

Agriculture Telling Its Story: The Macro Version



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The Issue

New terms are now prevalent in the lexicon of agriculture and food- social license, consumer acceptance, and sustainability, among others. This is symptomatic of a different dialogue punctuated by a concern that activists or others with an agenda will misinform, exaggerate or misrepresent the nature of how agricultural production occurs and how food is produced.

An important tactic in this dialogue has been “Telling our story” – that animals on farms are well cared for, crops are raised responsibly, farms are operated by families who are good citizens- just like you and me. These are often illustrated using the personal stories of farmers themselves.

This approach, and the personal stories are good and realistic, and it is important that they be told. However, we should think about whom it is that needs to be influenced of what. Those with obvious agendas (e.g., animal rights, anti-GMO) and others who are essentially enthusiastic consumers/foodies turned thought leaders are unlikely to be swayed by the imagery of this story, regardless of its depth and accuracy. They instead cherry pick isolated elements of what they see and twist it to suit their own views.

It is these thought leaders that influence the broader masses of consumers that pressure for specific types of changes. The masses are detached from farm and food production, but some are interested and perhaps concerned about the food system; as such they are primed for influence. Charlie Arnott of the Center for Food Integrity in the US tells us that consumers are looking for the moral guidance for how food should be produced, not just the pragmatic information regarding what alternative techniques/technologies could be used. Refuting reductionist negative claims with positive communications that connects issues to a personal level with real farmers gets us part of the way there.

But there is a larger, perhaps less intimate story that helps explain how we arrived at where we are today in the way that our food is produced, and how this has changed our lives for the better. It is intrinsically tied to our social and economic development, the development of a diversified and largely urbanized society, and the many benefits that go with it. It also tells of remarkable progress, setbacks, and the struggle to constantly improve. It is robust and compelling, and it is built upon the aggregate of many personal farm stories. However, it is largely an untold story.

The Great Migration

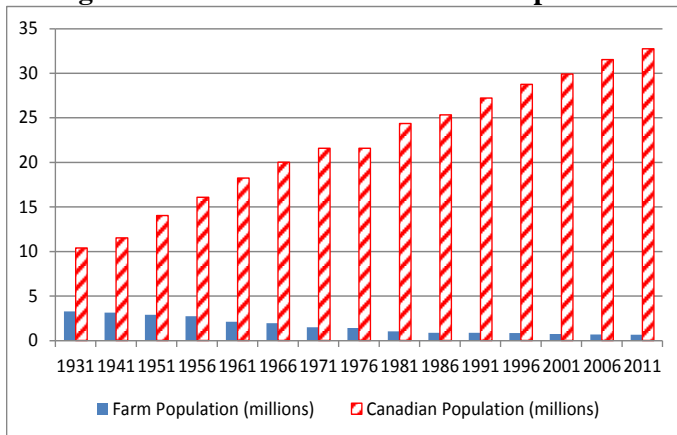
Farming in Canada is dominated by small businesses, almost exclusively carried out by families or small groups of families. This is not an accident. The basis for this structure was laid out in the British North America Act (now the Constitution Act) that established Canada. Section 95 of the Act dealt with agriculture and immigration, and made them concurrent federal/provincial authorities. As Hedley (2007) notes, “Section 95 was prepared on the understanding that the principle issue in agricultural policy was achieving a high rate of quality immigrants to take up the vast areas of unpopulated and under-populated farm lands in the new Dominion”.

As such, farmers were treated as citizens from the early days of Canada, and Canadian agriculture was treated as synonymous with families and households with a market orientation. Farms and rural settlement were a leading destination for new Canadians. Canadian farmers were neither serfs, nor corporate conglomerates.

Prior to the Second World War Canada was largely rural and agricultural. It experienced a remarkable social and economic transformation from being a population comprised of about one-third farm people 80 years ago to

only about 2% today. Especially in the 1950's and 60's there was a great migration of people away from farms to urban areas in Canada. As shown in Figure 1, since 1931 almost 3 million Canadians have left farms, built upon the draw of urban employment and a middle class lifestyle, and facilitated by dramatic improvements in farm technology and productivity.

