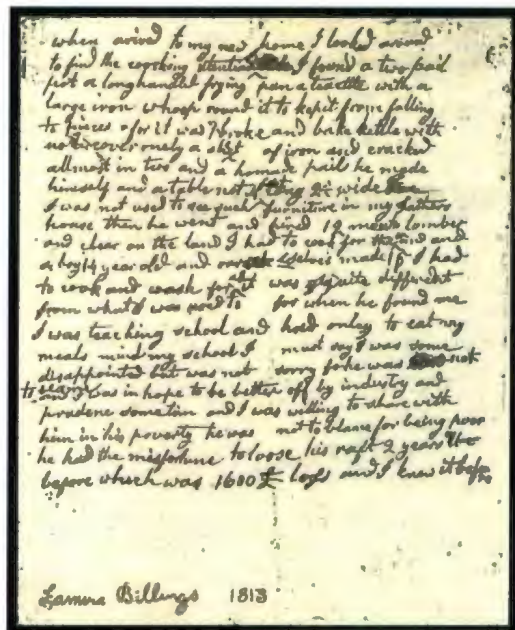
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<sup>12</sup> Perry, 186.

<sup>13</sup> *Reminiscences of Early Settlement*, Rough Note Re: Lamira Billings (COA BEC MG2-11-1 to MG2-11-8).



Immediately upon arrival at her new home in the Canadian bush of Gloucester Township, Lamira set to work employing each one of the objects she described in her diary.



When arived to my new home I looked around to find the cooking intention but I found a two pail pot a long handled frying pan a tea kettle with a large iron whoop round it to kep it from falled to pieces for it was broke and bake kettle with no tin cover onely a sheet of iron and cracked all most in two and a homade pail he made himself and a table not 4 feet long 2 [feet]. I had to cook and wash for all. [sic]<sup>14</sup>

**Fig. 4) Original of Lamira's 1813 letter, describing her arrival and circumstances after marriage. COA BEC MG2-11-2.**

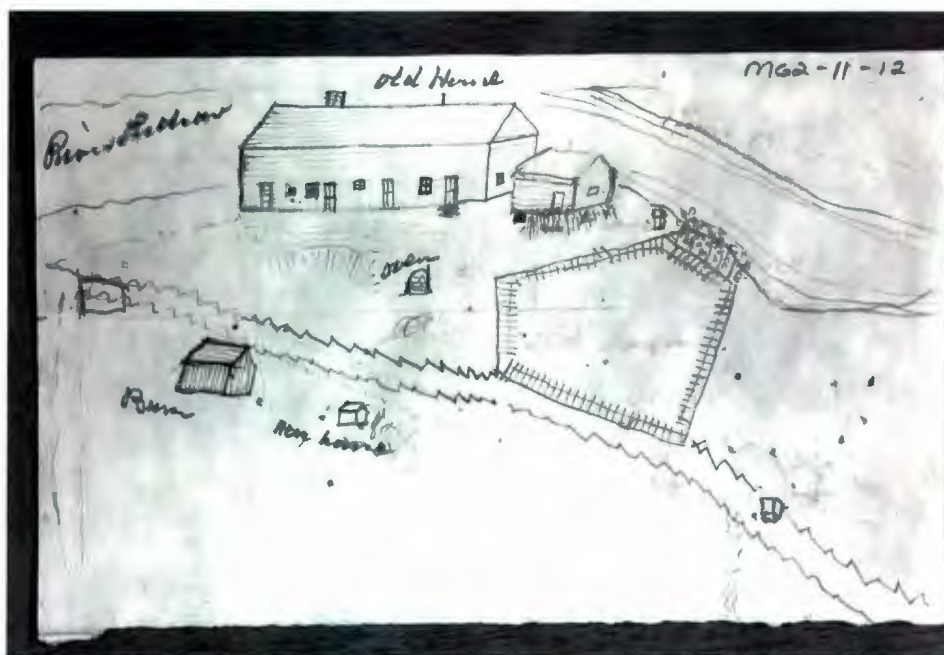
Braddish had been occupied preparing for their new life by clearing land and building a shelter and he possibly had not thought to furnish adequate domestic tools for his wife's labours. From her list we know Lamira's utensils were very few and already extremely worn, made of either readily-available wood or locally-purchased iron. Braddish made the treenware by hand and Lamira, at least, had a rough pail to milk her cow.<sup>15</sup>

Farmwomen during this period did not often use churns to make butter as few were available or had to be hand-made. Water for washing wooden tools and butter itself was

<sup>14</sup> "Lamira's Account of Life in the Ottawa Valley," <http://www.collections.ic.gc.ca/billings/bac/bac-7.htm> (accessed September 19, 2005).

<sup>15</sup> Treenware: Any object wrought from wood, especially referring to domestic utensils.

also scarce and difficult to procure. Most women simply beat, agitated, or whipped the cream in a butter bowl by hand until it became butter granules, both due to a lack of tools and to the difficulty of washing larger implements. Lamira organized, cooked, baked, cleaned, and washed for the numerous people the Billings hired and required to begin their agricultural endeavours.



**Fig. 5) 1827 sketch of the extended original home along the Rideau River. Note the fenced paddocks, outdoor oven, henhouse, and barn on the property existed even before construction began on Park Hill.  
COA BEC MG2-11-12-CA1142 (transcribed RE530-YRA 3000/0387 GLEN).**

At first, Lamira ran the dairy on her own, but eventually her daughters Sabra and Sally carried more of the burden. Still, during these more than 35 years, or one generation, Lamira's dairy workload increased significantly. By 1823, 10 years after her arrival in the area, she was milking and processing the fluid milk from five cows and also tending 10 young calves and heifers. As hand-milking took anywhere from five to ten minutes per animal, with five cows to milk it took Lamira about 25 to 50 minutes, just for



the milking process.<sup>16</sup> Only two years later, according to assessment rolls for 1825 in the area, the Billings' owned seven milk cows. The addition of one cow was enough to greatly increase dairy labour; "even only one or two cows were a heavy workload for farmwomen, both because of the back-breaking conditions under which the labour was performed and because of the multiplicity of additional tasks which were the total responsibility of farmwomen."<sup>17</sup> The addition of just two animals to the herd increased Lamira's milking time from approximately 25 to 70 minutes.

By 1841, Sheriff Treadwell indicated Braddish Billings' family had 17 cows "from which Mrs. Billings made and sold 500 lbs. of butter...."<sup>18</sup> At this point, Lamira Billings was milking eight months of the year and was making all the farm's butter herself by hand.<sup>19</sup> Gravity cream separation, necessary for making butter, took a great deal of time and therefore "preparations for making butter had to begin some seventy-two hours before the actual churning."<sup>20</sup> With so much time needed for separating cream through this method butter-making was clearly an omnipresent chore for such a productive dairywoman. Although increasingly busy with a growing family, farm life, and daily dairy work, Lamira produced more butter every year she

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<sup>16</sup> More specifically, hand-milking times have been approximated to between six-and a half to seven minutes per cow during the nineteenth century. Milking times, however, depend upon many variables, such as: breed, lactation cycle, feed, health, etc. See: Jensen, *Loosening the Bonds* (1986), 96; and, Reaman, *A History of Agriculture in Ontario*, (1970).

<sup>17</sup> Marjorie Griffin Cohen, *Women's Work, Markets, and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), 99.

<sup>18</sup> From: "Sheriff Treadwell's Report," (COA BEC MG2-1-452, 1841).

<sup>19</sup> According to her personal accounts, in 1841, Lamira made 1766 pounds of cheese and 500 pounds of butter herself. (COA BEC, 1841).

<sup>20</sup> Arthur Ingram, *Dairying Bygones* (London: Shire Publications, 1970), 13-22.

churned. Billings' family records indicate she and her daughters worked with shallow pans and without an upright churn until at least the mid-1860s, when the purchase of a churn was listed in farm accounts. Lamira's dairy work dominated daily routines that also included various other domestic duties and seasonal chores. Her alternate work as well as her personal love of reading had to be squeezed-in between numerous cream-separating and butter-making responsibilities to account for her prolific production.



**Fig. 6) Top view of three-legged milking stool from Billings Estate Museum (reproduction) COA BEC SC91.2.4.**



**Fig. 7) Side-on view of milking seat thickness and carrying handle. The splayed legs offered superior stability on wet ground or straw. COA BEC SC91.2.4.**

Although Lamira Billings lacked a specifically scientific grasp of dairy processes, she likely did not consider her butter-making knowledge as guesswork. Similarly with butter-making as with bread-making, women who did not understand yeast and its basic principles could still make bread. Dairywomen knew that

preserved or brined butter could last for up to two years, yet they could not necessarily explain why or how to avoid problems or failures with brining.<sup>21</sup> Additionally, dairywomen who did not know why the temperature of cream affected their butter, recognized through gathered, shared, and practical female knowledge that it needed to be alternately cooled and warmed for the best separating and churning results. The concept of valued dairy knowledge shifted between 1813 and 1914, with the traditional, practical wisdom of female butter producers devalued and dismissed based upon gender. As indicated by the words and works of Lamira Billings, Eleanora Hallen, Sarah Hallen Drinkwater, and Anna Drinkwater, however, pre-1850 dairy work employed basic tools and was within the female sphere on the family farm.

Due to her modest tools and her settler situation, Lamira's daily farm contributions "would have paralleled those of most wives of the early settlers of Upper Canada."<sup>22</sup> Her extensive jobs included:

Growing hops to make their own bread; saving ashes to make lye and soap; making candles, spinning wool, making clothes; responsibility for the dairy, milking, butter-making, cheese making; smoking of hams, salting of pork, keeping the fires going under the potash pots; turning out huge washings; putting down of berries, pickles, fruit; dyeing of wool, making substitute for coffee from dandelion and parched grain, caring of the poultry; providing three meals a day comprising a variety of such fare as green tea, corn meal, fried pork, comb-honey, salted salmon, pound cake, pickled cucumbers, stewed chicken, apple tarts, maple-molasses, pease-pudding, gingerbread,

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<sup>21</sup> "...and brine having been poured over it to a depth of two inches, the cover was pressed down tightly over a white cloth. So packed, the butter would keep for two years." E.G. Guillet, *Pioneer Arts and Crafts* (Toronto: University of Toronto Press, 1968), 10.

<sup>22</sup> Caroline Pollock, *The Billings Family: A Brief History of Their Land Use and Farming Operations Between 1812 and 1975* (COA BEC, unpublished, 1995), 4.



sour-kraut, roast lamb, mutton, apple sauce, pies, pudding and preserves in abundance.<sup>23</sup>

While dairying comprised only part of Lamira's list and seems casually included amongst other seasonal and sporadic chores, this work truly structured dairywomen's days. Nearly all of the information Lamira provided tells us her work was specifically related to feeding and clothing those under her care – workers and family – defined as domestic and female duties. Her chores meant multi-tasking with each job and each step required specific tools. Lamira's arsenal of dairy objects and technical knowledge grew vastly between 1813 and the early 1850s. Her dairy implements included at first only a cow and a pail. By the 1820s she had: a milking stool; wooden bucket; shallow setting pans and perhaps cream-setting shelves; skimmer; ladle; butter paddle; butter spoon; butter mould; butter stamp. By the 1860s, she had a butter churn – fifty years into her working life. Her objects were made from limited available materials, such as, terra-cotta – or redware as it was called in Upper Canada – earthenware, bone, and by the 1840s, some tinware, but predominantly wood. Busy with familiar routines employing crude tools, Lamira's days were always full.



**Fig. 8) Billings family wooden butter spoon/ladle.  
COA BEC 78.8.356.**



**Fig. 9) Alternate view of butter spoon.  
COA BEC 78.8.356.**

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<sup>23</sup> Pollock, 4.

To understand the transitional nature of the Billings sisters' society and work, it is necessary to look at the farming transitions on their family farm. In 1813, Braddish and Lamira married and settled with their only cow along the Rideau River. By 1821 they had built a barn, and by 1823 they had five cows and 10 young cattle to house in it. In 1827, the Billings' ceased lumbering operations and basic mixed-agriculture and took up a more crop-intensive and animal-centered type of mixed agriculture. In 1828, Braddish solidified this decision by building a new home for his family of nine, a barn, and a milkhouse for his wife's growing cheese and butter production. Although Braddish and Lamira had expanded their dairy herd to 56 milking cows by 1851, the focus of the farm was still not dairy. As long as Braddish lived, the Billings kept sheep and beef animals and intended to clear more land.

Throughout the settlement period, in terms of dairy chores and with numerous other domestic tasks interspersed, Lamira's day would have unfolded roughly in this order: milk the cows; scald the fresh cream; set out the cream; skim the already risen cream; contain the skimmed milk or feed it to the animals; store fresh cream for souring/ripening; churn ripened cream into butter; scrape out the butter bowl; wash, salt, and work the butter with butter spoons and paddles; form and press or print; pack and/or package butter for market or home use; and finally, scald and scour the bucket, milk pans, butter bowl, spoons, and paddles, and then leave them to dry before storing them for the next day. Lamira's chores required a nearly inconceivable amount of work. Her specific cream-separating goal was to extract the fluid milk from the cows and then separate the cream from the milk. The cream was then ripened for anywhere from 12 to 48 hours (24



to 40 hours was recommended at the time) and used to hand-make butter. Although her routine would likely have changed very little, there was no way for the dairywoman to predict day-to-day how long it would take to complete the tasks. Over time, as Lamira milked more and more cows, and those cows became more and more productive, these chores demanded greater amounts of time and effort. Each of these individual steps could take anywhere from 20 minutes to two hours. The productivity and temperament of the cows, the weather, humidity, and obviously the effectiveness of the dairywoman, as well as the quality and usefulness of her tools, all dictated both how productive and laborious was her day.

The cream-separating process began with milking the cows and therefore Lamira's workday began early and was followed by an exceedingly busy and toilsome day and night. A dairywoman rose between four and seven in the morning while the rest of the family slept. Her milkings occurred twice each day - in morning and evening - and may have been timed with the sunrise, which obviously would have altered her routine through the seasons. Once appropriately dressed for the weather in skirt and bonnet, she stoked or started the fire as necessary in the house before heading out of doors. With pail and stool she would proceed to the cows, at first under a lean-to and later either in the barn or the field. Milking season was dependent upon numerous variables, such as, the breeding and lactation schedules of the cows, oftentimes the amount of feed left for winter, and particularly the weather. Lamira herself normally began milking in April or

May, once the ground was dry enough to pasture the cows, and finished in October or November, stabling the cows for the winter while they dried-off.<sup>24</sup>



**Fig. 10) Wooden Butter Bowl, circa 1859.  
UCV 1958.1859.**



**Fig. 11) Two clay, redware, cream-setting  
or milk pans. (underside view) UCV  
60.7420.1; (interior view)  
UCV 60.7420.2.**

To milk, Lamira crouched on a low, hand-made wooden stool. She would swing her rough pail under the full udder of the cow. If the cow co-operated and did not kick over the bucket, she would lift her pail when finished (after about ten to fifteen minutes) and drain it into a larger vessel, straining the milk as she poured through a home-made wire mesh or cheesecloth. Once Lamira completed milking and straining she did what was considered a necessary step at the time for perfect cream separation; she boiled and scalded her milk over an open fire in her kitchen. According to contemporary dairy wisdom, scalding milk improved flavour and allowed the finished butter product to last longer. When the scalded milk cooled, she poured it into wide, shallow dishes, called setting or milk pans. Once poured into the heavy wooden, and later redware pans, she

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<sup>24</sup> All of these dairy chores were daily, and the cows needed to be milked twice each day, except for the 3-4 months of the winter during Lamira's dairying years, when most cows went "dry" or were pregnant, and then calved in the spring.

carefully balanced the pan, and set each one out in a cool, dark place to allow the cream to rise naturally.



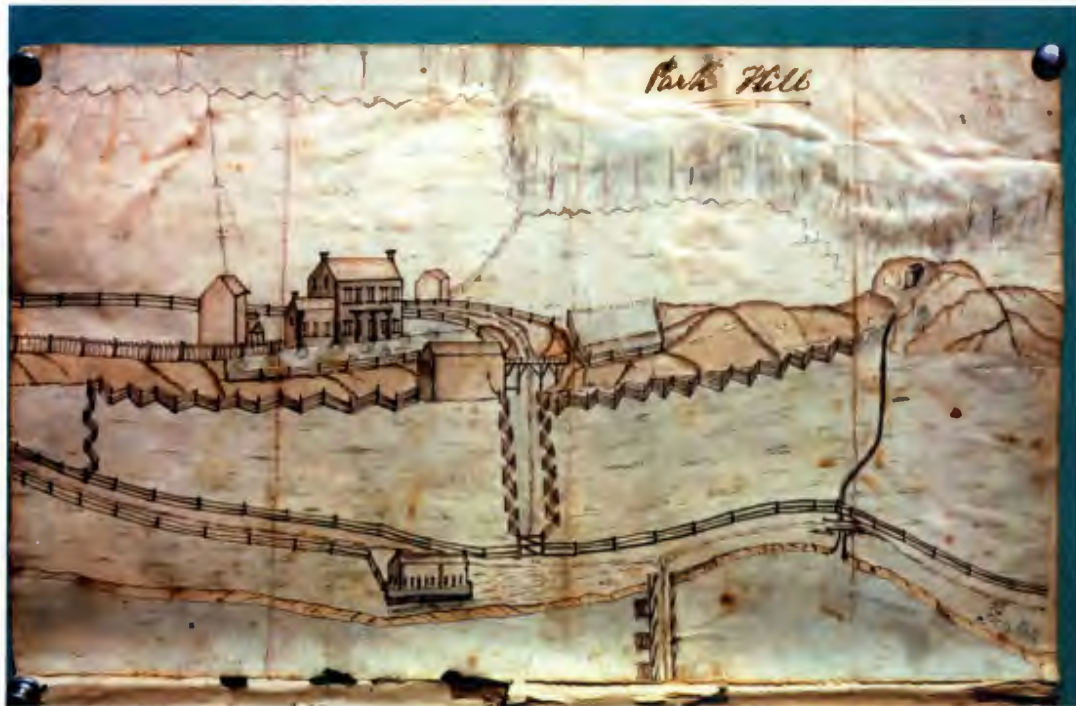
**Fig. 12) Tin cream skimmer.  
OTHS unnumbered.**



**Fig. 13) Wooden cream skimmer.  
UCV 95.1.337.**

Once the cream rose to the top, anywhere from 12 to 36 hours later, Lamira Billings skimmed the cream from the milk, using at first a pierced-wood ladle and later a pierced-tin cream skimmer. Some farmwomen would have made-do with a flat piece of wood or a shallow unperforated dish, but that amounted to milk and cream wastage. Lamira would gently lift a crusty edge of the risen cream from the pan, and shallowly slide her tool under and across the surface of the milk. Lamira then dumped the cream directly into another vessel (milk bucket, milk pan, or crock) to let it ripen or sour for churning anywhere from 12 to 24 hours. Until 1828, when the Billings built a milkhouse along with their new home, Lamira made-do as many other settler women did, and placed her pans of cream in the root cellar of the farmhouse. Despite improvement to her situation, she continued to use shallow-setting pans for the cream separation process throughout her productive dairy years.





**Fig. 14) Pen and ink drawing of Park Hill. COA BEC CA0357. “Sally, daughter of Braddish and Lamira, drew this picture of the family’s home probably in the 1830s. The large pastures, fenced fields and barns indicate the extent of the Billings farm. In the foreground can be seen their former house along the river’s edge and the first bridge. Braddish’s sawmill, located in the upper right of the picture, produced sawn lumber for the areas settlers.”<sup>25</sup>**

Based upon dairywomen’s writings and an understanding of traditional work and tools, cream separated in shallow pans on open shelves for one to four days. Crocks of souring cream ripened for churning in about two days. This constant revolution of setting pans and souring cream made the organization of milkings essential to avoid waste, and also made the smell in the kitchen cellar or milkhouse nearly unbearable especially in summer. After milking, scalding, straining, and setting her fresh milk, Lamira’s dairy work was far from over. The dairywoman always had different milk in different phases of separation and ripening. Cream was never to be wasted, but hot weather, freezing

<sup>25</sup> “Note the numerous improvements to the farm and buildings, as well as the move uphill and away from the river.” From: BEC Museum Curator display, September 2008.

temperatures, and spillage from buckets and pans was frequent. After she processed the new milk, and carefully placed the setting dishes out, the dairywoman checked pans and ripening crocks from earlier milkings. She tested the cream in her numerous setting pans by looking at the edges of the milk, touching the top of the risen cream to tell if it had hardened, and smelling the liquid to ensure it was still fresh. She judged the readiness of her cream without benefit of any tools but her senses, her practical knowledge, and experience. If cream had set on some pans, she would skim and store it for ripening. Skimmings could be stored in fresh earthenware crocks but oftentimes were dumped in with already-ripening but still un-soured cream. Once Lamira had enough sour cream to fill a butter-bowl, she hand-dashed it into butter using only her upper-body strength and a wooden ladle. In spite of the crude, hand-made dairy tools that most farmwomen worked, the inadequate conditions in which they worked with, and the limited use of their own hand-power, many succeeded at dairying.

During Lamira's settlement period, scientific principles were relatively unknown to the provincial farmwife. In 1834, an early article specifically for dairywomen advocated that:

The quantity of salt to be used on this occasion is about a table spoonful to each gallon of milk, and is generally sprinkled on the bottom of the pan, and the milk poured upon the salt, and they soon become incorporated. To this small portion of salt various effects are attributed by those who use it; they say it prevents the milk from souring even in the hottest nights.<sup>26</sup>

These "various effects" of the addition of salt to fresh milk were loosely suggested to aid separation. The well-known Susanna Moodie, who settled only a few hundred kilometers

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<sup>26</sup> "To Dairy women," *The Farmer's Advocate* I, 4(July 14, 1834), 1.



from Lamira, admired the “excellent practical abilities” of Canadian women and herself learned to “practice all the menial employments which are necessary to a good settler’s wife.”<sup>27</sup> Journalist and biographer of the Strickland sisters, Charlotte Gray, described Moodie’s lack of preparedness for settlement hardships: “She knew nothing useful for hew new life; she was afraid of cows, and had no clue how to bake bread or wash clothes,” suggesting some of the most common of farmwomen’s chores.<sup>28</sup> Moodie’s sister, Catharine Parr Traill wrote in the 1830s of the differences in dairying among settlers from “Irish and Scotch methods” of “churning the *milk*” to the English preference, as well as her own, for “butter churned from cream.”<sup>29</sup> Lamira Billings was an excellent example of the characteristics Moodie revered and the chores Parr Traill discussed.<sup>30</sup> Lamira was widely considered unfailingly practical, hard working, a prolific butter-maker, and was undoubtedly an excellent choice as a settler’s wife.

All of the seven surviving Billings children gained the benefit of Braddish and Lamira’s combined, industrious, pioneer energy and improvements. Charles Billings described his mother in his memoirs:

In her physical appearance – she was not tall as the medium height of women but very muscular but what she lost in height she more than gained in size otherwise

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<sup>27</sup> Alison Prentice, *et al.*, “Carders of Wool, Drawers of Water; Women’s Work in British North America,” *Canadian Women: A History* (Toronto: Harcourt Brace, 1996), 84.

<sup>28</sup> Susanna Moodie, *Roughing it in the Bush; or, Life in Canada* (Toronto: Penguin Canada, 2006), xvii.

<sup>29</sup> Catharine Parr Traill, *The Backwoods of Canada* (Toronto: Penguin Canada, 2006), 138.

<sup>30</sup> The attitudes and experiences of the Strickland sisters have been well documented and noted. Moodie and Parr Traill have been so popularly used in Canadian women’s history that they were mentioned without much elaboration here in a deliberate manner. The use of women’s words and work, other than Moodie and Parr Traill’s, demonstrates the ability to broaden study of Ontario rural women’s history through available, alternate, primary sources.

her weight was about 200 lbs her eyes were dark and her hair not black but partly between black and auburn – her complexion was clear and her cheeks a beautiful red her temperament was more inclined to be sympathetic – she was remarkably active in all her movements and her powers of endurance wonderful she was industrious and persevering in all she undertook her tastes were refined and her intellectual faculties of high order.<sup>31</sup> [sic]



**Fig. 15) Lamira Billings in 1875,  
just four years before her death.  
COA BEC CA-396.**

While all the Billings children were  
born during the settlement period,  
they grew up and lived in a  
transitional and more mature society,  
in contrast to their mother and  
father's difficult pioneering era.  
Greatly attributable to the toil of  
Sabra and Sally Billings during the

transitional period from 1850 to about 1885, dairying grew on the Billings estate and the affluence of the farm itself was commensurate. Sabra, the eldest, was extremely close with her father. Sally was a much younger and quieter daughter. Aside from their personal relationship, Sabra and Sally conducted business together and shared legal property ownership for most of their adult lives. Between 1841 and 1870, dairy production on the Billings farm peaked when the sisters began production alongside their mother (and then declined until the 1890s), attesting to their combined agricultural efforts and abilities.

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<sup>31</sup> Transcribed from Lamira's son, Charles Billings' 1877 memoir, Billings Family and Estate *Fonds*, (COA BEC MG-1).



**Fig. 16) Daguerreotype of Sabra Billings (n.d.). COA BEC MG2-22-134-16346.**

Sabra Billings was born March 30<sup>th</sup>, 1815. As the first child to the first settlers of Gloucester Township she was recognized as the first Euro-Canadian born in the area, or the “first soul” as noted in local records and the family Bible. As the eldest of the Billings children, Sabra’s duties

were important for family production. Consequently, her “work on the family farm included supervising the dairy operations, making cloth and selling cheese, butter and fruit at the market in Bytown.”<sup>32</sup> This contribution likely began as early as age 14 or 15, once her formal schooling was finished. According to Lamira’s own writings, Sabra and her sisters could all read, write and “figure” well.

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<sup>32</sup> Kathy Seaver, *History of the Billings Family*, (COA BEC MG2-11-2), 39-40.





**Fig. 17) Sabra Billings. COA BEC 22D88-MG162-8-958/25-16016.**



**Fig. 18) Sally Billings. COA BEC 16T82-CA2289.**

Sally was born October 28, 1822.

Seven and a half years Sabra's junior, she was the more home-minded of the two.

Consequently, Sally continued to live at Park Hill with her deaf and increasingly senile mother from her father Braddish's death in 1864 until Lamira's passing in 1876 at the age of 80.<sup>33</sup> She, like Sabra,

first learned how to dairy in her mother's care. At about 18, Sally began assisting her mother "in running the dairy operations of the farm" and later she and her sister assumed control of dairy work.<sup>34</sup>

<sup>33</sup> Lamira's daughter, Lamira J., wrote a beautiful epithet: "She was a wonderful woman far ahead of the age in which she lived." (COA BEC MG2-1-244, April 5, 1910, letter from Lamira Kilborn to her Aunt Sally Billings).



A family friend, John Gourlay described both sisters in the 1860s, writing that Sabra, then in her 40s, had a “fine face and majestic form with the corresponding vigour of thought and intellect, the ease and facility with which she conversed on so many topics...” and went on to admire many of her other positive attributes. Gourlay made only a single mention of Sally, stating he “saw with [Sabra] a sister seemingly much younger, a retiring, but very pleasant looking lady.”<sup>35</sup> Although Sabra was more openly admired, mainly due to her wider movement in church and other social settings, both sisters had suitors interested in marriage. It is notable, however, that despite notice from men, neither sister chose to marry. Sabra’s single state was possibly due to her situation as the eldest, her relative position in society and independent income, as well as her well-documented need for personal liberty. Sally on the other hand, perhaps took note of Sabra’s precedent, or chose to care for her mother out of duty, explaining somewhat her spinsterhood in an era when most women expected to and did marry. Sabra and Sally most importantly were able to remain single by choice because they formed an integral part of the production unit on their family farm.

During their transitional era, the Billings sisters’ and women’s place in society generally was in the process of redefinition, but was not yet so strictly limited in perception as in the later-nineteenth-century. Ideas of women’s proper role changed throughout the nineteenth century and the Billings sisters’ long lives. With the rigidification and acceptance of the concept of ‘separate spheres’ – already in use to

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<sup>34</sup> Susan Jenkins, *Sally and Sabra Billings* (COA BEC 920.72JEN, Master’s paper, Carleton University History Department, unpublished, 1988), 3.

<sup>35</sup> John Gourlay, *History of the Ottawa Valley* (Memorial University of Newfoundland, microform, 1896), 95.

divide farm labour by gender – women were ever more restricted to the home or domestic sphere while it was understood men belonged to the outside world, or public sphere.<sup>36</sup>

Upon their dear father's passing in 1864, Sabra and Sally were jointly willed one 200-acre plot of land on Lots 17 and 18 of Park Hill – the original homelot, out of the 1000-acre Billings farm.<sup>37</sup> The sisters agreed to divide the land, and since the house was within the acreage, the use of the family home. Sabra and Sally signed a notarized document dividing the assets in 1869, entitling Sabra to Lot 17 and the north half of the house, and half of the kitchen. Sally gained Lot 18, the south half of the house and one-half of the kitchen area, although the space was within her boundaries. In trade for use of the kitchen, Sabra offered use of the well on her parcel of land to her younger sister "...for domestic purposes only."<sup>38</sup> Sabra and Sally continued to live on the farm until their deaths, Sabra in 1912 at 97 and Sally in 1915, at 93. In the end, Sally had developed a predominant Dow family health problem, and went deaf, like her mother. Sally lived alone at Park Hill for only three years of her adult life.

During their long lifetimes, Sabra and Sally jointly left their mark on the Billings homestead. It is clear from the changes in agricultural specialization the Billings sisters decided upon that they were progressive and interested in further developments and improvements to their farm and home. They wanted to 'change with the times' and 'keep pace' – to use popular catchphrases littered throughout agricultural journals –

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<sup>36</sup> Julie Matthaei, *An Economic History of Women in America* (New York, 1982), 115.

<sup>37</sup> "Will of Braddish Billings," (COA BEC MG2-4-211).

<sup>38</sup> Seaver, *History of the Billings Family*, 41.



**Fig. 19) Candid photo of an aged Sally Billings on the front lawn at Park Hill, circa 1910. COA.**



**Fig. 20) Portrait of Sabra Billings, on the porch at Park Hill, 1905. COA BEC MG1-17-7-78.2-CA318.**

and their agricultural choices reflected broad progressive trends and transitions in Ontario agriculture. After Braddish's death, they did not continue to farm in the same mixed-agriculture orientation as their father. With his demise, Sabra and Sally expanded and changed the farm's production from mixed-agriculture, to dairying and more gender "appropriate" cash crops. There was also a change in agricultural emphasis – from basic food and staple crops (pork, wheat, oats, hay and cheese) to more specialized types of fruits and vegetables" as well as expansion to existing dairy production.<sup>39</sup> During the 1850s, emerging agricultural experts and scientists promoted specific types of agriculture as appropriate for women.

"Women were well suited for dairy work, for

poultry and bee keeping, for fruit and flower growing and market gardening. This was profoundly original and discovered as new something that had been practised for

<sup>39</sup> Caroline Pollock, *The Billings Family: A Brief History of Their Land Use and Farming Operations, Between 1812 and 1975* (COA BEC, 1995), 11.

centuries.”<sup>40</sup> It was the specific ascriptions and rigidification of gendered work that was new. From 1864 until around 1871, rather than clearing land or expanding their beef or sheep husbandry the sisters changed the focus of their agriculture and intensified their dairy operations. Over time, they phased out cheese-making (possibly due to the success of cheese factories in the area), continued to grow their butter production, and transitioned their land to fruit and vegetable gardening, selling their produce at the local Ottawa Byward market. Lamira’s account books document Sabra’s and Sally’s cheese and butter-making over the period from 1846 to 1859. Beginning in 1847, Sabra and Sally’s additional hand-labour nearly tripled the annual output of cheese from 3,200 in 1846 to 9,000 lbs. in 1847.<sup>41</sup> Also, in the same year the sisters’ production appeared in family account books, year-round milking began, explaining the substantial butter production increase between 1846 and 1847. Lamira, Sabra, and Sally produced approximately 3000 pounds of butter each, from approximately 30 cows. Every year their dairy herd and butter production grew.<sup>42</sup>

Sabra and Sally, like their mother, embodied the concept of progress through all their combined life choices and agricultural decisions for the farm. Characteristic for the transitional period was the blending of older practical dairy knowledge with new scientific understandings of dairying. The 1853 title of *A Practical and Scientific Treatise on Agriculture* implicitly revealed how perceptions of dairy work were

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<sup>40</sup> G.E. and K.R. Fussell, *The English Countrywoman: A Farmhouse Social History, AD 1500-1900* (London: Andrew Melrose, 1953), 198.

<sup>41</sup> “Sheriff Treadwell’s Report,” (COA BEC MG2-1-452, 1841).

<sup>42</sup> It is standard dairy knowledge that 100 pounds of milk produces approximately one to two pounds of butter, dependent on the cow’s breed and feed.



shifting towards a scientific emphasis. Yet, inexact instructions and a reference to butter-making as “art” in the book indicated how little had yet changed at mid-century regarding attitudes toward farmwomen or their dairy experiences. New advancements in dairying at this point still mainly focused on a predictable and consistent outcome to ensure quality and profitability. Butter-making, the sale of butter, and increased access to broader markets for butter made proper cream separation especially important.

The milk is placed in these vessels about four or five inches deep, and should remain undisturbed for at least twenty-four hours, but not a longer time than forty hours.

The cream is now separated from the milk either by skimming with a flat dish or skimmer.... When a sufficient quantity is collected by successive skimmings, it is placed in the churn to be made into butter. This will occupy from a quarter of an hour to three hours, when churned in large quantities, from an hour to an hour and a half is the average time.

The temperature of the cream when being churned is important. About 56 degrees (F) seems to be the most favourable for effecting a complete separation.

The great art of butter-making lies in keeping the dairy and the churn at exactly that temperature best fitted for thoroughly separating the butter from the milk without giving it too great an inclination to become sour, which it will if the temperature be too high, and if it be too low it will separate badly, and be long in churning.<sup>43</sup>

This 1853 excerpt implied that although women had been using this method of cream separation for centuries, male promoters of progressive and scientific agriculture thought women needed to improve their knowledge of the separation process.

The article above indicated how to incorporate an unfamiliar tool – the churn – into the process. In mid-century Ontario, hand-made churns began to appear on family farms to cope with increased milk production. In spite of its title ensuring both practical

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<sup>43</sup> G. H. Andrews, ESQ. C.E., “The Dairy and its Produce,” *Modern Husbandry, A Practical and Scientific Treatise on Agriculture* (London: Nathaniel Cooke, Milford House, Strand, 1853), 384-385.

and scientific advice the imprecise directions offered were characteristic for this period. The regular use of vague terminology – “about,” “at least,” and “seems to be” – for dairy instruction in the transitional era was residual from the settlement period, but authorities considered such usage utterly unacceptable a generation later during the scientific era. Perhaps the author himself could not offer any explanation of why or how to avoid poor cream separation outcomes. Dairywomen during this transitional phase recognized the separation process and its challenges. Dairywomen’s lack of ability to point out the source of problems, or to avoid subsequent issues, indicated to those driving agricultural progress, that there was a basic lack of comprehension on the part of female dairy workers. Therefore, in terms of agricultural industrialization, the perception was that farmwomen and progress remained mutually exclusive.

The lives and work of other contemporary farmwomen offer alternate perspectives for the high level of production achieved by Sabra and Sally Billings. Two farmers from very different parts of the province commented on their wives’ dairy work within their own journals. Jean Baptiste Rousseau was a merchant and farmer living in Ontario on the border with Quebec. Rousseau kept detailed account books of all his business transactions. Among these he listed “Amount of Butter made in the year 1862.” J.B. Rousseau’s second wife signed her name beside the account of her butter-making efforts for that year, noting she made 671 lbs. and 63 oz. of butter. The fact Rousseau signed her name makes it clear butter-making and selling were part of her daily work.<sup>44</sup> To the Southwest, in another part of the

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<sup>44</sup> Jean Baptiste Rousseau Family Journal (PAO MS7294 Series F-483-3- microfilm, 1862).

province, and 13 years later, an unknown Methodist farmer and shopkeeper from Marysburgh, near Picton, listed his chores and the weather in a daily diary. This farmer differentiated between his “choring” and his wife’s [mother, as he called her] “housekeeping.” Although he mentioned his wife in nearly every entry, it is only through his description of daily goings-on that we see what jobs fell to him and to “mother.”

Thursday, September 9<sup>th</sup>, 1875, at noon. ...in the shop and other choring. Mother knitting and doing house work.<sup>45</sup>

Saturday, September 18<sup>th</sup>, 1875, at Noon. “Freezing last night the day most beautiful in the shop Mother washing and Bakin[g] and churning.”<sup>46</sup>

Clearly their work areas were divided spatially and by gender, with mother working in the house at domestic duties while the farmer was “choring” in the “shop.”

Another decade later, as the transitional period drew to a close in the 1880s, singular emphasis on scientific agriculture was clear. During Sabra and Sally’s transitional era, their mother’s common practice of scalding milk before setting and then ripening cream before churning became considered as unnecessary. The best methods for setting and skimming, however, remained in dispute until the early 1900s. Access to lighter tin deep-setting cans during the transitional period, eased the labour of some women, although cream-separating chores remained unmechanized and based upon the same gravity principles as shallow-pan techniques. Discussing the benefits of a Cooley or deep-can separation process in contrast with shallow-pan

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<sup>45</sup> “Diary of Methodist Farmer and Shopkeeper,” (PAO F1239-MU848-II-4, Diaries Collection, Thursday, September 9<sup>th</sup>, 1875, at noon).

<sup>46</sup> “Diary of Methodist Farmer and Shopkeeper.” (PAO F1239-MU848-II-4, Diaries Collection, Saturday, September 18<sup>th</sup>, 1875, at Noon).

separating, a Mrs. S.H.R. voiced her preference for the new method. "I know just how odd this must seem to one who has not investigated. I thought it the most absurd thing I ever heard of, but believe me, I am telling you actual facts. I have no axe to grind whatever, only want to help you, to save you work and money, that is all."<sup>47</sup>

S.H.R. also noted how little else had changed in terms of her dairy work. She commented that the same problems existed with temperature control, the smell, and the washing of utensils and other common complaints from dairywomen. The same dairy chores still needed doing, although fewer utensils required cleaning due to what she found to be a great labour-saving improvement, even without mechanization – the Cooley can or deep-setting cream pail.

When we used to use the common shallow tin pan, once in a while would come a spell of beautiful weather; then we used to pat our butter affectionately and say, "There, that's just good enough for anybody!" But how very few such spells would come. It was either too hot or too cold. Muggy weather was our special abomination, and tried our very souls.

When I get ready - that is, after the breakfast things are out of the way, and I have aired the house of all smells of cooking - I open the cans and dip the cream into crocks to set away until is [sic] time to ripen for churning. The skim milk is fed to calves or pigs from the same pails.

Now see what an immense saving of drudgery this is for me! Instead of forty or fifty pans to skim and empty, to wash and scald and set in the sun, three or four swill pails setting around with more or less sour milk splashed about, I have only to wash these four or six pails that never had sour milk in them, and I am ready to go at something else.<sup>48</sup>

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<sup>47</sup> Mrs. S.H.R., "Butter-Making as told by a Woman," *The Farmer's Advocate* (October 1883), 307.

<sup>48</sup> Mrs. S.H.R., 307.





**Fig. 21) A variety of deep-setting, tin cream cans. OTHS unnumbered.**

With a deep-setting can instead of a shallow pan there was no more scalding or souring, and it meant fewer pans; but too few had these improvements and S. H. R. still dairied in her basic kitchen with unmechanized tools. There is strong physical proof, evidenced through debate and remaining material culture objects, that many Ontario dairywomen continued to use the labour-intensive method of shallow-pan cream-separating even beyond 1885 into the scientific period.

This discussion of farmwomen's work and tools, outlined by the cream separation process, as well as two generations of the Billings family, indicates dairywomen remained on the farm and continued to participate in Ontario dairying. While gendered work roles in agriculture underwent redefinition, dairy tools did not keep pace, and consequently certain dairy work remained within farmwomen's sphere. The nineteenth and early-twentieth century concept of progress was a driving force behind these

redefinitions and developments in Ontario's agricultural and dairy history. In the rush to improve dairying, however, some parts of the process altered rapidly with changes to methods and tools, while others lagged behind, like cream-separating, which was the initial process for butter-making. Male farmers did not merely overlook aspects of dairy work when it came to mechanization, male authorities also purposefully devalued dairywomen's work for defeminization.

### Chapter Three Butter and Technology

Come butter come.  
Come butter come.  
Johnny's at the garden gate  
Waiting for his butter cake.  
Come butter come.<sup>1</sup>

As a nineteenth-century farmer phrased it, dairywomen transformed “grass and sunshine into cream and butter.” The cow’s work was in producing the milk but the harder work was left for the dairywoman. Between 1813 and 1914, the children’s rhyme cited above encouraged steady churning for ever-present and toilsome butter-making chores. The beat of this traditional verse duplicates the repetitive nature of making butter by hand. The rhyme helped keep a steady stroke and passed the time it took to transform liquid into solid. Since the churning chore alone could take many hours, dairywomen needed more than verse to help them with their butter work.

Analysis of familiar nineteenth- and twentieth-century dairywomen’s objects, those used and those contemporarily available, illustrate how scientific ideology and male reluctance combined to slow farm-to-factory transitions in Ontario and maintained women as butter-makers, albeit using antiquated tools. Discussion of dairy technologies linked with particular butter-making steps helps to further understand the work Ontario farmwomen encountered daily, as well as how the ideological development of scientific and technological agriculture manifested on the family farm in terms of tangible, object-centered change or lack of change.

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<sup>1</sup> Traditional churning rhyme, often used to pass the time and keep steady beat while churning and sung in a rhythmic manner.

Throughout the nineteenth and early-twentieth centuries, butter-making in the province largely remained the responsibility of women using common tools. Historian Joy Parr wrote that, “we live our entire domestic lives in the presence of objects,” suggesting common tools are important as a primary source for the study of women and agriculture.<sup>2</sup> The application of Laurel Thatcher Ulrich’s concept of studying historical objects in daily use helps us understand living and working patterns from the past. “Sometimes the most useful insights come from pondering the harnesses and treadles that move the interlocking threads of daily life.”<sup>3</sup> What applied to weaving can also be useful to better understand the effect daily use of wooden milking stools, dasher churns, and butter bowls had on the lives of already hard-working farmwomen. Dairying chores included multiple steps, physically intensive labour, and depended upon variable milk quality and unregulated temperature. In *Loosening the Bonds*, Joan Jensen indicated that while “the history of butter-making techniques is difficult to document,” the “changes in butter-making tools are somewhat easier to document.”<sup>4</sup> Since “the task of describing work on the farm is staggering simply because it includes almost everything that everyone did, all the time,” only some dairy-specific technologies, such as milking machinery, separators, churns, and power sources are highlighted here within the technology discussion to focus on the challenges

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<sup>2</sup> Joy Parr, *Domestic Goods: The Material, the Moral and the Economic in the Postwar Years* (Toronto: University Press, 1999), 165.

<sup>3</sup> Laurel Thatcher Ulrich, *The Age of Homespun, Objects and Stories in the Creation of an American Myth* (New York: Vintage Books, 2002), 8.

<sup>4</sup> Joan Jensen, “Butter-making and Economic Development in Mid-Atlantic America from 1750 to 1850,” *Signs: Journal of Women in Culture and Society* 13, 4(1988), 820.



dairywomen faced in their work.<sup>5</sup> Analysis of both processes and tools, particularly those under transition or debate, illustrate change in some areas and lack of change in other areas of butter-making over the one hundred years from 1813 to 1914.

Dependant on a milkmaid's own routine converting milk to butter, the process could involve more than ten steps: milking, straining, scalding, separating, which included setting and skimming, souring, churning, then a combination of working, washing, and salting, forming, brining or packing as preservation, and then washing, drying, and storing the utensils. Each step required chore-specific objects, used and maintained by dairywomen. This chapter emphasizes four steps that best-illustrate an alteration in tools over time: milking, separating, churning, and the trio of working, washing, and salting, and in addition, a discussion of alternate power-supplying technologies. While initially, dairy methods alone received criticism, dairywomen's crude tools also displeased scientific experts as the century wore on. Only a few technological innovations trickled down to family farms during this period, and those that did permeate dairywomen's sphere remained inadequate for producing high quality butter or for addressing dairywomen's growing labour needs as dairy work gained significance.