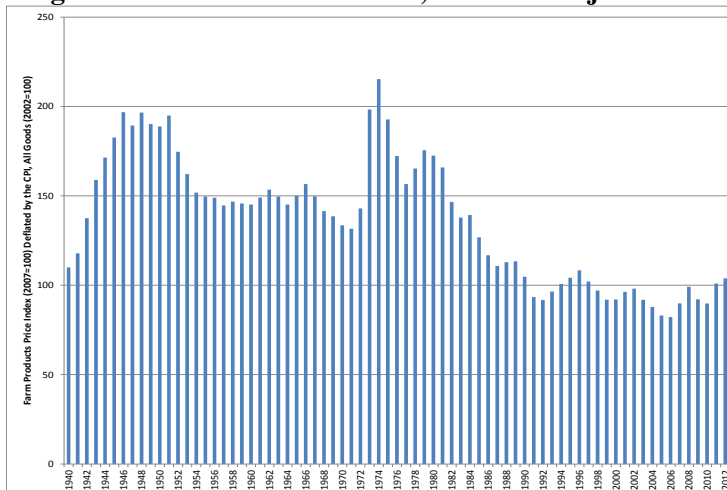
Figure 1 Canadian Farm and Total Population



Source: Statistics Canada

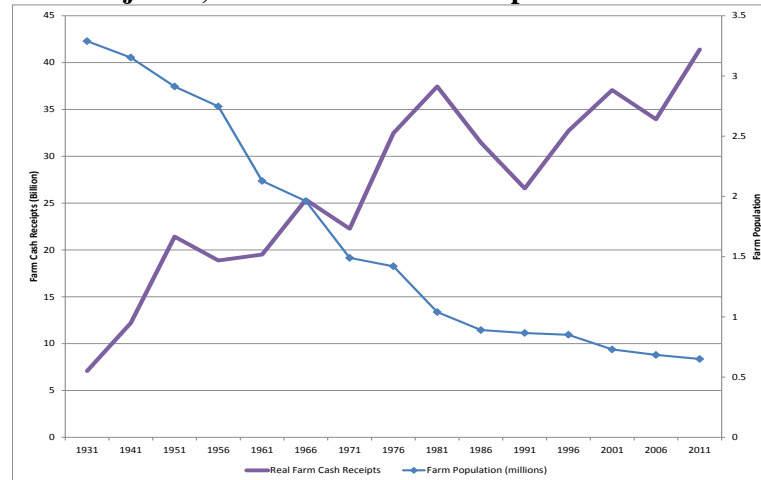
This shift of people away from farms did not impair farm output or food availability. Rather, the number of farms decreased, and farms increased in size and specialized. Adjusted for inflation, farm prices decreased [Figure 2], but farm cash receipts adjusted for inflation increased [Figure 3].

Figure 2 Canadian Farm Prices, Inflation Adjusted



Source: Statistics Canada

Figure 3 Canadian Farm Cash Receipts, Inflation Adjusted, and Canadian Farm Population



Source: Statistics Canada

Fewer people produced a much greater value of farm products, despite a pattern of decreasing real prices for farm products- with only occasional deviations from this trend, due to such events as the Second World War and the energy crisis of the 1970's. In effect, improvements in output from farm technology more than offset reductions in farm prices.

A Wealthier, More Cosmopolitan Canada

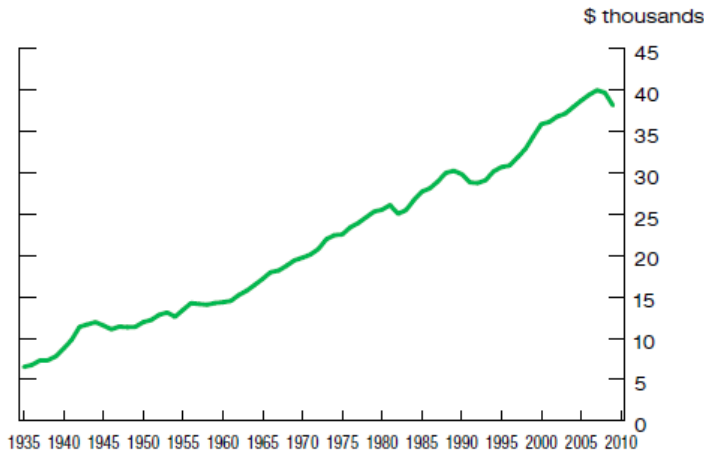
The migration of people away from farms in Canada was not to suburban ghettos. People leaving the farm had been provided access to education in rural areas and became an important source of human capital for the growing workforce required by the manufacturing and service sectors of the 1950's, 1960's and 1970's. This workforce helped to propel impressive economic growth in Canada. Figure 4 provides an illustration. As fewer Canadians were occupied in farm production, more specialization in the workforce became possible. This, along with our sources of human capital through immigration, gave rise to the division of labour that makes Canada a modern cosmopolitan society.