Contrary to projected stereotypes of the backward and impractical farmwoman working in ignorance and isolation, as discussions concerning contemporary butter discourse reveal, Ontario's farmwomen did not necessarily oppose the adoption of new tools. There is little contemporary suggestion, other than from experts, that

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<sup>5</sup> Thomas C. Hubka, *Big House, Little House, Back House, Barn, The Connected Farm Buildings of New England* (London: University Press of New England, 1984), 144.

dairywomen resisted machinery, and male authorities did not support the continuation of female-gendered dairy work. While some farmwives did blame fellow dairywomen for their silence concerning inadequate tools and inappropriate support, men most often doubted the necessity of mechanical investments for dairywomen's work. The challenge of selling new tools to farmers lay in convincing them of the effectiveness and reliability of the machines and most importantly of the profits for their farms. The declining reputation and a reconsideration of the importance of female dairy knowledge, coupled with dairywomen's continued, yet demeaned, role within butter production, did not encourage confidence for investment from farmers into this area of agriculture. Men often delayed outlays toward expensive dairy-specific machinery.<sup>6</sup> According to dairy expert Laura Rose, farmers often stated, "my wife or my daughters make as good butter as I want to eat." Rose responded with: "Granted; but do they make it bring the highest profit, for there are many ways by which, through ignorance, a loss may be incurred."<sup>7</sup> The perceived female ineptitude at butter-making was undoubtedly associated with what dairywomen had been denied: acceptable methods, tools, and knowledge. Promoted by experts and the government alike, the concept of a hygienic and consistent butter product from factories staffed by men reduced the number of machinery sales for home use as long as "ignorant" women made butter in the province. Since the progressive outlook for Ontario dairying did not include on-farm butter-making or women, the overarching goal was

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<sup>6</sup> As well, male, on-farm butter production was not encouraged by scientific authorities and government, which made investment in this female-dominated area of agricultural specialization unlikely while male, factory butter production was on the main agenda.

<sup>7</sup> Laura Rose, "The Dairy School from a Woman's Standpoint," *The Farmer's Advocate* (1897), 137.

clearly to defeminize farm dairy production, removing it from farmwomen's hands altogether. Without change to their traditional tools it was nearly impossible for the province's dairywomen to be regarded as valuable butter producers.

According to American historian Joan Jensen, as butter grew in value the importance of dairy technologies correspondingly increased.

The increase in butter production reflected not only the marketability of butter, but also changes in the technology of butter-making. Women changed both their techniques and their equipment to increase butter production. They learned to produce butter more efficiently to make it more saleable.<sup>8</sup>

Although technological changes began around 1850, early machinery models did not increase work efficiency, mechanization, or alternate power to any aspect of Ontario dairywomen's labour. Effective technological changes or mechanization to butter-making tools did not readily find their way to rural women in Ontario. Dairywomen, therefore, persisted with tools ill-suited to their productive needs. Tools that did transition remained limited as they were based on principles of traditional tools, which guided and restricted their development and left farmwomen without appropriate technologies.

By 1905, the labour-saving but expensive centrifugal cream separator for example had been available for 27 years, or nearly a generation. Regardless, in that year, Laura Rose referred to the unnecessary but continued use of an inadequate yet common and basic dairy object, the butter bowl. "I really believe that the stooped shoulders of some of the farmwomen are the result of working pounds upon pounds of butter in the butter-bowl with a ladle. It is work that I do not want to again

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<sup>8</sup> Jensen, 819.

attempt.”<sup>9</sup> With so much discussion of improved methods and tools, why did dairywomen persistently use traditional, labour-intensive, wooden objects for their butter-making work? This stagnation stemmed from farmers’ reluctance to adopt male-oriented scientific technologies for female dairy work. As dairy herds grew, nineteenth-century Ontario dairywomen had to process increasing amounts of milk. More milk meant more work and necessitated new or improved labour-saving tools. Although butter-making objects remained indispensable, motorized tools remained out of reach, and so women almost exclusively used hand-made, predominantly wooden objects. Problematically, milk, cream, and butter leave a water-resistant, greasy, fatty residue. When left on wood surfaces without proper cleaning, dairy residue caused rotting that impedes separation and churning. This residue compounded dairywomen’s work since they had to constantly scour, dry, store, and care for tools, augmenting their workload as more milk was produced. Dairywoman Eliza Jones indicated, through her practical methods and use of traditional tools, that any efficiency Ontario dairywomen gained in butter-making was through their own efforts and not through the benefit of labour-saving mechanization or scientific developments recommended by agricultural authorities: “If I can lighten the labors of even a few tired women and cheer their lives and put some money in their pockets, then I shall not have written in vain.”<sup>10</sup>

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<sup>9</sup> Laura Rose, “The Farm Dairy Outfit,” *The Farmer’s Advocate* (MCFP 976-183-01, May 25, 1905).

<sup>10</sup> Mrs. E. M. Jones, *Dairying for Profit Or, The Poor Man’s Cow* (Montreal: John Lovell and Son, 1892), 5.





**Fig. 1) Hand-made Ontario butter bowl shown with butter spoon, circa 1845. UCV 1958.1859 (from Wales, Ontario).**



**Fig. 2) Underside of butter bowl; one could churn and work five pounds in a butter bowl this size. UCV 1958.135.**

Indicating why dairywomen had little access to tools, and perhaps why farmers held a reputation for being conservative in their dairy purchases, an 1872 editorial letter entitled “Butter-Making” openly disapproved of new tools and emerging scientific knowledge as it challenged traditional wisdom. The author – who was likely a practical man – emphasized the confusion prevalent amongst farmers regarding changing developments in butter-making methods and tools.

The best method of churning has not yet been determined. Many patent churns have been presented to the public, but none of them have been an improvement on the old-fashioned dash churn. There is some dispute as to what causes the separation of the butter from the milk. ...What is wanted is some method that will agitate every particle of cream alike, making the butter all come at once, and of the same texture. By every method yet devised, there is some cream at the sides, corners or ends, that does not get so much churning as the rest. This lessens the yield, and makes the quality uneven.<sup>11</sup>

<sup>11</sup> “Butter-Making,” *The Farmer's Advocate* (1872), 135.

Any transition from hand-made tools to more mechanized butter-making technologies met with some form of resistance, particularly from farmers. An 1883 submission, "Churns," echoed similar sentiments as 1872's "Butter-Making." Both seemed critical of new churning tools and scientific knowledge, highlighting the push and pull between promoted science and traditional practice, and the limited growth projected for female butter-making. The financial assertion was that many farmers invested in scientific dairy machinery only to be disappointed with the poorly-designed, impractical, and inefficient devices, which appeared as the dairy sector quickly grew. Bad investments reaffirmed farmers' initially reluctant approach to scientific technology and labour-saving machinery for butter-making and perpetuated the negative view of modern and progressive technologies.

There are over 300 patents registered for different kinds of churns, many of which are being sold in Canada by good talkers; high commends and first prizes have been awarded to some of these, but such prizes have not been gained by merit.

The majority of people favor the old dash churn, because of its simplicity of construction and being easily operated....<sup>12</sup>

The hand-made, wooden dasher churn or butter-bowl could be fixed or replaced on the farm and required little know-how to operate and maintain, unlike the complicated maintenance and daily reassembly of factory-made machinery. Contrary to published advertisements and testimonials for dog-powered churns with tread-wheels, and family-size deep-setting creamers, or geared, centrifugal cream separators, farmers

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<sup>12</sup> "Churns," *The Farmer's Advocate* (March, 1883), 93. See also: Joy Parr, "What Makes Washday Less Blue? Gender, Nation, and Technology Choice in Postwar Canada," *Technology and Culture*, Special Issue: Gender Analysis and the History of Technology, 38, 1 (January, 1997), 153-186.

reasoned that new tools were expensive and usually not worth the money, difficult to operate and clean, and frequently less effective than existing tools. These considerations meant that Ontario butter declined in quality as its production remained a marginal part of farming and thus did not receive sufficient investment to mechanize. While scientific-dairying experts proposed technological improvement, farmers continued to reject improved butter-making tools. Consequently, the reputation of Ontario's female producers and their butter suffered.

Milking was the first step on the long road to butter and was one of the most strenuous dairy chores. Between 1813 and 1914, dairywomen generally used their hands to milk while sitting on a hand-made, wooden stool streaming milk into a leather or wooden, and later tin, bucket. Hard on the hands and forearms, the milker crouched on a low stool beside the cow while reaching underneath to access the udder and teats. "Collecting milk from cows required, at the very least, a pail and a stool."<sup>13</sup> Since most dairywomen milked with tools limited to the bucket and seat, these objects needed to be basic, inexpensive, and sturdy yet light, to withstand daily use, frequent repairs, temperature fluctuations, moisture, and animal kicks. Until at least 1914, milking stools remained hand-made, wooden, and overwhelmingly crude. The farmer most often created a basic stool from inferior or scrap wood found around the farm for the dairywoman's particular use. Mainly with a rectangular top, stools did sometimes have a more comfortable rounded seat, and could have either four legs or three for a sturdy tripod on

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<sup>13</sup> Ruth Schwartz Cowan, *A Social History of American Technology* (New York: Oxford University Press, 1997), 36.

uneven ground.<sup>14</sup> Easily repaired, the lightweight and maneuverable stool was used twice daily, moved from cow to cow in the shed, barn, or field. Once milking operations suspended over the winter months – as was common during the settlement and transitional periods in the province – such stools were often shifted to other parts of the barn, to the pantry, or by the fireplace in the farmhouse due to its many uses. With the popular move to year-round milking in the 1880s – introducing winter milking chores – stools additionally had to endure frost and snow with increased damp and warping occurring with freezing and thawing over the year.



**Fig. 3) Four-legged milking stool with integrated handle. UCV 1995.1.820.**



**Fig. 4) Three-legged milking stool with round seat. UCV 1958.31.**



**Fig. 5) Two different milking stool examples both rough and wooden with nailed construction; (top) MCFP 981-86-01, (bottom with handle) MCFP 975-158-01.**

<sup>14</sup> “A friendly tripod forms their humble seat, with pails bright scour’d and delicately sweet....” From: “The Months – March,” *The Canadian Agriculturalist* VII, 3(March 1855), 82-83.



The deluxe, hand-made, milking stool pictured in Figures 6 and 7 was most likely used in a barn where the cows were brought to the milker, or perhaps on a farm with only a few animals to milk. The weight and size of this design made it heavy to lift and awkward to position beneath a cow. The circa 1900 dairy object in Figures 6 and 7, shows obvious signs of long-term use and repairs due to moisture damage on the legs from water, milk, snow, mud, and animal urine. Although this type of stool was not typical, it illustrates how basic even the most custom stool remained throughout the period. The slatted back-rest and raised surface for the milk pail show some attention to detail and hygiene, since being comfortable made for more pleasant milking and keeping the pail off the ground made it far less likely to tip or get dirty.



**Fig. 6) Hand-made, two-tiered milking stool.  
NMSTC 2001-0232.**



**Fig. 7) Detail of rotted and  
badly-patched milking stool  
leg. NMSTC 2001-0232.**

The partner of the milking stool was a vessel for receiving milk. The shape and versatility of milking pails made them perpetually useful in the barn or for any agricultural or domestic purpose. Most Ontario milk pails were made of wood and roughly coopered like a barrel but were hard to clean and rotted easily without proper

drying. While dairywomen may also have used leather buckets, no examples of these objects remain due to their use patterns and the required care of leather over time. Tin pails became more popular during the post-1885 scientific period, being lighter and impervious to rot. The Sears catalogue listed prices for specific “steel-clad” dairy pails at thirty-five cents in 1908 but noted the weight of the pails was important, suggesting how heavy a milk-filled pail was for dairywomen to lift and carry for pouring, straining, and creaming. Whether dairywomen used twentieth-century milk pails with added strainers, or basic wooden, lathed buckets, the tool was simply an open, deep vessel for catching fluid milk.



**Fig. 8) Wooden-slat milk pail, from *Willard's Practical Husbandry* frontispiece, 1877.**



**Fig. 9) Tin milk pail with handle and integrated strainer, early-twentieth century. MCFP 1986-39-04.**

**35¢ FOR A 10-QUART STEEL CLAD DAIRY PAIL. BEST MADE.**



**No. 9K25191** Made of 1X tin. Well soldered with best solder. Patent bottom; will never leak. Sizes are actual capacity.

Quarts.... 10      12      14  
Price..... 17c    21c    26c

**No. 9K25194** Steel clad Dairy Pails. It is impossible to construct a better pail at any price. Sizes are actual capacity. Note the weights.

Quarts.....	10	12	14
Inches.....	11x9½	11½x10	11½x10½
Weight, pounds	3¼	3½	3¾
Price.....	35c	38c	41c

**Fig. 10) Sears ad for steel-clad milk pail, 1908. NMSTC Agriculture Collection.**

The habits and chores associated with milking illustrate the importance of good dairy tools for the provincial dairywoman. Lamira Billings' detailed records and accounts show that women milked with stools and pails by hand for six months during two decades. The milking chore grew for the family throughout this period, with 17 cows by 1841.<sup>15</sup> A decade later, in 1851, the herd had grown to 56 cows.<sup>16</sup> The Billings women began milking in April or May, when the ground was dry enough for pasture and cows had calved, and finished in October or November, once snow arrived along the Rideau River. The Billings' seasonally hired local women to milk and make butter during these months.<sup>17</sup> Lamira, Sabra, and Sally re-employed women from year to year who worked well with them in the dairy. Each woman, including Sabra and Sally, milked on average six animals either in the morning or in the

<sup>15</sup> "Sheriff Treadwell's Report," (COA BEC MG2-1-452, 1841).

<sup>16</sup> Martha Phemister, "Background Paper: The Evolution of the Gatehouse: Structural and Functional Analysis," (COA BEC, Fall 1985), 10.

<sup>17</sup> "Sophie Erno commenced to work 15 May, at 1 dollar a month for 6 cows." "Ellen Maclean started work for 6 months." From: Martha Phemister, "The Evolution of the Gatehouse: Structural and Functional Analysis," (COA BEC, Fall 1985), 10-12.



evening. In 1851, Lamira noted that, "Almary Erno commenced to milk on Saturday 25<sup>th</sup> May in the evening." The following year, on 13<sup>th</sup> May, she wrote: "Almary Erno began to milk 6 cows a night."<sup>18</sup> Lamira also accounted for the dairymaids' missed work. Mary Tume lost two days in 1854 because her mother was sick, and again, a



**Fig. 11) Daguerreotype of Lamira Billings (n.d.) BEC MG2-22-44-430.**

day in July 1855. Julia Laque lost one day to attend her brother's wedding. Lamira noted a common cause for missed work as "sore fingers," an occupational hazard when working vigorously with ones hands. Margaret Clifford lost four days due to this complaint. Julia Laque lost five days with her sore finger but was replaced temporarily by Mary Sherbono.

Dairy cows cannot miss a milking, so the problem of sore fingers was a serious one, with alternatives to hand-milking desperately sought throughout the century. Even those with only a few cows to milk looked for relief from the twice-daily chore. The earliest American patent for an alternative to hand-milking was given to Cyrus Knapp, in November 1849. Knapp employed the catheter method, however, which required the insertion of tubes into the teats to force open the

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<sup>18</sup> Phemister, 10-12.

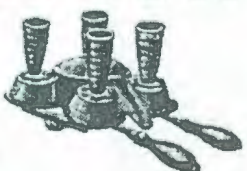


sphincter, allowing milk to flow out. This kind of milking was “blamed for various problems, such as spread of disease, weakened sphincter muscles causing continuous dribbling, and injury to the teats.”<sup>19</sup>

COME AND SEE THE

# AMERICAN COW MILKER.

PATENTED  
MARCH 28, 1865.



SECURED IN  
England, France, and Belgium.

A SURE CURE FOR . . . ACHING HANDS AND KICKING COWS.

Dates of American Patents secured by L. O. Colvin: May 22 and 28, 1860; Feb. 17, 1863; Jan. 31, 1864; and March 23, 1865.

We would respectfully call your attention to the practical utility of our New MACHINE FOR MILKING COWS, now being introduced for the first time in the New England States.

Farmers and Dairymen cannot fail to recognize at once, in this invention, the most important labor and time saving improvement ever offered for their use,—one which may, indeed, be ranked with the reaper, the mower, and the sewing machine,—the great inventions of the present day.

The success of the AMERICAN COW MILKER is only attributable to its transcendent merit. It is the result of years of study and experiment, the fruit of long and patient labor and large outlay of means, and could only have been carried to its completion by the consciousness of the incalculable value of such an invention.

By this machine the four teats of the cow are milked at the same time; or, as each teat cup acts independently of the other, three-teated cows are milked as well as any, and cows giving more milk out of some teats than others do not interfere with the working of the machine, or “finishing” the cow.

The operation is in perfect imitation of the natural sucking of the calf. Nothing could be more simple or better arranged for use. It is very small, compact, and durably made. It weighs only four pounds, and is easily worked. It is perfectly self-adjusting, will fit any cow, whether the teats are wide apart or close together, large or small.

A Company has been formed: THE AMERICAN COW MILKING MACHINE CO., 355 Broadway, New York City, with an abundance of capital, and by new and improved machinery, Cow Milkers are now turned out with great facility and perfection, and those purchasing territory supplied with the Milkers at reasonable rates, if they do not wish to manufacture for themselves. Believing we have the best and most saleable labor-saving machine in the United States, we solicit the patronage of thorough-going enterprising men who are able and willing to become interested in the territory they wish to operate in.

Tell me, is old-fashioned milking  
Fully equal to the new?  
If 'tis not, believe our story,  
We have something grand for you.  
There's a Milker getting credit  
Every night and morning's dawn,  
'Twas invented by one Colvin,  
And its name is *The American*!

See it once in operation,  
You'll appreciate it then,  
For 'tis the best Milker ever  
Seen by women or by men.  
Its construction so peculiar  
That it has great credit won,  
And milking cow 's but pleasant justice  
When you use the *American*!

There was nothing came before it  
Was more useful or more grand,  
And in this age of great invention  
It pre-eminently stood.  
Farmers, will you go without our?  
When your friend, the Agent 's come,  
And your cows come home for milking,  
You may think of the *American*!

Aze of wonder and of science,  
Age which true inventors hail,  
To thee is the world indebted,  
Now 't there's no such word as fail:  
The *American Cow Milker* is selling rapid,  
Brighter hopes through each morning glimmer,  
Every week there are Five Thousand  
Sold of the *American Cow Milker*!

Fig. 12) The 1865 American milker claimed to be “a sure cure for aching hands and kicking cows.” The machine, however, still required hand pumping, as seen in the above image. NMSTC Agriculture Collection.

<sup>19</sup> Richard Van Vleck, “Early Cow Milking Machines,” *American Artifacts, Scientific Medical and Mechanical Antiques*, <http://www.americanartifacts.com/smma/milker/milker.htm> (accessed September 3, 2008).

As Arthur Ingram noted,

The replacement of hand-milking by a mechanical process was a very protracted affair which began in earnest in the mid nineteenth century. In the 1850s a number of people applied their minds to the problem of speeding up milking. In 1862 Colvin, an American, produced a machine which worked on a vacuum principle. Four rubber cups were fitted to the cow's teats and the vacuum created by vigorously pumping two handles up and down extracted the milk very rapidly from the cow's udder into the integral bucket. The rigorous stress of a constant vacuum suction of this nature, however, was injurious to the animal – indeed blood was often drawn off with the milk – and the idea was scrapped.<sup>20</sup>

The two basic types of milking action used either mechanical pressure devices to emulate hand-milking, or vacuum devices that simulated calf-suckling. Although various patents existed for milking machines, Paul Dettloff wrote, in his *Milking Machine Guide* how “fewer milkers were made, less literature is available, and the intensity of the advertising” was “more low-key than the testimonials and beautiful ads for the cream separator.”<sup>21</sup> American dairy expert, Professor X. A. Willard, wrote in 1879 concerning the qualities required of much-used dairy equipment, such as, durability, effectiveness, economy in cost, and profitability through use.

For many years dairymen have been wishing for some mechanical device to milk cows – a machine combining the following requisites: Milking rapidly; drawing all the milk from the udder without injury to the teats or udder – causing the cow no more uneasiness while milking than hand-milking, and having no tendency to dry the cow of her milk when used from day to day and from week to week; and finally to be simple, not liable to get out of repair, easily operated and easily cleaned, and as efficient in every respect as hand-milking, but doing the work more rapidly.

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<sup>20</sup> Arthur Ingram, *Dairying Bygones* (London: Shire Publications, 1970), 5-12. Leighton O. Colvin introduced his first vacuum milking machine in 1860 with little success. He finally received the patent papers for his more successful “American” vacuum milking machine in mid-February 1863. <http://www.americanartifacts.com/smma/milker/milkpat.htm> (accessed September 3, 2008).

<sup>21</sup> Paul Dettloff, *Milking Machine Guide* (Arcadia, WI: Million Mile Press, 1998), i.

The drudgery and worry, to say nothing of the cost of hand-milking, in any considerable dairy of cows, can only be appreciated by those who are engaged in dairying. It is a kind of work that can not be put off or slighted with impunity. The strain upon the muscles of the hand in overwork at milking is not unfrequently serious, laming the hand so as to incapacitate it for work during longer or shorter periods of time.<sup>22</sup>

Milking machines appeared in different forms trying to recreate the natural drinking action of calf from mother. The Durand Cow Milker of 1880 vintage was:

Operated by means of a vacuum created by cranking a handle attached to a rubber diaphragm. This was supposed to imitate the sucking motion of a calf. Obviously it did not, for the machine was a flop. As with other implements, many different kinds of machines evolved over the decades.<sup>23</sup>

The difficulty of developing effective machinery for constant and heavy use within the dairy process, coupled with farmers' persistent distrust of science and technologies, left dairywomen with restricted options to avoid sore hands and time-consuming work.

But the need was still there and in the 1880s another machine, the lactator, was tried. It was suspended beneath the cow and worked on the principle of a hand crank operating revolving belts which in turn operated a pair of adjustable rollers that gripped each teat. It seemed an unlikely contraption to revolutionise [sic] the dairying work and it passed into obscurity. Various other attempts were made to establish vacuum machines but all failed because of the delicate nature of the cow's udder, which could not withstand the harshness of unbroken suction.<sup>24</sup>

Problematically, most milking machines adapted hand-milking methods, particularly the use of the hands. Hand-cranking or pumping did not ease milking labour. Instead, new devices simply removed human hands from the udder and replaced them with machinery. Meanwhile, hand-labour was still required for milking.

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<sup>22</sup> Prof. X. A. Willard, "The New Milking Machine," *The Farmer's Advocate* (October 1879), 223.

<sup>23</sup> "Liquid Assets," *Seasons of Change*, 101.

<sup>24</sup> Ingram, 5.



**Fig. 13) Mehring milker.  
MCFP 1976-1977-01.**



**Fig. 14) Mehring Milking machine  
advertisement image showing a  
dairymaid employing the technology,  
circa 1892. MCFP.**

The Mehring company first patented their milking machine model in 1892, displacing hand power in this chore. This strange, seated contraption was meant to eradicate the problem of sore fingers and hands by applying rubber inflations over the cow's teats and extracting the milk without the need for hand power. The dairywoman's back and forth foot-pumping action created alternate suction for two teats at a time – front and then rear quarters. The milk pail hung from the front of the machine, keeping it off the floor and away from barn dirt and manure. Although the milker's hands were relieved, the entire manual-vacuum machine had to be moved from cow to cow, which was problematic considering its unwieldy size and shape; or else each cow had to be brought to the machine. In both cases, maneuverability was limited, making the basic and



lightweight pail and stool method much more practical. Although the foot-powered milking machine did alleviate some problems associated with hand-milking, as with other scientifically-developed dairy technologies, it brought new challenges for dairywomen to contend with. Hand-milking required no temperamental or expensive machinery, spared the animal pain, and in most cases did the job better; therefore, in Ontario, many dairywomen continued using stools and open pails until at least 1914.<sup>25</sup>

In butter-making, milking came first but separating was all-important. During the period between 1813 and 1914, milking cows and processing the milk fat or cream was the main reason for dairying, whether it was for cheese or butter. Since cream contains most of the energy of milk, and butter is less perishable than fluid milk, preserving milk in some form after hand-milking was an important female task. In Ontario during this century, there were three main ways of separating cream. Two of these separating methods relied on gravity; traditional shallow-pan setting, and deep-can setting introduced in the 1840s. The third method was centrifugal separation, patented in 1878. Most dairywomen used gravity separation. They poured whole milk into flat, shallow pans. Then, they set the pans upon open shelves and left the cream to separate naturally for from 12 to 48 hours, depending on humidity, temperature, and the fat content of the milk itself.

Dairywomen's adoption of tinware for their work was gradual and on-going with the transition remaining incomplete during the period discussed. Most farmwomen worked with what they had, but the breakage of an older shallow pan potentially meant replacement with a tin pan by mid-century. Changing farmwomen's familiar

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tools from wooden or terra cotta – or redware as it was called in Ontario – to tin setting pans made some cream-separating work less labour-intensive, although scouring and drying of dairy objects became more important as tin rusts easily. Author and dairywoman, Eliza Jones, commented on how difficult it was to maintain dairy hygiene for the busy farmwife. Accessing water, boiling it on the farmhouse stove, lifting the pots and pouring the boiling water over greasy dairy equipment was heavy work required for washing all dairy utensils. Jones admitted how even her own mistakes proved useful for dairywomen learning proper care of new and important objects.

When I first had the care of milk pans and pails, I prided myself upon the thorough scaldings I gave them, and thought no one could be cleaner than I was. Imagine my mortification when my tins soon lost their brightness, and did not even look clean! Worse, still, a thick yellow coating came over them that I thought I would *never* get off.

At last I unburdened my mind to a dear old lady, and how she did laugh at me, to be sure! ‘Why child,’ she said, ‘you have cooked the milk on to the sides of your tins by pouring in boiling water, and you will find it harder to get off than the bark off a tree. ...My friend told me – only to use lukewarm suds, at first, till all milk and butter were thoroughly removed from pans, pails, churn and butter-worker, etc.; then to rinse in clean warm water, and then to bring on my cherished tea-kettle, and scald all I wanted to, and the more the better.’<sup>26</sup>

Tin utensils had been available since the 1840s, and Jones’ friend was an older dairywoman; yet, Jones was unfamiliar with their use and care. Eliza Jones shared the recommendation on how to keep tin pans free from milk buildup. This suggests how dominant shallow-pan cream separating remained even during the scientific period.

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<sup>26</sup> Mrs. E. M. Jones, *Dairying for Profit or The Poor Man’s Cow* (Montreal: John Lovell and Son, 1892), 53. (Italics in quote emphasized in original text)



**Fig. 15) Shallow, tin, separating pans piled high in Henry Stahl's barn, Russell, Ontario.**

In the 1840s, not long after the introduction of tin shallow pans, the enclosed deep-setting can emerged. Although the deep-setting method also applied basic gravity separation, Cooley cans – named for their American inventor William Cooley – enclosed the cream in a tall vessel and then, ideally, the vessel was immersed in cold water. Using vertical space instead of horizontal space meant dairywomen could separate more cream in one batch without using every available surface in the milkhouse or farmhouse. Additionally, keeping cream enclosed and cooled avoided the all-too-frequent spoiling of shallow-pan-separated cream due to temperature fluctuations. Farmers' reluctance to adopt new tools, however, extended even to the use of different types of basic gravity separation.

It is still a subject of debate as to whether the cream rises better in deep or shallow dishes. But it is certain that it will rise in either kind of vessel, if all the other conditions are right. The tendency is toward setting milk in deep pans and in large masses.<sup>27</sup>

Rather than the use of enclosed cans, the above comment suggested the continued use of pans, perhaps deep ones, but not lidded cans. Within a long list of dairy advice printed in

<sup>27</sup> "Butter-Making," *The Farmer's Advocate* (1872), 135.

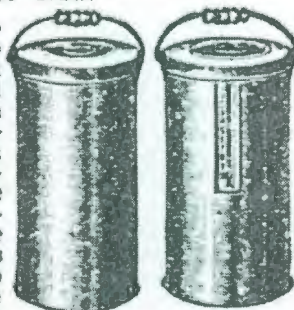
an 1883 edition of the *Farmer's Advocate*, experts warned not to leave cream-separating or souring in open air for too long, if at all.

A disputed point, and one which Mr. Cooley has exploded in his submerged cans, is the opinion held by some dairymen, that contact with pure air is necessary to produce good butter.<sup>28</sup>

Ironically, the barrier to the adoption of the deep-can method was that it did not expose milk to open air, which many farmers and dairywomen considered necessary for flavourful butter. Convincing farmers new methods and tools could produce butter that tasted good remained a difficult task and left many dairywomen using the labour-intensive, time- and space-consuming, traditional shallow-pan method.

**\$1.73 FOR SIX CREAM SETTING CANS, 14-QUART SIZE.**

Have airtight covers. It requires no locking device to hold the cover down, and is the only cream can that can be completely submerged in water without leaking. Cream cans are much easier to handle than pans. The graduated glass gauge enables you to watch and measure the rising cream. We quote a special price in lots of six cans and do not sell less quantities.



No. 9K29100 Made of IX tin plate, without gauge.			
Quarts .....	14	18	20
Weight, pounds .....	2½	3	3½
Per crate of six cans .....	\$1.73	\$1.92	\$2.08
No. 9K29103 Made of IXX tin plate, with gauge.			
Quarts .....	14	18	20
Weight, pounds .....	2½	3½	3¾
Per crate of six cans .....	\$2.42	\$2.63	\$2.78

There was one butter-making innovation, widely discussed and promoted at the time for progressive dairying, which should have revolutionized home butter-making. The centrifugal cream separator embodied the progressive scientific spirit present within agriculture at the time. In Ontario, however, men continually denied this technology to the majority of Ontario's farmwomen

Fig. 16) Deep-setting creamer cans, 1908  
Sears catalogue. NMSTC Agriculture  
Collection.

<sup>28</sup> "Dairy Notes," *The Farmer's Advocate* (March, 1883), 93.



because they devalued their contribution to farming; they slighted their perceived unscientific methods; and, they did not want to spend money on new chore-specific technology for women's work. By the early 1880s, for example, the centrifugal cream separator was available in the province to replace overnight setting and physical labour associated with using and cleaning shallow pans. The technical description of this tool's purpose included mention of temperature, speed, and power, all characteristics that home-made, crude butter-making tools lacked.

Milk, warmed to aid separation, was poured into a tank at the top. It passed into a chamber fitted with a float and then through a strainer into a chamber which revolved at great speed, subjecting the milk to a centrifugal force, which caused the heavier skim milk to fly to the outside while the lighter cream remained near the centre. The separator channeled the milk and cream separately to emerge from two different pipes. These machines could be hand-cranked, horse-gearred or power-driven, and all had the very high gearing necessary to create the speed required to perform the task. They were extremely efficient but also costly.<sup>29</sup>

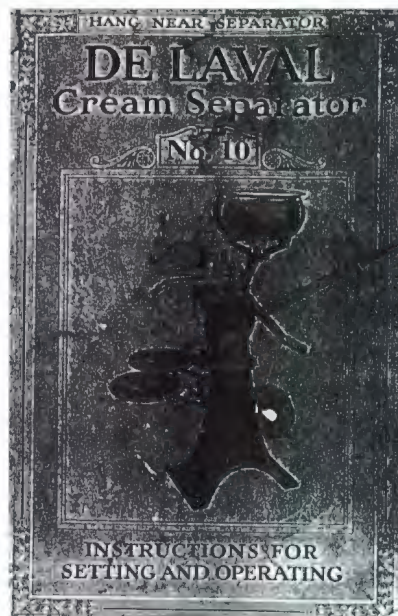
Despite their advantages, farmers were reluctant to buy separators. In addition to their high cost the machine seemed strange, was difficult to keep clean, and still required the hand-power of a dairywoman. These qualities of the technology partly explain why farmers remained reluctant to invest in these machines.<sup>30</sup> In terms of processing, cream separation with a centrifugal separator was less physically intensive than shallow-pan, necessitating less time and fewer bulky items to hand wash. The cream separator, however, still required physical labour since it was hand-cranked. The separator's many

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<sup>29</sup> Ingram, 22.

<sup>30</sup> Using horses for power was not often an option for dairy women's work. Horses provided draught power and transportation for the farmer and the family. If a power wheel was used, the farm dog, sheep, or goat most often ran, rather than the indispensable horse. Since these small animals did not have the stamina or size of a horse though, their ability to rotate a churn for the entire churning period, and to keep a steady pace, required a human to watch them, negating any time saving.

tiny parts also had to be dismantled, soaked, scoured to remove butterfat residue, cleaned, and dried before the separator could be reassembled pain-stakingly. For those who did invest in centrifugal separators, this necessary and delicate reassembly of machinery created problems for many farmers and farmwomen. If machinery was not adequately cleaned and oiled, correctly re-pieced, or was assembled loosely and then operated, the expensive and chore-specific equipment quickly warped or threw off its bowl mid-spin, creating havoc in the dairy.



**Fig. 17) Handbook for deLaval No. 10 centrifugal separator. NMSTC Agriculture Collection.**



**Fig. 18) deLaval No. 10 Cream Separator circa 1910s, pictured with later twentieth-century galvanized bucket and separator oil can. MCFP 986-14-01.**

The April 1887 edition of *The Farmer's Advocate* published an article titled "Separating Cream from Milk by Hand-power," that included an image of an upright "hand separator" or centrifugal cream separator. The machine was described as "the latest invention by De Laval," which was "in the hands of the investigators, who will be sure to

expose any flaws should it possess them,” indicating enduring skepticism from farmers for dairy machinery.<sup>31</sup> By 1887, however, the centrifugal machine was no longer a new invention, but had been developed by Alfred deLaval in 1878, and made available in the province as early as 1882. This chore-specific machine (it only separated cream from whole milk) did combine the traditional chores of straining, separating, and skimming needed in the familiar and old-fashioned shallow-pan method. One of its benefits that, “the machine can be turned by any person of ordinary strength,” suggested its application for on-farm usage but also its lack of true mechanization and alternate power for labour-saving. Rather than 12 to 48 hours for gravity separation in pans, “a farmer who has 10 cows giving an average of 16 lbs. of milk each per day, will separate the milk in one hour; or half an hour in the morning and half an hour at the evening’s milking.”<sup>32</sup> Even within the promotional article for deLaval’s revolutionary machine, the concept of male, factory production was considered superior to any female need on the farm. “The hand separator is specially adapted to the farmer’s own use when he makes his own butter, but there is little objection to his sending his cream to the creamery under this system.”<sup>33</sup>

The purchase of a centrifugal cream separator machine did not eliminate the dairywoman’s need for more basic implements for subsequent butter-making tasks. Since the cream separator did not remove traditional objects from use, farmers avoided costly investment in task-specific technologies while their wives continually worked with hand-

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<sup>31</sup> Gustaf de Laval (1845-1913) received the first patent on his continuous-flow, centrifugal cream separator model in 1878.

<sup>32</sup> “Separating Cream from Milk by Hand-Power,” *The Farmer’s Advocate* (April, 1887), 107.

<sup>33</sup> “Separating Cream from Milk by Hand-Power,” 107.

made objects. Many farmers rationalized it did not make sense to purchase expensive and unnecessary machinery that did not render obsolete other more basic tools. Authorities urged farmers to purchase separators, but expansion required money. Most farmers continually undervalued their wives' butter-making work and considered only their own male sphere of work as suitable for investment. Debate over method and tools continued but little substantial or lasting change to farm dairy work emerged from expert suggestions or technologies pre-1914.

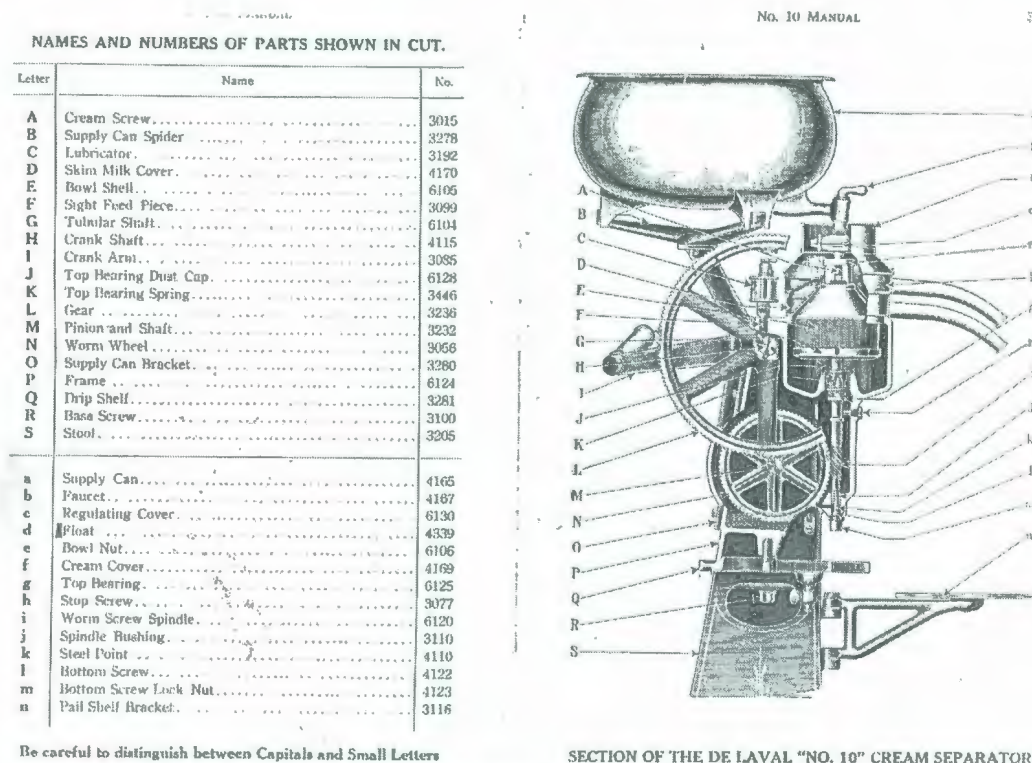
Cream-separating was only one step on the way to butter. Even with a centrifugal separator for this particular step, the separated cream then had to be agitated in a crude churn, and once the butter formed in the churn it had to be worked, washed, and salted in a wooden butter bowl or on a wooden butter-worker table. Since the cream separator did not eliminate use of traditional wooden tools, farmers justified their lack of investment in scientific machinery due to the costly, unfamiliar, and chore-specific nature of modern technologies. Authorities argued that if dairywomen had access to cream-separating technologies or improvements, the progressive female-to-male shift would be slowed. Experts therefore emphasized the male-ness and complexity of centrifugal machinery in order to keep these machines off the farm. "Although cream separators were available in the 1880s," Bennett and Campbell observe, "they were not a common feature of Ontario farms for many years after."<sup>34</sup> Nearly a generation of dairywomen recognized their difficult circumstances, understood means existed to alleviate their burden, and realized nothing was done by their fathers, husbands, or brothers to improve their working

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<sup>34</sup> Sue Bennett and Lynn Campbell, *Rural Women, Labour and Leisure, 1830s-1980s* (MCFP, unpublished, 1986), 29, 31.



situations, particularly in terms of mechanization or basic improvements to existing tools.<sup>35</sup> Paul Dettloff indicated in his research on centrifugal machines how “very few separators exist of any sort that were made before 1900. From 1910 to 1930 was probably the peak time of cream separators,” likely due to the lingering reluctance of farmers to purchase the equipment and the progressive force for factory dominion over butter production in Ontario.<sup>36</sup>

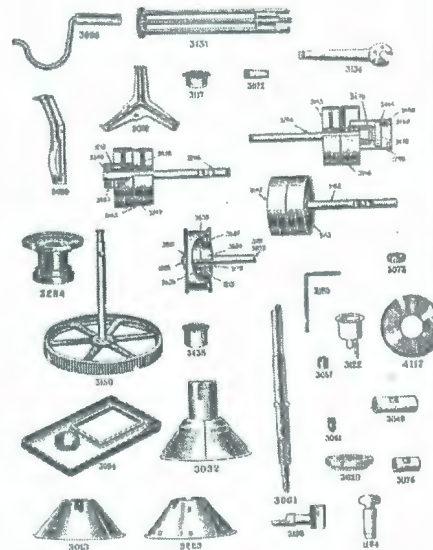
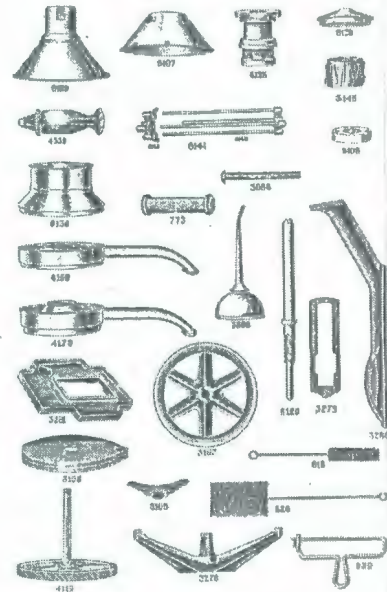
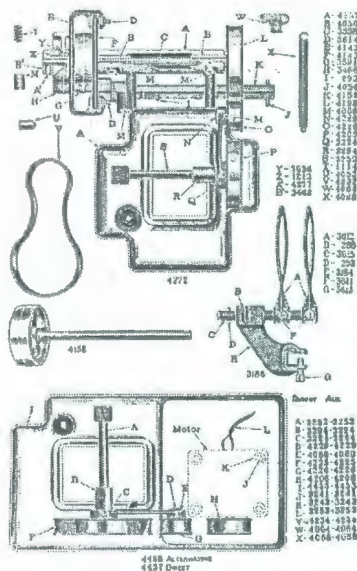
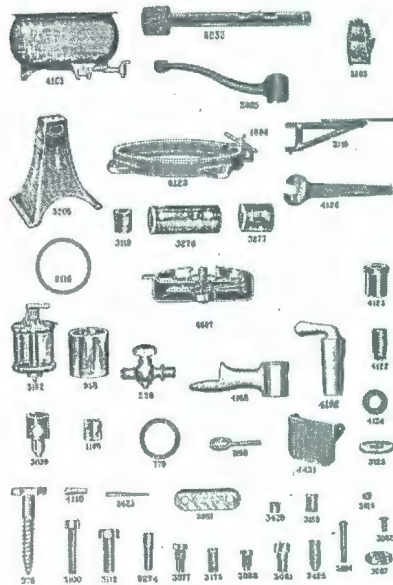


Be careful to distinguish between Capitals and Small Letters

**Fig. 19) deLaval No. 10 handbook page illustrating the external parts of the machine. NMSTC Agriculture Collection.**

<sup>35</sup> “Women were indeed dedicated to the success of the farm, but they themselves recognized their disadvantaged status there, and discerned that their interests and needs often opposed those of their men. Indeed, farm wives and daughters decried their unmerciful workload and the devaluation of their labour, and in so doing asserted a shared recognition of female oppression for which many of them impugned farm men.” From: Monda Halpern, *And On That Farm He Had a Wife* (Montreal: McGill-Queen’s University Press, 2001), 27.

<sup>36</sup> Dettloff, vi.



**Figs. 20), 21) deLaval No. 10 separator handbook pages, illustrating internal parts and gearing for machine. NMSTC Agriculture Collection.**

Introduced at the same time as centrifugal separation, the cream separator cabinet serves as another example of the enduring use of out-moded dairy tools on the province's

family farms, especially for women's work. The cream separator cabinet maintained domestic characteristics as opposed to the integration of new and available, scientific qualities. Considering how difficult it was for busy farmwomen to clean internally-g geared machinery while also attending to their domestic work, it is not surprising a less mechanized separator appeared on the market. Separating cabinets utilized natural gravity separation and fit into the domestic environment, such as the kitchen or back porch of the farmhouse, disguised as furniture. While this type of machine would have saved time in pouring, setting, skimming, and scouring numerous separate pans, the design made it difficult to clean while it also took up a great deal of valuable domestic work space. Although the objects accommodated increasing milk production, farmers did not consider these larger and hard-to-clean cabinets an improvement over shallow-pans. Consequently, few of these cabinets were made and few remain as examples of large-scale yet basic gravity cream separation. Overall, dairywomen persisted with old-fashioned and inadequate tools for butter production and dairy work.



**Fig. 22) Champion cream separator cabinet circa 1885. NMSTC 730341(.1t.2).**





**Fig. 23) Interior view of gravity system with glass viewers over release valves. NMSTC 730341(.1t.2).**

The shallow-pan method was clearly time-consuming and labour-intensive. Yet, more than a generation after the introduction of Cooley cans, and concurrent with the arrival of centrifugal machines and cream separator cabinets, traditional shallow-pan separating methods and tools endured. In other words, Ontario farmwomen continued to use the laborious and time-consuming shallow pan separation method.

Another large amount of needless work comes from setting milk in a multiplicity of small vessels, causing a waste of time and labor in filling, skimming, emptying, washing and handling so many dishes, three quarters of which might be avoided by setting cold in a few large vessels. But the farmer, failing perhaps from not reading up on what relates to his own business, fails to appreciate the labor-saving improvements in creaming milk, and hence the modern labor-saving modes are not available on his farm.<sup>37</sup>

While experts condemned the shallow-pan as old-fashioned and inappropriate, the province's farmers considered them practical, and even necessary, for good butter taste.

<sup>37</sup> Prof. L. B. Arnold, "Wife-Killing Arrangements" *The Farmer's Advocate* (June, 1885), 165.



Once cream was separated from milk, whether by gravity or centrifuge, the next step was to churn the cream into butter. Churning simply forced milk fats to coagulate as cream was agitated. The wooden butter bowl and spoon (sometimes referred to as a paddle or ladle) was a universal form of churn due to its simplicity and versatility. The bowl could be adapted for nearly every step of hand butter production: as a pan for gravity separation, as a churning vessel, and for washing, working, and salting butter. Hand-made, wooden, always wide and usually oval with a flat bottom, it was the most versatile as well as the most easily cleaned of all dairy tools. Farmers made butter bowls from green or fresh wood, which was readily available for making tools in the bush. A green-wood butter bowl was quickly seasoned and sealed from constant exposure to butter-fat, water, and salt. Use of such un-dried wood determined the natural shape these bowls assumed, becoming oblong from moisture and heavy use. Even an empty butter bowl was heavy but once filled with cream the natural oval shape of the wooden bowl made it slightly less awkward for the dairywoman to churn with it on her hip or between her knees. These objects determined the hard labour endured by all those who churned and worked butter by this method. Using a butter bowl required upper-body strength and a great deal of patience and time to deal with water, grease, and salt. The replacement for the rudimentary butter bowl was the unmechanized, upright dasher churn. It was initially developed to churn larger quantities of cream. With cream entirely enclosed, the dairywoman could create movement while containing the liquid lessening the loss of cream involved with beating in an open, wooden bowl.



**Fig. 24) Ottawa Valley hand-carved butter bowl and butter paddle amongst other domestic implements. OTHS unnumbered.**

Chore-specific dairy tools, such as the butter bowl or upright churn, determined the physically demanding nature of churning. As the introductory rhyme of this chapter indicated, churning was a repetitive and pounding job. “Buttermaking in itself was difficult and time-consuming, particularly if done by hand. Even when done by churn, buttermaking was hard work.”<sup>38</sup> The hard work involved in churning with a bowl and spoon persisted for some despite the introduction of improved yet unmechanized tools, such as the upright dasher, barrel, and box churns. While the capacity of these churns was greater than the butter bowl, new problems and challenges with suction, uneven churning, and inferior construction emerged for the already struggling dairywoman. “The oldest forms” and those most commonly used

<sup>38</sup> Marjorie Griffin Cohen, *Women’s Work, Markets, and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), 104.

by provincial dairywomen were “those known as the barrel-churn, and the dash-churn.”<sup>39</sup> Historians concur that a great number of butter churns in various shapes and styles co-existed in Ontario throughout the century from 1813 to at least 1914.



**Fig. 25) Early Ontario upright dasher churn shown as one piece. NMSTC 660338.1-4.**



**Fig. 26) Alternate view of churn, lid, and plunger with attached agitator (restored). NMSTC 660338.1-4.**



**Fig. 27) Butter churn shaped like a baby's cradle, also called a rocker churn; hand-made in Fenelon Falls, Ontario. NMSTC 660344.**



**Fig. 28) Painted, side detail of Buttercup churn, with twentieth-century metal repaired edge.**



**Fig. 29) Interior showing hand-pegged baffle bars that created agitation when rocked.**

<sup>39</sup> Andrews, 384-385.





**Fig. 30) Hand-made, Ontario Box-churn, late 1880s. MCFP 1965.12.1037.**



**Figs. 31), 32) Painted, upright, wooden churn, with star-shaped dasher. UCV 1992.1.82.**



**Fig. 33) Stationary, hand-made box churn;  
Fig. 34) Interior view. OTHS unnumbered.**





**Fig. 35) Many earthenware upright dasher churns. Henry Stahl private collection.**



**Fig. 36) Upright, earthenware dasher churn with early-twentieth-century hand-cranked attachment, deLaval "Vane" Churn. MCFP.**

The upright dasher churn came into use in the first quarter of the nineteenth century in Ontario. Settling families used available materials for constructing and repairing basic tools. Churning with this kind of object could take anywhere from twenty minutes to three hours per batch, depending on the amount of cream, the size of the churn, and the resilience of the dairywoman. A churn's main purpose was to force air

through the cream, separating fat and water so the butterfat would solidify and coagulate and the liquid buttermilk could be drained off. The home-made rocker churn and the box churn, as well as vertical and horizontal barrel churns appeared in the province from the late settlement period and remained in use until at least World War One (WWI).

Churns were of great variety, and many a primitive make-shift served the purpose. Four short planks nailed together made the first churn on one farm, and the housewife said that she made 'as good butter in that churn as any I ever made in my life, but I needed to watch the seams carefully.'<sup>40</sup>

Referring to her hand-made wooden implements, the quoted dairywoman touched on the problematic expansion and shrinkage of wooden dairy tools constantly in contact with moisture. Due to the difficulty of the chore and the continued growth of milk production throughout the century, a never-ending variety of shapes for hand-made, butter churns emerged as farmers and dairywomen attempted to increase production by home-making crude and mainly inefficient wooden, hand-dashed or -cranked churns.

Three categories of butter churn appeared in post-1850 Ontario, although most only adapted existing designs. The first category of churns included the most basic models. These models remained stationary while dairywomen manipulated interior baffles from the outside, like a dasher or cranked box-churn. The second category included tools that agitated the butter by movement of the churn alone. In these tools, the cream vessel was swung, rotated, or rocked to get the cream moving inside the churn. The motion of the cream hitting the ends of the container caused the butter to churn, such as the early barrel churn or the x-frame design. The third category of churns applied characteristics of the other two types, using interior dashers for agitation in combination

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<sup>40</sup> Guillet, 9-10.

with movement of the vessel, such as the baffled rocker churn. None of these developments offered savings in labour or time for dairywomen and most merely altered the range of motion or working position of the churner.



**Fig. 37) Ontario-made Aldred spring churn, circa 1880. MCFP 11498.<sup>41</sup>**



**Fig. 38) Ornately decorated, Champion X-frame butter churn. Made in Morrisburg, Ontario, 1881. Henry Stahl private collection.**

<sup>41</sup> Fred Aldred, from Glencoe, Middlesex Co., Ontario, signed his letters patent on June 15<sup>th</sup>, 1880. Aldred asserted that the combination of the metal supports and the shape of the wooden box he devised as a machinist and farmer made for a superior butter churn, and could alternately be used as a washing machine for clothes. (MCFP 11498).





**Fig. 39) Home-made, interior-baffled rocker churn, circa 1870s.  
OTHS unnumbered.**

Regrettably for dairywomen, crude churn styles persisted in the province throughout the century. One contemporary agriculturalist described these familiar farm implements and in so doing the lack of innovation in churning tools: “The objects are the same in all, that is to facilitate a rapid, steady, shaking action of its contents.”<sup>42</sup>

Illustrating the tenacity of old-fashioned tools, Professor Arnold depicted a particular object in 1885 as an “ancient piece of dairy apparatus.”

Unfortunately the very hardest working one of all is more frequently found in small dairies than any other – the old dash churn. Partly from its simple structure and low cost, but chiefly from the force of custom, it continues in use, a terror to dairy maids and half-grown boys, and, very likely, will be handed down to future generations.<sup>43</sup>

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<sup>42</sup> Andrews, 384-385.

<sup>43</sup> Arnold, 165.



The hand-powered churn proved so popular in Ontario, that Eliza Jones dedicated Chapter Ten of her popular book *Dairying for Profit or The Poor Man's Cow*, to these butter tools. Jones told her audience how she used an American-made, wooden, Bullard-model box churn to make approximately 7000 pounds of butter in 1892. She also recommended "The Davis Swing Churn," a Canadian model, "with much satisfaction."<sup>44</sup>

The suggested churn had no interior baffles, was made of tin, and had:

... a round body while the ends are conical. This, in a minute, hooked on to two chains, which hang from the ceiling, and a delicate woman, by having the chains long enough, can sit down in her chair, and work the churn with the greatest ease and comfort, pushing it from her and then pulling on the string attached to the end.<sup>45</sup>



**Fig. 40) Suspended "pork-belly" butter churn. OTHS unnumbered.**

Jones admitted this arrangement for a butter churn sounded odd, but urged Ontario's dairywomen "to get out of the old rut, but just let them try it and they will be surprised and delighted. At any rate, anything is worth trying that will lighten the labor of the over-

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<sup>44</sup> Jones, 39.

<sup>45</sup> Jones, 39.

tasked wife and mother.”<sup>46</sup> Farmwomen simply needed the opportunity to try something new to improve their familiar yet difficult dairy work. Despite Jones’ encouragement, in 1908, the Sears catalogue included one of the most basic forms of churns: the end-over-end barrel style. Although these objects existed, most farmwomen would not have had access to funds for the purchase of new tools let alone on a number of chore-specific machines. Male experts attributed the persistent use of old-fashioned and out-moded tools on family farms to dairywomen’s supposedly backward attitudes and lack of knowledge; clearly, male reluctance to pay for new technologies or improved tools additionally compromised the valuation of dairywomen’s work.

**\$2.57** OUR IMPROVED COVER STAR BARREL CHURN, 6-GALLON.



Made of selected hardwood. This style of churn is old, tried and reliable, easy to operate and keep clean; it is absolutely impossible for this churn to leak, as the wear can be taken up as simply as one can turn a thumb nut. The fasteners are attached to the outside of the churn, and clamp the cover with an anti-leak compound lever action.

**YOU PAY MORE ELSEWHERE**

No.	Holds Gals.	Churns Gals.	Weight, pounds	Price, as illustrated
9K 29200	6	1 to 3	29	\$2.57
9K 29201	10	1 to 5	36	2.86
9K 29202	15	1 to 7	43	3.23
9K 29203	20	2 to 9	59	3.64
9K 29204	25	2 to 12	71	4.43
9K 29205	35	3 to 16	89	5.30

**Fig. 41) 1908 Sears ad for 6-gallon barrel churn.**  
NMSTC Agriculture Collection.



**Fig. 42) Hand-cranked barrel churn with metal legs (2 gallons).**  
NMSTC 990056.

Churning butter was such variable and difficult work that it had no specifically defined time-line: “This will occupy from a quarter of an hour to three hours, when

<sup>46</sup> Jones, 39.

churned in large quantities, from an hour to an hour and a half is the average time.”<sup>47</sup> Constant and steady physical force to dash the plunger up and down or turn crank was necessary in order to produce both good and bad results. Working with one stationary and chore-specific tool consumed a large portion of the farmwoman’s food production labour even with larger capacities and less wastage afforded by new churns.<sup>48</sup> Once the butter “came” or formed in either the bowl or the churn, the dairywoman still had numerous precarious steps remaining before she had a finished, edible product.

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<sup>47</sup> Andrews, 384-385.

<sup>48</sup> Note the chore-specific, end-over-end barrel churn was listed for \$2.57 in the 1908 *Sears* catalogue, while the cost for a centrifugal separator **was** listed in the same catalogue for over ten times that at \$28.00. Centrifuge and its scientific ingenuity **remained** expensive and therefore out of dairywomen’s grasp.





**Fig. 43) Sallows' 1907 "Churning" with an end-over-end vertical barrel churn.  
PAO C223-1-0-0-2.**

The next steps after churning cream into butter included working and washing, to create even consistency, and subsequently salting to aid preservation. In pre-WWI Ontario, dairywomen worked, washed, and salted fresh-made butter in their wooden butter bowls. With a bowl, only small portions of the whole churning could be worked at a time. This batch processing created consistency problems and dairywomen's product consequently lacked reliability and quality. Hand-processing with basic wooden tools limited the amount of milk a dairywoman could manage.



While new butter-making tools should have taken on scientific characteristics, the objects dairywomen had access to retained domestic qualities and appearances. The butter-worker table is an excellent example of the particular melding between traditional female and scientific male knowledge during the transitional period, as well as developing perceptions pertaining to female dairy work. Introduction of the butter-worker table was intended to ease the extremely intense physicality of 'working' large amounts of butter in small batches. Removing the repetitive lifting and draining action required of the smaller butter bowl helped the dairywoman's aching back and saved time. The butter-worker table was adapted from the butter-bowl and spoon combination and simply set upon a larger, flat area. Operated at waist height, it was also produced in table-top models. The more popular free-standing tables were generally pie-wedge shaped; slanted downward, with a narrow opening or bung at the bottom that allowed for the buttermilk and water to run off into a container on the floor. An over-sized, one-handled roller, like a rolling pin, was worked back and forth over the butter on the surface. The table simplified steps and allowed for working of greater amounts of butter at one time, yet remained mostly hand-made, hard to clean, and always hand-powered.



**Fig. 44) Free-standing,  
hand-made, lever butter-  
worker table, 1880s  
Ontario. OTHS,  
unnumbered.**



**Fig. 45) Top view of  
butter-worker table,  
stained and cracked from  
use with water and salt.  
NMSTC 691149.**



**Fig. 46) Table-top butter-worker, 1877. Henry Stahl private collection, Russell, Ontario.**

Even though the butter-worker table was developed during the transitional period, many dairywomen continued to use their bowls to work, wash, and salt butter well beyond the turn of the twentieth century. In 1905, Laura Rose commented on the use of hand-made, unmechanized tools for farm butter production. Rose discussed how to best use existing tools because she knew that was all farmwomen had access to. Encouraging farmers to make even simple improvements to dairywomen's existing butter-making implements was a common thread in Rose's talks and publications. She highly recommended that, "every woman who is making any quantity of butter should have a lever butter-worker. It is not expensive to buy, but a

handy man can make a better one than can be bought.”<sup>49</sup> While the old, wooden butter bowl was not even capable of holding one churn-full of butter, a standard butter-worker table could hold enough to wash and salt two churnings from a large-capacity upright dasher or barrel churn. Laura Rose’s insistence upon the adoption of this tool indicated both the heightened work demands on female butter-makers and that dairywomen’s tools proved inadequate for provincial butter-production needs. It also implied that it was unlikely women would receive the benefit of alternately-powered or factory-made machinery, despite their availability. Thus, Rose mentioned the reasonable cost of butter-worker tables yet still described home-made options due to the simplicity of design and the lack of female control over farm expenditures. A rolling pin attached to an angled, pie-wedge-shaped table, however, did not indicate any sophisticated level of mechanization, any ease of dairy’s physical labour, or any development of a singularly new dairy apparatus. Rather, the butter-worker tool allowed women to work more efficiently using an inexpensive object, which was easily adapted from an existing table. While the new apparatus had more capacity, the manipulation of the butter was still time-consumingly hand-powered, and thus butter working remained both a challenging and female chore.

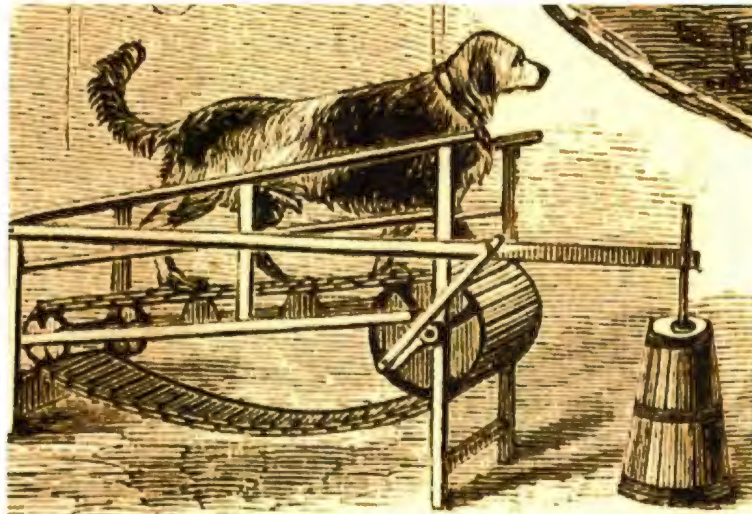
Most technological dairy innovations introduced between 1813 and 1914 remained unmechanized and relied on female hand-power for operation even as milk production increased. “If the supply of milk be great, it is advisable to have some power to run the separator, as even the easiest machine if turned by hand for any

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<sup>49</sup> Rose, “The Farm Dairy Outfit,” 1905.



length of time becomes tiresome.”<sup>50</sup> Revolutionary machinery such as the centrifugal separator still needed to be hand-cranked by the hard-working dairywoman without an alternate source, like dog, sheep, or horse power.



**Fig. 47) Early image of treadmill with dog-powered upright churning; detail from frontispiece of *Willard's Practical Dairy Husbandry*, 1877.**

As previously asserted, the repetitive up-and-down motion of dash churning was heavy upper-body work for the busy dairywoman.<sup>51</sup> The diversion of manual power from vertical motion to varied lateral, horizontal, or circular action appeared in many forms within the province's technological dairy development. Ride-on attachments for the common dasher churn, or geared, rotary, turning mechanisms for dasher or barrel churns did not, however, save labour or time for dairywomen. These contraptions, most frequently made from wood – although iron fittings appeared on

<sup>50</sup> Miss Laura Rose, "Separators: Their Construction, Care, and Operation," *The Farmer's Advocate* (July 2, 1900), 383.

<sup>51</sup> "Children could help with milking, scalding dairying equipment, and churning while the cream was still relatively liquid, but adult strength and dexterity were necessary to complete the churning process, to work the butter, and to prepare it for market." From: Joan M. Jensen, "Butter-making and Economic Development in Mid-Atlantic America from 1750 to 1850," *Signs: Journal of Women in Culture and Society* 13, 4(1988), 822-3.

some geared tools – still needed human strength for power. Referring to the most popular style of butter churn – the wooden, upright dasher – Eliza Jones warned in 1892, “plainly, and without hesitation, that a heavy churning in an old-fashioned churn is not fit work for any woman, be she ever so strong.”<sup>52</sup> Jones had used an upright, dasher style of churn for many years, yet found this form of dairy technology obsolete.

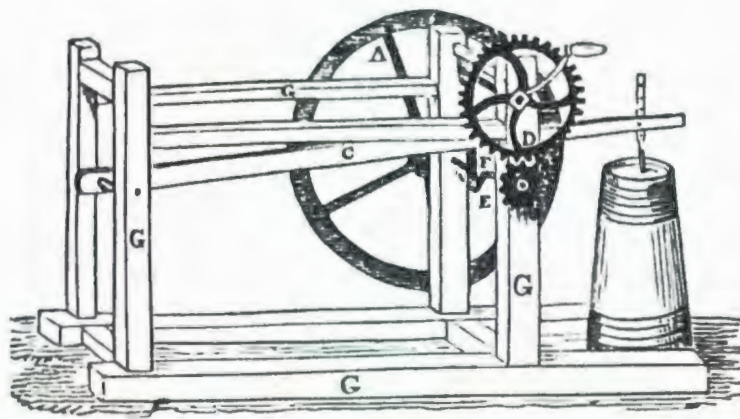
I may now state that I never have made better butter than I did 16 years ago [1875], when I first got my Jersey cows. I made 2500 lbs. of as fine butter as I ever saw or tasted, and it was all churned in an old-fashioned dash churn, and worked with a wooden bowl and ladle. I do not recommend this, as it is too laborious, but I only mention it to show what can be done, even under adverse circumstances.<sup>53</sup>

Regardless if the churn had a wood or ceramic vessel, churning with an upright tool was frustrating, physically-demanding, and time-consuming. Countless patents and variations appeared in the second half of the nineteenth century, to displace the upper-body strength needed to continuously dash liquid up and down into solid. Churns with hand cranks, foot treadles, and ride-on seats all tried to replace the traditional dasher churn.

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<sup>52</sup> Jones, 39.

<sup>53</sup> Jones, 40.



**Fig. 48) 1844  
Hand-cranked  
Churn  
attachment, from  
*The Emigrant's  
Hand-book*.<sup>54</sup>**



**Fig. 49) Wooden,  
ride-on dasher  
churn  
attachment, circa  
1880s.  
MCFP 976.15.01**

<sup>54</sup> *The Emigrant's Hand-book* listed on page 109, in February 1844, a Mr. Jas. M. Thomas's butter-churn attachment at, "\$6 without the churn" – meaning just the gearing attachment – which was a considerable sum for the period.





**Fig. 50) Wooden, ride-on dasher churn attachment 1880. Henry Stahl private collection.**



**Fig. 51) June 1887 patent paper with diagram of "Improvements in Manual Powers" for a displacement of energy while churning butter. NMSTC 17109.**



Nineteenth- and early-twentieth century discussions encouraged the use of adapted churns on family farms for relief of the butter-making burden, as well as power-wheels and treadmills. One farmer wrote to the *Farmer's Advocate* cautiously inquiring about such labour-saving tools in 1886: "When four or five cows are all that are milked, a dog is kept to churn, and some women say it's 'hard work to keep him at it.' If that is the case, it must be harder for themselves to do it, without a doubt."<sup>55</sup> Harnessing the power of an animal meant the dasher was fastened to a shaft, which was moved by a crank instead of the dairywoman's hand. The crank was turned by means of a vertical or horizontal wheel, often eight or ten feet in diameter, kept in motion by a dog, sheep, or calf walking upon it. Since the dairywoman had to stand with the animal to keep it moving, treadmills and wheels did not truly save her time. "The trick with this machine, however, was to get the dog or sheep to walk at a steady, even pace. Since this rarely happened, the treadmill churn, for all its ingenuity, never caught on."<sup>56</sup> Although these technologies may have saved the dairywoman physical energy, the inconsistent gait of the dog, sheep, or horse most often made for lumpy and poor-tasting butter. This reinforced dairywomen's reliance on the most basic of dairy tools as well as the negative perception of farmwomen's suitability for butter production. Additionally, the difficulty of maintaining a large wooden power-wheel – having adequate space for both use and storage – and the challenges associated with animal labour, meant these churning attachments often did not last long in use or were never adopted whatsoever.

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<sup>55</sup> W. H. B., "Women's Out-door Work," *The Farmer's Advocate* (August, 1886), 241-2.

<sup>56</sup> *Seasons of Change*, 93-4.



**Fig. 52) Horizontal wooden power-wheel, from St. Mary's, Ontario. MCFP unnumbered.**



**Fig. 53) Eight-foot high, vertical, wooden power-wheel attached to end-over-end barrel churn, from Staffa, Ontario. MCFP unnumbered.**

Nineteenth and early-twentieth century dairy work in Ontario was on-going and filled with toil. Familiar tools used for making butter in the province tell a great deal about the kinds of work farmwomen experienced as part of their daily lives. Dairywomen's understanding, as well as the function, use, and care of essential objects determined the quality of their product and their lives. Inadequate dairy tools compounded difficult butter-making processes and made life a drudge for farmwomen. Milking, separating, churning, and working, washing, and salting butter formed a major part of farmwomen's lives. Working within a complicated system of patriarchal control, provincial dairywomen experienced the juxtaposition of transition and stagnation regarding their labour and technology. Just as mid-twentieth-century housewives called for better domestic appliances to ease their labour, the combination here of discourse and material culture analysis reveals that Ontario's dairywomen also desired improvements, which they did not widely receive. Ultimately, it was dairywomen's simple tools that relegated them to the margins of industrializing dairy work beyond WWI.

During the one hundred years between 1813 and 1914, Ontario dairywomen saw little technological change in their working lives. Technological innovations favoured a male, scientific focus for dairying, which overwhelmingly restricted the typical farmwoman's access to improved tools and consequently limited industrial development. Farmwomen's ability to adopt technological changes, however, remained beyond their control as men guided dairy growth in the province and purse-strings on the family farm. Dairywomen's use of out-dated and simplistic tools did not offer them any safeguards against sore hands, spoiled milk, aching backs, or

never-ending chores. Consequently, male, scientific agricultural authorities overwhelmingly devalued female butter production while the men on the farms denied dairywomen access to better equipment for their challenging and ever-increasing workload. Truly labour-saving machinery, such as the centrifugal cream separator, remained outside the typical Ontario dairywoman's experience between 1813 and 1914. Although butter-making objects did change over time, improvements remained based upon principles of early tools, like the butter bowl and the dasher churn, which limited technological development and hindered butter-making. Scientific and technological improvements stayed merely concepts for the typical Ontario female butter-maker, effecting little appropriate or lasting change to dairy tools. Nineteenth- and early-twentieth-century Ontario dairywomen's work therefore remained laborious not only from the gendered disparity between progressive male expectations and female dairy experiences but from broader opposing forces of industrialization and practicality, which limited female access to improved dairy science and technologies for their work.



## Chapter Four Scientific Dairying

A little maid in the morning sun  
Stood merrily singing and churning –  
'Oh! How I wish this butter was done,  
Then off to the fields I'd be turning!'  
So she hurried the dasher up and down  
Till the farmer called with half-made frown,  
'Churn slowly!'

'Don't ply the churn so fast, my dear,  
It is not good for the butter.  
And will make your arms ache, too, I fear,  
And put you all in a flutter' –  
For this is a rule wherever we turn,  
Don't be in haste, whenever you churn –  
'Churn slowly!'

If you want your butter to come nice and sweet  
Don't churn with a nervous jerking,  
But ply the dasher slowly and neat –  
You'll hardly know that your working;  
And when the butter has come you'll say,  
'Yes, this is surely the better way' –  
'Churn slowly!'

Now, all you folks, do you think that you  
A lesson can find in butter?  
Don't be in haste, whatever you do,  
Or get yourself in a flutter;  
And while you stand at life's great churn,  
Let the farmer's words to you return and –  
'Churn slowly!'<sup>1</sup>

This 1885 poem, "Churn Slowly" has an amusing and playful tone. Yet, within the poem, a didactic and authoritative male voice condescendingly scolds the unmethodical, even childlike, female butter maker. Rather than making or buying the dairymaid in the

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<sup>1</sup> "Churn Slowly," *The Farmer's Advocate* (May, 1885), 146.

poem a newer, bigger, better, faster, or alternately-powered churn, the farmer commented on her technique and butter-making capability. He detailed a “better way” but with no suggestion of improved tools or changes to the dairymaid’s traditional and crude churn. While the verse encouraged patience and proper method for good results, the young girl’s specific chore and her character came under criticism. Negative characterizations within the poem illustrate the overarching devaluative trend toward farmwomen’s knowledge, work, and tools in Ontario at the end of the period discussed. The notion that farmwomen slacked in their dairy work was the dominant message of the poem and typical for the time. Devaluation related to the push for defeminization of traditionally female-gendered dairy work, as part of a powerful force for agricultural industrialization in Ontario during the nineteenth and early-twentieth century.

“Scientific Dairying” is divided into two sections. The first section is dedicated to discussion of scientific agriculture’s ideological development, addressing attitudes surrounding this important aspect of growth between 1813 and 1914. A dialogue on dairywomen’s work cannot be complete without an understanding of the atmosphere surrounding dairy advancement in general. A growing export market orientation of dairying, particularly of the work within dairywomen’s sphere, increasingly placed pressure on female production as the value of butter rose and industrialization of traditional chores was promoted. Developing and dominant trends in scientific agricultural ideology guided dairy growth in Ontario particularly post-1885. Contemporary dialogue surrounding these trends reveals much about how farmwomen worked and how the swell of improvements brought about through scientific and

technological advancements over the century could have affected, yet did not materially benefit, dairywomen's labour. Instead of emphasis on asserted and prescribed scientific discourse, counter-discussions from dairywomen, critics, and experts emphasized the reluctance of men to adopt scientific farming principles particularly to benefit women's work. The second half of this chapter discusses several Ontario dairywomen, highlighting Laura Rose, who was associated with progressive and scientific dairying in the province at the turn of the twentieth century. Rose helped develop a small sisterhood of educated dairywomen armed with knowledge of the newest scientific and technological advancements available in the province. Concurrent with Laura Rose's academic dairy class, however, the average Ontario dairywoman struggled with an increasing amount of milk to process, her grandmother's antiquated dairy tools, and little access to advances in dairy knowledge or mechanization on the family farm. In addition to teaching at the Ontario Agriculture College, Rose's work background and widely-accessed commentary highlight continuity and change in dairy production during the scientific period.

As butter became more export-market oriented in the province over time, the need to remove women and capitalize on this agricultural product became linked with the success of Ontario's progressive agricultural future. Increased settlement and improved transportation encouraged Ontario's farmers to concentrate on and gradually specialize their farming endeavours. "Farmers expanded their operations, bought more animals, more machinery. Many Ontario farmers began to realize that there could be more to

farming than growing wheat.”<sup>2</sup> Overwhelming change took place in terms of agricultural growth with a shift toward male, specialized, and industrial-focused dairying in Ontario.

Before the onset of the scientific period, during the settlement and transitional periods between approximately 1813 and 1885, farmers and their female counterparts derived appropriate dairy knowledge mainly from experience. As families settled and farms became established, definitions of appropriate agricultural knowledge began to shift. “In the Upper Canada of the mid-1800s newspapers and publications expressed an extraordinarily lively and optimistic view of life. Farmers, particularly, were seen to be working in an agrarian Utopia where the future could only be better than the present.”<sup>3</sup> Farmwomen, however, maintained the burden of dairy production while their husbands, fathers, brothers, and sons enhanced their own work circumstances through agricultural improvements. “And so the nineteenth century’s great enthusiasm for scientific farming came to be reflected in Ontario.”<sup>4</sup> The reflection, however, was of male experts and experiments, and farmers did not necessarily see themselves represented in new approaches to agriculture. Initially, farmers negated the contributions of scientific experimentation or methodology even though science and technology pervaded on-going, farming discussions. Yet, progress was for male farmers not farmwomen. Agriculture expert J.R. Hodgetts wrote: “Here, surely, on the harsh Canadian soil, we see the last

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<sup>2</sup> John and Monica Ladell, “Hope, Faith and the Beginning of Scientific Agriculture,” *A Farm in the Family: the Many Faces of Ontario Agriculture over the Centuries* (Toronto, Dundurn Press, 1985).

<sup>3</sup> Ladell, 88.

<sup>4</sup> Ladell, 88.



flowering of the Age of Enlightenment.”<sup>5</sup> Despite such optimistic perspectives, the challenge remained to convince farmers of the benefits to their own work through scientific agriculture and mechanized dairying.

Discussions of scientific farming outlined the requirements for successful agriculture in terms of knowledge, skills, and tools. Although the concept of scientific agriculture had emerged over a century earlier in England, a scientific-era, Canadian treatise on science in farming offered only a vague definition:

Scientific farming, as we understand the expression, is simply farming in harmony with the laws which the great Architect and Ruler of Nature has implanted in the soil, the air, the plants, the animals, and the relations which subsist among them.<sup>6</sup>

Science-based agriculture was elevated and considered superior to experience alone particularly by those with influence. Scientific authorities understood the basic principles of all things dairy-related and did not simply act upon practical observation, or so suggested experts themselves.

It is well to observe the distinction between one who knows the reasons for processes employed and he who only imitates or follows accidental discoveries. Scientific farming means an intelligent apperception of the relation between causes and results, the discernment of the “whys” and “wherefores” of the various actions and efforts of the farmer.<sup>7</sup>

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<sup>5</sup> Ladell, 88.

<sup>6</sup> “This view was partly a spillover from the eighteenth century agricultural revolution in Britain, where impetus had been given to the ‘new agriculture’ by the formation of a Board of Agriculture in 1793 – the forerunner of a similar board that was established in Upper Canada in 1846. Made up of agricultural enthusiasts, the British board had no bureaucratic function or authority; rather its purpose was to popularize new methods such as drainage, the use of fertilizers and crop rotation. It pressed vigorously for the introduction of new agricultural machinery, including the threshing machine and a new type of wheeled plow.” From: “Scientific Farming – Thoughts on a Noteworthy Address,” *The Farmer’s Advocate* (July 15, 1895), 274.

<sup>7</sup> “Scientific Farming – Thoughts on a Noteworthy Address,” 274.

Rather than simply knowing if something succeeded or failed, the scientific farmer had to understand the process as well as the outcome in order to overcome problems. Those with mainly practical experience did not trust those who had little contact with farming other than from theory, or as provincial farmers commonly called it, “book learnin’ [sic].” Discord and division between the practical and scientific therefore lingered throughout the period. The experienced farmer held the scientific expert under suspicion while these agricultural authorities regarded the practical farmer with derision.

Historian Martin Bruegel’s observation that, “management of the dairy relied on the wife’s ‘mind, two hands, and bodily strength’,” remained the norm throughout the period in Ontario despite dominant ideological discussion to the contrary.<sup>8</sup> Economist Marjorie Griffin Cohen correctly identified the dominant role male forces played in the development of industrial dairying, as well as the state’s position in legitimizing scientific agricultural authority.

Dairying was an important part of women’s farm work in Canada before the rise of the factory system in dairy production. With this development, starting around the mid-1860s, women’s participation diminished, and was gradually eliminated as farms became more specialized and capital accumulation became a more important aspect of production. This trend was also encouraged by the government’s tendency to support only men’s efforts in the industry as it grew to be big business.<sup>9</sup>

In fact, Ontario dairywomen kept producing butter regardless of the highly promoted shift to creamery factories and industry-focused butter-making in the province. Historian Sally McMurry referred to Ivy Pinchbeck’s early-twentieth-century work on British women’s

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<sup>8</sup> Martin Bruegel, “Work, Gender, and Authority on the Farm: The Hudson Valley Countryside, 1790s-1850s” *Agricultural History* 76, 1(2002): 6.

<sup>9</sup> Marjorie Griffin Cohen, “The Decline of Women in Canadian Dairying,” Alison Prentice and Susan Mann Trofimenkoff, eds., *The Neglected Majority, Vol. 2* (Toronto: McClelland and Stewart, 1985), 61.

dairy labour, emphasizing what early analyses like Pinchbeck's – and possibly what Marjorie Griffin Cohen's economic-centered work – missed. McMurry illustrated “a substantial element of continuity in women's participation in the dairy process between 1800 and 1930.”<sup>10</sup> Like McMurry's American research, this thesis finds dairywomen in Ontario maintained their traditionally-gendered dairy roles until at least 1914 because their labour was required and they could not afford new machines but also retained their roles regardless of the powerful forces working to remove them.

Historian Nancy Grey Osterud analysed dairywomen's work and its economic relationship to increasing domestic markets and an ever-widening market network in the United States from approximately 1864 to 1914. Osterud found while dairywomen persisted in “their traditional tasks, the change in the economic context of these tasks transformed their meaning.”<sup>11</sup> She indicated this change in context and transformation in meaning was negative, and was possible through the long-standing, gendered organization of agricultural labour on the family farm. The dichotomous development of dairy “progress” in Ontario was certainly due to the pre-existing division between male and female, and even more so during the scientific period. Osterud noted in the United States how “women did predominantly subsistence-oriented labor and men monopolized market-oriented production” as was also most common in pre-WWI Ontario. “The

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<sup>10</sup> Sally McMurry, “Women's Work in Agriculture: Divergent Trends in England and America, 1800 to 1930,” *Society for Comparative Study of Society and History* (1992): 249.

<sup>11</sup> Nancy Grey Osterud, “The Valuation of Women's Work: Gender and the Market in a Dairy Farming Community During the Late Nineteenth Century,” *Frontiers* X, 2(1988): 18.

devaluation of noncommodified labor and the devaluation of women's work went together."<sup>12</sup>

Easily linked with Osterud's work, Lena Sommestad and Sally McMurry's 1998 article compared industrial dairy development in New York State and Sweden. Sommestad and McMurry discussed challenges and transformations to female dairy work between 1860 and 1920, and how it was "women's position in dairying" that altered in both countries. The authors noted a common international trend in dairying as "Ireland, Denmark, Sweden, Canada, and the US" all "developed into a separate export industry, owned and controlled by men."<sup>13</sup> Male dominance was predicated on the devaluation of dairywomen's work, in terms of access to dairy knowledge and tools for farmwomen in Ontario between 1813 and 1914. Analysis through discourse of that period reveals scientific and technological transitions geared toward male industrialization had great impact on female farm work but not necessarily in a positive or lasting way.

For scientific agricultural experts throughout the nineteenth and early-twentieth century, the catchword "progress" was popular in public dialogue. As agricultural authorities gained distinction, they promoted progressive farming as synonymous with wealth for the farmer and advancement for Ontario. This science- and technology-focused ideological trend promoted a creamery factory system that applied male scientific knowledge and machinery to dairy work instead of female, practical experience and

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<sup>12</sup> Osterud reminds us that her use of the word "valuation" indicates how "value is an ascribed rather than an inherent quality; value itself is socially defined, and the amount of value that is assigned to various types of labor is socially determined." From: Osterud, 18.

<sup>13</sup> Lena Sommestad and Sally McMurry, "Farm Daughters and Industrialization: A Comparative Analysis of Dairying in New York and Sweden, 1860-1920," *Journal of Women's History* 10, 2(Summer 1998): 138.



traditional tools. Notably for industrial development, in 1867 for the first time, a National Dairymen's convention took place in Ontario. While regional agricultural associations had existed in the province, this was an official meeting of the associated organizations.<sup>14</sup> Dairymen assembled to plan the budding industry's successes and seemed to hold hope that scientific agriculture was the key to successful farming and to Ontario's bright future. *The Farmer's Advocate* announced the first assembly officially promoting male dairy industry with a positive tone.

As we go to press we learn that there is to be an assemblage of the principal Dairymen of Canada to be held at Ingersoll, on the last day of July to form a Dairyman's Association, ...and ours will be the means of collecting and distributing information, and popularizing a branch of industry, that rightly managed, will yet prove of incalculable benefit to our farmers.<sup>15</sup>

Progress, as defined by the Dairymen's Associations, included information and profitability for the developing industry. Yet, it excluded the dominant producers – women. Benefit to farmers was assumed, but no thought for female dairy work was considered within plans to develop these female-dominated chores in a profit-oriented manner.

Despite progressive thinking, little concrete change occurred on provincial farms. According to the majority of dairy experts, critics, and authorities, it was not farmers but farmwomen and their work, which held back development and was incompatible with

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<sup>14</sup> "The first society was established in what is now Niagara-on-the-Lake in 1793. John Graves Simcoe promised to subscribe ten guineas annually to the Agricultural Society of Upper Canada to be spent on a premium for the benefit of Agriculture. By [1806] there was a society in York (now Toronto). Another was established in Wentworth county. Others were formed so that in time there was one, if not two in most counties. New legislation in 1845 insured that each society would receive government assistance amounting to three times the fees paid annually by its members. In 1846 a meeting was held in Hamilton with the idea of establishing a provincial society." From: Ladell, 84.

<sup>15</sup> "Dairyman's Convention," *The Farmer's Advocate* (1867), 63.

sought-after progress. While butter's value grew as a commodity, scientific experts and government authorities publicly and increasingly blamed and devalued the work of persistent dairywomen. "There is a feeling prevalent that because Canadian butter stands so low in the market, owing to its poor quality, the women, who principally made it, are to blame."<sup>16</sup> To shift prevalent, negative attitudes of farmers toward scientific agriculture, the definitions and discussions surrounding scientific farming elevated the methodical over the practical yet attempted to straddle the boundaries of both through pre-existing gender divisions, in order to make it palatable to men. Agricultural authorities, however, underestimated the conservatism of farmers working the soil, who laboured to support their families, who inherently undervalued their wives' work contributions, and who distrusted those that pushed aside traditional experience.<sup>17</sup>

Even with a wealth of scientific knowledge and evidence disseminated throughout the province suggesting the effectiveness of new technologies, few agricultural experts explicitly blamed the practical farmer for lowering the value of butter. Criticism of farmers' reluctance is one way historians can grasp alternative attitudes rather than only dominant positive viewpoints geared at promoting scientific agriculture. A Canadian, Mr. S. P. Smith, wrote from England in 1868, censuring provincial farmers for disregarding and undervaluing their wives' work and consequently affecting butter product.

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<sup>16</sup> M. Moyer, "Prize Essay- Women in the Dairy," *The Farmer's Advocate* (August, 1885), 235.

<sup>17</sup> "The lack of adequate equipment and/or help can be attributed to dairying's historically insignificant role in the farm operation. It was not considered a major source of income, rather an extra source of cash and therefore often the last to get necessary capital investments." Sue Bennett and Lynn Campbell, *Rural Women, Labour and Leisure, 1830s-1980s* (MCFP, unpublished, 1986), 29, 31.

Farmers and Farmers' wives, let us elevate our name in the British market and command a higher price for our produce. The English butter is quoted at 128s per hundred lbs. in kegs; Canadian butter only 80s. Ladies, we attach less blame to you, than to your liege lords, and take the same on our own shoulders. Butter-making is an important process. Much depends on a proper course, proper place and proper packing. The factory system in butter-making is coming in vogue in the States. By that means a much higher price may be realized.<sup>18</sup>

Dairywomen's traditional wisdom was denigrated by experts and also by those criticizing unprogressive farmers. The understanding and application of scientific laws increasingly directed dairy industrialization in the province over the century, as well as the valuation and importance of agricultural knowledge.

Before 1885, agricultural experts tried to span scientific and practical farming distinctions, often recommending a blend of both for agricultural success. The dissimilarity between expert authorities and sensible agriculturalists made the concept of appropriate scientific knowledge difficult for farmers to accept.

The value of Scientific Farming has been discussed until the question is threadbare, and yet it is one which may well bear a little further consideration. The success of Agriculture is a subject in which all are interested, whether they are farmers or not. The subject may have been worn threadbare, but it has not lost either in interest or in importance.

What is a "purely scientific man?" Is it a man who is most thoroughly acquainted with one or more sciences, and who is acquainted with *nothing else*? If so, then of course, a purely scientific man cannot make farming pay or anything else pay. Farming is an art as well as a science. If a man does not understand the art of farming, he had better not undertake to farm.

It strikes us that these men are none the less scientific because they are practical, and none the less practical because they are scientific.<sup>19</sup>

Regardless of encouragement for a combination of the two approaches, a clear division existed between the scientific man and the sensible farmer, as well as new technologies

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<sup>18</sup> "Canadian Cheese and Butter," *The Farmer's Advocate* (1868), 87.

<sup>19</sup> "Scientific Farming," *The Farmer's Advocate* (1868), 94.

and traditional tools, with the expert male elevated over the backward farmer and his toiling farmwife.

An 1871 discussion of the expanding dairy business illustrated that the view of Ontario's dairy development was not necessarily as positive as dominant ideological rhetoric suggested.

We presume not 1/3 of the farmers in Canada ever see an agricultural paper, even when borrowed; therefore, the majority of them have to follow the example of those that take them, but they do not attempt a move until years of practical experience in their own vicinity show that the dairymen are making money.<sup>20</sup>

According to agricultural and scientific authorities, particularly those who wrote and edited for the *Farmer's Advocate*, unprogressive farmers remained impoverished from indifference to improvements and their own lack of pride. Those without science – hygiene and appropriate knowledge, paired with progressive thought as well as new technologies – could not make agriculture profitable.

His cows shiver by the side of the fences, and he complains that the children eat too much butter. He thinks those farmers who take agricultural papers and who read works on farming, are stuck up farmers. He is down on all books of learning. He never has a paper in his house that is of value. Reader, have you any farmers of this character in your vicinity? If so, try and buy them out and send them away, as they are a drawback and disgrace to any neighborhood.<sup>21</sup>

The man farming without scientific knowledge adversely affected his own prosperity, ultimately denigrating himself, his farm, his family, his wife's butter product, and the agricultural hopes for the province – namely industrialization. The poor farmer almost certainly had a wife, sister, mother, or daughter whose circumstances retained only the most rudimentary forms of dairy knowledge and tools forcing her to work in drudgery.