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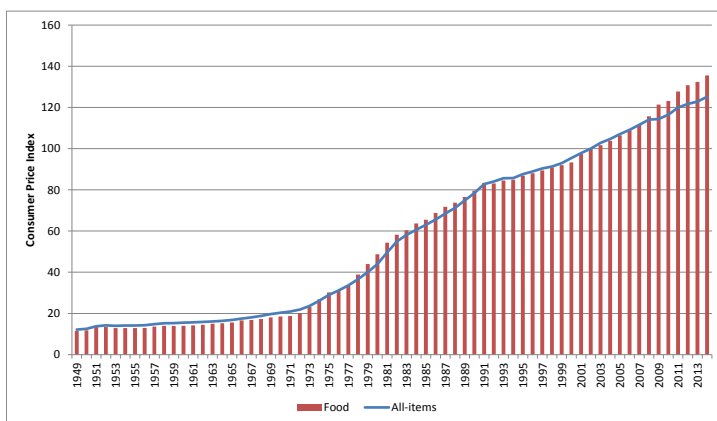
Figure 4 Canadian GDP/capita, Inflation Adjusted



Source: Bank of Canada *Charting Change 1935-2010*

At the same time, the disruption in farming and rural society did not trigger broad increases in food prices, or undermine our food security. Figure 5 below shows that long term, food prices have generally ranged below the rate of overall inflation, with the exception of the 1970's energy crisis and the period following 2008 (recently food prices have been below the general rate of inflation, or have decreased in real terms). This has occurred despite trends toward greater levels of processing, convenience, and alternative packaging in food products.

Figure 5 Canadian CPI, Food and All Items



Source: Statistics Canada

Understanding Agriculture in Social and Economic Development

In the previous century and the early parts of this century in Canada, almost 3 million people left farms for urban areas. This transformation was from a country that was largely rural and agricultural to one that was largely urban, and now metropolitan and cosmopolitan. This occurred without creating widespread food shortages or increases in food prices, or widespread losses in farm revenues and financial despair. The displacement of a large portion of its people did not impair Canada's economic growth. Rather, it enhanced economic growth by facilitating greater division of labour. This process continues today, to a greatly reduced extent.

This transition in Canada, occurring over a short period, was miraculous. It would be misleading, however, to suggest that there were no other complicating factors, that it occurred without prudent developments in agricultural policy and institutions, or that it was an easy or perfect transition.

The increased availability of an educated workforce of people released from farm work occurred concurrent with rapid growth in Canadian manufacturing industries, consistent with the broad destruction that occurred in many industries in Europe during the Second World War. The breakdown of the international cartel system following the Second World War and the move to a freer trade environment under the GATT, and later WTO supported Canada's broad economic development as a trading nation. Many of the same technologies that fueled agricultural output and freed up labour were also applied in other industries.

Agricultural technology has provided remarkable advances to allow fewer people to produce more from the land base. But this required new knowledge to develop the appropriate technologies and associated farm practices for Canadian conditions, validation that these technologies were efficacious and safe, and assurance that the farm products themselves could be marketed effectively. Early Canadian agricultural policies, such as the Experimental Farm Stations Act (1887) and the Canada Grain Act (1912)-which established standards for

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grain quality and fairness in grain trading- were key in facilitating this. This public role continues, in greatly enhanced fashion, today.

Even with prudent policy and dedicated institutions, the development and use of agricultural technology has never been perfect. For example, European farming technologies, confronted by extreme weather conditions in western Canada in the early 20th century, led to widespread soil erosion. Some pesticides that provided great enhancements in yield and quality resulted in pest resistance developing. As these and other setbacks have occurred, their implications have become factored into the development of new technologies. The ubiquitous use of direct seeding in western Canada today is a direct response, fashioned over time, to past experience with topsoil loss and the need for moisture/nutrient retention. Management of resistance to pesticides is a very current topic, with some herbicide manufacturers bundling products to mitigate pest resistance, and animal health products moving increasingly toward vaccines in lieu of antibiotics and other medications. Agricultural technologies will continue to develop, in part based on observations of unintended effects and ever-increasing expectations in terms of safety and efficacy.

While farm cash receipts broadly increased, low farm prices have been a concern for many farmers. This was the impetus for the farm cooperative movement, and for marketing regulations implemented by governments to protect farmers from market power abuses by railways, grain elevators, and processors. Business risk management programming emerged to cushion some of the risks in farming. Some of these are now artifacts of past conditions and have been removed; in other cases they remain out of an ongoing concern over pressure on farm prices, market power, and industry structure.