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<sup>20</sup> "The Dairy Business," *The Farmer's Advocate* VI, 4(April, 1871), 49.

<sup>21</sup> "The Poor Farmer," *The Farmer's Advocate* (1871), 85.



Farmwomen meanwhile became the overwhelming focus of agricultural experts critical of traditional dairy ways and means.



**Fig. 1) Image of an “ideal” and progressive Ontario farmstead, circa 1880s.  
PAO S14858.**

By the beginning of the scientific period about 1885, the importance and value of butter on international markets was generally recognized and experiencing growth. Concurrently, M. Moyer wrote a prize-winning essay, which suggested women's knowledge, work, and product experienced broad devaluation. Although the first creamery factory opened in the early 1870s, the author indicated how a decade later Ontario's butter quality and value had declined despite industrial development. Experts attributed this loss to continued female, on-farm production:

Men are thunder-struck when the good wife, through all her efforts, can no longer exchange her butter for all the store goods required in the house. He inquires the reason; something must be done; we must have different apparatus to set our milk;

and better facilities, so that we can make first-class butter. The creamery question suggests itself. Its advantages are discussed.<sup>22</sup>

The author clearly illustrated awareness of the push for farmwomen's removal as well as the difficult position facing most dairywomen working without appropriate tools for their challenging chores. The "creamery question" was one of male industrialization and authoritative control over traditional female labour. As portrayed in the opening poem, rather than supply women with adequate "apparatus" or "facilities" farmers supported the factory option, and did very little to alter working circumstances on the farm. Moyer pleaded for farmwomen's continued role in dairy work since poor product was not their fault but due to a lack of adequate and efficient tools.

We find that machinery takes away a great deal of the men's labor on the farm, but the women's work remains about the same. ...The consequence is, that the good woman of the house, her work not being affected by machinery, will find herself short of help under these circumstances.

The over worked woman must be relieved from a great deal of drudgery, dissatisfaction, and woes. The reputation of our butter redeemed. The country will then be made wealthier, happier and better. Give the women a chance and they will give a good account of themselves.<sup>23</sup>

Unfortunately, very few farmwomen had opportunities for improvement of their own making and male authority – experts or farmers – remained averse to enhancing female farm work. In contrast with Moyer's recommendation, the majority of authorities continually criticized dairywomen for their lack of adequate tools while farmers left their female family members without access to improved technologies.

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<sup>22</sup> M. Moyer, "Prize Essay: Women in the Dairy," *The Farmer's Advocate* (August, 1885), 235.

<sup>23</sup> Moyer, 235.

Importantly, dairy experts and authorities in the province did not want farmers purchasing new tools for their wives. Instead, those wielding control over dairy development wanted women removed from dairy work, with milk-related chores entirely defeminized and preferably removed from the farm. The purchase of improved dairy tools for female on-farm use ran counter to progressive dairy development – defeminization. This merely offered farmers another justification for avoiding the purchase of often expensive, always chore-specific, machinery for farmwomen’s work even if they did not accept the tenets of science-oriented farming.<sup>24</sup> Experts suggested dairywomen confronted with difficult working circumstances needed to be relieved of their burden but that did not equal improvements. Dominant scientific, agricultural ideology continually endorsed a shift toward factories and away from female on-farm production, regardless of who was at fault for poor butter quality.

Another expert who criticized the male hesitation to purchase dairy machinery was Prof. L. B. Arnold, who wrote “Wife-Killing Arrangements” for the *Farmer’s Advocate* in June 1885.<sup>25</sup> Making an example of a farmer husband, Prof. Arnold pointed

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<sup>24</sup> “Farmers favored the acquisition of labor-saving machines rather than house-hold appliances without consulting their spouses on expenditures of farm profits to which women’s own work in garden, barn yard, and dairy had contributed.” From: Martin Bruegel, “Work, Gender, and Authority on the Farm: The Hudson Valley Countryside, 1790s-1850s,” *Agricultural History* 76, 1(2002): 24.

<sup>25</sup> Lauren Briggs Arnold was born in Herkimer County, New York, August 13<sup>th</sup>, 1814 and died in New York in 1888. Prof. L. B. Arnold was a widely-published dairy man and one-time president of the American Dairymen’s Association who also lectured in Canada. From a farming background, he owned a cheese factory, and was working as a scientist at the age of 65 for Cornell University studying the “then unknown cause of the ripening of cheese and the effect of acid on rennet...” From: “New York State’s Dairymen Association,” *Eleventh Annual Report of the Proceedings of the Annual Convention, 1887* (Geneva, New York: Citizen Book and Job Print, 1888), 28.

out the neglect for the perspective and work of women was rampant on Canadian farms where men controlled the financial resources.

The farmer, failing perhaps from not reading up on what relates to his own business, fails to appreciate the labor-saving improvements in creaming milk, and hence the modern labor-saving modes are not available on his farm. They are only availed of where the dairymen keep posted. For the farmer's failure to keep pace with the times his wife is again obliged to pay penance in hard work.<sup>26</sup>

Negative male attitudes toward agricultural enhancements relegated dairywomen to an inferior position both within ideological discourse and within their own work on the farm.

Arnold reprimanded farmers for not taking more interest in dairy work and simultaneously painted a pathetic picture of the dairywoman's life.

This incident of thoughtless indifference on the part of this husband for the comfort and convenience of his better half, is quite illustrative of the needless tasks which farmers and especially those having small butter dairies often impose upon the generally over-burdened female members of their families. From shiftlessness or a thoughtless indifference to the importance of having a dairy room, as well as a cook room, on a level with the living room, the farmer neglects to prepare a suitable place to set milk above ground, and the milk must go into the cellar all summer, and perhaps all winter, making extra work in carrying it down and bringing it up again, and in running up and down stairs to do the skimming and washing and other dairy work.

I insist that they are wife-killing arrangements, and that they are as unprofitable as they are wicked, and their existence or avoidance is sufficient to make all the difference between making the production of butter a pleasure and a dreaded burden, and all the difference between sound health and happiness and a steady waste of vital energy that carries in its train exhaustion, lingering illness, premature old age, and a gloomy existence that puts life itself at a discount.

It is no small chore for the farmers' households to make the butter for feeding the nation, and everything that can be done to alleviate the burden ought to be pushed for all it is worth.<sup>27</sup>

While Arnold may have dramatized circumstances for overall effect, his article indicated how ill-equipped dairywomen were to handle the new science- and technology-based

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<sup>26</sup> Prof. L. B. Arnold, "Wife-Killing Arrangements," *The Farmer's Advocate* (June, 1885), 165.

<sup>27</sup> Arnold, "Wife-Killing Arrangements," 165.



agriculture. Alleviating the weight of work from farmwomen's shoulders was possible through two avenues: the purchase of available tools in the home dairy, or through the removal of these chores from the female sphere.

An 1893 report from the Ontario Dairymen's Association noted the inaugural class of the male Dairy School at Guelph's OAC.<sup>28</sup> The report clearly demonstrated the prevalent division between science and practice within dairying. It included an address from Head instructor Prof. H. H. Dean, titled "Science in the Dairy." Dean joked about his own moniker of Professor and how he was hesitant to "give in any special title to the Secretary of the Association" due to a "great fear of scientific names, or any mention of science in connection with agriculture or farming."<sup>29</sup> He continued by contrasting practice against science. Dean asserted experience was inadequate for profitable agriculture: "Practice is the application of a theory, or the application of an accident." While he ensured "nearly all the advantages of the dairy are due to the applications of science," the message was clear: the province's farmers needed scientific technologies and scientific knowledge to farm successfully.<sup>30</sup> Farmers themselves, then, remained a barrier to progress and industrialization in Ontario dairying as they continued to neglect female butter production.

In contrast to the variables of on-farm butter-making, scientific and technological factory production supposedly ensured butter's quality, consistency, and profitability.

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<sup>28</sup> Laura Rose attended the OAC male dairy school in that same year.

<sup>29</sup> Ontario Department of Agriculture, *Annual Reports of the Dairymen's and Creameries' Associations of the Province of Ontario, 1893* (Toronto: Warwick Brothers and Rutter, 1894), 14.

<sup>30</sup> Ontario Department of Agriculture, 15.

Cheese factories appeared in the early 1860s in Ontario and proved a viable success both for making quality cheese and for defeminizing cheese production. Experts strongly encouraged farmers to continue the industrial trend and send their whole milk to local creamery factories both for separating and butter-making, once the province's first creamery for butter-making opened at Athelstan, Huntingdon County, in 1873.<sup>31</sup> A comparison of the difference between butter and cheese industrialization in Ontario revealed "the diffusion of the factory system" for cheese production "was completed in just a few years" while conversely "development of creameries lagged behind" by nearly a generation in Ontario.<sup>32</sup> Historian Robert Ankli attributed this slower transition in butter industrialization and mechanization to a "lower return from butter," which "was the result of inefficient methods of recovering the butterfat from milk," highlighting on-farm technological barriers – namely lack of adequate tools for female producers.<sup>33</sup> In contrast with cheese factories, creamery or butter factories, dairywomen on the farm continued to use traditional tools for cream-separating and churning, discouraging investment or confidence from farmers. Butter-making industrialization began during the transitional period, but from their inception, creamery factories employed the shallow-pan separating system. Later, the Cooley, deep-can system was adopted by some creameries but no

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<sup>31</sup> W. Stewart Wallace, ed., *The Encyclopedia of Canada, Vol. II* (Toronto, University Associates of Canada, 1948), 171-173.  
<http://faculty.marianopolis.edu/c.belanger/QuebecHistory/encyclopedia/DairyinginCanada-Canadiandairying.htm> (accessed May 8, 2008).

<sup>32</sup> Robert E. Ankli, "Ontario's Dairy Industry, 1880-1920" *Canadian Papers in Rural History, Vol VIII* (1992), 264. "The first factory system of cheesemaking was introduced by Harvey Farrington in 1863 in Oxford County. By 1880, there were fourteen cheese factories and three creameries in Glengarry County alone, and the number of cheese factories actually doubled in Ontario between 1883 and 1896." From: David Densmore, *Seasons of Change*, 98, 101.

<sup>33</sup> Ankli, 264.

mechanized or even manual centrifugal cream separators appeared in the province's butter factories until 1897.<sup>34</sup> Public health expert Dr. Charles Hastings tried to cast the slow shift to the creamery factory system for butter production as a positive outcome in 1908.<sup>35</sup> "We in Canada are already fifteen years behind, but in that fifteen years other nations have done the pioneer work, and it is only left for us to step into the procession and press rapidly to the front, but we must do it now."<sup>36</sup> Hastings did not explicitly blame farmers or farmwomen but potentially realized the delayed shift to factory from farm production was due to the reluctance of farmers to embrace scientific agriculture and the consequent persistence of dairymen making butter while using antiquated tools.

In 1906, J. Bower, an expert from the Ontario Agricultural College, indicated in his article for *The O.A.C Review* that tensions surrounded the still-developing dairy industry. "No amount of discouragement, no accumulation of difficulties, can stop its progress, directed as it is by some of the ablest men the Dominion can produce, and

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<sup>34</sup> The number of creamery factories in Ontario more than doubled between 1883 and 1896, although not steadily, from 23 to 50, with the amount of butter made rising from 243,902 pounds to 1,867,758 pounds during those years. From: Ontario Department of Agriculture, "Bulletin (Special) Second Edition," *Dairying in Ontario* (Toronto: Ontario Department of Agriculture, May 1, 1894), 8. Still, these amounts did not compare with on-farm butter making, which accounted for 54.9 million pounds in 1881 and 55.6 million pounds in 1891. From: Marjorie Griffin Cohen, "Table 4" *Women's Work* (Toronto: University of Toronto Press, 1988), 104.

<sup>35</sup> Note, that although historians understand the "experts" quoted in *The Farmer's Advocate* were not necessarily all directly related or experienced with agriculture, farm people who read the prefixes of Doctor or Professor mainly understood their authority rather than their areas of expertise. Thus, for example, to describe Dr. Charles Hastings as a public health expert within this thesis does little to convey how this kind of information was consumed and perceived by dairymen. Farmwomen would not have known the background of these authorities – be they public health experts or veterinarians – as such information was rarely provided.

<sup>36</sup> Dr. Charles J. C. O. Hastings, "The National Importance of Pure Milk," *The Canadian Practitioner Review*, Pamphlet No. 73 (1908): 1-13.

backed up by her most progressive citizens, the dairymen."<sup>37</sup> Reference to discouragement pointed out how little support provincial farmers offered for progressive and industrial initiatives, while difficulties perhaps suggested male reluctance to apply scientific ideology, as well as unwanted female perseverance in dairy production. Even beyond the turn of the twentieth century, shaping or altering farmers' opinions toward acceptance of scientific agriculture proved difficult. Two years later, the 1908 *O.A.C. Review* revealed that farmers' reservations endured in terms of the adoption of scientific principles.

The practice of dairying has, step by step, evolved itself into the science of dairying, although from its infancy until comparatively recent years, this science has been shrouded by an almost impenetrable cloud of mystery. It therefore appears that peace and harmony are lacking in the dairy industry of Canada today.<sup>38</sup>

Despite on-going challenges, agricultural authorities remained convinced of the positive contributions offered by scientific developments and technology. The enduring disinclination of many farmers to accept and apply new concepts and tools, especially in terms of women's work, slowed transition toward an industrial, factory system, and kept mechanical developments away from the farm.

The divide between science and practice in agriculture persisted as experts and government-affiliated associations paternally and condescendingly tried to convince farmers of the benefits science and technology offered dairying, even if farmers could not recognize the influence. In 1908, Frank Hearn, Chief Instructor for the Western Ontario

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<sup>37</sup> J. Bower, "The Dairy Industry," *The O.A.C. Review* 18, 7(April, 1906): 309-311.

<sup>38</sup> F. H. Dennis, "Concentrated Effort in the Dairy Industry," *The O.A.C. Review* 20, 6(March, 1908): 310.



dairy school, attempted to ease and sway the minds of practical farmers through his presentation of: "A Few Things Science Has Done to Help Dairymen."

Practical experience combined with scientific knowledge makes a dairyman of superior excellence, but how seldom do we find these two qualifications properly balanced in the make up.

Intensely practical men have as a rule very little use for the Scientist, while the scientific man sometimes looks with some little degree of scorn on the practical man and his work.

...Without the practical man to work out the discoveries made by science for the dairyman, these discoveries would be of little use to the great dairy business.

Dairying could never have advanced beyond the few crude facts found out by long experience were it not for the untiring work of highly educated devoted men who were willing to give their time, their superb minds, and their great knowledge of nature and nature's ways for the investigation of the truth.... The knowledge gained from the researchers of skilled Chemists and Bacteriologists have enabled...perfect control, and they are able to say that if they do things in a certain way, certain results will follow, instead of depending on chance or 'luck' as they sometimes called it in the old time dairy work.

There are many other things too numerous to mention, that have been worked out by the Scientist for the benefit of the dairymen, and many of these things have been accepted by the practical man and have become so common in his daily routine that he forgets or does not fully realize the great benefits contributed to this work by the Scientist.<sup>39</sup>

Herns' speech did not address any scientific advantages for dairywomen. Despite the myriad of improvements scientific agriculture claimed, or the dominant promotional discussions, provincial farmers remained unconvinced. Consequently, the promised scientific overhaul of profit-making and labour-saving machines for dairy work never effectively materialized on family farms before WWI in the province and dairywomen's work remained tedious as a result. The division between science and practice, male and female, persisted, and restricted farmwomen from agricultural improvements.

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<sup>39</sup> Frank Herns, "A Few Things Science Has Done to Help Dairymen," *The O.A.C. Review* 20, 4(January, 1908): 188, 189, 191, 192.

Nearly a decade into the twentieth century, old, yet positive, perceptions regarding traditional dairy work and dairywomen's on-farm work had been eradicated. The changed nature, or gender, of dairying, supposedly removed all barriers to progress through a concentrated effort by male agriculturalists. Ideally, the scientific farmer who embraced dominant ideology would benefit from his scientific and technological knowledge by farming profitably, taking over his wife's work, sending his milk to creameries, all the while ensuring a positive economic and industrial future for the province's dairy industry. Farmers themselves continually restricted the adoption of scientific and technological improvements for women's work and thereby hindered the ideological tendency for transition in dairy work from farm to factory and from female to male, maintaining farmwomen in their traditional dairy roles. Although the fundamental perception of dairy work continued to change and shift, and some alteration to the butter-making process occurred, dairywomen's tools did not significantly alter on the family farm until at least 1914.



**Fig. 2) Turn-of-the-twentieth-century Postcard, from the Canada Postcard Company "The Modern Farmer."<sup>40</sup>**

<sup>40</sup> This farm family heading to market loaded their modern motor-car with giant-sized eggs and an enormous potato, suggesting that industrialization of agriculture through science and technology was both

Ideological notions and perceptions had little positive effect on provincial dairywomen's physical work, which emphasizes the powerful force for defeminization prevalent within dairy industrialization. Dairy expert Laura Rose could not only make quality butter, she taught young men and women how to do so while demonstrating advanced dairy methods and machinery. In her late teens, she went to keep house for her older brother on a North Dakota farm. There she attended to the household duties, cooked for several hired men, cared for the chickens, hand-made butter, and carried out a whole array of unmechanized farm duties. While working in the US, she realized the deplorable conditions in which most farmwomen worked and felt basic improvements to dairy practice and tools would relieve much of their drudgery. During Rose's teaching career, she worked tirelessly to improve farmwomen's work. She helped open the female dairy school at Guelph, toured the country, as far as Victoria, British Columbia. She lectured widely, published a book, and was appointed by the Ontario Department of Agriculture as an organizer and spokeswoman for the Federated Women's Institutes of Ontario (FWIO) to disseminate the progressive tenets that organization exemplified. Rose excelled as a writer; for many years she edited monthly columns in two Canadian farm journals and also wrote articles on home and farm life for leading American agricultural periodicals. Her commentary forms a revealing component of dairy science's ideological development from both a female and an expert perspective. Laura Rose is worthwhile of study for her academic contributions to agriculture alone, but it was her position relative

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desirable and profitable for the farmer, his family, and therefore the province. "The Modern Farmer," William H. Martin (1865-1910) Silver Print postcard, Issued in Canada by Canadian Post Card Co., Toronto, 1910.

to the development of dairy work, her relationship as a teacher and mentor for farmwomen, coupled with her perception of the typical dairywoman's working situation, which are of importance to this study. Rose's contemporaries, their words, and their hard labour indicate that regardless of blame, ideology, or male reluctance, dairy work in Ontario remained predominantly traditional and female.

Laura Rose employed and demonstrated the most advanced dairy techniques and mechanized technologies available in Ontario at the turn of the century and beyond. During her first session of teaching, Rose asserted how Ontario farmwomen needed to be more open minded and less resistant to alterations. In so doing, she indicated the powerful scientific, ideological force for change in the province affecting traditional dairying and consequently dairywomen's daily work.

It is a fact that the more we adhere to the good (?) [*question mark in original*] old ways of our mothers, the more conceited we become. It is only when we break away from the long-established methods and search for new light that we grow broad and generous in our views, and then we find what we have hitherto thought the only proper way to be both laborious and crude.<sup>41</sup>

Laura Rose hinted at two reasons why dairywomen persisted in their laborious ways. She indicated that perhaps dairywomen too easily accepted their lot and, importantly, that men did not recognize the valuable economic role women played. In either case, labour-saving dairy tools remained low on the priority list for Ontario farmers. Later in her career, Rose increasingly shifted her emphasis from women's insufficient dairy knowledge to the responsibilities of men and the importance of their support for their wives' dairy work. She often lectured both women and men on the overall agricultural

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<sup>41</sup> Laura Rose, "The Dairy School from a Woman's Standpoint," *The Farmer's Advocate* (1897), 137.



improvement a few new dairy implements could bring. She grasped, and openly discussed, how circumstances remained difficult for dairywomen on family farms and directly told these women their existing toil could be relieved. Dairywomen needed information and tools, but both stayed limited for the majority of Ontario's female dairy producers prior to 1914.

During the scientific period, a provincial farmwoman, Mary Ann King Chippewa, kept a simple diary of routine happenings and chores, providing a female, on-farm perspective. According to her, antiquated methods and tools remained a part of dairywomen's reality. Making butter, collecting eggs, baking bread, and sweeping kept Mary Ann at home, while occasional visits with neighbours and regular church attendance comprised her social life.

1894, September 22: I churned. I had a horrible cold.  
1894, November 30: Terrible cold. Marg swept upstairs  
and baked bread. I cleaned down. We churned.<sup>42</sup>

In the context of her diaries, the reference to churning specifies that making butter was a common chore and that she and Marg, possibly her daughter or hired girl, shared the work. Chippewa worked at dairying for twelve months a year as she listed churning throughout her diary. Since both Mary Ann and Marg churned they could have used a bowl and ladle, potentially an upright churn, or divided the parts of the process between them; one churned while the other washed, worked, and salted. In any case, Chippewa's perfunctory references to dairy work indicated it was within her female sphere.

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<sup>42</sup> Mary Ann King Chippewa Private Journal, (PAO MS193 Reel 18, 1894).

In 1897, similarly to Mary Ann King Chippewa's situation, and in contrast to Laura Rose's ideal for female dairy work, a Mrs. J. Aikenhead wrote to *The Farmer's Advocate*. Aikenhead stated: "I read with interest all the different ideas I see on dairying. Have not got a butter worker yet, but do the best we can with the old bowl and spoon. I do not like butter worked much, just enough to make the color uniform."<sup>43</sup> Perhaps this dairywoman preferred pale-coloured butter since to work it adequately required greater time and energy. Aikenhead was inclined to keep up with innovations in butter-making but stated she had little opportunity to do so. Yet, this toiling farmwife persisted within the dairy process, understanding improvements existed, while working with out-moded tools.

One particularly interesting and popular article "Disadvantages of the Farmer's Wife" appeared in agriculture periodicals in the US and Canada around the turn of the twentieth century. This particularly discouraging view of cream-separating supported the notion of unmechanized hard work for women on family farms, which ran contrary to dominant and positive scientific ideology. The original article read:

Some time ago, a farmer was building a kitchen to his house. His wife wanted him to put a cellar under the kitchen, so as to afford a separate compartment for keeping the milk from that in which the vegetables were kept, and also for convenience, as it adds very much to the work when all the milk has to be carried through the dining-room and taken down cellar, which is got at in the common way – through a trap-door in the floor, with a rickety ladder as a substitute for a stairway. But this farmer was like the majority, slip-shod and easy-going, and considered the easiest way of completing his job the best. The good wife got angry and threatened to make a public exposure of the disadvantages of a farmer's wife, telling these dairy lecturers that it was not knowledge we wanted so much as a chance to put what we knew into practice. The wonder is there can be any good butter made when so many farmers' wives are obliged to set their milk in musty, dusty, unventilated holes under rickety kitchen floors in summer, and on pantry

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<sup>43</sup> Mrs. J. Aikenhead, "Home Dairy Buttermaking," *The Farmer's Advocate* (July 15, 1897), 314.

shelves in winter where it freezes at night and thaws in the day time, all the time absorbing the flavors of cooking, etc.<sup>44</sup>

With “so many” dairywomen experiencing similar inappropriate situations, not surprisingly the story prompted numerous published responses. Most of these comments, comebacks and admonitions, offered support for the specific dairywoman, and dairywomen in general. Reactions to common hindrances highlighted widespread problems prevalent in Ontario’s supposedly progressive and developing industry. Dairywomen eagerly responded in recognition of their sisters’, and their own, familiar plight.

One of the numerous responses from farmwomen was from a Mrs. Evergreen, who put the matter succinctly: “The farmer’s wife is, really and truly, the hardest worked and the poorest used of any one in the country; I mean more particularly in the way of labor-saving appliances. Men get all the machinery they need (and some they don’t need).”<sup>45</sup> Evergreen placed the blame of onerous dairy work and poor butter quality on inadequate tools and particularly on men for their disregard of female dairy contributions. Also in response to these disadvantages, “A Friend” wrote to *The Farmer’s Advocate* stating she “was prompted to write by an article I saw in a previous number of the ADVOCATE written by an unfortunate sister.”<sup>46</sup> She explicitly noted the challenges faced by fellow farmwomen – her sisters in toil – working with inadequate arrangements and tools, and specifically attributed the problem to neglectful male partners.

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<sup>44</sup> “Disadvantages of the Farmer’s Wife,” *The Farmer’s Advocate* (1897), 210.

<sup>45</sup> “Disadvantages of the Farmer’s Wife,” *The Farmer’s Advocate* (1897), 282. (Please note this letter was published in response to the article listed above, hence the identical title.)

<sup>46</sup> “A Friend to Farmers’ Wives,” *The Farmer’s Advocate* (1897), 282.

It is pretty hard that we should have to fight through the press for come comforts and things to make work easy, but housekeeping on the farm means so much more heavy work than in the city. I do not mean to complain of our dear husbands, but I will say that when they are well fed and kindly cared for they are very apt to become indifferent and heedless, neither thinking nor caring how hard the family has to work under many difficulties. I think the trouble is the farmer's brains are so absorbed with fine horses, fine barns, thoroughbred cattle, and every convenience on the farm to make work easy that he quite forgets how his family is struggling to make his home comfortable and attractive. A farmer must be very short-sighted if he fails to see that all this means not only hard work and skillful management but is a great strain on the nervous system.

Men generally like their wives to meet them with a smile, but if the wife has been trying to cook over a smoky stove, with the rain coming down through the roof, a miserable doorstep, and many other annoyances, it is not easy for her to present a cheerful appearance under such adverse circumstances. I would like to see them keep their equilibrium. I do not expect the men to take up this subject; they will prefer reading the *ADVOCATE* to learn more of improved farms, I am afraid, and remain indifferent to improved housekeeping.<sup>47</sup>

Despite farmwomen's requests and disadvantages, they did not receive the same kinds of benefits male farmers received, namely better tools appropriate for their work.

In 1897, another farmwoman wrote of the grim situation for the province's dairywomen. According to this self-professed "unfortunate," both disregard from farmers and placidity amongst farmwives perpetuated the negative living and working situations for Ontario dairywomen.

Until an improved lot of men help their struggling wives and daughters by providing better facilities for carrying on their part of the work there cannot be anything but discontent. If any farmer's wife can suggest a better way of awakening the blind and stupid, let us hear from them. As long as we women are willing to put up with the inconveniences we will be allowed to do so, and we are told for consolation that 'we have just as good as those around us.'

Trusting this subject will be discussed in your columns, I am, 'ONE OF THE UNFORTUNATES.'<sup>48</sup> [*emphasis in original*]

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<sup>47</sup> "A Friend to Farmers' Wives," 282.

<sup>48</sup> "Disadvantages of the Farmer's Wife," 210.



To shame Ontario's farmers into cleaning up and improving their wives' dairy working conditions and tools, this ill-equipped dairywoman threatened to call the "municipal assessor appointed Inspector" for house-calls. She summarily revealed the increasing level of male, scientific and government authority over female dairy practice, as well as the appalling absence of proper tools for dairywomen's work even at the turn of the twentieth century. Since farmers undervalued the importance of female dairy work on a basic level, emerging agricultural authorities easily demeaned farmwomen's position within the dairy production process as the profitability of butter increased.

Two years after the general discussions surrounding the difficulties faced by farmers' wives, Margaret Emma Griffiths was producing and selling butter she made by hand on her family farm. Marg (as she wrote on the cover of her diary) from Thorold, near St. Catharines, Ontario, noted that she and her family milked and dairied year-round. Consistently throughout the century, one of the greatest problems contributing to the poor quality of dairy or farm-made butter was the difficulty of maintaining a steady temperature in ill-suited storage places below stairs or in the barn for shallow pans of separating milk. Margaret Griffiths wrote:

February 8, 1899: The weather very severe; milk freezing in cellar.

February 13, 1899: The temperature about the same; milk freezing in the cellar all last week.<sup>49</sup>

Marg's numerous entries revealed common, dairy challenges with her own work space and cream-separating, as well as her movement in public space with comings and goings on the farm. Griffiths went to market once a week and sometimes traveled with her

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<sup>49</sup> Margaret Emma Griffiths Personal Diary 1899-1901, (PAO MY841 I-G-I).

daughter Grace, or neighbour Daisy, to town. She regularly jotted down the market price she received for her wares, or if the market was buoyant or “dull,” even commenting one day how butter sold poorly and was like a “drug” (or drag/drudge) on the market.<sup>50</sup>

March 3, 1899: Rather warm but foggy tonight again. Went to Thorold with butter and eggs.

April 1, 1899: Grace and I went to Thorold market- found it extremely raw and cold and roads very rough and muddy. Butter and eggs sold readily at- 20 cents and 15 cents.

April 8, 1899: Quite a fall of snow last night. Herbert and I went to market found the roads fare [sic] but sloppy. Eggs scarce and selling readily at 15 cents butter a drug. Daisy came to buy a setting tin [*for separating cream*] and got one at 50 cents.<sup>51</sup>

As she noted in her diary, Grace was still using shallow-pans for separating even with the availability of deep-setting cans and centrifugal separators at the turn of the twentieth century. Marg was responsible for the sale of butter and eggs and indicated she used her butter money to pay off a dress purchased in Thorold. While she did write a fairly detailed journal – children walking to school, deaths, weather, personal reflections, etc. – she consistently tracked and accounted for the sale of her butter and eggs, highlighting the income it afforded as well as the importance of this work aspect of her life.

Understanding how difficult work could be for a farmwoman, Laura Rose frequently charged that farmers’ reluctance to accept scientific farming or to improve working conditions of butter-making devalued both product and producers. Rose quoted the practical farmer’s familiar justification for retaining traditional dairy tools: “My wife

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<sup>50</sup> Griffiths, (PAO MY841 I-G-I).

<sup>51</sup> Griffiths, (PAO MY841 I-G-I).

or my daughters make as good butter as I want to eat.”<sup>52</sup> Many of Ontario’s farmers perceived little profitability from butter, let alone scientific dairy technologies, and continually resisted and restricted dairy improvements. Most farmers disregarded the value of butter money since it was most often used for non-farm-specific purchases like fabric or household items. In 1900, Rose spoke to the Dairymen’s Association of Western Ontario and very plainly pin-pointed the on-going problem of making scientific agriculture palatable to the practical farmer. “Knowledge is often despised by the uneducated, clever, practical man.”<sup>53</sup> Those successful men who had made their way in the world perhaps felt their successes did not require justification through scientific knowledge. Meanwhile, farmwomen’s dairy wisdom necessarily remained founded on experience and practical understanding and employed simple and crude tools. Scientific agriculture progressively demanded a broader knowledge-base and technological change for dairy work. “Experience counts for nothing except we have our eyes open seeing the cause of successes and defeats. People who have practical knowledge only follow their ancestor’s methods, without any introduction of modern ideas.”<sup>54</sup> Women were therefore associated with backward practices. As men limited female access to new tools and scientific learning, farmwomen’s dairy work and tools increasingly fell behind progressive hopes for provincial dairy development.

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<sup>52</sup> Rose, (1897), 137.

<sup>53</sup> *Annual Report of the Dairymen’s Association of Western Ontario, 1900* (Brantford: Board of Directors, 1901), 63.

<sup>54</sup> Miss Laura Rose, “Knowledge in Buttermaking,” *The Farmer’s Advocate* (February, 1901), 85.

Laura Rose clearly recognized male denial of improved tools for farmwomen's dairy needs. In 1900, Rose wrote an article for the dairy section of *The Farmer's Advocate*, titled "Separators: Their Construction, Care, and Operation." She penned the article, she said, due to continual reluctance amongst farmers but also the somewhat "increased interest taken in separators, and the vast amount of good a more general use of these machines would bring." Although she listed mechanized types of "belt separators, turbine or steam separators, and hand separators" she admitted "the readers of the ADVOCATE will probably have more of the hand separators to deal with so I shall speak more especially to them."<sup>55</sup> Rose understood that even if men purchased cream separators these tools were unlikely to be mechanized; as dairywomen's hands powered these technologies, she gave detailed instructions accordingly.

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<sup>55</sup> Miss Laura Rose, "Separators: Their Construction, Care, and Operation," *The Farmers Advocate* (July 2, 1900), 383.



SEARS, ROEBUCK & CO., CHICAGO, ILL. CATALOGUE No. 117.

# THE NEW ECONOMY CHIEF CREAM SEPARATOR

**MARVEL \$28<sup>80</sup>**

OUR LATEST AND BEST. THE BEST OF ALL OTHER SEPARATORS. MARVEL, MADE SIMPLE, THAT'S THE SECRET. THE SEARS SEPARATOR.

**MONEY CANNOT BUY A SEPARATOR COMPARE WITH THE NEW ECONOMY CHIEF FOR 1908.** It is the only separator in the world of its kind. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**THE NEW ECONOMY CHIEF FOR 1908.** We now offer to you the best separator in the world. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**WE FULLY GUARANTEE TO YOU** that this separator will separate cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**IT HAS A DOZEN NEW AND VALUABLE IMPROVEMENTS.**

The new separator is made of the best material. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**THE GRANK IS JUST THE RIGHT HEIGHT** for the separator. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**IT RUNS SURPRISINGLY EASY.** The new separator is made of the best material. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**MANY OTHER IMPROVEMENTS** are made in the new separator. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**THE MOST SIMPLE SEPARATOR** ever made. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**IT WILL LAST LONGER** than any other separator. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**OUR PRICES AS GIVEN ARE FACTORY COST** plus freight and delivery. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes. It is the only separator that separates cream from milk in a matter of minutes.

**FACTORY TO YOU PRICES FOR THE NEW 1908 ECONOMY CHIEF CREAM SEPARATOR.**

No. 28151. The New Economy Chief Cream Separator for 1908, with all the latest improvements, capacity 800 to 1000 pounds per hour. \$28.80.

No. 28152. The New Economy Chief Cream Separator for 1908, with all the latest improvements, capacity 600 to 800 pounds per hour. \$24.80.

No. 28153. The New Economy Chief Cream Separator for 1908, with all the latest improvements, capacity 400 to 600 pounds per hour. \$20.80.

No. 28154. The New Economy Chief Cream Separator for 1908, with all the latest improvements, capacity 200 to 400 pounds per hour. \$16.80.

No. 28155. The New Economy Chief Cream Separator for 1908, with all the latest improvements, capacity 100 to 200 pounds per hour. \$12.80.

Free Quick Delivery and Low Freight Offer on Our Large Economy Chief Separator, see page 34.

Fig. 3) Economy Chief cream separator advertisement from Sears, Roebuck & Co. catalogue 1908. NMSTC Agriculture Collection.

Regardless of her guidance on the use of unmechanized simple tools, Laura Rose still attested to her faith in the mechanization of dairying. At the turn of the twentieth century, she believed that farmers with “a herd of eight cows or more” should be “investing in a separator,”<sup>56</sup> and that a woman making “any quantity of butter should have a lever butter-worker.” While she stated a better butter worker was “not expensive to buy,” she alternatively recommended that “a handy man can make a better one than can be bought.”<sup>57</sup> In 1905 Rose commented to a crowd of men and women on the “bright” future

<sup>56</sup> Rose, 383.

<sup>57</sup> Laura Rose, “The Farm Dairy Outfit,” *The Farmer's Advocate* (MCFP 976-183-01, May 25, 1905).

for Ontario dairying but warned the province's farmers needed to "make some outlay toward a better equipment." Although she conceded "butter is very expensive, compared with churns, workers, etc.," she continued that dairywomen "must not spoil your product for lack of the right utensils to work with."<sup>58</sup> Instead of butter-workers, wooden butter bowls remained in use due to a prevalent and persistent lack of water for washing utensils during the summer months throughout the province. Churns in particular had always been simply made on the farm from scraps of wood. Laura Rose specified the need for farmers to make or buy better churns and butter-workers to replace traditional tools, indicating basic, unmechanized dairy objects persisted in use beyond the turn of the twentieth century. Rose often appealed to the financial side of the argument for improved dairy tools, obviously hoping to loosen the purse-strings of farmers, thereby improving dairy work and farmwomen's lives overall. She was always clear in her tone and suggestions, pointing out the obvious benefits of new tools – labour-saving for the farmwife and profit for the farmer – and the need for both men and women to be progressive in their thinking and actions.

It is the poorest economy to use dilapidated, out-of-date utensils. Not having any proper equipment results in lack of interest in one's work, more labor, extra loss, and very often, inferior goods. Labor-saving devices now seem a necessity, and the farmer who wishes to keep pace with the times must have them. Many debate the advisability of buying a separator, looking at the cost as being beyond all the gain to be derived from investing such a sum of money. But a careful study of the problem would likely convince such people that a separator would be a wise outlay.<sup>59</sup>

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<sup>58</sup> Rose, (1905).

<sup>59</sup> Rose, (1905).

Rose's public comments revealed much about the tools dairywomen used on family farms as well as the challenging nature of dairy work. Considering the changes in agriculture in the province, particularly those that became available during the scientific era, the majority of Ontario dairywomen still worked without significant improvements to basic dairy tools, let alone mechanization or the sought-after benefits of industrialization.

Throughout the one hundred years from 1813 to 1914, male authority hindered the scientific and technological development of dairying as male experts and farmers limited female access to change both ideologically and materially in terms of their work. Rather than recommending the development of female, on-farm butter production, progressive agriculturalists promoted a shift to male industrialization, suggesting the removal of dairy work from the farm and from female hands altogether. Farmers' lack of faith in scientific agriculture, and consequent lack of investment in improved dairy objects for female work, forced Ontario's dairywomen to persist without the available benefits of science or technology, while struggling with their grandmother's butter-making tools. Therefore, nineteenth- and early-twentieth-century Ontario dairywomen's role was not diminished nor did the dominant male, scientific ideology for progressive industrialization remove them from butter-making before WWI.

Advocates of scientific agriculture and industrialized dairying should have taken their own advice – as suggested by the opening verse – and made transitions slowly.<sup>60</sup>

Dairywomen's working conditions did not change adequately due to overwhelming attitudes of reluctance and blame surrounding scientific and technological dairy

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<sup>60</sup> "For this is a rule wherever we turn; don't be in haste, whenever you churn – 'Churn slowly!'" From: "Churn Slowly," *The Farmer's Advocate* (May, 1885), 146.

development in Ontario. Instead, change that did occur remained transitory and inadequate, while change that was in desperate need remained extremely limited for farmwomen's dairy work.



## Chapter Five Butter-Making Debates

Between 1813 and 1914, and especially after 1850, dairywomen, farmers, government, and agricultural experts increasingly wanted to know what techniques and tools worked best for improving butter product. While debate ranged widely during the second half of the nineteenth century, it had little effect on the tools dairywomen used. Consequently, female producers did not achieve uniformity in their market-oriented butter product. Farmwomen's lack of standardization in butter colour, taste, texture, salting, and quality was not deliberately aimed at limiting the product in widening markets, and reveals instead the pervasive lack of consistency in fluid milk, practical techniques, and hand-made tools, whose use lessened quality. Isolated on their rural family farms and without marital authority or economic autonomy, Ontario's dairywomen did the best they could with what narrow resources they had. Their work remained limited, in terms of help, technique, tools, and broad knowledge, despite improvements and transitions within agriculture and butter-making in general over the century. Yet, without providing women with the resources to improve butter quality, male experts continued to recommend and expect advancement.

While emphasizing male authority over female work, making butter was still strongly considered part of dairywomen's agricultural role: "All complain of Canadian butter; it ts [sic] badly made, badly packed.... Ladies, we attach less blame to you, than to your liege lords, and take the same on our own shoulders. Butter-making is an important

process. Much depends on a proper course, proper place and proper packing.”<sup>1</sup> This 1868 comment not only pointed the finger at men for providing sub-standard working circumstances, but suggested also that gender specificity and inherent hierarchy was prevalent on family farms. The same passage also recommended men take greater interest in this expanding and increasingly “important” aspect of agriculture, representing a shift in attitudes toward this female-gendered work. Interest in on-farm butter-making paralleled rapid agricultural growth in Ontario at mid-century, and was widely debated in terms of methods, tools, and appropriate knowledge for improvement.<sup>2</sup> The time period beginning around 1850 witnessed initial changes to traditional butter-making. Yet, particular transitions during this era contextualize how few lasting alterations occurred to farmwomen’s dairy work over the century. Essentially a discussion of butter-making discourse, this chapter does not include an explicit description of the components of butter-making.<sup>3</sup> Instead, it highlights particular debates and perceptions of gendered butter-making.

“Until the late decades of the nineteenth century, it was thought that the making of butter and cheese was woman’s work, ‘beneath the dignity of the farmer,’ but this attitude changed as the demand for butter and cheese began to grow.”<sup>4</sup> Still, the Ontario

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<sup>1</sup> “Canadian Cheese and Butter,” *The Farmer’s Advocate* (1868), 87.

<sup>2</sup> Milking chores are not addressed here due to a focus on butter-making particularly. Also, the transitions within milking method and practice are more difficult to ascertain from either public or private written sources, as well as through the limited tools themselves.

<sup>3</sup> For further descriptions of early butter-making see: Joan Jensen, *Loosening the Bonds: Mid-Atlantic Farmwomen, 1750-1850* (New Haven: Yale University Press, 1986).

<sup>4</sup> Robert E. Ankli, “Ontario’s Dairy Industry, 1880-1920,” in *Canadian Papers in Rural History, VIII*, (Gananoque: Langdale Press, 1992), 263.

dairywoman's husband had little time, money, or inclination to invest in the newest scientific or technological advances for an area of farming he likely felt was unimportant because it was a female occupation, and instead invested heavily in his own expanding dairy work. Men needed to establish their families to settle and expand their farms. With interest in agricultural specialization, dairy farming became increasingly popular in Ontario after 1850. Provincial farmers strove to expand their dairy herds, build barns, and improve livestock feed. This food was grown by farmers on their own land and therefore required ever-more arable acreage. Clearing land and planting crops alongside constant animal husbandry, in addition to the maintenance and expansion of domestic and out-buildings, made great demands on the progressive farmer's finances and time. "Canadian butter being low is not the fault of the women" wrote Moyer, "but of the men, since it is they who provide the tools and conditions with which butter is made."<sup>5</sup> Authorities continually projected butter-making not as a female chore but as a potentially profitable part of a male dairy process.

Butter-making was the principal female dairy work to receive male, expert criticism. The methods of making butter received scrutiny from agricultural authorities first, including brining and temperature control. Over time, dairywomen adopted some scientific suggestions for altered methods. As methods changed, however, butter quality did not improve, and experts began to also question the efficiency of on-farm dairy tools, such as the common butter bowl, butter-worker table, and home-made butter churn.<sup>6</sup>

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<sup>5</sup> M. Moyer, "Prize Essay – Women in the Dairy," *The Farmer's Advocate* (August 1885), 235.

<sup>6</sup> "To return to working butter. There are thousands of women to-day in Canada, who, to the shame of their husbands be it spoken, have no sort of butter-worker at all, but use the bowl and ladle. I fancy I can see

When women did not embrace suggested technological improvements, like the cream separator, male experts attacked dairywomen's butter-making abilities and traditional dairy knowledge. Male scientific experts examined and critiqued these traditional methods of making butter to ascertain where improvements could be made.

By the late 1870s, the first "scientific" articles related to butter work appeared in the pages of *The Farmer's Advocate*. In 1879, for example, there appeared an article explicitly entitled "Scientific Butter-making." In fact, the writings of scientific experts crowded dairywomen's comments off the dairy pages of agricultural journals during the transitional period from 1850 to 1885. Men took over the discussion of processes, tools, and challenges associated with butter-making, which toiling and practical dairywomen faced on a day-to-day basis. Agricultural authorities recommended developments and changes during the transitional era that did not ease the provincial farmwoman's daily work. Experts and some dairywomen returned to more practical ways throughout the transitional era, and, thus, a resurgence of traditional butter-making methods occurred post-1885 into the scientific era. Quite clearly, however, old-fashioned and abandoned techniques from the settlement era were re-cast by experts as progressive methods in the scientific era. Considering the experimental nature of mid-nineteenth-century dairying, it is not surprising that the practical dairy techniques from the settlement period were

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them, especially when the weather is getting cold and butter hardens almost immediately. The butter breaks into small crumbs the minute the cold water touches it, till the whole thing looks like barley broth more than anything else, and the poor woman chases these particles around the bowl, pressing and patting and coaxing them together, and just as she gets one portion of it solid, or thinks she does, another part breaks away, and she is in as bad a mess as ever, and strength and patience both give out. Oh yes, I know all about it, for I've been there myself many a time and know how it feels. But there is no need for this, if we only go the right way to work." From: Mrs. E. M. Jones, *Dairying for Profit; or, The Poor Man's Cow* (Montreal: John Lovell and Son, 1892), 43.



reintroduced during the later period, after new, and male-developed techniques emerged during the transitional period, failed. Restoration and reintegration of time-honoured butter-making methods from the settlement period, however, did not give credit to farmwomen but instead legitimized traditional methods as the result of male, scientific experts. According to scientific authorities, settlement-era dairywomen had not understood the basic principles of why boiling and brining or new tools worked and therefore could not avoid butter-making inconsistencies or failures and therefore did not merit credit for the value of these traditional methods. Male science essentially expropriated female dairy wisdom while it devalued female knowledge. It was women's lack of control over butter-making variables that scientists attacked fiercely, while inadequate method, tools, and knowledge compounded the problem on family farms. The dominant agricultural discourse asserted that scientific methods offered precision and consistency while farmwomen's practical techniques produced unpredictable results.

Historian Joan Jensen has called butter "the most ubiquitous of the 'cash crops' produced by women."<sup>7</sup> This recognition of butter as a market commodity rather than simply as traditional work, can account for historians applying economic analyses to dairywomen's labour. Butter-making was always time-consuming and labour-intensive. As such, it was often talked about in terms of improvement, so its developments can be traced through the wide discourse surrounding farmwomen's dairy work, as definitions of methods and knowledge shifted over the century. As economist Marjorie Griffin Cohen

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<sup>7</sup> Joan M. Jensen, "Butter-making and Economic Development in Mid-Atlantic America from 1750 to 1850," *Signs: Journal of Women in Culture and Society* 13, 4(1988): 828.

has indicated, in her history of nineteenth-century Ontario women's work, from about mid-century the butter market was expanding in the province.

The market for dairy products grew considerably. This was initially a result of the opening of American markets to Canadian producers. Rising American prices made Canadian products more attractive and in the short period between 1849 and 1851 it is estimated that butter production increased by more than 350 percent.<sup>8</sup>

Moreover, this expansion brought male interest in a traditionally female-gendered task and a shift in gendered work, tools, and knowledge. Farmers, experts, and dairymen all had their own views on butter production, as well as how best to proceed within the growing market in post-1850 Ontario. Understanding whether to scald milk or not; to use shallow pans, deep Cooley cans, or separators; to salt or not to salt; to wash with water or buttermilk; to brine or not to brine; these and other notions like the elevation of factory-made creamery butter over hand-made dairy butter greatly changed. Economic historians and nineteenth-century sources have revealed how the growing butter market paralleled a decline in farm-made butter quality. Those with a vested interest in agricultural development guided Ontario's agricultural growth and debate; scientific experts, machinery manufacturers, the government, and butter exporters questioned butter production and helped shape dominant public perceptions of appropriate gendered work roles.<sup>9</sup>

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<sup>8</sup> Marjorie Griffin Cohen, *Women's Work, Markets, and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), 104.

<sup>9</sup> An 1894 Ontario report promoted the creamery factory system over on-farm cream collection or butter-making, highlighting a special Act passed March 23<sup>rd</sup>, 1888. The report also indicated the desire, on behalf of the province, to build a "separator creamery with capacity for 500 cows" at the cost of "from \$2,500 to \$3,000. Skilled butter-makers and cheese-makers are now becoming more available through the work of the Special Dairy School of Ontario Agricultural College, Guelph." Also listed amongst the report's conclusions was the admission that the factory system still had a long way to go in catching up with dairymen and on-farm production. "Ontario is well adapted to dairying. We produce now 3,000,000 lb.

As economists and economic historians suggest, butter-making in the province became profitable at mid-century. With that profitability, dairywomen's labour gained importance and their knowledge was increasingly questioned. While agriculture became one of the driving progressive and economic forces of provincial development, the variable and highly inconsistent quality of farm-made butter forced government and scientists to examine women's role in butter production.<sup>10</sup> Commentators criticized the inadequate tools and coupled that with a perception that females were innately irrational in thinking.<sup>11</sup> Dairywomen's apparent indifference to labour-saving and profitability, offered through dominant scientific and technological discourse, reinforced this perception of irrationality and the impracticalities of their continued butter-making work. Devalued in public and left without methods or tools to improve their situations or products by the male members of their families or employers, the declining value of dairywomen's inefficient and unmechanized butter-making work was confirmed by contemporaries as typical for the impractical female. Scientific experts challenged dairywomen and their knowledge for marginalizing the butter trade within a profitable agricultural market. Discussions of methods, tools, and knowledge projected and reflected

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of creamery butter, and about 50,000,000 lb. of dairy butter." From: *Dairying In Ontario* (Toronto: Ontario Department of Agriculture, May 1, 1894), 23.

<sup>10</sup> For example, the Ontario Department of Agriculture's May 1, 1894 "Bulletin" quoted that dairy butter varied from 12 to 22 cents per pound between June 1892 and May 1893, while creamery butter only varied from 21 to 25 cents per pound during the same period; making creamery butter product seem of a higher quality and more stable price. "It will be seen that dairy butter varies...from the poorest to the best, and that creamery butter on the average sells for 4 to 5 cents higher than the best dairy. We must conclude that creamery butter brings a fairly uniform price." *Dairying In Ontario* (Toronto: Ontario Department of Agriculture, May 1, 1894), 9.

<sup>11</sup> On-going discussion of women's knowledge and mental capabilities for dairy work littered the pages of *The Farmer's Advocate*. For example, Miss Alice Cassells wrote a winning essay in defense of women's dairy wisdom, which is further discussed in the "Education" chapter: "Prize Essay, Are the Mental Faculties of Women Equal to Those of Men," *The Farmer's Advocate* (July, 1891), 265.

the changing atmosphere and attitudes toward dairywomen's butter-making work. Since agricultural experts did not widely voice their opinions until after 1850, dairywomen's methods and words from the settlement period demonstrate traditional butter-making techniques, as well as the stubborn persistence of such tools into later periods.

With so much discussion surrounding butter making, the shifts in discourse can be challenging to follow. Essentially, at first, many transitional-era farmwomen followed emerging-authorities' advice and stopped brining, and began to work then salt their butter for better preservation, only to be told a generation later that brining was superior. Similarly, provincial farmwomen between 1850 and 1885 ceased scalding their milk, only to be admonished later by experts since pasteurization was necessary for preservation. Some farmwomen in the province adopted closed churns and butter-worker tables only to learn later from authorities that even their newest tools were inadequate. Most dairywomen, between 1813 and 1914, experienced a significant lack of technological improvements since they could not buy tools. Moreover, many new tools were not necessarily labour-saving or became quickly outmoded, discouraging investment. Constant transition of methods and a dearth of meaningful, helpful, or accessible change to butter-making technologies throughout the century perpetuated this work's challenges for provincial dairywomen.

One of the challenges in butter-making was the problem of preservation and it became one of the topics under debate. Although immersing butter in a salt and water solution for preservation, brining as it was called, was one of the last steps in the butter-making process it became one of the first dairy topics discussed and criticized



in public agricultural discourse. Pre-1850, dairywomen needed to keep their butter for months since few milked while cows gestated over the winter.<sup>12</sup> Farmwomen brined in different ways, some mixed one bowl of the water, salt or saltpetre, and often ash, solution, or poured the ingredients separately into each container of butter. Once covered with brine, the butter container was sealed with a lid, or with cheesecloth and wax, to form a seal. Dairywomen scalded, churned, salted, and brined their product so they would not have to spread animal lard on their bread in springtime. During the settlement period from about 1813 to 1850, brining was the most common method for keeping butter over the winter months.

The butter was then packed in crocks or stone jars, some makers adding two and one-half pounds of salt, six ounces of saltpeter, and half pound of fine sugar to each thirty-two pounds of butter; and brine having been poured over it to a depth of two inches, the cover was pressed down tightly over a white cloth. So packed, the butter would keep for two years.<sup>13</sup>

Historian Caroline Pollock asserted that Lamira Billings's own preservation process was similar to that of most Ontario women, using a brine solution to flavour and keep their butter.<sup>14</sup>

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<sup>12</sup> To maintain high milk production, cows needed to birth a calf as often as possible. With a gestation of approximately 278 days, farmers normally "dried off" their cows for at least two months before their due date and gave them a break from milking when the cow's milk production was naturally lowest. Pre-1850, it was common to breed, calf, and dry-off a herd all at the same time, so the winter months remained free of milking duties, generally between December and April, when the weather was at its worst.

<sup>13</sup> Guillet, 9-10.

<sup>14</sup> "The butter was then stored in wooden pails or stoneware crocks, covered with a cloth and fine salt was poured over to a depth of 1 cm. Paper was tied over the entire container. Butter prepared in this manner kept for many months and was easily transported." From: Caroline Pollock, *The Billings Family: A Brief History of Their Land Use and Farming Operations Between 1812 and 1975* (COA BEC, 1995), 7-8.

After mid-century into the transitional period, access to broader markets required transport for sale of product and thereby heightened the importance of proper preservation for farm-made butter. Settlement-era women had brined their butter to preserve it; transitional-era dairywomen brined for the same reason until experts began publicly challenging the process post-1850. Some women certainly brined throughout the century but many women transitioned to working and salting their butter to save steps. Sabra and Sally Billings brined their butter but also salted and worked it at different points, demonstrating alteration in methods for preservation during their working lives. Shifting away from brining and instead incorporating coarse salt during the working and washing steps, and before butter was formed, meant dairywomen did not have to make brine or deal with an additional step. By working the salt directly into the butter, experts thought brining could be avoided and butter still adequately preserved.

By the mid-1880s, the technique of salting and working butter was challenged because it was perceived as ruining the quality and flavour of Canadian product sold on international markets. Dairywomen's overall butter production and preservation techniques consequently received closer scrutiny from scientific agriculture experts. After 1885, the by-then popular practice of working and salting butter for long periods of time came under examination, as the province's butter quality and value declined on export markets parallel to increased farm production. In 1886, a scientific explanation of brining criticized dairywomen for their methods – such as working salt into butter – made popular by agriculture experts post-1850. For nearly a generation,

dairywomen heard from scientific authorities how brining was inferior to coarse salting and intense working, so dairywomen abandoned the traditional method. Yet, trends changed once again and in his article, "Seasoning Butter with Brine" Professor L. B. Arnold wrote,

The force of habit is so strongly entrenched in the conservative natures of many people, that, no matter when the process is, better or worse, they will keep right on in the old way, pounding their butter into grease in the churn and grinding it into grease in the butter worker, and, very likely, think they are making the best butter in the world, and wondering why they don't get as much for it as some others do. But the new way is so much easier and better that time will fetch them in, and the butter worker and seasoning with dry salt will become a thing of the past.<sup>15</sup>

Contrary to Arnold's assertion that brining was new, it had been widely practiced during the settlement period. Arnold admonished dairywomen for: their inferior attitudes, methods, and tools; for not adopting scientific brining methods, which were really just traditional brining methods with precise measurements and a new name; for the employment of the butter-worker table; and for heavy-handed butter salting. Experts remained determined to prove science could discover alternate ways to overcome the basic problems affecting production and quality of butter through preservation. Even when dairywomen altered their methods accordingly, however, scientific experts continually devalued the method, work, tools, and overall product based upon gender.

The confusion, upheaval, and change to traditional butter-brining methods during the transitional period, devalued female butter product so greatly that the

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<sup>15</sup> Prof. L. B. Arnold, "Seasoning Butter with Brine," *The Farmer's Advocate* (September, 1886), 265-6.

“latest novelty” during the scientific period was not attributed to women’s traditional dairy wisdom, even though brining was an old technique.

One of the latest novelties is the salting of butter with brine. It is better to learn the science of making butter that needs no salt than the science of salting butter. It is the tendency of experts to complicate the butter business as much as possible-it is their interest to do so.

Our dairy authorities are very inconsistent in their talk about the keeping qualities of butter.<sup>16</sup>

The article continued: “revolutionary changes have recently been made in dairy practice, owing partly to the advancement of science and partly to a natural desire for change on the part of the consumers of butter.”<sup>17</sup> Butter-brining, however, was not new or scientific. Lamira Billings certainly brined. In fact, authorities devalued women regardless of how they made butter or preserved their product.

While brining was one of the first butter-making methods questioned and altered, temperature also remained a constant concern throughout the century. Dairywomen working in pre-1914 Ontario very rarely had any knowledge or ability to regulate, or means to measure, the temperature of their milk, cream, or butter. Dairywomen used their senses instead; the touch of elbows, fists, or fingers for temperature, while smell and taste served for quality control. One of the few methods at farmwomen’s disposal to control and alter the temperature of their cream was the addition of water to increase or lower the temperature for churning. Hot water guaranteed white, greasy butter. “Frozen cream made frothy butter, or none at all; while in hot weather the churn was often cooled by immersion in cold water, either

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<sup>16</sup> “Butter-making,” *The Farmer’s Advocate* (June, 1887), 165.

<sup>17</sup> “Butter-making,” 165.



before or during the churning.”<sup>18</sup> Successful dairywoman, Eliza Jones, wrote in her dairy advice book: “If the cream is too hot, the butter is spoiled; if too cold, you may churn for hours and lose your temper and your time.”<sup>19</sup> Essentially, the ideal conditions for making butter did not and could not exist on a farm during this period with the limited methods and knowledge at dairywomen’s disposal. Milk, cream, and butter require darkness, clean air, and a steady cool temperature for the best product. Dairywomen’s inability to measure and regulate the temperature exactly led to inconsistent results and poor product quality. Over time, as male experts linked the processing of raw milk and preservation of butter with temperature, farmwomen’s perceived lack of control over this variable helped to devalue their work.

Despite the generalities of its title, an 1853 monograph, *Modern Husbandry, A Practical and Scientific Treatise on Agriculture*, specifically focused on dairy work. The author attempted to change and blend traditional wisdom with new, scientific, male, knowledge. The mid-century work pragmatically stated that “the business of the dairy chiefly consists in assisting or retarding the natural stages in which milk will run when left to itself, and which form the preparation of the valuable articles of human food, butter and cheese.”<sup>20</sup> The term “assisting the process” referred to scalding, setting, and skimming, while “retarding” indicated churning, salting, and brining of fresh butter. The article went on to differentiate between “the ordinary

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<sup>18</sup> Guillet, 9-10.

<sup>19</sup> Jones, 24-27.

<sup>20</sup> G.H. Andrews, ESQ. C. E., “The Dairy and its Produce,” *Modern Husbandry, A Practical and Scientific Treatise on Agriculture* (London: Nathaniel Cooke, Milford House, Strand, 1853), 384-385.

plane of butter-making” and “the great art of butter-making” as based upon precise temperature with emphasis on control of that temperature. Preservation of butter product was explicitly connected with temperature. “Keeping the dairy and the churn at exactly that temperature best fitted for thoroughly separating the butter from the milk without giving it too great an inclination to become sour, which it will if the temperature be too high, and if it be too low it will separate badly, and be long in churning.”<sup>21</sup> Not mentioned in the book, however, was the specific or ‘best fitted’ temperature. Dairywomen continued to work with what they had and this rarely included the temperature gauges considered increasingly necessary by agricultural authorities for producing quality butter. Ironically, without proper tools or methods for gauging temperature accurately they became marginalized; their dairy work, based on traditional knowledge, was demeaned.

By 1868, scientists published approximate temperatures for churning but these suggested values varied widely throughout the century, from 55 to 65 degrees Fahrenheit. For example, an expert recommended, “To a quantity of cream sufficient for ten pounds of butter, put in the juice of two or three fair sized orange carrots. Then churn from ten to twenty minute [sic] with your cream at a temperature of 55 deg. to 60 deg. and see if you do not succeed in making good, sweet, yellow butter.”<sup>22</sup> Only four years later, another

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<sup>21</sup> Andrews, 384-385.

<sup>22</sup> The idea of using carrots to colour winter butter appeared frequently in women’s articles, as well as in private recipe books. Since cows could not eat fresh grass in winter, butter was usually white during this time of year due to a lack of chlorophyll in the milk, which gives butter its yellowy colour. For this reason dairywomen added carrots, oranges, or marigolds as food-colouring when the cows could not eat fresh grass. This lady suggested adding a carrot, although she does not say if it significantly altered the taste, except that it was made “sweet.” “Domestic Receipts: Making Winter Butter,” *The Farmer’s Advocate* (1868), 9.

expert recommended: "The best temperature for churning is admitted to be between 60 and 65 degrees, the latter for cold and the former for hot weather, making a mean temperature of 62 to 63 degrees as the proper point. Possibly different dairies may require a slightly different temperature."<sup>23</sup> Recommended temperatures for dairy work, however, remained only suggestion and speculation, which made little difference in any case since dairywomen commonly worked without thermometers due to lack of access.

An 1891 article, "Cost of Ignorance," highlighted the growing importance of the province's dairy sector. This agricultural specialization brought greater attention to on-farm work and the methods of female butter makers. Experts again connected their discussion of butter quality with temperature, and linked the knowledge and intelligence of the butter-maker with this variable.

In no business perhaps does ignorance have to be paid for more promptly than in dairying. When we churn, if we don't know the right degree of temperature for the cream we may either waste many hours at the crank or else have the butter come too soon, with flavor and texture ruined. ...If we do not have the knowledge we are always in the way of making heavy losses.<sup>24</sup>

Dairywomen's lack of control over temperature equaled a waste of both time and money, as well as compromised their labour.

In the midst of the scientific period, Ontario Agricultural College (OAC) dairy instructor, Laura Rose's wrote an article, "Pasteurizing, Ripening, and General Care of Cream," that addressed the on-going challenge of temperature for dairywomen. Rose advocated a return to the settlement-era method of scalding milk before

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<sup>23</sup> "Butter-Making," *The Farmer's Advocate* (1872), 135.

<sup>24</sup> "Cost of Ignorance," *The Farmer's Advocate* (March, 1891), 93.

separation. She eagerly wrote about the new “pasteurizing” process, written as a recipe in a familiar form for women to read, which resembled traditional scalding.

To pasteurize, heat the milk to 160 degrees, in water at 180. Hold at that temperature for twenty minutes, then cool down. Cream treated in such a way needs a starter, otherwise it would be too long in ripening. Add to it some good flavored sour cream, buttermilk or skim milk. Hold at from 60 degrees to 65 degrees, stirring frequently; cool to churning temperature, when the cream has a milk acid taste and shows signs of thickening.<sup>25</sup>

Laura Rose understood dairywomen had little access to the most important tool for controlling temperature, a thermometer.<sup>26</sup> Rose suggested dairywomen use, as they always had, their sensory observations – touch and smell – ideally in addition to temperature gauges, illustrating that Ontario’s female butter-makers in 1900 still lacked the most basic butter-making tools. While offering advice on temperature for pasteurizing, Rose only hinted at a vague and assumed “churning” temperature. What experts did not understand was that most women could not afford a thermometer and so they blamed the inability to control temperature on women’s ignorance and their unwillingness to learn and change.

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<sup>25</sup> Laura Rose, “A Condensed Synopsis of the Previous Articles by Miss Laura Rose,” *The Farmer's Advocate* (July 16, 1900), 412.

<sup>26</sup> “The best way...is to *buy* a thermometer, and to see that it is used. Then there will be no more wearying churning for hours and hours, no more frothing cream or hard, white crumbly butter, no aching back or arms over a wretched, greasy little lump that is not fit to be called butter.” Mrs. E. M. Jones, *Dairying for Profit; or, The Poor Man's Cow* (Montreal: John Lovell and Son, 1892), 44.





**Fig. 1) Milk Thermometer.**  
**OTHS 985.2.80.<sup>27</sup>**

In 1892, dairywoman Eliza Jones wrote in response to comments concerning her prolific and award-winning butter product: “I have often been asked how I made such good butter, and my answer is, I don’t go too much by any given rule. It is not possible to have full control over atmosphere and other surroundings, therefore we must bring

judgment and common sense to bear upon the matter.”<sup>28</sup> Rather than offering privilege to skill over knowledge, it seems empirical understanding was just as valid, in this instance, to Jones. Although writing during the scientific period, Jones did not rely upon any one method or upon mechanized technologies for dairy success. She instead trusted practical and time-tested techniques and hand-made, hand-powered tools. Jones employed a hand-powered butter-worker table. While she preferred shallow-pan separation for butter taste, she did encourage the adoption of centrifugal cream separators particularly for those with larger dairy herds. The objective of Jones’ practical dairy advice book was to help farmwomen with their on-going, physically challenging, unmechanized, and devalued labour. At the time when Eliza Jones wrote, the availability of butter-making machinery could have greatly altered dairy

<sup>27</sup> One of only three milk thermometers found amongst extensive collections, which included artifacts from across the province (no home-dairy thermometer examples found). An industrial creamery/butter factory south of Ottawa donated this 1890s example to the Osgoode Township Historical Society (OTHS).

<sup>28</sup> Jones, 24-27.

work for the province's farmwomen. Instead, the practical, traditional, and unmechanized techniques and tools discussed by Jones remained in constant use on the family farm. A continued lack of adequate tools for butter work, as well as vascillating discussions of dairy methods highlighted the challenges faced by settlement-, transitional-, and scientific-era women.

Linked with preservation techniques was the process of moulding and packing butter. During the settlement period, preservation methods had no guarantee of success. Some crocks of butter, brined and wax-sealed with utmost care, could still spoil over time because of over-stretched cheesecloth, weak wax seals, temperature fluctuations in storage, or even improper skimming and removal of fluid milk from the cream prior to preserving. Despite these risks, butter still lasted longer than fluid milk, and so its consumption by the farm family was an important source of energy and a form of economy. Butter and buttermilk for frying, baking, buttering bread, and even applying to wounds as a base for ointments, was commonplace and important for pioneer families. This use of an available resource, however, meant a great deal of work for women.

Over time, families settled, dairy herds grew, milk production increased, and butter-making expanded accordingly. Any butter surplus beyond what the family could consume was then traded or sold with neighbours or at local markets, and into the 1860s and 1870s on international markets. Like the Billings sisters who purchased black taffeta in Bytown with butter profits, or Marg Griffiths who paid off a dress in Thorold with her butter money in the 1890s, the quality of dairywomen's

butter gained economic importance over time. Identification of butter offered a narrow sense of identity to dairywomen, but more importantly it distinguished bad butter from good. Widely varying qualities, flavours, colours, and textures of butter came from family farms. Some dairywomen attempted to sell their product by hiding the inferiority of their work through the addition of hot water, although cold was sometimes alternately suggested, to cream during churning; the mixing of carrots, dandelions, or marigolds for a more yellow colour; excessive salting to hide poor flavour; and, mixing fresh butter with older, rancid, or over-salted butter. With so much hand-made butter available in the province, knowing the mark of a skilled dairywoman's butter could make all the difference.



**Fig. 2) Early Ontario butter stamp, turned from one piece of wood; showing initials I.F. UCV 1956.420.2.**



**Fig. 3) Top view of handle. UCV 1956.420.2.**



**Fig. 4) Quarter-pound butter mould with decorated plunger, made of two separate pieces of wood to form one dairy object. UCV 1962.9413.2.**

At first, identification of butter was simple while localized to trade for goods and services. Gradually, however, settlement growth meant greater competition and the identity of the maker became more important. Dairywomen used hand-made wooden forms, or moulds, throughout the century to shape their soft product. Farmers most often made small boxes with wood scraps fixed with a plunger, in which to pack the butter, forming half-pound or one-pound blocks. Production of such chore-specific dairy objects increased after 1850 in the province as more examples of butter moulds and forms remain from the transitional and scientific periods (1850 to 1914). Butter markers began not as moulds but as stamps, more a way of imprinting a maker's mark or symbol on the fat than shaping the butter. Use of these objects was basic, with an identifying mark pressed onto the surface. Familiar motifs like initials, flowers, or animals were carved into the wooden stamp or the flat base of the butter mould's plunger for imprinting. A less skilled farmer, making such a tool for his mother, wife, or daughter, might have cut or burned a basic pattern onto the wood, although birds and wheat remained popular icons until 1914. Dairywomen commonly employed butter spoons or scotch hands, such as those in Figure 5, for blending, forming, and smoothing butter. As use of moulds became more popular, farmwomen kept their scotch hands for filling moulds, since the natural warmth of human hands made for a messy job. Once creamery factories began producing butter in the early 1870s, the one-pound butter block became standard due to ease of packing and storage.





**Fig. 5) Two examples of Scotch hands for working, washing, salting, shaping, forming, and packing butter. (L) MCFP 1975.21.03, (R) 1979.98.13.**



**Fig. 6) Billings family one-pound, plunger butter mould with identifying line markings. COA BEC 45.139.**

With limited ways of asserting autonomy, being known for superior butter was both financially beneficial to the farm and offered hard-working milkmaids some work satisfaction. Butter moulds and stamps, and their continued use during the period discussed, indicates a sort of limited female propriety over their labour and product. As government authority increased over agriculture in general, with official labeling introduced and enforced to ensure quality standards, butter-making remained dairywomen's work. Butter stamps and moulds, therefore, exemplify not only identity but also material examples of female authority over the product of their labour.

#### LEGAL BRANDING OF PRINT BUTTER.

In reference to printed wrappers, the regulations passed under authority of The Dairy Industry Act provide that "no person shall cut or pack dairy butter in blocks, squares or prints and wrap such blocks, squares or prints in parchment paper unless the said parchment paper is printed or branded with the words "dairy butter" in letters at least one-quarter of an inch square.

The same regulations provide further that every person who packs dairy butter in boxes similar to those used for the packing of creamery butter shall cause such packages to be branded at the time of packing with the words "dairy butter" in letters at least one-half inch long and three-eighths of an inch wide. Such branding must be applied on the side of the box.

We would suggest the following forms as suitable for the printing of dairy butter wrappers:

CHOICE DAIRY BUTTER

Made by

Mrs. John Doe,  
Rose Bank Farm, Doeville,  
Ontario.

or

CHOICE DAIRY BUTTER

Made from Separator Cream

By

Mrs. John Doe,  
Rose Bank Farm, Doeville,  
Ontario.

**Fig. 7) "Legal Branding of Print Butter" – Standards differentiated butter made on the farm from that made in creamery factories. Clearly from the market identification example above, the gender of butter-makers was still recognized as female even by the government.<sup>29</sup>**

The third debate swirled around the divisive push and pull of new versus traditional, scientific versus practical, and male versus female, that outlined the clear devaluation of dairymen's method, work, and knowledge in pre-WWI Ontario. This devaluation became most apparent during the scientific period when science and industry, linked with male knowledge, emerged as the progressive answer to agricultural questions. Joan Jensen noted this dominant trend in American agricultural publications: "To make men's transition to a traditionally female occupation more palatable, nineteenth-century male writers often distinguished between the poor quality of butter produced by women and the butter "more scientifically"

<sup>29</sup> George H. Barr, "Buttermaking on the Farm," *Dairy and Cold Storage Commissioner's Series, Bulletin #53* (Ottawa: Department of Agriculture, Hon. Martin Burrell, Minister of Agriculture, 1907 and 1917), 15.

manufactured by men.”<sup>30</sup> As this agricultural sector steadily grew, dairying and particularly butter-making remained strongly identified as women’s work. With the province’s progress hinged to the development of dairy production, the shift from female to male dairy work was strongly encouraged.

In 1883, “Betterments in the Dairy,” was published with commentary, seemingly written by a woman, critical of dairywomen’s old-fashioned methods and knowledge. “When such high authority as Prof. Veekler declared that ‘the system of sour cream butter is radically wrong, and the sooner that the casein is taken out of the cream of butter, the better the flavor,’ it is time for us less distinguished persons to adopt new methods.”<sup>31</sup> Professor Veekler was clearly perceived as an authoritative, scientific, male voice. These less-distinguished dairywomen, however, separated, churned, worked, and brined or salted their butter without access to cream separators, improved churns, other labour-saving devices, or enhanced understanding. Since technologies did not appear on Ontario’s farms, dairywomen’s productive role was maintained. As scientific knowledge was not available for women, dairywomen’s traditional wisdom was devalued. Scientific agriculture experts redefined dairy work over time as male, to make this labour acceptable to men. Mechanization and industrialization for developing dairying and particularly butter production required farmers’ interest and economic investment.

In 1885, M. Moyer noted the inadequacies of dairy butter, as compared with emerging male, creamery or factory-made butter. Interestingly, Moyer acknowledged

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<sup>30</sup> Jensen, “Butter-making and Economic Development,” 828-9.

<sup>31</sup> “Betterments in the Dairy,” *The Farmer’s Advocate* XVIII, 2(February, 1883), 46.

the province's farmwomen could not make quality butter while men limited and devalued their working circumstances. The author's award-winning essay showed that while blame was placed on dairywomen, low-quality butter was really the fault of men. Moyer explicitly stated that women indeed made butter by hand for export but placed the responsibility for poor quality on unsatisfactory "apparatus and facilities." According to the author, these deficiencies stemmed from the indifference of farmers – farm employers, fathers, brothers, and husbands.

I have perhaps seen more of what kind of apparatus and facilities our women are furnished with to make butter than anybody else, and I must say to the credit of the women, that I cannot put any blame on them at all. When I see butter on the table that has the appearance of lard mixed with sour milk, I invariably find the milk in shallow, open pans, in a shanty or poor cellar, with the temperature from 70 to 80 degrees. The poor woman does her best; but it is no more possible to make good butter under such circumstances than it is to grow roses in a snow bank. ...Taking the means with which our women are furnished to make butter into consideration, and the lack of encouragement they receive at the hands of those who handle it, it is only a wonder that the butter business is not in a worse shape than it is; men would not have done as well under similar circumstances.<sup>12</sup>

Rather than suggesting improvements to female butter-making, the dairy authority recommended the removal of butter-making work from farms to factories. Moyer's statement summarized the bleak predicament of the dairywoman in 1885; she was ill-equipped, without appropriate work space, had inadequate support, and no labour-saving devices.

The didactic 1885 article "Why the Butter doesn't Come" blamed churning problems on inadequate tools and unqualified female workers, rather than farmers who supplied such tools or denied improved technologies. The article listed the worst habits of the stereotypical dairywoman as: lack of cleanliness in milk and tools, poor

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<sup>12</sup> Moyer, 235.



temperature control of milk and cream, a laziness at dairy chores, and a slack use of inferior cream, compounded by a use of inadequate and out-dated tools. The overwhelming tone of the article condemned all those who made butter on the family farm, implicitly blaming dairywomen. The expert comment, “churn not a good one,” indicated the ordinary use of improper, hand-made technologies available on family farms. “Lazy hand at the churn” was supplemented by the specificity of the problem: “Some persons have the churn around nearly all day, summer or winter; take a few turns, and then stop; fool around and begin again. Can not make good butter so.”<sup>33</sup> Churning over several hours instead of in one session only hinted at how overworked farmwomen dealt with butter-making and persisted without mechanized tools or access to horsepower in their daily work.

Although some women did devalue dairywomen’s work and some men protected dairywomen’s reputations, the overall assessment of dairywomen post-1850 was negative. Eliza Jones, in her somewhat nostalgic 1892 dairy advice book, essentially confirmed what experts and critics suggested and suspected: dairywomen should be removed from dairy work, even if eminently suited for it in practical terms.

I confess to a love of the old way – the rows of shining pans in the cool, quiet dairy, the rich hue of the golden cream, and most decidedly to the thick cream that will hardly pour out on my porridge or my strawberries, cream that can be got in no other way than by shallow setting, and I have made just as much and just as good butter from shallow setting, when temperature and everything else was exactly right. But that “when” tells the whole story. It is simply impossible to control these surroundings, and they are not just right more than one-fourth of the time, and, therefore, we wisely take to the creamer, which does all this for us and gives us a uniform product. Still better is the centrifugal machine, or separator, as it is called, which separates the cream

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<sup>33</sup> “Why the Butter Doesn’t Come,” *The Farmer’s Advocate* (September, 1885), 267.

and milk as soon as milking is done, and more thoroughly, all the year round, than can be done in any other way.<sup>34</sup>

Jones mentioned three methods of cream-separating - shallow pan, deep can, and by centrifugal machinery; centrifuge and the associated machines equaled scientific improvement for experts and authorities.<sup>35</sup> These three methods link clearly with each of the three time periods utilized in this thesis, demonstrating the change over time in terms of method and tools, yet they also demonstrate how limited these alterations were. Although Jones nostalgically looked back upon the taste of butter made in the "old-fashioned" way, she clearly preferred new technologies for consistent butter product and profit. She did not encourage traditional method or use of pans, since temperature and "surroundings" remained out of the dairywoman's control through inconsistent method and lack of technologies like the thermometer. Although scientific tools offered help for dairywomen in their butter-making work, Jones understood few women had cream separators even though these tools would have been labour-saving for the farmwife. Dairy expert and instructor Laura Rose also

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<sup>34</sup> Jones, 27.

<sup>35</sup> According to the provincial government, which was promoting a creamery system for uniform butter production, there was a noted difference in cream collection among three tested methods: "We have already stated that method tells upon *quality* and that quality makes the price: and that the creamery system supplies butter of uniformly good quality. Now as to *quantity*. At the Dairy Department of the Agricultural College last year, experiment was made upon 3,081 lb. of milk; one-third was creamed by shallow pan, one-third by deep pail and one-third by separator. The total loss of fat in skim-milk and buttermilk was as follows in each case: by separator 0.47 pounds; by deep pail 1.67 pounds; by shallow pan 3.29 pounds. Thus 2.82 pounds more were lost by shallow pan than by separator. ...The average cow produces say 4,000 lb of milk. Then by shallow pan 12 lb. of butter per cow would be lost by the shallow pan method, which would be retained by the best creamery method. ...The conclusion is that by sending the milk to a creamery at least 12 lb. per cow more will be obtained than if the milk is creamed at home in shallow pans." From: Ontario Department of Agriculture, "Bulletin (Special) Second Edition," *Dairying in Ontario* (Toronto: Ontario Department of Agriculture, May 1, 1894), 10.



recommended the use of improved butter-making tools while acknowledging the continued efforts and lack of access to new tools for the province's dairywomen.

Laura Rose learned butter-making techniques as a girl during the settlement period, worked at dairying on her family farm during the transitional period, and wrote as one of only a handful of female dairy authorities of the scientific period. Rose therefore experienced the shift in attitudes and perceptions of gendered agricultural work from traditional roles to a devaluation of dairywomen, their work, tools, and product. She herself, however, only became familiar with mechanized dairy tools once she began teaching at the OAC. Rose's 1901 address to the Women's Institute of Ontario, "Knowledge in Buttermaking," spoke directly to provincial dairywomen. She stated how practical, female, traditional understanding was no longer sufficient to maintain women in the dairy process, and advocated scientific knowledge be made accessible and acceptable to farmwomen.<sup>36</sup> Rose acknowledged both the force for dairywomen's removal and the challenge of unimproved dairy tools faced by farmwives across the province.

We must accept every fact, no matter how it may conflict with our dearest notions. Knowledge will add pleasure to our work, and helps materially. Knowledge enables us to give reasons for our actions. Practice alone cannot do this. Buttermaking is no longer the guesswork it used to be. Perplexities in buttermaking arise out of lack of knowledge concerning the commodities concerned in buttermaking.

Experience counts for nothing except we have our eyes open seeing the cause of successes and defeats. People who have practical knowledge only follow their ancestor's methods, without any introduction of modern ideas.<sup>37</sup>

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<sup>36</sup> Laura Rose helped open the female dairy school at the Ontario Agricultural College (OAC) at Guelph in Fall 1897, and acted as head instructor until about 1911; for the next two years, she undertook a cross-country tour to educate both men and women in dairying. She retired officially from the OAC in 1913.

<sup>37</sup> Miss Laura Rose, "Knowledge in Buttermaking," *The Farmer's Advocate* (February, 1901), 85.

Ontario's turn-of-the-twentieth-century women, however, could not modernize while they did not work with machinery. Although Rose seemingly empathized with the province's hard-working farmwomen, she agreed somewhat with the common perception of the ignorant farmwife and admonished them for being continually backward-thinking in their butter work. Negative comments from Rose only reinforced the strengthening negative perception of dairywomen's butter-making.



**Fig. 8) J. A. Ruddick, 1911,  
Dairy and Cold Storage  
Commissioner.<sup>38</sup>**

The Federal Dairy and Cold Storage Commissioner, J. A. Ruddick, released "Dairy Butter" in 1907, which reluctantly acknowledged the persistence of farm-dairy butter production as strong competition to "creamery" or factory butter.<sup>39</sup> The findings indicated that women retained their integral role within the dairy process, despite continued criticism, lack of accessible machinery, and devalued perceptions of

their female-gendered dairy work. Government officials explicitly projected how important science was for the province's agricultural future and promoted scientific

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<sup>38</sup> Image from Ruddick's 1911 publication, *An Historical and Descriptive Account of the Dairying Industry in Canada*, Bulletin #28 of the Dairy and Cold Storage Commissioner's series.

<sup>39</sup> J. A. Ruddick worked first in cheese factories and then with the Dominion Dairy Commission for over 50 years, from the 1890s until the 1940s. He published his work in 1911, while acting as Federal Dairy and Cold Storage Commissioner, *An Historical and Descriptive Account of the Dairying Industry in Canada*, Bulletin #28, of the Dairy and Cold Storage Commissioner's series.



farming and factory-made butter as progressive and economically viable. The Commissioner himself, for example, noted the benefits of industrialization, while also explicitly indicating the undesirable persistence of female, on-farm butter-making.

The advantages of the creamery system are so obvious that it seems hardly necessary to say that the plan of buttermaking should be adopted wherever it is possible. It is not always possible, however, and for that reason dairy butter-making must not be neglected.

There is great room for improvement in much of the dairy butter manufactured in Canada. The total quantity of dairy butter is very much larger than is generally supposed.<sup>40</sup>

Despite Commissioner Ruddick's disapproval of farmwomen's involvement in a supposedly male-oriented, industrializing agriculture sector, he nevertheless acknowledged their productive place in dairying, although separately from industry.

A decade later, Martin Burrell, Federal Minister of Agriculture, expanded on Ruddick's criticism of the widespread, continued, butter production in home dairies. Notably, the minister codified the apparent differences between, and superiorities of, male factory or creamery butter over female farm-made or dairy butter.

In the first place, the successful creamery buttermaker has had training and experience, and brings more or less skill and accurate knowledge to bear on his work. The creamery buttermaker is supplied with a full outfit of utensils and apparatus which enable him to recover a maximum quantity of butter from the milk.... No guess work is allowed in this connection, all creameries being supplied with thermometers for that purpose.<sup>41</sup>

The elevation of male, factory-made butter, was based on the superiority of scientific methods, tools, and knowledge, in this official publication. Authorities and agricultural

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<sup>40</sup> "Sessional Paper No. 15a," *Report of the Dairy and Cold Storage Commissioner, Year ending March 31, 1907* (Ottawa: S.E. Dawson, Printer to the King's Most Excellent Majesty, 1907), 19.

<sup>41</sup> George H. Barr, "Buttermaking on the Farm," *Dairy and Cold Storage Commissioner's Series, Bulletin #53* (Ottawa: Department of Agriculture, Hon. Martin Burrell, Minister of Agriculture, 1917), 3.

officials promoted male butter over female product despite the dominant and continued role of women in butter-making. While the perception of a division between creamery and dairy butter existed before 1914 in public debate, the government legitimized the categorization through legislation. 'Dairy' or 'farm-made' butter as defined by "The Dairy Industry Act, 1914," was "butter made from the milk of less than 50 cows."<sup>42</sup> It was practically impossible for dairywomen using unmechanized tools and old-fashioned methods to process milk from more than fifty high-producing cows while also attending to her other varied agricultural and domestic duties.<sup>43</sup> Lamira herself needed the hands of her two daughters, Sabra and Sally, once their family's milking herd neared that number. Later, when on their own, Sabra and Sally Billings employed traditional butter-making techniques and hired numerous milkmaids to handle the raw milk from a growing herd of more than fifty head. As most dairywomen struggled to process milk by hand, their butter was systematically branded as inferior. The scientific-era elevation of male, factory-produced butter product divided dairywomen from progress based upon suppositions of gender and their perceived inability to produce for an industrializing, male butter export market.

Federal reports from 1905 to 1917 indicated that over these twelve years the quantity and value of butter from female production was greater than that of male creamery product.

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<sup>42</sup> Barr, 3.

<sup>43</sup> Especially important to note is that herds of 50 cows or more remained rare as electricity did not reach most rural areas of Ontario until post-WWII, making it difficult to milk a large herd. Therefore, farm-made butter by definition dominated the market until at least 1914.

The total quantity of dairy butter manufactured in Canada is estimated to be greater in quantity and value than the product of the creameries. The creamery man is inclined to oppose any effort to improve the condition of the dairy butter trade, on the assumption that poor results from the making of dairy butter encourage the spread of the factory system, and that the creamery or cheese factory should become general.<sup>44</sup>

During their tenure, neither Commissioner Ruddick nor Minister Burrell tried to understand why female, farm-made butter retained low quality, or why dairywomen persisted within a newly male-associated form of agricultural labour. Instead of improving work circumstances, the official response was to recommend removal of butter-making from the farm and from women's hands. Both government officials in 1907 and 1917 agreed, however, that inadequately equipped dairywomen made more butter on farms than men in creamery factories. Strengthening the notion of this on-going use of traditional tools, a 1907 document from Ontario's Dairy and Cold Storage Commissioner's Series, stated "there are three common methods of removing the cream from the milk: (1) the shallow pan, (2) deep setting, and (3) the hand separator. All these methods are used to some extent. *The Shallow Pan*. This method has many defects, and we do not recommend it."<sup>45</sup> Yet, this unscientific method of separating must have been widely enough used for it to be discouraged so overtly in a provincial publication. The assertion by authorities of dairywomen's role within butter production, until at least 1914, indicated how the dominant discourse that devalued farmwomen's work and product

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<sup>44</sup> Barr, 3.

<sup>45</sup> George H. Barr, "Buttermaking on the Farm" *Bulletin No. 17, Dairy and Cold Storage Commissioner's Series* (Ottawa: Minister of Agriculture, May, 1907), 6. (Note, this is an earlier version of the same type of 1917 report as already cited.) Also of note, is that parts of the 1907 report were repeated in the 1917 version; perhaps indicating a lack of change over time, exactly when male authorities counted on a gender-shift in dairying.

additionally disguised many of the inherent and overwhelming butter-making problems discussed here.

Practical experience maintained long-standing customs of butter-making even as this work changed over time. The settlement-era butter-making work and tools of Lamira Billings illustrate traditional butter-making knowledge. Post-1850 in Ontario, traditional dairy methods and tools drew attention as farmers increasingly specialized in dairy husbandry. Sabra and Sally Billings in the transitional period witnessed alterations and debates within butter-making methods and tools. Dairywomen from this generation tried to adapt and expand their on-farm production even without mechanization. During the scientific period, Laura Rose's persistent advice, and the 1907 to 1917 Federal Dairy Commissioner's reports, asserted the devaluation of dairywomen's work over the century. By about 1885 and until 1914, the poor quality and consequently lower value of farm-made butter, coupled with the on-going devaluation of their methods and tools, limited dairywomen's acceptable agricultural roles. Post-1850, critics perceived dairywomen's butter-making methods, tools, and knowledge as inferior, while the burden of female dairy work greatly increased without appropriate parallel changes to labour-saving methods or tools.

Nineteenth- and early-twentieth-century Ontario farmwomen toiled unnecessarily hard at dairy chores due to a lack of adequate or lasting change to their tools as dairy agriculture developed and butter-making increased. Dairy farming became the focus of many farmers in Ontario, yet dairywomen remained technologically unprepared for the onslaught of processing and production brought



about by a transition to specialized agriculture oriented to industrialization, mechanization, and export. Access to broader markets encouraged improvements but this most often, on the farm, meant more cows without parallel change to tools. Dairy discourse reveals the struggle between modernity and tradition, male and female, both ideologically and on the Ontario family farm during the century discussed. Dairy science and scientific technologies held the ability to improve on-farm butter production. During the period studied, however, dairywomen's workload increased and they managed to produce more butter. Yet, contemporaries underlined the decline in quality and value.