The transition of farm people away from the farm was not necessarily easy. Farms were historically a leading destination for new Canadians, contributing to the cultural diversity of rural areas; this occurs much less today as new Canadians mostly settle in urban areas. There has been a significant erosion of many farm/rural institutions. Many rural communities were transformed or faded away, and farmers have become decreasingly

relevant as organized social and political movements in Canadian society. In some rural areas, where there were once homes with farm families on every 100 acre parcel and the countryside was bustling with activity, rural populations have decreased and farm dwellings have been abandoned or removed.

Conclusion

In order to understand where we are today, we need to understand where we have come from. The food system and the Canadian society we see today is the product of a process in which farm people in Canada left the farm for better lives in urban areas, based upon improvements in farm technology, the mobility of an educated rural society, and public policy that facilitated it. Those that remained expanded and have grown into an increasingly professional farm segment. If some farms today are seen as excessively large, or “industrial” by some, it is because they have evolved organically as part of this process on an independent, free-enterprise basis. Today, the farmers responsible for the bulk of the farm product supply no longer aspire to a middle class life; they are a part of the Canadian middle class. And as they developed, their development allowed for others to live middle class lives in towns and cities.

This process of social development in Canada has been punctuated by individual farmer-citizens struggling to produce more on largely the same land base, with fewer people to share in the farm work. In so doing, they have chosen bundles of crop and animal technology with automation. They have been remarkably successful in doing so, as evident in the juxtaposition between food prices and farm cash receipts. In some cases, these choices have created unintended consequences. On balance these have been relatively few and minor, but significant, and the lessons have been utilized in mitigating broader negative effects, and put to use in the ongoing process of improving agricultural technology.

The ongoing drive for economic development has been central in driving this process. A hunger for improved standards of living in rural areas versus cities required economic growth in the countryside. Among individual

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rural people and families, an evaluation of their individual income prospects remaining on the farm, expanding their farms with the benefit of new technology and management systems, or seeking employment elsewhere guided their decisions. This process continues today, perhaps with less urgency compared with the 1950's and 1960's, and with a broader awareness of, and sensitivity toward, what is meant by "progress"- but with an understanding that, as an industry based on biology as well as people, ongoing technological and economic progress is an absolute necessity.

Telling our story as Canadian agriculture thus involves at least two major aspects that complement each other. One involves micro-level personal stories of how current farmers came to be- their individual stories of connection to the land, commitment to their enterprise, family, and community, and the struggle to create a viable farming business that can carry forward as an economic proposition for their next generation.

Equally, there is a macro-level story built upon this that describes how Canada changed as a result of agricultural technology and the efforts and choices made by countless farm families- to invest in productive technologies and expand over time, and, for others, the tough decision to leave farming for other careers outside of agriculture and contribute to the creation of Canada's diverse economy.

Because we all need to eat, these adjustments were fundamental and these many individual choices uniquely shaped Canada- both rural and urban. The urgency of hunger makes food production the default socio-economic activity in any society. As this becomes more specialized and made more efficient, others can specialize in careers not connected to the provision of food. It is for us to experience the benefits, appreciate the sacrifices, and understand- not unquestioningly- the unintended consequences experienced through this process of development. As it is understood that where we are today is the product of a social, economic, and technological development process, it becomes clear that many of the criticisms of the modern food system levied by its critics are simplistic and reductionist.

Most families in Canada today are multiple generations removed from the farm. This story of Canadian social development based on agricultural transition is not tangible to them, and perhaps not even known. That progress leading to a much smaller, more professional farming segment of the Canadian economy has significantly influenced the Canadian economy and society more broadly may come as a genuine surprise. But regardless of our backgrounds, Canada's development away from rural and agricultural has provided immense benefits. One need not be a "foodie" or have some deep, intimate connection with food or the farm to be a beneficiary of this development.

The macro-version of our story as Canadian agriculture is thus a remarkably successful story that has helped restructure the economy and produced broad benefits, built upon personal struggles and choices, and the embracing of new agricultural technologies, with few (but not zero) missteps along the way.

References

Hedley, Douglas. 2007. "The Road to Whole Farm Programming in Canada". In: Ronald Knutson, Sharron Knudson and David Ernstes, Eds. *Perspectives on 21st Century Agriculture: A Tribute to Walter J. Armbruster*. Farm Foundation, Chicago. pp. 276-314.