The development and associated industrialization of dairying in nineteenth- and early-twentieth-century Ontario marginalized women within their traditionally-gendered chores. According to authorities on agriculture, the removal of women from dairy work – along with their perceived outdated methods and tools – was the key to industrialization and progress. Despite advice from experts, dairywomen remained the dominant butter producers in the province. Women persisted within the dairy process and particularly butter-making despite clear attempts to gender butter-making as a male occupation. Lack of male support left the province's dairywomen toiling without the available benefits of science or technology, processing ever-greater amounts of fluid milk, while struggling with their grandmother's tools. Yet, butter-making remained outside the industrialization process, which perpetuated toilsome female dairy work.

## Chapter Six Educating Dairywomen

Are women always weak? No – some like to work at the haying better than at the fashionable spinning-wheel – the pianoforte. Let them all have a good education and a knowledge of music, if their tastes run in that direction.<sup>1</sup>

-W.H.B., *Women's Out-door Work*, 1886



Fig. 1) Sallows image “Lady and a cow” (n.d.).  
UGL 0755-rrs-ogu-ph.

A question that puzzled contemporary observers of nineteenth- and early-twentieth century farmwomen was: what comprised a good education for Ontario's dairywomen? Attaining an agricultural education anywhere other than the family farm was difficult for Ontario's farmwomen when W.H.B. wrote the above passage in 1886. During the nineteenth and early twentieth century, agricultural learning was mainly experiential, transitional, and limited for women because men did not consider their education important. W.H.B's answer to the lack of educational facilities for farmwomen reflected contemporary thinking; he encouraged appropriate, gendered,

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<sup>1</sup> W. H. B., “Women's Out-door Work,” *The Farmer's Advocate* (August, 1886), 241-2.

out-door work. What a good education was comprised of and how accessible it was to dairywomen remained within male control between 1813 and 1914.

Attitudes expressed in debates and in dairywomen's own words highlight the factors that influenced development in dairy education in late nineteenth- and early-twentieth-century Ontario. This survey of the development of education for women dairy workers in Ontario between 1813 and 1914, uses the same chronology and time periods applied throughout the dissertation. During the settlement period, 1813 to 1850, farmwomen's personal experience along with knowledge inherited from previous generations informed their daily work. The transitional period, 1850 to 1885, witnessed the accelerating introduction and incorporation of scientific farming principles. Also, arguments favouring education for dairywomen began to arise based upon their supportive farming roles. While voices encouraging the education of dairywomen for moral and social improvements continued into the scientific period, 1885 to 1914, the overwhelming consensus among male authorities was that female knowledge was inappropriate for overall progressive plans in dairying. Farmwomen's dairy education in Ontario began as practical knowledge and developed into limited and more domestic forms. Yet, even with the introduction of formal, female dairy learning in the late 1890s, education was restricted and restrictive.

The definition of appropriate understanding for women working on the farm shifted along with changing approaches to dairying. Ideological trends regarding science, technology, separate spheres, marriage, and motherhood all influenced the valuation of knowledge and educational development during the one hundred years under discussion.

Historians of farmwomen have found that most often “adjustment to gendered work relations on the farms rather than decline in economic production emerges from the voices of women farmers.”<sup>2</sup> In Ontario, dairywomen wrote particularly about and discussed both change and lack of change in their traditional work. Essentially, farmwomen retained their common work roles but with decreasing regard – essentially the devaluation – of their acquired knowledge. Male authorities constructed a standard of knowledge based on gendered work and defined appropriate agricultural roles for women.<sup>3</sup> Throughout the century, there was accepted a prevalent understanding that specific farm chores were gendered and the market value of products was based on – although not the only factor – gendered production. The difference was that during the settlement and early transitional periods, dairying was strongly associated with female labour, while during the scientific period the perception of dairying altered and became closely associated with business and industry, emphasizing essentially male dairy education.

In the settlement era, farmers gleaned much of their agricultural understanding from traditional British farming practices. Drawing on the British tradition, Ontario’s agricultural education reflected the growing interest in scientific farming during this period. It was more widely discussed, however, than applied.

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<sup>2</sup> Terry Crowley, “Experience and Representation: Southern Ontario Farmwomen and Agricultural Change, 1870-1914,” *Agricultural History* 73, 2(1999): 242.

<sup>3</sup> “Ingrained separate spheres [were] inherent in educational development of Ontario. Division of labour was economical...because it allowed for the performance of those parts of a given operation not requiring the ‘strength of manhood’ or ‘the skill of a trained workman’ by inferior workmen or by women and children.” From: Alison Prentice, *The School Promoters* (Toronto: McClelland and Stewart Ltd., 1977), 110.



There was more to “scientific agriculture,” however, than a knowledge of good farming techniques; also implied in the term was a disposition of mind conducive to experiment, to observation, and, what was more important, to change. This was “scientific” used in the sense of “progressive” farming. Thus, proper attitudes as well as required skills were subsumed in the term “scientific agriculture.”<sup>4</sup>

British handbooks for emigrants and settlers, hoping to begin a new life across the Atlantic, contained scientific and technological advice and information. Only those authors who actually had been to North America, and understood conditions there, were able to offer information to farmers. Books written by British farming experts unfamiliar with Canada failed to account for the differing terrain, climate, or circumstances existing in British North America. Those who made the voyage were, “accustomed to the careful, increasingly ‘scientific’ agriculture of their homeland” and “the English were dismayed to see stock browsing in the woods, manure lying uncollected, and wheat planted amid stumps.”<sup>5</sup> Meanwhile, throughout the settlement period, farmers and their wives struggled to make new lives out of the provincial bush with only limited access to new and important farming information.

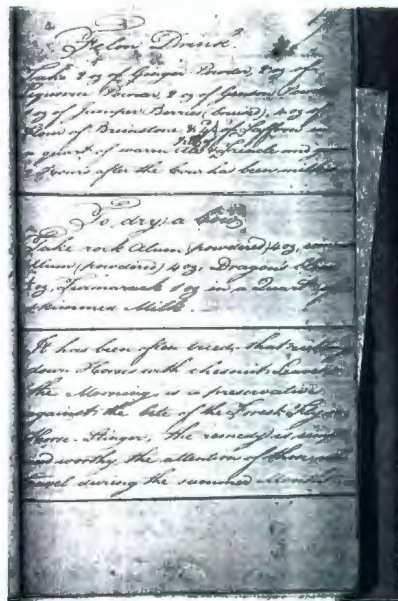
Within the settlement period, limited, formal farming instruction began to appear in North America. “The first experiment in agricultural education was the

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<sup>4</sup> D. A. Lawr, “Agricultural Education in Nineteenth-Century Ontario: An Idea in Search of an Institution,” *History of Education Quarterly* (Fall 1972): 335-336. See also: Terry Crowley and Alexander Ross, *The College on the Hill: A New History of the Ontario Agricultural College, 1874-1999* (Toronto: Dundurn Press, 1999).

<sup>5</sup> “In fact, such rough and ready practices were far better fitted to the conditions that prevailed in much of BNA – where land was relatively cheap, capital was in short supply, and labour was scarce and expensive.” From: Graeme Wynn, “On the Margins of Empire,” Craig Brown, ed., *The Illustrated History of Canada* (Toronto: Key Porter Books, 2002), 237.

Gardiner Lyceum, which operated in Maine from 1822 to 1832.”<sup>6</sup> Most schools and colleges remained private, far-flung, and independent with little similarity in curriculum or methods pre-1850. Roger Geiger has noted the problem with studying such varied approaches to agricultural instruction: “historians have had difficulty characterizing these schools; they were puzzling to contemporaries as well.”<sup>7</sup> Despite the beginnings of prescribed learning, Ontario’s farmwomen most often learned from experienced female family members. Some fortunate farmwomen might have accessed traditional dairy practices and methods through the informal written word, such as recipe books left by dairywomen – grandmothers, mothers, aunts, and sisters.



**Fig. 2) M. Newsam’s 1837 “Receipts” or recipe book, including information on how “to dry a cow.”**  
**NMSTC Agriculture Collection.**

In 1837, an Ontario farmwoman, Mrs. M. Newsam, began her new “receipts” book. Newsam’s writings offer an example of how familiar information could be transferred from dairywoman to dairywoman. She included animal treatments and recipes for scalding milk amongst her

<sup>6</sup> Roger Geiger, “The Rise and Fall of Useful Knowledge: Higher Education for Science, Agriculture & the Mechanics Arts, 1850-1875,” *History of Higher Education Annual* 18(1998): 49.

<sup>7</sup> Geiger, 52.



recipes. On the first page she neatly wrote, in her own script, instructions for drying a cow of its milk before calving. By copying down her ingredients and dairy techniques she was essentially capturing her knowledge, allowing for reference, and hopefully passing it on to subsequent generations as traditional female wisdom. Oral traditions, personal diaries, and recipe books such as Newsam's offered some of the limited ways women could transfer their dairy knowledge before easy access to neighbours, and publications, such as agricultural journals and books, became widely disseminated in the province.<sup>8</sup>

One of the foremost advocates of education in the province was Egerton Ryerson, Chief Superintendent of Schools for nearly a generation during education's formative years. In the 1840s and 1850s, Ryerson crossed the province campaigning for the institution of agricultural



**Fig. 3) Methodist Minister Egerton Ryerson was Ontario's education superintendent for a generation from 1844 to the mid 1870s.<sup>9</sup>**

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<sup>8</sup> "Beginning in the 1840s, agricultural papers and periodicals provided an inexpensive and thus widely accessible system of education for all classes, including farmers. These publications promoted the founding of agricultural societies, supported the spread of agricultural science and viewed farm exhibitions and museums as means to improve agriculture." From: John Carter, "The Education of the Ontario Farmer" *Ontario History* XCVI, 1(Spring 2004): 62.

<sup>9</sup> Photo from: Craig Brown, *The Illustrated History of Canada* (Toronto: Key Porter Books, 2002), 305.

education. His lecture, "The Importance of Education to an Agricultural People," was also published in the *Journal of Education*.<sup>10</sup> Ryerson pushed for the model developed and established in the US, firmly believing in scientific, institutionalized education, for men alone.

Since farmers were arbiters of Canada's destiny, education would enable them to 'occupy their appropriate position of power and influence in comparison with the other classes of the population.' Through knowledge...the farmer would acquire important and practical principles.<sup>11</sup>

Ryerson's kind of learning was intended for young farmers who would employ science and technology to develop agriculture in the province. He "suggested that the farmer, like the lawyer, the mechanic and the physician, must learn to read, write, calculate and use his native tongue. Education would ensure success."<sup>12</sup> Ryerson, it seems, did not consider agricultural education for female producers.

With population growth during the settlement period, the province established numerous state-funded common schools but their farming focus was academic and not practically oriented. "By 1850 most students of school age had several years of education. Albeit with irregular attendance to accommodate agricultural work."<sup>13</sup> Rural emphasis on agricultural understanding rather than formalized education remained strong during the settlement period with children required for necessary family-farm work.

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<sup>10</sup> Alison Prentice, *The School Promoters* (Toronto: McClelland and Stewart Ltd., 1977), 105.

<sup>11</sup> Carter, 68.

<sup>12</sup> Carter, 68.

<sup>13</sup> Frank D. Lewis and M. C. Urquhart, "Growth and the Standard of Living in a Pioneer Economy: Ontario 1826 to 1851," *William and Mary Quarterly* 56, 1(January 1999): 171-172.



Despite Egerton Ryerson's best efforts, and the accepted historical assessment of his influence, Ontario's rural people continually considered to favour the city-dweller.<sup>14</sup>

Historian Alison Prentice explains Ryerson's "lip-service" to farming people could not "hide the essentially urban orientation of the Chief Superintendent of Schools."<sup>15</sup>

Although Ryerson's developments came earlier than formal female dairy education, his emphasis on male and scientific learning did indeed impact and guide the educational approach to agricultural growth in Ontario.

Settlement indeed meant growth in Ontario, accompanied by hard work. One woman who illustrated the broader benefits of even general education for female dairy progress was Lamira Billings. Using pen and ink in her account books, Lamira Billings revealed she was more educated than most farmwomen in Ontario. After her own mother died, when Lamira was just eleven, she and her siblings lived with their step-father in Augusta, Ontario. She received an education, potentially from E. Anderson, who taught there during that period.<sup>16</sup> Notably, Lamira Dow was one of the first schoolteachers in the province. She began teaching in 1813 in a school at Merrickville, along the path where the Rideau Canal now flows.<sup>17</sup> Hired by

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<sup>14</sup> Ryerson's response was to, "introduce a work on agriculture into the common schools," which he did in 1871, with "his text entitled *First Lessons in Agriculture, for Canadian Farmers and their Families*." From: Prentice, 105.

<sup>15</sup> Prentice, 58.

<sup>16</sup> Ruth McKenzie, *History of Leeds and Grenville 1870-1967* (COA BEC MG2-11-2), 95.

<sup>17</sup> "The school year was divided into two terms – a good method for farming families. Teachers worked in six-month periods, and from teacher receipts in Ontario, they ran from 15<sup>th</sup> April to 15<sup>th</sup> October, which explains why Lamira was married the 18<sup>th</sup> of October, right after her term was up." From: Martha Phemister, "History: Lamira Dow Billings," (COA BEC RE530-yr3000/0397-GLEN, 1987), n3.

Methodist minister William Brown, she worked for the sum of seven dollars and board round.<sup>18</sup> Although employed only briefly before marrying Braddish Billings, Lamira knew not only how to read and write but how to keep accounts and do sums as evidenced by her dairy records.<sup>19</sup>

1860 .60 of books bought 11 years

Winstanley's Dictionary of Mr Dune	1-17-6
The life of Christ	0 10-0
Testament and Psalms with notes	0-3-9
Original church of Christ by A. Briggs	2-3-6
Past and present by J. Carroll	0-3-9
History of Canada	1-10-1
British Friend	1-10-1
10 friends books of Mrs. Pennington	1-10-1
1862 the History of Methodism	0-10-0
1863 British friend	7/6 1 Pennington
Takes discipline and 4 vol of misalanes	1-0-0
1862 binding 2 books 3/6 do one	0-6-6
1863	3

**Fig. 4) Lamira's list of books she purchased, 1860-1863.  
COA BEC MG2-1-1.**

Lamira Billings continued her relationship with learning throughout her life, even after taking on the hard work of running a pioneer farm and raising a large family. Often

<sup>18</sup> "Board round," meant the teacher would reside with the parents of each of her students, moving from home to home for lodging as the term progressed. There is some discrepancy though, since it seems Lamira boarded with the Coller's, where she met Braddish, and they did not have children in 1813." From: McKenzie, 95.

<sup>19</sup> Lamira Billings, "Expenses and Receipts," (COA BEC MG2-2-6, 1860s).

noting in her journal the names of books she enjoyed, Lamira's taste in literature ranged from religious commentary to history. In 1860, she began "Richard Helldreth's *The History of the US*," which contained "3841 pages. Commenced reading them November 1860. January the first have read the three first volumes 1738 pages. The last three contains 2103 pages." Never one to be idle, once her dairy duties diminished on the family farm, and nearly 54 years after her first paid teaching work in Merrickville, Lamira built a schoolhouse. Always meticulous in her record-keeping, she tracked every penny spent on the school from the cost of the land and fencing, to the outhouse lumber, as well as shingles to update the already existing log structure. The land itself cost one-hundred dollars, while the materials and construction of the fence and required outhouse she listed at twenty-four dollars.<sup>20</sup> Lamira potentially taught school in the year of Confederation, beginning on July 23<sup>rd</sup>, 1867; she might also have immediately hired a teacher for her schoolhouse.<sup>21</sup> Her commitment to learning, to educating her own children, to training her dairymaids and local children, clearly influenced the Billings' dairying knowledge. Lamira's valuation of knowledge for herself and her daughters –

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<sup>20</sup> "General Register," Ottawa Carleton District School Board: "The first school was located in a building east of Mr. Robert Lough's present residence." "The 1929 Ottawa City Directory lists a Robert Lough as living on the south side of River Road. This is in the same vicinity as the school, which Lamira built on Lot 17 and which still stands at 2087 Riverside Drive." From: Kathy Dennis, *The Village of Billings Bridge* (COA BEC, Summer 1999, 971.3DEN), n66.

<sup>21</sup> There is some ambiguity within Lamira's writing, concerning the school, as to whether or not she taught there. "An entry in [Lamira's] journal for 1867 reads: 'September the 23 began teaching school in the new house.' Rather than referring to herself teaching, this [was] perhaps her way of recording the start date of Miss Sarah M. Longley, the first teacher at this school. Miss Longley taught for three years until she was replaced by Miss Liza Kennedy." From: Dennis, (COA BEC 971.3DEN). Lamira's journal entry. Also: First schoolteachers from Ottawa Carleton District School Board. "General Register" (COA BEC MG2-2-8).



Sabra and Sally – was perhaps due to the strong emphasis placed on learning by her Quaker heritage and was evidenced by their successful dairy work.



**Fig. 5) Lamira's schoolhouse project – she moved and used the former Billings homestead from along the river.  
COA BEC CA417.**

Overall during the settlement era from 1813 to 1850, Ontario's agriculture education developed inconsistently. Government and agricultural authorities, all male, attempted to apply strict scientific modes of analysis and process to traditional and predominantly female farm labour. They did not attempt change to existing work patterns and instead created transition within gendered dairying. They did so without considering how to best organize and disseminate scientific farm education to men or women. Consequently, dairywomen's knowledge about their work continued to come from other women and practical experience. If they had any formal education they received it at the local school. Progressive agricultural curricula consequently had little effect on the knowledge of dairywomen before the 1850s, although basic education



certainly enhanced Lamira Billings' ability to establish, run, and make prosperous a busy settlement-era farm.

The transitional period from 1850 to 1885, like the settlement era, offered no formalized agricultural training for provincial farmwomen. This era, characterized by overwhelming scientific introductions and promoted alterations to dairy work, also witnessed arguments in favour of farmwomen's formal agricultural education. At first, debates centered on the question "why" farmwomen should be educated. Those who supported education for dairywomen principally argued that teaching women would benefit the family and society. Although farmers considered education unnecessary, some men could see the potential benefits of education, albeit within prescribed gender roles, particularly in terms of the farmwife as helpmate. Having a practical woman capable of engaging in lively and important conversation, while also being able to keep the books and educate her own children, they argued, was of great advantage to a hard-working and progressive farmer. The focus of developing forms of agricultural education, however, was on men and their increasing authority over dairy production.

A move to rationalize and institutionalize agricultural education gained momentum after mid-century, with a blend of theory and practice recognized as the ideal in Ontario. As Ruth Schwartz-Cowan remarked about the US, "profit-oriented, market-oriented farming required new skills, and these required new forms of education."<sup>22</sup> This was also the case in Ontario and the pressure to implement farm education brought about a combination of approaches. The most influential was

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<sup>22</sup> Ruth Schwartz Cowan, *A Social History of American Technology* (New York: Oxford University Press, 1997), 176.

introduced in the United States by Justin Morrill in his speech, 'A Bill Granting Lands for Agricultural Colleges,' delivered to the US House of Representatives, 20 April 1858. Morrill essentially designed the organization and institutionalization of agricultural higher learning and encouraged centralization of farming education.<sup>23</sup>

The Morrill Act was the key to combining technical or applied forms of higher education and the 'liberal' arts and sciences within the same institutions... Morrill clearly meant to elevate practical, and particularly agricultural, education to the level of liberal, collegiate studies, but he wisely did not trouble himself about precisely how this might be done....<sup>24</sup>

Morrill's rough academic model emerged as the dominant framework for development, perhaps because it could be so broadly interpreted and included some practical training. His assertions for male agricultural education, however, grew out of a faith in scientific farming, which excluded women:

We have schools to teach the art of manslaying and make masters of deep-throated engines of war; and shall we not have schools to teach men the way to feed, clothe, and enlighten the great brotherhood of man?<sup>25</sup>

The loose and disparate system of agricultural education instruction and institutions from the United States certainly influenced Ontario's educational progress. Women, then, had

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<sup>23</sup> "...the particular means of devising a curriculum for agricultural education and organizing it institutionally still were the subjects of considerable disagreement....between 1855-1857. By then interest in higher education for farmers was not new. Agricultural societies and journals in the United States had been promoting agricultural education since early in the nineteenth century."<sup>23</sup> Daniel W. Lang, "Amos Brown and the Educational Meaning of the American Agricultural College Act," *History of Education* 31, 2(2002): 141.

<sup>24</sup> Geiger, 48.

<sup>25</sup> Justin Morrill, "A Bill Granting Lands for Agricultural Colleges," speech delivered to the US House of Representatives, 20 April 1858, Library of Congress. From: Lang, 163.

little influence and even less consideration in dairy education development in either the United States or further north.<sup>26</sup>

In Ontario, agricultural authorities eagerly followed the scientific-farming trend, and young rural men “were encouraged to ‘unite knowledge with labor – science with practice - in order to be skilful and successful farmers.’”<sup>27</sup> Through practical know-how and academic learning Ontario’s farmers heard the promise that “the great fountain of all knowledge will reward him a thousand fold for his well directed efforts.”<sup>28</sup> New methods, techniques, and tools required new chore-specific and technology-associated proficiency. Meanwhile, the province’s farmwomen condemned their lack of access to improved dairying technology and methods, as well as to agricultural education.

Commentary from Ontario’s farmwomen during this transitional period, indicated a recognition that education was increasingly important for dairy work even for those isolated on the family farm. The following so-called “Young Maiden,” for example, employed the foremost argument for farmwomen’s access to scientific knowledge – the idea of educating ‘woman as mother.’ Judging from her writing style, the author must have been educated and thus understood the benefits of female learning.

Let the education of the young woman be commensurate with her influence.  
...Then let her be trained to wield this fearful power with skill, with principle,  
and for the salvation of social man.

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<sup>26</sup> “After 1890, the capacious American university had placed science, engineering, agriculture, and a host of other fields on the same footing as literary studies. ...in the third quarter of the nineteenth century, the situation had been otherwise. ...the Morrill Act, which was a product of this milieu, was ultimately instrumental in undermining this limited and limiting vision.”<sup>26a</sup> Yet this kind of education was still limited as to gender. From: Geiger, 59.

<sup>27</sup> Carter, 63.

<sup>28</sup> Carter, 63.

Will you now leave this allpotent being illiterate, to rear sons debased by ignorance, and become dupes of the demagogue?

Look at the domestic circle! To leave her uncultivated, a victim of ignorance, prejudice, and the vices they entail, is to take home to our bosoms a brood, that will inflict pangs sharper than death. For the love and honor of our homes, let us encourage the most liberal culture of the female mind.<sup>29</sup>

Improving the mother through education was perceived to enhance farm life through the subsequent education of farm children. "The 'most important and peculiar duty of the female sex'," Prentice agrees was, "'the physical, intellectual and moral education of children'."<sup>30</sup> Ontario's dairywomen, however, still had only limited access to education generally and scientific dairy knowledge specifically, while working with outdated methods, tools, and understanding. Agricultural authorities continually pushed ahead, in a gendered manner, for organized, formal farm education for men.

By the time the US implemented formal learning and graduated their first agriculture students in the 1860s, Canada was looking to study and implement a farm education system. "In 1864, J.W. Dawson, principal of McGill University, argued that agriculture had become a scientific art, but knowledge of this kind was yet only partially diffused to farmers."<sup>31</sup> The push for institutions of agricultural higher learning began in earnest around Confederation. By 1869, the Minister of Agriculture, "John Carling sent William F. Clarke to the United States to study agricultural schools."<sup>32</sup> The Deputy Superintendent of Education, John George

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<sup>29</sup> Young Maiden, "Female Education," *The Farmer's Advocate* (1868), 105.

<sup>30</sup> Prentice, 110.

<sup>31</sup> Carter, 70.

<sup>32</sup> Carter, 69.



Hodgins, concurred with Carling's educational hopes when he wrote: "Education, is at the foundation of all intelligent Agricultural operations," and was "one of the most important duties and interests of the state."<sup>33</sup> In 1870, Carling "repeated one of the most persistent ideas of the nineteenth century," that some form of "agricultural education in 'the science of farming'" was required in the province.<sup>34</sup> Momentum gathered around formal agricultural education for farmers. Regarding dairywomen's education, the debate developed beyond why to educate farmwomen, to "what" to teach them, although still not through formal means. These questions and their solutions transformed into new and specific definitions of appropriately-gendered farm work for women – or shrinking separate spheres – specifically horticulture and later domestic science.

Dr. Dio Lewis's, "Gardening as Woman's Work" was printed in the *Farmer's Advocate* in June 1871. Lewis discussed the obvious gender differences inherent within separate spheres ideology, and, by implication, the valuation of farmwomen's work.

A peck of peas has a certain market value, not dependent on the hands which raised them. A woman who works at making pants receives fifty cents a day, not on account of the amount or quality of work, but because she is a woman.

A man engaged upon the same garments receives two dollars a day, not because of the amount or quality of his work, but because he is a man.<sup>35</sup>

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<sup>33</sup> Carter, 67.

<sup>34</sup> Lawr, 334.

<sup>35</sup> Dr. Dio Lewis, "Gardening as Woman's Work," *The Farmer's Advocate* VI, 6(June, 1871), 86.

Dr. Lewis recommended market gardening on the farm as female work since the market value of produce could not be so easily demeaned based on the sex of the grower. Gardening, he suggested, was particularly useful for farmwomen since it offered health benefits, economy in the kitchen, and value for their efforts and products. Lewis was not as open-minded in his 1871 article as it seemed, however, because he considered women's work inferior. He sought merely to help women disguise their gender. "It is doubtless true that, in very many cases, the man does his work better than the woman, but it is not less true that, in the majority of cases, the difference in price grows out of the difference in sex."<sup>36</sup> The overwhelming message was that women's work and products held less value than men's.

While debate and discussion of female farm education continued, Ontario's men received an institution. Their education "began in 1874 with ... the founding of the Ontario Agricultural College and Experimental Farm (OAC) at Guelph, Ontario, located west of Toronto."<sup>37</sup> At first, however, few young men enrolled at Guelph since for "the great majority of farmers, indifference was the most common reaction" to formalized higher education. All hands were required on the family farm for practical production and profit. Clearly though, policy-makers supported male, scientific agriculture, understanding this type of farming necessitated education and overall change on the farm. Farmers resisted scientific knowledge in favour of dairywomen's

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<sup>36</sup> Lewis, 86.

<sup>37</sup> Within this chapter emphasis is placed on dairy schooling at the OAC, mainly due to its available and complete archival sources. Linda M. Ambrose and Margaret Kechie, "Social Control or Social Feminism?: Two Views of the Ontario Women's Institutes," *Agricultural History* 73, 2(Spring 1999): 223.

practical labour; thus dairywomen remained restricted from agricultural learning through the cultural reinforcement of gender roles in education.



**Fig. 6) Painting of the Billings' new house done in the 1830s by Lamira J. Billings. COA BEC.**



**Fig. 7) Modern-day photo of the milkhouse – built at the same time as the new, main house in 1828. Lamira, Sabra, and Sally spent many hours scalding, separating, cheese- and butter-making, as well as teaching their dairymaids in the milkhouse between 1828 and the 1880s.**

Despite the arrival of formal male agricultural education in Ontario during the transitional period, dairywomen continued to struggle at their chores while being restricted from improving scientific-based knowledge. Examples of the positive results of even general, academic education upon dairy work can be found in two sisters – Sabra and Sally Billings. Their mother, Lamira, literate and a teacher, ably educated her children both practically and academically on the farm. Sabra and Sally were successful in the dairy by virtue of their general education even though it was not agricultural in nature or dairy-related. It was the practical and traditional dairy wisdom they received

from their mother during the settlement period that prepared them for their cheese- and butter-making work.

As the first European settlers in Gloucester Township, no local school was available for the Billings' oldest child, Sabra, once she reached school-age in the 1820s. Her parents employed a governess for the children, a Miss Burritt and later a Mr. Maitland, and allowed neighbouring children to be taught in their home.<sup>38</sup> With seven living children by 1826, Sabra's mother should have required her, as the oldest child, to help with the dairy and in the house. For most families, the need to keep their eldest daughter at home for labour would have severely restricted a girl's access to education. The Billings, however, desired more education for their children than the farm alone could offer. Sabra, therefore, attended boarding school in Brockville, along the St. Lawrence, when she was eight years old.<sup>39</sup> In 1828 she attended another boarding school in Montreal and in 1830 a different school in that city. Billings family historian, Kathy Seaver, aptly described Sabra in later life as: "atypical because she was an educated spinster who was socially active and well-travelled."<sup>40</sup> Sabra's education in both academic and practical ways served her well once she was bequeathed half of the family home-lot upon her father's death. Over time, Sabra successfully ran and expanded the family dairy farm along with her mother and sister.

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<sup>38</sup> The books in use at all the District schools of Ontario, when Lamira opened her school, included: *The New Testament*, *Scoll's Lessons*, *Mavor's Spelling Books*, *Murray's Grammar*, *English Reader*, *Tutor's Assistant*, and *Walker's Dictionary*. ("Ontario Sundries," PAO RG5 A1 C-6872 59243).

<sup>39</sup> "Perhaps the existence of relatives in Brockville and easier access to the town affected the decision to send the child further away." Kathy Seaver, *History of the Billings Family* (COA BEC MG2-11-2), 39. Rough Note.

<sup>40</sup> Seaver, 39-40.



Sabra continued her formal education later in life, although it was still not agricultural in nature or dairy-related. In 1856-7, while in her 40s, she attended the co-educational Fort Edward Institute in New York State. "Its main purpose became the development of worthy character, and the preparation of its young men for college, for professional life or for business, while a special course was provided for young women."<sup>41</sup> Her age set her apart from other students. In a letter to Billings Bridge she wrote: "they are kind to me and give me privileges that they do not give others in the institution. I suppose they favour me on account of my age."<sup>42</sup> Sabra's choice to continue her education in middle age indicated the emphasis she, and the Billings family, placed upon appropriate knowledge and higher learning for farmwomen. While Sabra pursued formal learning for personal improvement, her sister, Sally Billings, quietly and diligently worked on the family farm.

Sally Billings seemingly centered her focus and knowledge on home and family in a way that her oldest sister Sabra did not.<sup>43</sup> A Billings family historian noted that Sally's education was "likely similar to Sabra's" but that there is less archival information available on Sally.<sup>44</sup> "According to oral tradition and a small amount of documentation," Sally Billings "grew up to be an accomplished, educated, religious and very retiring

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<sup>41</sup> "Fort Edward Collegiate Institute: The Old and the New," (COA BEC MG1-9-30), 4.

<sup>42</sup> (COA BEC MG1-1-19).

<sup>43</sup> "Sally was a quiet woman who preferred the peace of the homestead and is best remembered for her charity and kindness." Seaver, 53.

<sup>44</sup> Seaver, 53.

lady.”<sup>45</sup> While it is possible Sally’s education was comparable to Sabra’s, with an introverted personality and the age gap of eight years between them, Sally’s education may have been conducted closer to home. Still, the youngest Billings daughter took after her mother, as an eager reader with an interest in books. Among Sally’s collection is one monograph that suggested her role as her mother’s care-giver was not her only aspiration. The book titled, *Guide to Domestic Happiness* was concerned with “the joys and pleasures of Wedded Love.”<sup>46</sup> It was inscribed “from a friend” to Sally in 1859. Like Sabra, Sally never married but worked productively on the farm, toiling at butter-making and market-gardening.



**Fig. 8) Example of 13-year-old Sally Billings’ needlework skills on a sampler – part of basic, general female education – dated 1835.**

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<sup>45</sup> Martha Phemister, “A Background Paper to the Second Generation,” (COA BEC), 53.

<sup>46</sup> Robert G. Laird, “The Billings Book,” (talk presented to the Billings Estate Museum Volunteers, Ottawa, April 28, 1984, COA BEC).

Sabra and Sally's educational backgrounds enhanced their family's profitable farm and contributed to their own success in dairying. Sabra's ability and desire to continue learning into adulthood was possible due to her affluence and single status. Also, Sally's capabilities as a caretaker for their mother, and her success as a landowner and dairywoman in her own right allowed for Sabra's independence. In their later years, the sisters continually illustrated high regard for learning and regularly paid for their numerous nieces and nephews to study music. The Billings indeed reinforced the concept of change over time in terms of female education, yet also persisted in employing traditional knowledge in dairying even as this work industrialized and as their own access to formal agricultural education remained limited. Despite their elevated social status and learning, scientific agricultural understanding was not within the grasp of the Billings women, or more typical farmwomen, particularly in terms of formal education.

During the scientific period from 1885 to 1914, agricultural authorities blamed female producers for poor butter quality and suggested they had neither the appropriate education nor the tools to make better butter – both being true. “Now whence is the remedy? It can only come from two sources, education and the employment of improved apparatus, so that a uniform high grade of butter can be made at home,” opined one magazine.<sup>47</sup> Limiting scientific knowledge to men was at the core of dairy defeminization, however, and only a few farmwomen gained technological or scientific knowledge during

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<sup>47</sup> “Betterments in the Dairy,” *The Farmer's Advocate and Home Magazine* XVIII, 2(February, 1883), 46.

this period.<sup>48</sup> The contributions of dairymen were therefore diminished in perceived value but not, however, in actual workload or expected on-farm production. Despite ongoing male debate as to why and what to teach them, the province's dairymen continued to work on the farm using traditional methods and means without formal agricultural education.

Reinforcing the dominant concept of appropriate gendered work and women's declining authority over dairying an article entitled, "What to Teach Your Daughter," appeared in the August 1887 edition of *The Farmer's Advocate*. It emphasized practical economy and domesticity in education for farmwomen. Contemporary with dairy industrialization and agriculture's educational development was the narrow, gendered expectation of separate spheres, wherein women worked within the domestic sphere on the family farm while men worked in the public sphere and within the dominant role, which guided the direction of female farm education. The article clearly outlined the farmwoman's role for teaching traditional knowledge to daughters as well as the work future expected for farm-girls within the private sphere of home and farm.

Teach her that one hundred cents make a dollar. Teach her how to arrange the parlor and library. Teach her to say "No," and mean it or "Yes," And stick to it. Teach her how to wear a calico dress and do it like a queen. Teach her to sew on buttons, darn stockings and mend gloves. Teach her to dress for comfort and health as well as appearance. Teach her to make her sleeping room the neatest room in the house. Teach her that tight lacing is uncomely, as well as very injurious to health. Teach her how to cultivate flowers, and make and keep the kitchen garden. Teach her to regard morals and habits, and not money, in selecting her associates. Teach her to observe the old rule: "A place for everything and everything in its place." Teach her the important

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<sup>48</sup> For cross-cultural comparison, see: Lena Sommestad, "Able Dairymaids and Proficient Dairymen: Education and De-Feminization in the Swedish Dairy Industry," *Gender and History* 4, 1(1992): 34-48.



truism, that the more she lives within her income, the more she will save, and the farther she will get away from the poor house. Teach her that a good, steady, church-going mechanic, farmer, clerk, or teacher without a cent, is worth more than forty loafers or non-producers in broad cloth.<sup>49</sup>

Throughout the nineteenth century the expectation that women would marry and then work within the roles of wife and mother remained dominant.<sup>50</sup> This basic, gendered perception of marriage for women remained pervasive during the scientific period and elevated male expectations that their farmwives would be domestic, motherly, and moral, while also educating the children and toiling at appropriate domestic labour rather than purely agricultural work.<sup>51</sup>

Hoping to ease their difficult dairy labour, the province's toiling farmwomen continually called for access to education. Since dairywomen remained so occupied with chores, making it impossible for them to go to school, the call for their daughters' education was sometimes the object of comments, letters, and debates. The voices of these scientific-era dairywomen reinforce the notion of ideological limitations imposed by men in terms of female agricultural education. Alice Cassells, a farmwoman, for example, applied cool-headed reason in her presentation on the subject of female knowledge and understanding. Using biblical, historical, literary,

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<sup>49</sup> "What to Teach Your Daughter," *The Farmer's Advocate* (August, 1887), 248.

<sup>50</sup> Prentice, 109.

<sup>51</sup> "Nineteenth century census figures indicate that more than 90 percent of the female children born in any decade between 1810 and 1870 eventually married. It was, of course, expected. The education of women, it followed, was designed to improve their chance to marry well, and their ability to perform their future roles as wives and mothers. It was made clear that a young woman possessing the ideal attributes of educational 'ornaments' could expect to enhance the status of her future husband and there to help him to rise in the world." Clearly, women born in 1870 would not marry until between the ages of at least 15-25, thus making this information applicable for the settlement, transitional, and scientific periods, as here defined. From: Rosemary R. Ball, "'A Perfect Farmer's Wife:' Women in nineteenth-Century Rural Ontario," *Canada: A Magazine* (1975): 3-21.

Royal, and moral female figures, Cassells presented a strong argument for female education in her 1891 Prize Essay, "Are the Mental Faculties of Women Equal to Those of Men?"

Why doubts still exist upon this subject will ever remain a mystery, but so it is, and ever will be one of those subjects that cannot be settled to man's satisfaction. It has been proved beyond a doubt that the mental capacity of women equals man's and when put in competition often surpasses them; but the bare assertion will not prove it.

As wives' and mothers' awful responsibilities are given us, and few have been unfaithful to the trust, and in guiding and governing a household requires intellect as well as peculiar executive ability.

It is by intellect the world is governed, and surely it may be claimed woman does possess her share. Since opportunities have been offered women of obtaining better education by opening universities for their admission, they have come rapidly to the front showing they can absorb the higher branches that have been so long reserved for men alone, and they make diligent students, coming well to the front in examinations, and surpassing the men in many of them....<sup>52</sup>

Cassells stated her case plainly: "there ought not be any debate on the matter of education and/or the intelligence of women." Clear throughout her argument, however, was the perception of the ideal woman who embodied feminine and management qualities, prized by women as well as men – farmwomen as well as farmers – but additionally the indication that valuation of women's knowledge and women's understanding in general was low. Essentially, although Cassells discussed women's positive characteristics, her arguments pointed out that men remained unconvinced of the appropriateness or necessity of female education.

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<sup>52</sup> Miss Alice Cassells, "Prize Essay, Are the Mental Faculties of Women Equal to Those of Men?" *The Farmer's Advocate* (July, 1891), 265.

In her 1895 essay, "The Education of Farmer's Daughters" published in the *Farmer's Advocate*, a Mrs. McEwan applied the idea of woman as mother to her argument.

Oh! The starved minds and narrow, petty ambitions of many of our women! The fault lies not in the minds themselves, but in their lack of training. How many farmers seem to be of opinion that books, except, perhaps, the needful school text-books (and some grumble even at their number), are an uncalled for expense. Oh! Be careful how you refuse nourishment for your daughters' minds while you provide food without stint for their bodies.

Education is not a hindrance but a help to woman in doing well the daily duties of the homelife.<sup>53</sup>

A toiling farmwife, McEwan openly sought education for herself, as well as higher learning for her daughters and farmwomen, while also indicating dairywomen's restricted access to education generally, let alone scientific agriculture specifically.

The late 1890s witnessed the arrival of formal, female scientific education in the province. This came in spite of, or perhaps due to, limited margins forced upon farmwomen's learning, over two generations of male debate surrounding female agricultural education, and dairywomen's dominant and persistent production. Female dairy learning, however, was gendered in a limiting way from its inception.

Horticulture especially is interested in the fullest education of the farmers' daughters, for to them, rather than the sons, must it look for the practice of those especial features of its art which so much beautify the world we see and in its highest sense ennoble life. By all means give them the fullest opportunities.<sup>54</sup>

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<sup>53</sup> Mrs. McEwan, "The Education of Farmer's Daughters," *The Farmer's Advocate* (September 16, 1895), 361.

<sup>54</sup> "Shall Farmer's Daughters be Educated at the Agricultural School?" *The Farmer's Advocate and Home Magazine* (April 15, 1897), 172.

The above quote could be interpreted as encouraging women to participate in agricultural development through horticulture yet this was still a distraction from their dominant dairy work and emphasis on “appropriate” farm work. Gendered, limited, scientific knowledge was needed and wanted by farmwomen but not necessarily by men for women. The first opportunity for Ontario’s dairywomen to obtain formal, scientific knowledge came in fall 1897. Yet, even upon the opening of the Ontario Agricultural College’s female dairy school, dairywomen’s access to “modern” agricultural work and knowledge was restricted due to the emphasis on male dominance over dairy work. The curriculum at Ontario’s most prominent dairy school supported pre-existing and limiting gendered perceptions. While women did receive practical and academic training through courses at Guelph’s female dairy school, it was commonly thought girls who attended did so to find husbands. The question surrounding farmwomen’s newly-available and still highly-debated education was: should the curriculum include more scientific analysis or social skills? Those farmwomen who desired dairy training for work off the farm did not receive it from Guelph’s dairy school.

Although the addition of exclusively female classes was clearly considered an addition to Guelph’s dairy school, the distinction between male factory-dairy and female home-dairy certifications was clear. Women received similar training but not the same diplomas as men from the OAC. For example, in 1898:

At the final examinations forty one men and six ladies wrote for certificates of standing, of whom thirty seven men and all the ladies passed. Home Dairy certificates were granted to the ladies who completed the full course.<sup>55</sup>

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<sup>55</sup> “Report of Professor of Dairy Husbandry,” *The O.A.C. Annual Report 1898*, 33.



Without factory qualifications dairywomen were limited to working on the family farm. Most frequently, dairywomen returned home without the new scientific tools they had used to ease their chores at school. The expectation was that women would marry; within the compartmentalized, gendered world of nineteenth- and early-twentieth-century dairy work it was assumed that those who married farmers would have specific roles to fill. Therefore, in terms of progressive, scientific dairy education, female learning was highly oriented toward the household, and linked traditional butter-making chores with domestic work, thereby essentially limiting female participation within dairying as it industrialized.



PA-48654

**Fig. 9) The dairy diploma was specifically differentiated by gender at the OAC, with women attaining only home-dairy qualifications while men trained for factory-dairy certificates. This photo includes a female factory worker – likely employed for cleaning and scouring capabilities – with her male counterparts. They obviously worked with the raw milk, based on the skimmer buckets each worker holds, circa 1910s.**

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An excerpt from a 1901 session at Guelph's female dairy school, demonstrated that topics were gender-specific, with predominantly female speakers appealing to a farm-girl audience. The session demonstrated the link between

institutionalized domestic-training and appropriately-defined farmwomen's work. Although this OAC "ladies" session took place at a dairy-specific school, little mention of dairying or its new methods and practices were made. Rather than address important or timely agricultural topics, "Dress Its Health, Influence, and Beauty" was discussed. Emphasized was the notion that for active women working on the farm or in the house, "the chief consideration in dress is health, shape and fit, rather than ornaments and buttons."<sup>56</sup> Although also not specifically dairy-related, American and MIT-trained domestic science pioneer Ellen Richards addressed concerns over "Housekeeping in the Twentieth Century" in the same session. While Richards acknowledged "housekeeping was somewhat of a treadmill; it was drudgery," she insisted it was so "because it was not creative, thoughtful work." She clearly had hope for women in the audience when she contended that housekeeping "was in a transition stage" but acknowledged it remained "undeniably unsatisfactory and unsatisfying." Similar to dairywomen's own desires for their work, Richards insisted on training for commonplace tasks and encouraged further education for farmwomen: "to abolish friction and unnecessary work in the household machinery, to train the labor to skillful, systematic results, were worthy aims."<sup>57</sup> The domestic orientation of the female dairy school at Guelph indicates that it offered not the dissemination of scientific dairy knowledge, but, rather, a gendered notion of appropriate female

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<sup>56</sup> "The speakers were Miss Laura Rose, O.A.C., Miss B. Maddock, Guelph, and Prof. Ellen H. Richards, Boston, Mass. Mrs. Hoodless, of Hamilton, and Dr. Robertson, of Milton, were also present, and took part in the discussion." From: "Domestic Science Session at Guelph," *The Farmer's Advocate* (1901), 84. Note: This is a summary of the speeches made at a session for dairywomen, held at Guelph, with distinguished lecturers in the emerging field of domestic science.

<sup>57</sup> "Domestic Science Session at Guelph," 84.

agricultural understanding to dairywomen as progressive learning, regardless of their on-going and productive dairy work.

Five years after the opening of the OAC's female dairy school, Miss Bessie Livingstone addressed a principally male audience with her speech titled, "Domestic Science." Livingstone complained that dairywomen continued to lack access to scientific education and knowledge, were forced to employ inadequate tools, and encountered resistance from male family members.

Household or domestic science includes the study of all conditions tending towards right living. This subject has been introduced into our colleges, public schools and dairy schools, and is very closely attached to the dairying interest.

I believe that much of the hard, unnecessary labor done by the women, and much of the closeness in many matters which they are compelled to endure is due to the ignorance of the men regarding the financial side of domestic matters and their consequent unwillingness to spend the necessary amount of money upon them.

In spite of all our modern progress, the women are as busy as ever. This comes from lack of knowledge, and household science would lighten the burden. It would also train them to use this margin of time wisely.

I know wealthy farmers who take only one weekly paper. Such things explain the many complaints that we hear about farm drudgery. There is nothing to brighten life. Literature on the farm and the study of how to spend leisure time is a part of household science.<sup>58</sup>

Livingstone suggested education or even the purchase of books – any form of access to broader knowledge – could alleviate widespread monotony for farmwomen. Clearly evidenced by farmwomen's pens, Ontario dairywomen's education remained limited despite the inauguration of female dairy schools and was restricted through

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<sup>58</sup> Livingstone as quoted in: C. C. James, Deputy Minister of Agriculture, "Co operation and Education for Women," *Annual Reports of the Dairywomen's Associations of the Province of Ontario, 1902, No. 22* (Toronto: L. K. Cameron, 1903), 127-128.

the narrow curriculum offered to them as modern – appropriately female – farming knowledge.

Laura Rose emerged as a strong female voice for farmwomen's education in Ontario and stood as a prime example of those who desired change for female dairy work and knowledge in general. Rose, perhaps alluding to the universal perception that music was appropriate learning for women as did W.H.B. in the introduction, announced her agricultural education with pride while addressing a predominantly male crowd at the annual Ontario Farmer's Institute meeting: "I often say from the platform that I am just as proud to be able to make a pound of good butter as to be able to play the piano."<sup>59</sup> She received some early formal education, although the majority of her formidable agricultural and dairy knowledge came from practical experience. Rose attended public school in the town of her birth proceeding to Guelph for secondary school.<sup>60</sup> To enhance her own practical experience and formal learning, she spent one year attending Alma Ladies' College in St. Thomas, Ontario. In her late teens, she traveled to North Dakota to keep house for her single, older brother. There, she saw the need for better working conditions on family farms, particularly for women, and made "the decision to devote her energies to improving these conditions and thus to make life more congenial for

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<sup>59</sup> Laura Rose, "Address of Welcome," *The Annual Report of the Farmer's Institutes* 25(1904), 13. Note also, how Rose's piano comment links with this chapter's opening quote: "Are women always weak? No – some like to work at the haying better than at the fashionable spinning-wheel – the pianoforte. Let them all have a good education and a knowledge of music, if their tastes run in that direction."<sup>59</sup> From: W.H.B., "Women's Out-door Work," *The Farmer's Advocate*, (1886).

<sup>60</sup> Mrs. L. O. Rentney, "Laura Rose – (Mrs. W. F. Stephen) Her Early Work in Ontario," (UGL RET OAC AO347, January 1963), 1.



farmwomen.”<sup>61</sup> Rose clearly recognized that “technological change substantially altered the skills required of rural girls.”<sup>62</sup> Her formal dairy education was gained at the OAC in 1893, where she graduated with high honours from the first dairy-specific course offered for men. She was married upon her retirement, at the age of 45, to W. F. Stephen, secretary of the Canadian Ayrshire Breeders Association and the Montreal Milk Producers Association. They adopted twins – a son and a daughter.<sup>63</sup>



**Fig. 10) Butter-making class at the OAC employing the antiquated technology of end-over-end barrel churns, in approximately 1899. Nine female students with Laura Rose pictured on the far left.  
From Rose's book, *Farm Dairying*, 1911.**

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<sup>61</sup> Rentney, 1.

<sup>62</sup> Beth Light and Joy Parr, eds., “Chapter 11: Childhood,” *Canadian Women on the Move, 1867-1920, Vol. II* (Toronto: New Hogtown Press, 1983), 11.

<sup>63</sup> Mrs. L. R. Stephen, “Laura Rose – (Mrs. W. F. Stephen) Her Early Work in Ontario,” (UGL Archival and Special Collections, McLaughlin Library, RETOAC0347, January, 1963).

In the Fall of 1897, Laura Rose visited her *alma mater* at Guelph before taking over her post as head female dairy instructor. Rose jotted down her impressions of improvements at the school for the *Farmer's Advocate*.<sup>64</sup>

Saturday last I spent the morning at the dairy. I wandered amongst the busy workers, peered into the churns at the countless golden grains of butter...

Many farmers' sons have taken advantage of this branch of education which our Government furnishes so freely, but the farmer's daughters- the very ones who most need and would most materially profit by such a course of training- have yet to learn what an advantage a few weeks' practical instruction in such a place would be to them.

This is a day of specialists, and any woman who wants to become famous must make herself eminently proficient in one thing. So I say, if you desire to gain a reputation for excellent butter, and sustain it, you must get all the knowledge you can on the subject. Nowhere else are there such advantages offered as at the dairy schools established in different parts of our country, and if our farmers' wives and daughters would make the effort to attend, even for a very short period, there would be a most wonderful change found in the butter put on the market in the future.<sup>65</sup>

Laura Rose stated expertise rather than experience was demanded by dairy producers.

Rose, however, did not assume experts could only be male. She was a farmwoman who urged other farmwomen to gain knowledge in addition to personal experience and practice. She also clearly understood that despite perceptions, it was dairywomen on the farm who toiled at separating cream and making butter. Rose insisted farmwomen had the ability and interest to handle agricultural schooling in addition to their traditional work but they required better understanding through heightened knowledge to improve.

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<sup>64</sup> "DAIRY SCHOOL - The session of 1898 was one of the best in the history of the School. There were 110 students registered during the term, of whom nineteen were ladies. The enthusiasm of Miss Rose, the lady instructor, and that of a number of the ladies in the class, gave new life to the whole institution." From: "Report of Professor of Dairy Husbandry," *The O.A.C. Annual Report 1898*, 33.

<sup>65</sup> Laura Rose, "The Dairy School from a Woman's Standpoint," *The Farmer's Advocate* (1897), 137.



As a rule women are quicker than men to grasp and adopt new methods of work; all they want is the chance, and for this very reason I advise letting them occasionally take a trip. Depend upon it, they will come home with some fresh idea, and probably will not rest till they have the coveted improvement.<sup>66</sup>

Rose's perception of dairywomen's knowledge and ability ran contrary to dominant and widely accepted opinion. Perhaps her work with dairywomen at the OAC convinced her of farmwomen's capabilities, or else she could simply have been offering a confidence boost to down-trodden dairywomen. The concept of wives or daughters taking a leave of absence from their farm work and demanding new tools may have contributed to the reluctance of many farmers to invest in cream-separating or butter-making tools, or to allow their female family members to attend courses in dairying. Few farmers saw investment value in new tools for women's work or formal dairy-training. Instead men focused on their own labour, tools, and education, and dairy industrialization consequently suffered.

From the first year of female instruction at the OAC, Laura Rose worked as a committed and outspoken instructor. A practical woman, as well as a pupil and instructor of scientific dairying, Rose saw the advantages of dairy education for women and tried to promote it to both genders. At times, she wrote with a scolding tone for dairywomen who would not help themselves, yet who understood the availability of female agricultural education did not necessarily equal access to tools or knowledge. Rose spoke directly to farmwomen and highly recommended they look to improve their own work, since so few husbands offered assistance of any kind.

It is a fact that the more we adhere to the good (?) [*emphasis in original*] old ways of our mothers, the more conceited we become. It is only when we break away

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<sup>66</sup> Rose, 137.

from the long-established methods and search for new light that we grow broad and generous in our views, and then we find what we have hitherto thought the only proper way to be both laborious and crude.<sup>67</sup>

Rose often pointed out that dairy education for women was economically profitable as well as practical, meaning more money both saved and earned. Conscious of the role men played in limiting female access to education, she wrote and spoke with condescension and censure for farmers, whom she blamed for dairywomen's poor working conditions and their inability to acquire new knowledge: "I do not think husbands think half enough of their wives."<sup>68</sup>

Due to dairywomen's shared inability to attend educational institutions, the *Farmer's Advocate* in 1900 published and gave females access to advanced knowledge through "Dairying from a Woman's Point of View." The journal presented this series of articles from Laura Rose, titled "From the Stable to the Table." In each edition, Rose offered advice and specific practices "equally serviceable to the creamery and cheese factory patron as to the home buttermaker." The female dairy instructor's knowledge was regarded as so deep and broad – both practical and expert – she could instruct men in the factory as well as women on the farm. Within the description of Rose's article series, however, the specific audience was clear. *The Farmer's Advocate* commented:

In other words, she deals with each successive step in the process of dairying, particularly as it is carried on upon the farm, making altogether a fresh and valuable compendium, of dairy literature.

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<sup>67</sup> Rose, 137.

<sup>68</sup> Laura Rose, "Address of Welcome," *The Annual Report of the Farmer's Institutes* 25(1904), 13.



While the scientific principles underlying dairying remain the same, the art itself is progressive; hence, we must have line upon line and precept upon precept, in order to have continued success. Thoroughly practical herself and a careful observer both of the best British and Canadian practice, Miss Rose has also the advantage of her experience at the Ontario Agricultural College Dairy School and in connection with Farmers' Institutes and other work of that character, coupled with a happy faculty of expressing her knowledge of the subject.

Miss Rose will address what may be styled an advanced class in dairy literature, who are daily putting theory into successful practice, but the success of her previous work gives assurance that the present will be equally satisfactory, and we doubt not that with the keen perception of her sex she will bring to notice not a few points that the dairy *man* is prone to overlook.<sup>69</sup>

Although the female art of butter-making was undergoing change, it was truly the developments and alterations occurring within male dairy science that most affected dairymen's work. Men, according to Rose, remained in the minority among dairy workers in 1900, highlighting that no gender shift had yet been completed. Although she shared her expertise with male farmers, she realized farmwomen needed some form of access to the new, scientific knowledge, regardless of the overwhelming notion that they were not suited for industry-related dairy work.

Through her widely published and recognized dairy expertise, Laura Rose influenced and taught Ontario's dairymen and also helped initiate formal dairy education for farmwomen. Rose taught and lectured publicly, excelled as a writer, and certainly influenced toiling dairymen on the farm in addition to her numerous female pupils at Guelph. For many years, she edited monthly columns in two Canadian farm journals and wrote articles on home and farm life for leading Canadian and US publications. Her greatest literary effort was a 300-page book titled, *Farm Dairying*, published in 1911. It ran through four editions and served as a text for

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<sup>69</sup> "Dairying from a Woman's Point of View," *The Farmer's Advocate* 35(April 2, 1900), 179.

agricultural schools and colleges, yet, was clearly aimed at dairywomen working without access to alternate learning on the farm. When Rose retired from her position at Guelph, she continued to work extensively with the Women's Institutes.<sup>70</sup> Throughout her dairying and teaching career, Rose fulfilled her own working, as well as her dairy, domestic, mothering, and educational roles as prescribed for farmwomen during the scientific era. She not only grasped elusive agricultural education but also offered alternate access to scientific learning for the province's hard-working dairywomen.



**Fig. 11) Laura Rose upon her retirement in 1913.**



THE ROSE TWINS  
FOR THE DEAR CHILDREN'S SAKE MILK SHOULD BE PURE

**Fig. 12) A photo of her adopted twins, from a promotion for the importance of pure milk for health. Both images from Rose's book *Farm Dairying*, 1911.**

<sup>70</sup> "Changes In Dairy Staff. Mr. Fred Dean resigned from the position of Instructor in Buttermaking in the Dairy School. Miss Laura Rose has also resigned as Instructress in Farm Dairy Butter and Cheesemaking, after a number of years of faithful service. We regret very much to lose the services of two such capable and enthusiastic Instructors from our Dairy School Staff. Miss Bella Millar takes Miss Rose's place." "The Professor of Dairy Husbandry," *The O.A.C. Annual Report 1911*, 89.

With limited access to the scientific dairy education offered to men, the province's typical dairywoman stagnated under an increased production brought about through alternate, male agricultural improvements, such as cleared land allowing for larger herds. Desired defeminization, or the smooth transition from female to male dairy work, did not occur at the turn of the twentieth century, or before the outbreak of WWI. Yet, despite its ineffective male-centric development, agricultural authorities held fast to the belief that dairying would be more progressive under the guidance of male rather than female farm workers. C.C. James, Ontario's Deputy Minister of Agriculture, remarked in 1902 upon the continual problems with advancing agricultural education. "If you look back over the development of agricultural work you will find it has not gone along altogether in a rational manner. Take the question of education."<sup>71</sup> With typical male bias, James insisted dairy education should give men the chance to advance butter-making beyond dairywomen's antiquated and backward capabilities, employing the benefits of science and technology.

A rising from crude products to more complicated, from the products of simple labor to the products of skill. We have been putting skill into our work and broadening out our field of operations until now the Ontario farmer requires a special training for his work and needs all those educational and transportation assistants that other lines of manufacture demand. The need of the hour is education, improvement in product....<sup>72</sup>

Education for dairymen had existed at Guelph for nearly a generation yet little positive change – namely industry-centered growth – had occurred within provincial dairy work.

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<sup>71</sup> C.C. James, "Co-operation and Education for Women," 95.

<sup>72</sup> C.C. James, Deputy Minister of Agriculture, "Ontario Agriculture, Past and Present," *Annual Reports of the Dairymen's Associations of the Province of Ontario*, 1902, No. 22 (Toronto: L. K. Cameron, 1903), 179-181.

Considering the numerous transitions in agriculture generally and dairying specifically over the century, very few encouraging changes in farmwomen's dairy work or education came about, despite ongoing debate over what was contemporarily considered modern progress.

In 1908, Doctor Charles Hastings, an expert on public health rather than farming, reiterated what progressive agriculturalists had been saying for decades, that challenges with dairying and its development could be resolved through means already available. "The solution to the problem is a simple one – Education and Legislation."<sup>73</sup> Five years later, and at the end of the scientific period, "the Canadian government introduced *The Agricultural Instruction Act*."<sup>74</sup> In an article on the 1913 *Act*, Linda Ambrose discussed the broad funding offered and additionally explored "the assumptions about rural women that were implicit in the *Act*, such as the rhetoric about how women were viewed as agents of moral suasion."<sup>75</sup> Writing gender into legislation that outlined agricultural education with the narrowly understood and defined perception of women's nature, additionally limited farmwomen's access to higher levels of scientific education in the province beyond 1914.

Between 1813 and 1914, there was little effective educational change for Ontario dairywomen. What did alter on the farm was not necessarily positive in terms of dairywomen's work or access to learning. This is attributable to the province's

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<sup>73</sup> Dr. Charles J. C. O. Hastings, "The National Importance of Pure Milk," *The Canadian Practitioner Review*, Pamphlet No. 73 (1908), 2.

<sup>74</sup> Linda M. Ambrose, "'Better and Happier Men and Women': The Agricultural Instruction Act, 1913-1924," *Historical Studies in Education* 16, 2(2004): 257.

<sup>75</sup> Ambrose, 260.



educational roots in the British and American systems that influenced the organization of agricultural learning. "In 1862, commissioners at the University of Toronto had noted that 'if agricultural instruction is to be made available for practical purposes to any large number of farmers, it must be elementary in its nature and brought to their immediate locality.'"<sup>76</sup> Instead of following such advice, Ontario's developing agricultural education was centered by paternal experts and authorities on male-centric scientific, academic, institutionalized learning, thereby marginalizing female access to new and increasingly necessary knowledge. Not surprisingly, in 1913, debate continued to surround agricultural education, which was described as, "centred more on the type of education that was most appropriate for farm people. It had to be practical. It had to be visual. And it had to be local."<sup>77</sup> Overwhelmingly, agricultural authorities considered female dairy education inappropriate and unnecessary for industrial development.

The dairy education of farmwomen in Ontario between 1813 and 1914, shifted its emphasis over time from farm-based practical experience to highly debated, yet narrow, formalized schooling. The role for Ontario's dairywomen within the progressive industrialization of the province's dairy industry was restricted from the outset and was restrictive even after formal education became available. Lamira Billing's informal farming and dairy experiences informed her daughters; Sabra and Sally's formal academic learning lacked any reference to scientific agricultural concepts, as they experienced narrowing roles for farmwomen. Laura Rose's dairy education often

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<sup>76</sup> Carter, 70.

<sup>77</sup> Ambrose, 272-3.

conformed to male expectations yet offered alternatives to institutionalized learning for toiling farmwomen. The efforts and even limited education of the Billings women and Laura Rose indicate the potential for success, if dairywomen had been offered broader access to scientific agricultural education. Instead, the traditional agricultural understandings of farmwomen were discounted and female access to scientific and technological dairy knowledge was restricted. Essentially, male authority marginalized dairywomen's access to higher learning throughout the century to: broadly devalue dairywomen's knowledge, heighten male control over female-dominated butter-making work, and generally to defeminize dairy work on the family farm in order to effect agricultural industrialization within the province.

A good education for Ontario's nineteenth- and early-twentieth century dairywomen was not accessible for most. The kind of formal, female dairy education that emerged was inadequate because it was based upon limited suppositions of gender and work. A good education for farmwomen in Ontario, therefore, was male defined as non-dairy related and revolving around the domestic centre of home with the additional moral obligation as educators. For the province's dairywomen their knowledge and informal education was tantamount to adaptation, regardless of emphasis on male industry and the declining value of their necessary farm work. Still, throughout the nineteenth and into the early twentieth century – and despite the push for male industry – Ontario's dairying sisters in toil retained their traditional work roles.

## Chapter Seven

### Dairy Pin-up Girls: Milkmaids and Dairyqueens

“Women’s work” on the nineteenth and early-twentieth century Ontario farm meant not only milking cows but all related toil. Ironically, late-nineteenth-century manufacturers of dairy equipment advertised their newly-developed machinery using pin-up-type images, here called dairyqueens.<sup>1</sup> This term implies that the characteristics of these images – which portrayed dairywomen as apron- and bonnet-clad, wearing their Sunday best, while happily smiling from either the side of a cow or from behind a cream separator – were overwhelmingly idealized.<sup>2</sup> Ironical, since these stereotypical, centerfold-type images and dairy pin-up girls were diametrically opposed with the drudgery of farm work, considering that the barn – where work took place – was dark and malodorous, and the toils of the dairy process were onerous. Dairywomen’s endurance through toilsome and difficult tasks, despite dominant forces working against them, emphasizes and highlights the disconnect between perception and reality in Ontario dairying. Altered work roles and redefinitions of acceptable norms did not remove women from the dairy process, despite calls for progress. This chapter points to the rapid and massive alteration in perception, and the recasting in a familiar form, of Ontario dairywomen’s role on the

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<sup>1</sup> The term “dairyqueen” is employed to highlight the stark contrast between image and the reality of dairy work during the period studied. For the purposes of this discussion, “dairyqueen” refers to the pin-up girl perception, while the milkmaid links with the potential reality of provincial farmwomen and specifically dairywomen. The dairyqueen projected the model characteristics of beauty, cleanliness, and profitability put forth in agricultural advertisements. Meanwhile, the milkmaid refers to the dairywoman working and living on nineteenth- and early-twentieth-century, Ontario farms. While the dairyqueen was a quixotic package, milkmaids did not describe their real lives as being compatible with the images or the ideals thrust upon them.

<sup>2</sup> See also: Robin Ganev, “Milkmaids, Ploughmen, and Sex in Eighteenth-Century Britain,” *Journal of the History of Sexuality* 16,1 (2007), 40-6.

farm – that of ornament – in stark contrast to the worn-out dairywoman toiling on the family farm.

Undoubtedly, there is challenging physical labour involved in dairying. There are monotonous and repetitive chores: the moving and cooling of milk, along with the cleaning of dairy equipment, and the tending and care of animals. A turn-of-the-twentieth-century dairy farmer's wife had a continuously arduous job. While contemporary agricultural journals sought to spread useful information to homes and farmer's wives, while also displaying advertising images of idealized dairyqueen pin-ups, it is clear from published articles that dairywomen were encouraged not only to do their tasks well, but to look good doing it. This was a job in itself, to maintain femininity, sexuality, and attractiveness, when working daily with sour milk in a manure-filled barn or smoky kitchen. The message in dairy technology advertisements, nevertheless, was relayed that farmwomen should work as hard as men, with less leisure, and still keep their aprons clean, their hair tidy, and a smile on their faces. Essentially, the dairyqueen ideal indicated farmwomen should happily, prettily, and efficiently go about their daily routine – even without mechanization – or so suggest images from dairy advertisements.

Historiographically, three linked areas of research frame this chapter concerning dairywomen's work and the dairyqueen ideal. The first is the ever-present discussion surrounding the challenge facing those researching women's history. The second is the use of physical objects – material culture primary sources – used to typify the difficulty and stereotyping of dairywomen's work. The third is based upon Jackson Lears' scholarship regarding advertising theory in nineteenth-century agricultural



advertisements. Lears' work was essential for this analysis since most other historians of technology focus on men and the types of farm equipment they most often used.<sup>3</sup> Studies dealing with farmwomen's domestic technology and/or housework scarcely touch on advertisers or advertisements.<sup>4</sup> Accounts of milkmaids' daily work juxtaposed against the ideal images of the dairyqueen comprise the crux of this work. The history of rural women's work, the application of material culture as a primary source, and the history of agricultural technology – particularly its advertising – all inform the overall discussion.<sup>5</sup> Additionally, the visual images of Reuben Sallows' are analysed, as he often photographed the dairyqueen ideal.<sup>6</sup> Finally, socially-constructed style standards, in terms of aesthetics and advertising theory, contrasted against the common workload for the Ontario dairywoman, illustrates the increasingly-broad division between dairy process

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<sup>3</sup> The majority of published material relating to agricultural machinery and/or implements are mainly catalogues and simply describes equipment, rather than offering any historical analysis. See: Percy Blandford, *Old Farm Tools and Machinery: An Illustrated History* (Fort Lauderdale: Gale Research Co., 1976); Jonathan Brown, *Farm Machinery, 1750-1945* (London: B.T. Batsford, 1989); Ronald S. Barlow, *300 Years of Farm Implement and Machinery, 1630-1930* (Iola, WI: Krause, 2003). More specifically, on dairy separators, see: Sam Stephens, Michael Fournier, Robert Benoit, *DeLaval, Sharples, and Others: Cream Separator Memorabilia* (NMSTC Agriculture Collection, private publication, 2000).

<sup>4</sup> For more concerning female-dominated agricultural work, including the work of farm children, and especially farm girls, in early Ontario, see: Elizabeth Jane Errington, *Wives and Mothers, Schoolmistresses and Scullery Maids, Working Women in Upper Canada, 1790-1840* (Montreal: McGill-Queen's University Press, 1995).

<sup>5</sup> See: Ruth Schwartz Cowan, *A Social History of American Technology* (New York: Oxford University Press, 1997), 88; Kathryn McNerney, *Kitchen Antiques, 1790-1940* (Paducah, Kentucky: Collector Books, 1991), 6; John Seymour, *The National Trust Book of Forgotten Household Crafts* (London: Dorling Kindersley Limited, 1987), 69.

<sup>6</sup> Reuben Sallows was born in Huron County, Ontario, in 1855. He worked as a professional photographer from 1876 until his death in 1937, at the age of 92. See also: S. Lynn Campbell, "R.R. Sallows Landscape and Portrait Photographer," (Milton: Ontario Agricultural Museum, 1988); and, The University of Guelph, Reuben Sallows on-line collection: <http://www.lib.uoguelph.ca/resources/archives/agriculture/reubensallows.htm>

and dairy advertisement over time. This division between milkmaid and dairyqueen highlights the undercurrent of devaluation surrounding dairywomen's work with the advent of mechanized dairy tools and their advertisement post-1850.

Historian Carolyn Sachs termed the dairywoman "the invisible farmer."<sup>7</sup>

Commonly, women were not included in written, primary sources, and consequently remain excluded from certain methods of historical research. Scholarship surrounding rural women's history, with the application of material culture and especially technology, guides this study. When linked with other primary sources, analysis of advertisements and photos of Ontario dairywomen become an essential resource, and indicate the types of work dairywomen did, as well as the stereotypes, ideals, and potential drudgery ascribed to both the milkmaid and the dairyqueen. Joan Jensen notes in her article, "Butter-making and Economic Development in Mid-Atlantic America from 1750 to 1850,"

... rural women remain an elusive majority. Omitted from most agricultural histories because they were not the owners of American farmland, slighted in labor histories because their work was different from that of males, and neglected by histories of women that concentrate on the urban middle and working classes, rural women are barely visible ....<sup>8</sup>

Even though dairywomen left few written records, material culture provides insight into their daily lives, using their dairy tools, and particularly for this study, contemporary photos and advertisements for analysis.

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<sup>7</sup> Quoting Carolyn Sachs, from: Joan M. Jensen, "Butter-making and Economic Development in Mid-Atlantic America from 1750 to 1850," *Signs: Journal of Women in Culture and Society* 13, 4(1988): 813.

<sup>8</sup> Jensen, 813.

This discussion relies on research pertaining to the object-based, material culture study of domestic technologies.<sup>9</sup> Hand-powered tools composed the everyday objects familiar to the milkmaid.<sup>10</sup> The way these tools were advertised and used clearly contributes to an analysis of women's work, especially with regard to the overarching stereotypes of the dairyqueen, contrasted against the methods and types of cyclical work associated with the Ontario milkmaid.

Jackson Lears' discussion of North American advertising themes and trends informs the analysis of images discussed here.<sup>11</sup> Lears' approach to advertising theory reveals that for nineteenth-century, North American advertisers, dominant thematic trends emerged. His analysis, which demonstrates how agricultural advertisers portrayed dairywomen, can be used to analyze nineteenth-century Ontario dairyqueens revealing idealized and constructed images of what a farmer's wife looked like and could achieve, as opposed to toiling as exhausted milkmaids. Not projected by accident or dictated by aesthetics alone, the dairyqueen ideal existed as a consistent theme in agricultural advertising.

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<sup>9</sup> Joy Parr, in her book on domestic technologies and goods proliferated after WWII, offers a linked definition of material culture with everyday objects. She suggests that material culture studies: "...Considers both the technologies and aesthetics, which influenced the physical form of things and the economic and social ideologies which organized thinking about them." Joy Parr, *Domestic Goods: The Material, the Moral, and the Economic in the Post-War Years* (Toronto: University Press, 1999). For more in this area, see also: Ruth Schwartz Cowan, *More Work for Mother: The Ironies of Household Technology from the Open Hearth to the Microwave* (New York: Basic Books, 1983).

<sup>10</sup> Ronald R. Kline, "Ideology and Social Surveys: Reinterpreting the Effects of 'Laborsaving' Technology on American Farmwomen," *Society for the History of Technology* (1997): 355-385.

<sup>11</sup> Jackson Lears, *Fables of Abundance, A Cultural History of Advertising in America* (New York: Basic Books, 1994).

Dominant contemporary trends in advertising shaped the idealized dairyqueen specifically through the concept of nostalgia in agricultural advertisements. These themes became prevalent in agricultural advertisements, specifically, nostalgia and rural abundance, using the icon of the female, linked with images of pastoralism and maternalism. To offset massive upheaval, due to the rapid pace of agricultural change during this period, advertisers attempted to “create memory” or fantasy. Essentially, images and icons in advertising created a backwards glance at a romanticized version of agriculture as associated with comfort, home, prosperity, and contentment. According to Lears, advertisers developed images to create a seeming link with a conceptualized, and idealized, past – using icons both exotic and agrarian. These idealized rural themes appear clearly in advertisements for dairy technology, through the dairyqueen iconography, stereotype, and ideal, from the late-nineteenth and early-twentieth century.

The concept of rural abundance – an ideal of either home or mother – projected an image of comfort and plenty but implicitly objectified women in dairy advertisements. In his introduction, Jackson Lears explains: “...advertisers’ efforts to associate silverware with status or cars with sex were a ... well-organized example of a widespread cultural practice.”<sup>12</sup> This nostalgic pastoral or motherly connection Lears described as: “Longings for links with an actual or imagined past, or for communal connections in the present.”<sup>13</sup> Advertising images implied that there existed a time when farming was simpler and wives were unworn from the drudgery of farm work. Drawing on historical advertising themes

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<sup>12</sup> Lears, 5.

<sup>13</sup> Lears, 5.



of nostalgia and placing them in a marketing context, the images conveyed the idea and the ideal through sexualized dairyqueens.

Overarching advertising trends and themes, as Lears described, can be seen within dairyqueen marketing images in mainly three ways: attractiveness, profitability, and hygiene. The ideas of fashion, style, beauty, and cleanliness in personal attire and surroundings, even on the farm, were broadcast explicitly yet subtly in dairy advertisements.<sup>14</sup> The main emphasis and consequential focus of images, though, was on portraying these dominant themes through female, physical beauty. Numerous agricultural machinery manufacturers continually promulgated the “dairyqueen” aesthetic of beauty in advertisements from the 1860s to the end of WWII. The object is not to argue that Ontario milkmaids were attempting to dress or look like dairyqueens, but because the advertisements were effective and pervasive, the beauty ideals and “look” of dairyqueens likely had an impact on provincial dairywomen. It is clear the projected ideal did not match the reality. The lack of access to modern dairy technology clearly devalued and left unacknowledged the actual labour of the milkmaid. Although we understand from Lears that trends in advertising suggested women “look” a certain way for physicality and attractiveness, the daily toil involved in nineteenth-century dairying was not conducive to rosy cheeks, clean skirt hems, arranged hair, or scrubbed hands, especially not with increased milk production and heavier workloads. The dairyqueen image seemed almost blissfully ignorant of actual milkmaid’s work; meanwhile, the

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<sup>14</sup> For more on this in a Canadian context, see: Mariana Valverde, *The Age of Light, Soap & Water, Moral Reform in English Canada, 1885-1925* (Toronto: University of Toronto Press, 2008).

Ontario milkmaid was similarly ignorant of the benefits of the mechanized advantages represented by the dairyqueen.

Social historians over the past 30 years, especially those focusing on rural women's history, assert that both alterations in gendered-work definitions and the introduction of technology are identifiable as contributing causes for the ultimate removal of Ontario farmwomen from the dairy process beyond 1914. Attempting to incorporate technology and understand how technological change affected gendered work roles, historians of farmwomen frequently frame their work with the concept of separate spheres – or the gendered division of labour – and its definitions of work. Separate spheres as an analytical tool has come to be considered outdated within historical scholarship.<sup>15</sup> Changing historiographical trends, however, cannot discount how dominant and prevalent separate spheres ideology was in organizing agrarian work.

During this period in Ontario history, the family production unit clearly divided its labour along gender lines. Certain types of work required specific skill sets and tools, such as butter-making or plowing. The application of a separate spheres concept to this study frames the understanding of work under which Ontario dairywomen of this period laboured. This notion has largely guided rural women's social history scholarship. In more recent work, however, as with all trends, this idea of a gendered-division in Ontario agricultural labour has been essentially dismissed due in part to an increased acknowledgement and emphasis on the mutuality of work within kinship ties on the

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<sup>15</sup> For analysis of farmwomen's work that casts off the concept of separate spheres, see: Nancy Grey Osterud, *Bonds of Community, The Lives of Farmwomen in Nineteenth-Century New York* (Ithaca: Cornell University Press, 1991); see also selections in: Janet Guildford and Suzanne Morton, *Separate Spheres, Women's Work in the Nineteenth-Century Maritimes* (Fredericton: Acadiensis House, 1994).

family farm. Separate spheres ideology is not, however, merely a construction of contemporary scholars. Divided work roles were dominant within rural Ontario society. While both women and men undoubtedly helped one another with difficult tasks, such as harvesting, dairywomen's own words and writings, and the continued existence of their dairy-specific tools, indicate a divide within the family farm working day. This farmwoman wrote of her work sphere as a circle:

It is such a narrow circle in which to revolve.... But to think, how my time and limited strength is largely employed in these commonplace duties, my leisure needed for proper rest, ... *Her Circle*, 1880 <sup>16</sup>

Dairywomen themselves described a "sphere" or "circle" within which they laboured. This dairywoman's words reveal her work was indeed repetitive and tiring.

Work roles were defined by gender and thereby both the space and the tools associated with dairying were also gendered. The pragmatic division of work by the space where the labour was performed extended this ideological, sexual division of chores, wherein certain areas of the farm were categorized as either "women's" or "men's" by the work completed there.<sup>17</sup> The obvious spatial and architectural construction of Ontario farms – with separate dwellings for animals and for humans – immediately dictated the division of house and barnyard work. Chores related to the house and not to the barn, yet that were completed outside of the house itself, such as gardening, laundry, or dairying, were linked with women's traditionally gendered work roles. With the re-

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<sup>16</sup> Norton Juster, *A Woman's Place, Yesterday's Women in Rural America* (Colorado: Fulcrum Publishing, 1996), 281.

<sup>17</sup> For more on the agricultural built environment and the organization of work, see: Sally McMurry, *Families and Farmhouses in Nineteenth-century America: Vernacular Design and Social Change* (New York: Oxford University Press, 1988); and, Thomas C. Hubka, *Big House, Little House, Back House, Barn, The Connected Farm Buildings of New England* (London: University Press of New England, 1984).

categorization of milking as a male chore, women's roles in Ontario dairying diminished but only in terms of perception. The fact historians have marked this shift, whether it occurred by 1900 or not, also reveals the gendered nature of Ontario farm work. That historians note a change in dairying, from female to male labour, indicates the strength of separate spheres ideology as a template for analysis, as well as a societal norm, in nineteenth- and twentieth-century Ontario.<sup>18</sup>

Milkmaids and their work lie in stark contrast to the idealized dairyqueen here presented. Historians of agriculture and rural women's history concur that dairywomen increasingly became over-burdened with daily chores and worn down by the never ending-routine of hard work. According to Marjorie Griffin Cohen, the duties of Ontario milkmaids became increasingly arduous and her tasks more numerous.

But aside from the distastefulness of dairying, even only one or two cows were a heavy workload for farmwomen, both because of the back-breaking conditions under which the labour was performed and because of the multiplicity of additional tasks which were the total responsibility of farmwomen.<sup>19</sup>

As Cohen indicates, there existed two main problems facing Ontario dairywomen: an overwhelming amount of work and a lack of adequate tools. There was not only milking to do but all the associated chores, and a myriad of other daily, seasonal, and necessary work also. Historians explain the type and amount of work dairywomen completed as gender- and technology-related.

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<sup>18</sup> For an international and Canadian discussion of commercialization, as well as the "uniformity of change" revealed in women's roles as relating to nineteenth-century shifts in dairying, see: Sally Shortall, *Women and Farming: Property and Power* (New York: St. Martin's Press, 1999).

<sup>19</sup> Marjorie Griffin Cohen, *Women's Work, Markets, and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), 99.



Daniel Cohen's work, *The Last Hundred Years; Household Technology*, notes that domestic, household, and dairy technologies were meant to lessen the work load for women. In cases where the tool was well made, however, often these objects made women more efficient and thus capable of taking on more duties.<sup>20</sup> Most Ontario farmwomen did not gain access to mechanized tools, while their fathers, brothers, and husbands widely invested in harvest machinery and improved outbuildings. Technology, therefore, did not free up women's time for leisure. Often ineffective and always expensive, technologies were supposedly produced to ease the ever-increasing work burden but they seldom did. Apart from whether dairywomen toiled unduly due to rigid gendered-work roles or due to a lack of access to technology, it is clear the dairyqueen image in advertising did not convey the reality, nor barely reflected the amount and difficulty of work comprising a dairywoman's day. This purposeful representation of the dairyqueen as an ornament, rather than as a productive unit, demonstrated an ignorance and denigration of dairywomen's toil, and devalued farmwomen's work in the process.

The introduction of technology onto the nineteenth-century Ontario dairy farm brought with it an advertised idealization of women and milking inconsistent and non-reflective of dairywomen's daily work. Due to the dichotomies between the milkmaid and the dairyqueen, accounts of actual Ontario dairywomen are here contrasted against the perfected façade and image of the dairyqueen projection. A never-ending cycle of daily, weekly, monthly, seasonal, and yearly chores made for a treadmill-like effect in farmwomen's lives. Working an average of over eleven physically- and mentally-exhausting hours per day, descriptions of farmwomen's work point out the blatant

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<sup>20</sup> Daniel Cohen, *The Last Hundred Years, Household Technology* (New York: M. Evans, 1982).

contrasts between real milkmaids and the perceived ideal.<sup>21</sup> Milkmaids could not attain the dairyqueen ideal when a dairywoman's space and tools were habitually described as such:

...[The kitchen] accommodated not only cookery (and smoke) but the 24-hour-a-day existence, along with paraphernalia for sewing, spinning, weaving, churning, making jams, jellies, preserves, pickles, baskets, candles, ad infinitum.<sup>22</sup>

Feminist historian, Monda Halpern, notes in, *And On That Farm He Had a Wife*, the overwhelming work provincial farmwomen faced:

Most of the farm wife's time was consumed by arduous household demands. These included domestic, productive, and reproductive work, and the care not only of husbands and children, but of infirm relations and farmhands.<sup>23</sup>

Reinforcing the notion of the overworked farmwife, in 1868, the *Farmer's Advocate* included this article from one of their most popular female columnists:

Next to being a minister's wife, I should dread being the wife of a farmer. Raising children and chickens, *ad infinitum*, making butter, cheese, bread; and the omnipresent pie, cutting, making and mending the clothes for a whole household, and not to speak of doing their washing and ironing; taking care of the pigs and the vegetable garden; making winter-apple sauce by the barrel, and picking myriads of cucumbers; drying fruits and herbs; putting all the twins through the measles, whooping cough, mumps, scarlet fever, and chicken pox; After the supper is finished comes the dish-washing, and milking, and the thought for tomorrow's breakfast; perhaps all night she sleeps, and rises again to pursue the same unrelieved treadmill, wearing round the next day.<sup>24</sup>

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<sup>21</sup> Kline, 342.

<sup>22</sup> McNerney, 6.

<sup>23</sup> Monda Halpern, *And On That Farm He Had a Wife* (Montreal: McGill-Queen's University Press, 2001), 27.

<sup>24</sup> "Fanny Fern on Farmer's Wives," *Farmer's Advocate* (1868), 19. Fanny Fern was a popular, female, American, editorial columnist who was published and reprinted in newspapers and journals across the nation and in the US.

This description of a farmwoman's daily workload, written by a very successful dairywoman, does not match the dairy advertisement iconography, of beauty, profit, and hygiene. Daily, Ontario farmwomen were confronted by a lack of access to dairy tools, little aid from their farmer husbands, and seemingly unending toil.



**Fig. 1) Milkmaid churning butter, 1893. PAO-126654.**

In a rare photo of a milkmaid at work (Figure 1) the lack of technological or mechanized improvements is obvious. We can see the everyday objects of daily, nineteenth-century, Ontario farm life scattered around the milkmaid – wooden milk pail, one-pound butter press and mold, butter crock and butter bowl – these hand-tools for butter-making comprise the scene. She might have removed her tattered shawl or dress jacket, hanging to the left, to complete her long and difficult churning chore. Explicitly, we see a young woman with her sleeves rolled up working at a crude dasher churn. Her torn skirt and the stains on her dress sleeve betray her attire as practical and well-worn from work. This young milkmaid's hair was completely covered, not with a bonnet but

with an economical and practical straw hat. Even though this chore likely comprised only one of her numerous daily tasks, she churned. This milkmaid worked in less-than-ideal circumstances, in the doorway of her rough yet whitewashed milkhouse – which loosely houses her dairy tools – upon uneven boards. In contrast with the dairyqueen, this dairywoman did not smilingly engage the camera.

Ontario milkmaids had to deal with more than never-ending cycles of work. Typically, men controlled farm finances and purchased new technologies for the farm. Advertisers understood this and dairyqueen sexuality was consequently aimed toward men. Dairyqueens were models for beauty, health, hygiene, and productivity, all stereotypically desirable traits for a farmwife and a dairy industry. Farmwomen, or milkmaids, exposed to agricultural magazines and advertisements, were supposed to place pressure on men to purchase labour-saving devices for them. That was not the reality, however, as husbands, brothers, and employers were usually indifferent to female on-farm needs. This lack of interest can be seen reflected in farmwomen's letters. For example, "A Friend to Farmer's Wives," noted,

... but housekeeping on the farm means so much more heavy work than in the city. I do not mean to complain of our dear husbands, but I will say that when they are well fed and kindly cared for they are very apt to become indifferent and heedless, neither thinking nor caring how hard the family has to work under many difficulties. I think the trouble is the farmer's brains are so absorbed with fine horses, fine barns, thoroughbred cattle, and every convenience on the farm to make work easy that he quite forgets how his family is struggling to make his home comfortable and attractive... a farmer's wife has so much to try her nerves. Farmers should appreciate everything their wives do, not look on them as if they were a machine or a football; they are human beings, and want to be treated as such.<sup>25</sup>

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<sup>25</sup> "A Friend to Farmers' Wives," *The Farmer's Advocate* (1897), 282.



This passage asked for a modicum of respect and relief for farmwomens' work. The author emphasized how farmers strove to improve their own agricultural sphere, yet how they neglected farmwomen in terms of acknowledgement or investment, despite notable female physical and economic contributions to farming. Social norms ascribed to gender and technology, and linked with financial control on the farm, perpetuated Ontario dairywomen in a wretched state.

Beginning in the 1880s, when agricultural advertisements appeared frequently, disgruntled farmwives commonly voiced their disappointment, and sometimes outrage, at being the last consideration on the family farm.

While the various operations of the farm are being carried on by the help of valuable labor-saving machinery, are not far too many farmers a little negligent in regard to the conveniences provided for performing the never-ending work of the kitchen and dairy-room?<sup>26</sup>

Marjorie Griffin Cohen's socio-economic study on women's work in Ontario indicates this lack of investment in dairywomen's sphere was usual. Farmers exerted economic control over their wives:

Dairy equipment tended to be primitive and improvements in technology were slow to be used widely on farms. Generally this was not because dairywomen were skeptical about using them, but because they had little control over capital expenditures on farms.<sup>27</sup>

As based on this idea of male economic or purse-string control, the dairy pin-up girl construction, or dairyqueen, was indeed an attractive marketing tool. Not only did she appeal to the sexual sensibilities of men, but she also evoked nostalgia through

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<sup>26</sup> Juster, 149.

<sup>27</sup> Cohen, 99.

maternalism, and depicted money-saving and earning potential if the applicable product was purchased – an enticing package. More importantly, the dairyqueen ideal encouraged dairymen with the promise of improved working conditions, hygiene standards, and profitability, thereby suggesting the farm wife “nag” her husband for the advertised technology. With profitability, hygiene, an improved product, perhaps less nagging from the wife, and the beauty of a dairyqueen image in the barn to tempt him, what farmer would say no to purchasing a cream separator or improved butter churn?



**Fig. 2) Frontispiece of Willard's book, 1877. NMSTC Agriculture Collection.<sup>28</sup>**

By 1877, the date of Mr. A. Willard's book (Figure 2), agricultural technology companies had begun using dairyqueen images to sell products and tools, even though dairy technologies had been developed in earnest for a decade. Even though written by a man, for a male, farmer audience, clearly the dairy labourers pictured are female. This

<sup>28</sup> A. Willard, *Willard's Practical Dairy Husbandry* (New York: Excelsior Publishing House, 1877), frontispiece.

dairyqueen image is divided into different sections of butter and cheese production, depicting: a woman milking; a dog churning butter with a treadmill attachment; a woman working butter in her kitchen; and a cheese press in use. Together the images illustrate the main unmechanized, butter-associated chores of: milking, churning, working, washing and salting, and the pressing or shaping of butter. The central image of the plate shows a prosperous and well-established farm with contented shorthorn dairy cows in the yard, and the gentleman farmer driving his carriage. The engraving illustrates the dairyqueen employing an unmechanized, and likely unruly, butter-worker table to ease her chores; still, the woman's dress and apron, along with her tied-back hair all appear neat and tidy. The images combine to infer that the information included in the book's text will lead to prosperity and comfort for any farmer and his hard-working dairyqueen.

Dairy pin-up-girl images in advertising appealed differently to farmers and their wives once the prospect of new technologies emerged in the province. While twentieth-century advertisers aimed their media at garage mechanics, who turned over their calendar each month to reveal another beautiful and scantily-clad girl, nineteenth-century farmers posted parallel forms of pin-up-type advertisements in their working and living spaces. Not surprisingly, the concept of marketing to men, who actually purchased technologies, through the lure of beautiful women, is as old as advertising. During the transitional period, beginning in earnest about the 1880s, agricultural technology companies sent out calendars, advertisements, pamphlets, and handbooks, as well as small and useful household necessities, like match holders, tea trays, pin books, thermometers, and boot cleaners, all printed with the image of a dairy pin-up girl. The

images presented here range from approximately 1877 to 1907, a 30-year span when the marketing of dairy tools exploded. The image of the dairyqueen remains ideal and idealized – beautiful, young, efficient, and happy in her work.

Farmers and their wives placed and used advertising objects in their homes, milkhouses, and barns. Consequently, they surrounded themselves not only with marketing testimonials but also with concepts inconsistent with the reality of living and working on a dairy farm. Advertisers constructed an ideal image of women in dairying to sell machinery. That image, while it appealed to the mainly male buyers, also attracted female interest. Dairywomen, who did most of the labour, craved new technologies to relieve their drudgery, but also measured themselves against an unattainable standard. DeLaval distributed promotional items, such as tea trays (Figure 3), to customers who purchased their separators or other equipment. Used for tea service or simple meals, this type of functional object could also be displayed in the farmhouse. The image on the practical tray portrays a rich example of the dairyqueen stereotype, is beautifully drawn, and illustrates the comforts available to those who employed deLaval's superior technologies. The dairyqueen pictured on this object wears a beautiful, shape-revealing,





**Fig. 3) deLaval Promotional tea tray, early 1900s.  
Henry Stahl private collection, Russell, Ontario.**

and sumptuous-looking red dress, covered with a white bib-apron.<sup>10</sup> Her stereotypically-small waist, creamy skin, and hair neatly arranged on the top of her head, illustrate ideals of beauty and health for the period. This dairyqueen

works in a comfortable and hygienic atmosphere, most likely in her kitchen or an adjacent summer-kitchen. All around her the scene spells abundance; there are numerous large cans of milk waiting to be separated; her little boy, impeccably dressed, carries a small pail of skim milk from the separator to expectant calves just beyond the door. In the detailed background (Figure 3), notice a rustic farm at the time of afternoon milking, a tidy barnyard, and the dairyqueen's husband returning from the barn with pails of milk to be separated by his conscientious wife. Prosperity, hygiene, kinship ties, comfort, and beauty are all artfully extolled and thereby advertised in this pleasant and idyllic scene.

The dairy pin-up girl appeared not only on promotional objects but also in print advertisements in widely-distributed agricultural journals and papers. Historian Lynn Campbell's paper outlining the life and work of Ontario commercial and artistic photographer, Reuben Sallows, indicates how his work illustrated rural life in Ontario,

especially between 1876 and WWI. Sallows was a professional photographer who shot both staged and unstaged rural scenes for art and for profit, selling his photos to dairy technology companies, such as deLaval.<sup>29</sup> Often captured by Sallows, dairyqueen beauty standards of the day are visible in his advertisement and stock photos. Most often, the women were pictured as the stereotype, with neatly arranged hair in an up-do, wearing tidy clothing, usually covered by a pristine, white bib-apron. Dairyqueens were unfailingly young, beautiful, smiling, and completing their chore with little effort, due to their labour-saving tools. To convey the hygiene conditions of the dairy, the surroundings, machinery, and clothing of the dairyqueen – often of white or light-coloured cloth – were pictured as dirt- and germ-free, which remains the best atmosphere for producing superior milk, cream, and butter. Notably, the background for the dairyqueen was always picturesque. Rarely working in the standard barn, stable, or milkhouse, dairyqueens posed in comfortable homes, a pasture, an orchard, or somewhere equally bucolic.

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<sup>29</sup> In 1878, Gustav de Laval perfected his mechanized, dairy invention and received a patent for his centrifugal cream separator. An onslaught of similar-type separators, based on the same principles, deluged the machinery market. Notably, on DeLaval's website, they offer a brief history of Swedish dairying, citing: "When farm labourers in Sweden signed contracts during the 1800s and early 1900s, they often had to agree to a special "wife clause." This stated that the labourer's wife would be committed to milking the farmer's cows, without payment, twice a day, 365 days a year. Today, we tend to romanticise hand milking and the close contact between cow and farmer. But milking by hand was a burden, and one which fell mainly on women. In Swedish it became known as "vitapiskan" or "the white whip"." DeLaval website, [http://www.delaval.com/About\\_DeLaval/TheCompany/History/Reflections.htm?wbc\\_purpose=Basic](http://www.delaval.com/About_DeLaval/TheCompany/History/Reflections.htm?wbc_purpose=Basic) (accessed, February 4, 2007).



**Fig. 4) Sallows image  
“The Dairy maid”  
1907. UGL 0709-rrs-  
ogu-ph; NMSTC  
Agriculture Collection.**

An excellent example of out-of-place dairyqueens wearing un-farm-like attire, this staged photo has a springtime orchard-in-bloom backdrop, situated beneath flowering fruit trees (Figure 4). Two dairyqueens employ the separator; one pours milk into the top while the other smiles at the camera and simulates turning the crank mechanism. Most notably, both dairyqueens are inappropriately dressed for dairy chores. The girl on the left wears a ruffled, white blouse and tartan skirt, while the girl on the right wears a white, high-collared dress with a stylish paisley shawl, all too fine to be worn to the orchard or barn for work; it is unlikely milkmaids ever emerged from the milking parlour so unscathed. Neither dairyqueen seems tired or strained from her work, despite the amount of milk and cream this separator model-size could process. The lifting of numerous milk pails, laden with liquid, and the continuous and steady cranking action required for proper skimming would certainly have fatigued the milkmaids. Yet, the dairyqueen facing the camera remains smiling and lovely.

In an analysis of the same Reuben Sallows image (Figure 4), historian Lynn Campbell warns of the photographer's propensity for shooting "pretty pictures" or staged images of rural Ontario life.

Two pretty girls are portrayed operating a cream separator in an orchard. To Sallows' audience of the day, the incongruities in this scene would have been obvious. Cream separating was not a task to be performed...outdoors, if for no other reason that a cream separator would not work unless secured to a flat surface. To the modern viewer, inconsistencies are not nearly so apparent and therefore there is a danger that images such as these will be accepted as historical fact.<sup>30</sup>

Indeed, the danger of misinterpretation would be great if other sources did not exist to counter the dominance of dairyqueen pin-up images. In a footnote, Campbell explains that despite challenges with such contrived sources, "the backgrounds, clothing, and other incidentals" within Sallows' work "are of great help," in reconstructing Ontario's past. For the purposes of this study, the incongruities themselves reveal much. Campbell remarks upon the photographer's capability of casting the developing province in a positive light:

In the photographs of rural Ontario it is almost always spring or summer and sunny. As a whole, they give a very appealing view of rural Ontario, far removed from the despair and poverty of...the reality of life in rural Ontario.<sup>31</sup>

Sallows often photographed for the Ontario Department of Agriculture, for the commercial aspect of his photography business, as well as for agricultural journals and machinery companies. Sallows attempted to portray Ontario's rurality in a beneficial light, often artfully capturing the province in its best seasons and light.

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<sup>30</sup> S. Lynn Campbell, "R. R. Sallows Landscape and Portrait Photographer," (Milton: Ontario Agricultural Museum, 1988), 9.

<sup>31</sup> Campbell, 10.



Utilizing alternate primary source material, a glimpse can be viewed of this bleak “reality” Campbell mentions (Figure 1), which is in such contrast with images and advertisements from the period, and, which historians of dairywomen actively attempt to bring to light. Information concerning the amount of work and the type of work required to adequately complete dairy tasks is available and accessible. An understanding of the process of work, and the proper use of dairy tools, as well as the overall way in which dairywomen worked, can avoid Campbell’s perceived danger - that the ideal image of the dairyqueen could be mistaken for the reality of the milkmaid.

If so incongruous with real dairy work and dairywomen’s lives, why did advertisers utilize idealized dairyqueen images to advertise dairy machinery? The dairy pin-up-girl was constructed and projected in such a way to appeal to the aesthetic and sexual appetites of men, while also tempting farmwomen’s visual and stylistic senses, selling the idea of women’s dairy work as pristine and simplified with machinery. These advertisements peddled a product that could potentially bring profit to the farmer and labour-management to the wife; a powerful combination, which certainly went far in making this type of pin-up-girl advertising in dairy technology so pervasive.



**Fig. 5) Miss Mabel Tom.<sup>32</sup>**

In a 1906 representation, Miss Mabel Tom was dressed in her finest to churn with an upright dasher churn while her bowl and paddle awaited to work the fresh butter (Figure 5). Within the picture, the dairyqueen churns on a tidy, vine-covered country-farmhouse porch. The white-washed dwelling creates a pastoral scene, with the backdrop appearing prosperous, long-settled and well-maintained. The overall dairyqueen image presented associates easily and clearly with Lears' fecundity and abundance concept linked with nostalgia and maternalism in advertising: a beautiful, young woman churning at her home appears peaceful and productive in her rural setting. In terms of her dress and appearance, her hair is tidily drawn away from her face, and she wears a hygienic white apron. Although her bonnet does not cover her hair, it is perfectly laid-out on the

<sup>32</sup> Photo from: *Colborne Connection, 1836-1986: A Pictorial History* (Colborne Township, Ontario, 1986).

porch beside her. She smiles, appears at ease, keeps her apron pristine, and serenely completes her chore. Despite appearances though, this dairyqueen would have “dashed” up and down for approximately twenty to forty minutes, certainly producing some perspiration on her part. Afterwards, working, washing, and salting the freshly-churned butter in the bowl, either between her knees or on her hip, would have consumed part of her day and much of her upper-body strength. While stereotypical notions of the rural farmwoman are evidenced in this dairyqueen image, none of the strain or effort required to complete the weekly, and sometimes daily, chore of butter-making is conveyed. Analysis of nineteenth- and early-twentieth-century advertisements for dairy technology demonstrates that the dairyqueen ideal might have been difficult for any woman to achieve, let alone a hard-working farmwoman and milkmaid.

Within dairyqueen images, rigidly conventionalized standards for beauty became ensconced and were aimed at the rural housewife or farmwife. These standards involved: being fashionable while maintaining a budget; being organized in appearance and neatly kept; looking healthy, meaning slim and shapely with clear skin; as well as working – with a pristine apron, clothing, and equipment – hygienically and thereby profitably. Not only did these dairyqueen images confront the milkmaid, but published “advice” reinforced the dairyqueen package, advising the milkmaid to look her best while completing her difficult daily chores. The “fashion note” below, excerpted from an 1893 edition of the *Farmer's Advocate*, encouraged women to take more care with their appearance, and reinforced common ideas of beauty and fashion standards for farmwomen:

The fashions for women and girls were never more comfortable nor sensible than they are now. So many styles of hats and bonnets, so many shades of color; in fact, something to suit any face, complexion or purse. Fur is much worn...

There is no particular fashion for wearing the hair; bangs are worn just as much as ever, and every woman has the good taste to wear her hair in the most becoming way. ...and usually the hair is coiled or braided close to the head. Let us hope it may be years again before that untidy style of locks down the back, or flying curls or ringlets, will be worn. All is taut, smooth and neat.<sup>33</sup>

A clear emphasis on thrift, neatness, and simplicity in hair and attire characterized the proffered style advice of the time. While not the word from God, this “Sermonette” from the 1895 *Farmer's Advocate* also illustrates a clear emphasis on appearance and dress for farmwomen, albeit in a slightly more elaborate fashion than two years previously:

We all know how some women, after a year or two of married life, get careless about their dress.... They seem to think that their fortune is made, and it isn't necessary to arrange her hair becomingly and put on a pretty gown just for their husbands. This is all wrong, and it is an error that arises from laziness. Men like to see their wives look pretty just as much as they did when they were sweethearts. Endeavor to have daintily-arranged hair, and a neat and simple costume for breakfast. Go in largely for laces. A man is very fond of frills; bits of white about the neck and wrists always appeal strongly to him.<sup>34</sup>

This advice was printed in a widely-distributed agricultural journal, which certainly attracted a farm-wife audience. Even at an early morning hour, the dress and appearance expectations for milkmaids remained high. Impractical for everyday farm attire, lace and frills at the neck and wrists came recommended for farmwomen, in line with contemporary fashion. Milkmaids on the Canadian dairy farm read these types of fashion articles. Just as few had access to the advertised technologies, few Ontario farmwomen would have held ready access to varying styles of hats of variously-coloured fabrics.

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<sup>33</sup> “Fashion Notes,” *The Farmer's Advocate* (January 15, 1893).

<sup>34</sup> “A Sermonette for Wives,” *The Farmer's Advocate* (November 15, 1895), 464.



Ontario dairywomen regularly made their own clothes during this period, and likely lacked exposure to the new and ever-changing fashions, except perhaps through patterned material, which might turn up in local shops, or through catalogues, agricultural journals, or magazines. These “advice” articles in farm journals would have kept farmwomen abreast of fashion, even if they could not attain the printed dress or desired hair-do.

The dairyqueen and the iconography associated with her were most often the integral and central focus of dairy-technology ads and images, as opposed to the advertised tools themselves. Making idealized dairyqueens the focus of advertising, rather than the technologies, indicates advertisers understood women used the machines – and “nagged” their husbands to purchase them, while men chose to procure them or not – thereby tailoring advertisements to appeal to both genders accordingly. A subtle yet excellent example of this type of encouragement – for dairywomen to insist upon technological advancement – comes from a popular advertisement from the Ontario-based, Renfrew Machinery Company (Figure 6).



**Fig. 6) Standard Cream Separator advertisement.**  
**NMSTC Agriculture Collection AGR-R411-3001-C191.**

The play on words in this early Ontario advertisement is obvious, with a beautiful young woman holding a flag, or standard, advertising the newest Standard Company cream separator (Figure 6). A secondary message is clearly discernible through the central woman's attire. The colour white was associated with purity, hygiene, and temperance, as well as the feminist fight for the franchise in Ontario, as in England. For dairymen to campaign for women's emancipation from dairy work, through the purchase of new technologies, is the message this advertisement expresses. Although the

central woman in the image is not wearing typical dairyqueen attire – she is dressed as a suffragette – the flag she holds presents a dairyqueen, her cow, and her Standard separator. The dairyqueen on the flag is dressed in the orthodox dairy uniform: white bib-apron, white bonnet, and all smiles. The gender-specific, politicized costume of the nineteenth-century suffragist not only indicated hygiene in terms of agricultural practice, but implied farmwomen “campaign” for better dairy equipment. Displaying both dairyqueens in white additionally suggests there was likely little effort required to use the machine if the operator did not even soil their garments. The suffragette and dairyqueen are smiling and pretty, but neither is actually employing a cream separator. The slogan “We are Winners” called to all downtrodden and overworked dairywomen to march for better dairy equipment.

Barn work and dairy chores for the Ontario milkmaid meant dirty, smelly, time-consuming, and difficult, physical labour. Farming journals and advertising iconography constructed an idealized image of dairyqueens and farm work, reinforced through dairy pin-up ads for agricultural machinery, as well as female-oriented articles that discussed fashion and style. Dairyqueen images, in conjunction with published “style” advice, broadcast messages to farmwomen concerning appearance and work. The dairyqueen image, while it appealed in a sexualized manner to the mainly male buyers, in a different manner also appealed to milkmaids. The advertising of dairy-farm machinery in the last half of the nineteenth century and into the first decades of the twentieth created an idealistic image of dairyqueens, an unattainable picture of beautiful, fresh, and clean young women, a deceiving portrayal that offered false hope to the females who toiled in



the production of homemade butter. Even though growing herds of dairy cattle increased the workload of female workers on Ontario farms, male farmers seldom purchased supposedly labour-saving devices. As long as the dairy remained the responsibility of women, the perpetuation of treadmill-like manual work continued, as did the chasm between the reality of every milkmaid's everyday routing and the dairy queen paradigm.



**Fig. 7) Reproduction deLaval separator tin advertising sign, circa 1910. Author's own.**

Instead of dairy work easing through the introduction of technologies, farmwomen found their workload increased, their autonomy within dairying decreased, and investment into dairying or dairy mechanization continually lacking. Despite some improvements to existing dairy tools, little technological or mechanized advancement arrived on the family farm to improve Ontario dairywomen's lot. Dairyqueens smiled irreverently from the pictures in advertisements and the surfaces of

collectables. Meanwhile, dairying and its related chores were perpetuated as predominantly female, unmechanized, and devalued work in Ontario.



With the development of agricultural technology, dairy advertisements projected an idealized dairyqueen image, targeting both farmers and farmwomen. Advertisers created a stereotypical icon; the dairyqueen appeared always young, beautiful, and pristinely dressed, making farm work seem easy, especially with the help of the advertised dairy tool (Figure 7). Lynn Campbell warned of the methodological challenge of interpreting and understanding images of rural Ontario. Milkmaids' and farmwomens' own words and objects, offer an insight into Ontario dairywomen's overwhelmingly difficult working lives a century ago. Material culture in combination with more traditional primary sources, offers the perspective to see the disparity between the milkmaid and the dairy queen, and an indication of the underlying devaluation of Ontario dairywomen's work.

## Chapter Eight

### Conclusion

An old farming proverb, “man to the plough; wife to the cow,” hints at the gendered division of work that prevailed within the family unit on Ontario’s farms.<sup>1</sup> By focusing on farmwomen’s labour from 1813 to 1914 in that province, this dissertation has demonstrated that although the gendered perceptions of agricultural labour changed over time, dairy work remained “women’s work.” The central questions that underlie the research therefore range from the specific to the more general: what work did nineteenth and early-twentieth-century Ontario women do on the farm? How did they carry out this work? Did dairy work change over time, and if so, how? More generally, did men effectively remove farmwomen from their traditionally-gendered dairy work by the turn of the twentieth century, as socio-economic historians have suggested; or, was their removal mainly a perception projected by forceful nineteenth- and early-twentieth-century socio-ideological trends within agriculture? Additionally, did labour- and time-saving technologies appear on the family farm before WWI? The answers to these questions strongly suggest that throughout the nineteenth and into the twentieth century, Ontario farmwomen continued to work at dairying, a task they found increasingly challenging as milk production rose but the technology at their disposal remained virtually static. Meanwhile, social and gender considerations as well as technological and industrial advances attempted a paradigm shift toward male-centered dairying.

This concluding chapter presents the main findings of the overall dissertation.

Beginning with a brief outline, it reviews the three time-periods and the women who

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<sup>1</sup> John Seymour, *The National Trust Book of Forgotten Household Crafts* (London: Dorling Kindersley Limited, 1987), 69.

defined those eras, namely, Lamira, Sabra, and Sally Billings, as well as Laura Rose, and Eliza Jones. This qualitative analysis of dairywomen's gendered work, and of male reluctance to permit women to utilize technological advances, was enhanced by the examination of objects the women used. A brief and specific discussion of a separating pan and a deep-setting tin can – from the Billings archival collection – reinforces the integral nature of material culture to historical scholarship and to this dissertation in particular. Most importantly, the use of objects as primary sources made an important contribution to the overall historical analysis of women's work and also provided new perspectives. In addition, the conclusion introduces areas of study for further research into dairywomen's labour, whether in Ontario or elsewhere. The discussion of dairywomen and their tools, the applied time-periods, topics, and themes, all serve to highlight the difference in understanding – in terms of dairy progress – that existed between farming men and dairying women in the province.

Between 1813 and 1914, hope for Ontario's growth and overall prosperity was hitched to agriculture, particularly dairying, and its conversion to a male-dominated industry. On the most basic level, the division and contrast between the milkmaid (representing the traditional) and the dairy queen (representing the progressive), as here described, is an indication of the gap that historically existed between women's authentic dairy work and the dominant, yet unrealized, male concept of dairy progress.<sup>2</sup> The symbol of the dairy queen and its connection to technology exemplified scientific developments; just as a contrived and negative stereotype of the common milkmaid or

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<sup>2</sup> "Progress and improvement are the only sureties we have of success." From: C. C. James, Deputy Minister of Agriculture, "Ontario Agriculture, Past and Present," *Annual Reports of the Dairymen's Associations of the Province of Ontario*, 1902, No. 22 (Toronto: L. K. Cameron, 1903), 180.

dairywoman came to epitomize what was perceived as wrong with old-fashioned dairy work.

Why single out dairywomen for study? In short, Ontario farmwomen continued to work within an industrializing and increasingly male agricultural sphere. Thus, dairywomen toiled counter to progressive and devaluative trends of the time. The province's tired farmwomen thereby defined their own form of progress, overcoming obstacles using limited resources to continue producing milk and butter. Weary farmwomen – these sisters in toil – laboured, despite criticism, male reluctance, gendered devaluation, and a lack of tools, as they processed fluid milk and worked their butter. While many dairywomen experienced challenging on-farm working circumstances, few allowed themselves to be victimized by the overwhelming physical, ideological, and industrial forces that increasingly operated against them. Instead, dairywomen laboured within a forcibly defeminizing sector, yet continued to produce for on-farm consumption and wider markets most often using inadequate tools. Historian Terry Crowley wrote that “concentration on experience emphasizes women’s agency in history if studies are framed within the social construction of sexual, class, and other differences,” such as gender, as employed throughout this thesis.<sup>3</sup> There are also elements of the social and cultural constructions of gender in Ontario, as reflected through its dairy history. The evidence gained through the study of dominant socio-ideological trends and of dairywomen’s work objects indicates that in terms of gendered work, women were not removed from their traditional farm chores in pre-1914 Ontario; so, the theory is rather a rhetorical than a

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<sup>3</sup> Terry Crowley, “Experience and Representation: Southern Ontario Farmwomen and Agricultural Change, 1870-1914” *Agricultural History* 73, 2(1999): 250.



tangible construction. This dissertation therefore contends that evidenced by their work and chore-specific technologies, farmwomen continued their traditionally-gendered dairy role on Ontario's farms between the conclusion of the War of 1812 and the beginning of the First World War.

Economic and social historians have suggested that in Ontario men had replaced women in on-farm dairy chores by about 1900 – or even earlier. Initially, the author supported that assertion. She intended to demonstrate how and why Ontario's dairywomen had been removed from their traditional chores by scientific and technological developments in on-farm dairying. Analyses of agricultural journals from the period discussed and of dairywomen's physical tools and associated ephemera, suggested, however, that while the roles of provincial farmwomen changed in terms of public perception and dairying methods, the dominance of women as dairy producers did not diminish. Although contemporary discussions indicated otherwise, and while their authority over dairy work was certainly compromised, Ontario farmwomen continued to dairy. Specifically, this was the case in terms of on-farm cream-processing and butter-making. Even though a multitude of ineffective and expensive options for progressive scientific and technological change appeared by about 1885, the common and difficult manual, female, on-farm processing of fresh milk, cream, and butter continued throughout the nineteenth-century and beyond.

Farmwomen in Ontario during the century discussed, toiled daily with cows and manure, sour milk and greasy butter, without electricity, refrigeration, thermometers, improved apparatus, or agricultural education. Prior to, but increasingly after 1850,

progressive and overwhelmingly male ideological pressure for agricultural improvement created an atmosphere of reluctance and blame within the province's developing dairy sector. These progressive, new, social definitions of relationships between men and women were at odds with the traditional organization of agricultural work on family farms. Predominantly male specialists, professors, politicians, and scientists obscured and ultimately controlled public discussion of the progress of dairying in Ontario. These male agricultural authorities dismissed farmwomen's empirical and basic knowledge of dairying as impractical, unsanitary, profitless, and worst of all, overwhelmingly unprogressive. Pressure to encompass agricultural improvement and science was not just male and ideological but also based in socio-economic imperatives. According to experts, for dairying to be lucrative, female producers had to be removed and replaced by men who would employ scientific and industrial methods, thus instigating the defeminization of on-farm dairy work. This gendered negativity occurred in spite of farmwomen's on-going work and successful, productive efforts.

With such powerful forces attempting to remove them, how and why did Ontario's dairywomen retain their traditionally-gendered work roles? Male agricultural authorities could not effectively remove women from dairy work because farmers were reluctant to embrace scientific agriculture and to invest in areas of the farm traditionally defined as within women's sphere, resulting in a lack of improvements of dairy-processing tools. At the time, it would have been difficult for either male agricultural authorities or rural farmers to realize such conflicting ideological and practical approaches to dairy progress would work together to limit technological change.

At the heart of the lack of change in dairy technologies was the reluctance of farmers to adopt improvements even while they increased their herds, milk production, and thus dairy work. Such rural men – farmers, employers, husbands, fathers, brothers, and sons – frequently failed to accept new, agricultural, science-oriented ideology and associated improvements. Skeptical farmers chose instead to invest in tools within their own gendered work sphere. Any advances within dairywomen's sphere therefore remained insufficient, ineffective, and fleeting. The restricted and restrictive changes to dairy technologies on the farm did not offer much-needed time- or labour-saving conveniences to the dairywoman. Yet, as the century progressed, Ontario dairywomen, making-do with outdated, outmoded, and inadequate equipment, actually increased butter output.

Marjorie Griffin Cohen's socio-economic analysis of Ontario's working women has some valuable insights relevant to this study. "Male access to new machinery and farming techniques," Cohen wrote, "placed female labour at a disadvantage as capital investment became a more important aspect of production."<sup>4</sup> The tools available to a dairywoman defined her work, thus when male farmers denied dairywomen new tools, which cost money, men hindered agricultural progress and aided the devaluation of their wives', mothers', and daughters' work in the process. Cohen's link between gender and the increasing importance of purse-string, or economic, control over technological investments for the farm can be applied to establish a direct connection between gendered work and material culture objects – particularly, the retention of traditionally-gendered

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<sup>4</sup> Marjorie Griffin Cohen, *Women's Work, Markets, and Economic Development in Nineteenth-Century Ontario* (Toronto: University of Toronto Press, 1988), 155.

work through continued use of time-honoured tools. The on-going use of common and basic dairy-processing objects illustrates the perseverance and presence of dairywomen in their productive roles despite male authority over everything from farm purchases to agricultural ideology; essentially, dairywomen “made-do” with the available tools and successfully produced butter. The supposed pre-WWI transition from hand-tools to more scientific dairy apparatus did not occur on provincial farms. Even when improved tools and technical knowledge were available, men denied them to dairywomen both ideologically and materially; therefore, traditional, female work roles persisted. In terms of this persistence, dairywomen’s continued and increased milk, cream, and butter production act as the foil to the concept of male control as absolute agency.

To understand and illustrate change over time, three time-periods have been applied as a framework for this study. The label of each era indicates the prevailing milieu, while a prominent dairywoman illustrates the features for each generation. These dairywomen bring to life other dairywomen and make their lives historically relevant, not only for gender history but in reconstructing provincial, agricultural history – through the various stages of agricultural development from initial settlement to the emergence of modern, industrial agriculture. Centuries-old, female dairy methods, knowledge, and tools exemplified the settlement period, running approximately from 1813 to 1850. Lamira Dow Billings’ lifetime of commitment to settling her home farm – Park Hill – her family, and her dairy work all illustrate gendered labour in the province during that age. The transitional period, from about 1850 to 1885, witnessed the continuation of traditional dairy work of the preceding era but also agricultural growth accompanied by



the emergence of scrutiny by experts. Meanwhile, Sabra and Sally Billings milked and made butter, remaining open to change once they jointly took control of the family farm. Lastly, both contemporaries and historians perceived the scientific period, from 1885 to 1914, as a progressive time. Yet, this era illustrates that few provincial dairywomen experienced adequate improvement to their working methods, tools, or knowledge, despite a strong force for overall advancement within agriculture. During this period, Laura Rose committed herself to both dairying and agricultural education, which offered her an interesting perspective on male and female working roles. Dairy production indeed altered throughout the century, but not in such a way as to positively affect the lives or work of most farmwomen.

While the time-periods provide a framework for discussion it is the lives of farmwomen that truly support this dissertation. Both this thesis and Eliza Jones' 1892 book, *Dairying for Profit, or, The Poor Man's Cow*, open with the same words from one dairywoman: "We are so tired ... cannot you help us?"<sup>5</sup> Weary farmwomen across the province toiled at dairy work throughout the nineteenth and early-twentieth century without appropriate help or support. In fact, it was her dissatisfaction with limited and often inaccessible agricultural improvements for hard-working farmwomen that encouraged Ontario's own Eliza Jones to write *Dairying for Profit*, which included detailed techniques, methods, and tools. Dairywomen requested and read Jones' articles

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<sup>5</sup> Eliza Jones wrote in reference to the innumerable questions from dairywomen: "Replying to these letters has grown into a task beyond any one person's time and strength; and to give all the information asked for, I would have to write a little book to each one. Therefore, I have resolved that I *will* write the little book, and have it printed, and sold at so low a price as to be within the reach of everyone who keeps one cow or a hundred." Mrs. E. M. Jones, *Dairying for Profit Or, The Poor Man's Cow* (Montreal: John Lovell and Son, 1892), 5.

and book because Jones' advice remained crucial to dairy work. Although the title of her book emphasized the contemporary focus of dairying during the scientific period – to make it economically viable and even profitable for both farmers and the province – it also indicated that even in 1892, dairy work on the family farm remained rooted in traditional and shared female knowledge.

One historical study of Ontario farmwomen's work and related agricultural literature from the turn of the twentieth century, revealed such women "were depicted variously as labouring drudges, indispensable members of farm enterprises, leisurely homemakers and field workers."<sup>6</sup> How others talked about dairywomen, how they described themselves, in combination with their work, writings, and material culture objects, greatly informed this dissertation. Both directly and indirectly, home-made milking stools, advertisements for dairy machineries, hand-written recipes, published complaints, personal accounts, debates surrounding education, and idle comments, illuminated the subjects of rural life and female dairy work in Ontario. The everyday existence of dairywomen was so busy they had little time to document their methods, tools, or knowledge. Regardless, provincial dairywomen shared their traditional and accumulated wisdom. Eliza Jones, for example, wrote in response to dairywomen's ever-changing challenges; Lamira Billings accounted for her own and her daughters' work; Sabra and Sally Billings hired and instructed local women to milk and make butter and cheese in their family dairy; and, Laura Rose, dairywoman and dairy expert, did many things to share her expertise and knowledge, whether traditional or

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<sup>6</sup> Artica Nind, "Keeping Above the Thought of Drudgery: Ontario Farmwomen's Work and Prescriptive Literature, 1890-1914," (MA thesis, University of Alberta, 1994), 1.

scientific. The most publicly recognized dairywoman – Rose – addressed male and female agriculturalists alike, published advice in farming papers, taught at the Ontario Agriculture College, and most often responded openly and directly to Ontario farmwomen's letters, words, and concerns. Rose played a role, through her writing for the press, as a form of distance education; this is also clear through her work with Women's Institutes offering lectures and short courses in many communities. All these farmwomen taught dairying to others – daughters, sisters, neighbours, dairymaids, students – to employ milk-, butter-, and cream-processing tools for production. Addressing the general assembly of the Women's Institutes of Ontario, Rose commented on "the necessity of using one's brains in farm work."<sup>7</sup>

And it is just according to the amount of brains that we put into our work that we take our sphere in society. It is not so much muscle that is required, but muscle that is lubricated with brains, and when, as housekeepers we put more brains into our work, then we will demand and get the respect and remuneration that we should.

In all our work, both in our attitude and the feeling we have in respect to our work, let us feel that all work is noble if we bring the right mind to it. We need not let our work degrade us, no matter how servile it may appear to be.<sup>8</sup>

Ontario's farmwomen undoubtedly used their brains but necessarily employed their brawn to process milk, as they had few alternatives. Without using the written records and objects successful dairywomen left behind, it would have been exceedingly difficult to understand the lives of the thousands of unnamed farmwomen who dealt with familiar, unsung dairy drudgeries. This sisterhood of shared work and knowledge, therefore, was an important component for farmwomen's retention of

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<sup>7</sup> Laura Rose, "Address of Welcome," *The Annual Report of the Farmer's Institutes* 25(1904), 13.

<sup>8</sup> Rose, "Address of Welcome," 13.

their traditionally-gendered labour and the use of associated and traditional dairy tools throughout the period discussed.

The objects nineteenth- and early-twentieth-century dairywomen used on the farm did not keep pace with the introduction of new agricultural technologies. Scientific and practical discussions concerning dairy tools swirled in contemporary public forums, such as *The Farmer's Advocate*. Agricultural publications throughout all three time-periods, for example, published debates about cream separation in particular – whether pans should be shallow or deep, earthenware or tin. Despite discussions, clay and tin pans were remarkably similar; the only difference was the material from which the pan was made and the fact that tin pans were lighter and more easily-stored. Meanwhile, the method, the principles of gravity separation, and the purpose of skimming milk all remained the same. While tin cream-separating pans, for instance, were developed in the 1840s, they did not replace popular clay and ceramic, shallow separating pans for decades. With any type of shallow-pan separation, only time and the earth's natural gravity divide cream from milk, so there was no advantage in time-saving with either cream pan. Ceramic or earthenware dairy tools were always heavy and fragile. In contrast, the benefits of tin tools were obvious to anyone who could literally get their hands on them. Tin is lighter, making dairy tools of this substance easier to use and clean. While tin pans and cans were more durable, they had a drawback that could potentially ruin butter's colour and flavour. If a dairywoman was not careful with her scouring regimen, tin tools would quickly form butterfat residue and subsequently rust, making cream separation difficult, the butter's flavour harsh, and the product potentially



inedible. The old shallow, ceramic pans took up time, space, and energy while the new, shallow, tin pans potentially compromised the most necessary characteristic for prosperity in dairying, the flavour of the butter.



**Fig. 1) Cream-setting pan (three ceramic shards restored to form one shard).  
COA BEC 1986.0001.0007a-c.**

A brief history of the successful Billings family – more specifically of a selection of their tools – illustrates the methods and objects these dairywomen used for cream-separating. The residence of the Billings family, Park Hill, now a museum, provides the physical evidence as it houses the family's possessions. Behind glass in the early-nineteenth-century home of the Billings family lies substantiation of on-going use of traditional tools, even on a farm as prosperous, progressive, and independent as Park Hill. The Billings likely kept using these pans to maintain the reputed flavour of their butter, since tin was reputed to compromise the taste of cream. Yet, there may have been other reasons for the continued use of such cumbersome and delicate objects. One museum display case in the Billings home holds a large shard from a shallow cream pan and next to it a deep-setting, tin cream can. The transitions and contradictions these objects represent can be found amongst debates from the time and upon the surfaces of the tools themselves.

The separating-pan fragment is clay earthenware with a pale yellow, glazed interior surface. Deducing the diameter of the bowl from the shard indicates it was a substantial and heavy dish. Filled with warm milk, the pan would have been precarious to lift, and when empty, still unwieldy for washing. It is difficult to date the unmarked fragment, but the popularity of this colour of glaze between the 1840s and the 1860s suggests the object's provenance is mid-nineteenth century and contemporary with Lamira and her daughters' work. The deep-setting can – illustrated below and displayed at Park Hill – on the other hand, was likely never used by Lamira and possibly not even by Sabra and Sally. We know Lamira did not account in her records for the purchase of tin pans or a deep-setting can between 1813 and 1869; nor did Sabra and Sally account for any such purchases in their writings. Although certainly a dairy tool from the Billings Estate, considering its solid construction, gauged viewing-glass, large size, turned-wood



**Fig. 2) Deep-setting, tin creamer can.  
COA BEC 1978.0002.0069.**

handle, and good condition, the can dates from a later period of the farm, possibly beyond the turn of the twentieth century. Further understanding of these kinds of dairy tools thereby reinforces both the continued use of traditional tools on the Billings' family farm, as well as, the importance of objects for historical study. Change to both the method and technology of gravity cream separation, specifically

from shallow-pan to deep-can cream-separation – shifting from flat, open vessels to tall, closed containers – generated great discussion in agricultural circles. While the can was considered a more scientific and affordable improvement, it proved to be inaccessible for most hard-working farmwomen and apparently undesirable for even the affluent and progressive Billings.

As this dissertation has illustrated, the Ontario farmwoman habitually completed her daily dairy duties without benefit of the scientific and technological improvements men could have accessed. Men did not need to access such tools because farmwomen continued to carry-out dairy work. Sabra and Sally Billings altered dairying techniques and even the orientation of farming initiatives at Park Hill, illustrating their goals for improvement. They did not, however, employ scientific dairy technologies over their traditional tools. The Billings family adopted different butter techniques but not new technologies for a number of reasons. Firstly, when tin was introduced in the 1840s, the Billings already owned earthenware milk pans and were accustomed to using shallow pans; large, glazed cream-separating pans served them well in the dairy parlour even with their increasing production. Secondly, it is important to note the Billings' farm had adequate room in their separate milk-house for washing, and storing cream pans. Thus, they could more easily continue to use heavy, shallow vessels for setting milk. Thirdly, the Billings employed wage-labour milkmaids from the late-1840s. Having extra hands on the farm made the maintenance and use of ceramic pans feasible regardless of the problems associated with them, such as, moving, lifting, pouring, washing, and storing. Most farmwomen would not have had such advantages in their daily dairy work. Sabra

and Sally clearly applied their mother's settlement-era dairy wisdom while sustaining a forward-looking course. The Billings sisters maintained their impressive production for milk, cream, and butter, notwithstanding their use of such tools as shallow, earthenware, cream-separating pans.

Marjorie Griffin Cohen wrote in her 1988 conclusion to *Women's Work* that "the tendency" in historical research at that time was "to view the" nineteenth-century "changes for women somewhat more critically and to stress patterns in the continuity of experience over time." Cohen also noted that nineteenth-century optimism "generated by increased paid employment for women and the faith in progress in general," was criticized by historians,

...for the failure to understand the nature of the change; it was not a change in the relative position between men and women which took place, but a modernization of inequality. Considering that inequality between the sexes continues to be one of the distinctive features of life in our society, this view has substance, although it needs to be qualified."

There is no aim to disparage Cohen's findings here, but rather, to qualify this historical perspective of gender difference, or inequality, through the lens of common dairy implements. The assertion that female dairy production in Ontario declined rapidly from the 1870s onward, in the face of steady industrialization, rests on the failure of historians to pay sufficient attention to the interaction between dairywomen and the objects they utilized daily.<sup>10</sup> Contrary to Cohen's conclusions, the extension of traditional women's roles in dairying did not disappear but persisted into the twentieth century. Laurel

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<sup>9</sup> Cohen, 152.

<sup>10</sup> "The typical dairy farmer, at least until the 1870s, was a farm wife." From: Cohen, 98.



Thatcher Ulrich noted that, “to study the flow of common life is to discover the electricity of history.”<sup>11</sup> An examination of nineteenth- and early-twentieth-century Ontario dairywomen and their tools provides just such an opportunity to glimpse the common connections between life and work inherent within rural living and farming during a century bookended by war. Additionally, a study of dairywomen’s tools yields a better understanding of gender assumptions surrounding labour and the limitations placed on provincial farmwomen. The use of material culture – especially if it takes female on-farm labour and tools out of the limited contexts of domesticity and the place of the farmhouse – enriches the discussion, and leads to new perspectives. This dissertation achieved this objective by linking dairywomen’s chore specificity, and thus tool specificity, to farmwomen’s agricultural labour overall. Thus, the study of Ontario dairywomen’s tools permitted an analysis of their work from an alternative, new perspective. As some American studies have done, it relied on common chores, routines, comments, and objects for analysis, as opposed to quantified census data and gendered written sources alone.

Within any discussion of material culture, it is important to understand access to the historical objects. In terms of dairywomen’s tools, it is essential to indicate the “hidden” nature of such primary sources. The formerly ubiquitous and still workable tools of the dairy discussed earlier, like clay pans and tin cans, now sit stored in warehouses and damp, sagging barns hidden off Ontario’s rural roads. Many abandoned haylofts and a few provincial and agricultural museums are the twenty-first-century

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<sup>11</sup> Laurel Thatcher Ulrich, *The Age of Homespun, Objects and Stories in the Creation of an American Myth* (New York: Vintage Books, 2002), 40.

repositories for crude stools, ride-on butter-churn attachments, and butter-worker tables, with wooden butter bowls and shallow, tin, milk pans stacked high and covered with cobwebs. At one time, every provincial farming household would have owned and employed an assortment of these basic objects for milking, cream-separating, and butter-making. In the twenty-first century, however, such items are infrequently relegated to the “oddities” table at country fairs, where attendants guess at their age and novel former use. These chore-specific dairy artifacts may have been stored in meadows, barns, basements, back porches, and kitchens for generations but they still hold valuable information concerning women’s changeable yet familiar role on the family farm. Dairy tools offer historical perspective on the arduous nature of dairywomen’s work as dictated by these objects. Yet, the preservation of dairy tools becomes increasingly challenging with little money for museums and limited study of old-fashioned work methods. This dissertation has demonstrated that these artifacts, when placed within the historical and physical context of dairywomen’s work, provide valuable insights into the burdensome and unrelenting chores that women completed throughout the period. Documentary evidence, however, reveals that dairy technology used by women changed very little over the century primarily because of the disparity between male and female representations of dairying and because of the overarching and opposing forces of agricultural industrialization. The dairy objects studied showed that on-farm practicality prevailed.

This study of dairywomen principally touched on areas of interest connected through their common tools, as well as those technologies denied them. Future research possibilities are numerous when linked with a broader examination of the objects, themes,

sources, time-periods, and women discussed here. One of the obvious avenues for future research begins with the still unanswered question: if Ontario farmwomen were removed from dairying or stopped butter production on the family farm, when did this occur? Was this shift evidenced through dairy technologies? Mention of family indicates children, only implicitly addressed here with poems, rhymes, and verse. Farmwives sometimes employed their children as part of a family strategy to increase production and that contribution deserves further study. Since farmwomen continued to engage in dairying well into the twentieth century, when did male-staffed creamery factories finally produce more butter than over-worked farmwomen toiling in their rural sheds and cellars; and, can such transitions be reflected and discussed through material culture? To extend research into the post-1914 development of dairy technologies would present not only an impressive array of dairy machinery and ingenuity but could potentially include any later gender transitions to work roles on the family farm.

Even within the confines of this study there remain research topics for development. For example, cheese-making and its industrial conversion were only cursorily addressed. The introduction of creamery and butter factories, as well as the manufacture of oleo-margarine in the province, each independently impacted on-farm dairy production and generated debate but there was inadequate room for their proper treatment in this thesis. A discussion of nineteenth-century dairywomen's feminist tendencies, through either independent or formal organization, and analysis of their influence on provincial farmwomen's work, could complement Monda Halpern's 2001 monograph, *And On That Farm*. As well, and initially part of this study, a focused

comparison of Ontario and Quebec farmwomen and their dairy methods and tools would shed greater light on the commonalities and differences within this familiar work and between these connected provinces. Independently, or together with the Ontario and Quebec study, a comparison of Ontario and New York State dairy transitions could reveal some interesting contrasts and similarities. Certainly, women's history, gendered work, and particularly dairywomen's labour remains an important aspect of historical scholarship with many options for study.

To conclude, determined agricultural authorities proceeded with devaluation of dairy's dominant producers for the defeminization of the developing industry as a whole. At the same time, male farmers blocked women's access to technological advances. Nevertheless, dairywomen continued to practice their traditional skills on family farms. Dairywomen's isolated and gendered experiences united them in traditional work, applying familiar knowledge, and common tools. Therefore, in spite of the devaluative attitudes concerning their abilities and inadequacies, their lack of economic authority, and their challenging labour circumstances, Ontario's dairywomen avoided victimization and the defeminization of their traditional work by sharing information through a sisterhood of practical working knowledge. This allowed their traditional dairying methods, understanding, and chore-specific tools to remain applicable while effectively producing within the province's changing agricultural environment.

This dissertation is a social history; a study of people, using material objects and documentary evidence. More specifically, it analyses dairy tools to learn more about the work of dairywomen. The main contribution of this study to the conversation about the



history of Ontario farmwomen is that rural women's work can be accessed through material culture sources. Just as the opening proverb indicated – “man to the plough; wife to the cow” – men controlled access to science and technology; therefore, women maintained their traditionally-gendered work role despite new socio-ideological definitions of work. The failure to adopt scientific dairy technologies on the Ontario family farm prevented the industrialization of the dairy process. In sum, between 1813 and 1914, Ontario's dairywomen continued separating cream and making butter, habitually and simply equipped with their two hands, their mothers' knowledge, and their grandmothers' tools.

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