

THE NEGATIVE SOCIAL IMPACTS OF MANITOBA'S HOG INDUSTRY
AND THE IMPLICATIONS FOR SOCIAL SUSTAINABILITY

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***Abstract.** This paper will analyze the negative social impacts of Manitoba's large-scale hog industry, and the implications therein for social sustainability. It will first explore the history of hog production in Manitoba, and then examine the industry's dramatic expansion in the past decade. The essay will then analyze the negative social impacts on four main fronts: labour, immigration, community and environment. It will go on to explore the terms of social sustainability, and juxtapose the aforementioned social phenomena with the determinants of social sustainability. While acknowledging that there may be positive benefits to Manitoba's hog industry, this paper will not explore those aspects, nor will it provide counter-evidence to what is stated. Additionally, it will not present any potential solutions to enhancing the social sustainability of the current hog industry.*

Introduction

Agriculture has been, and will always be, an important part of social life and economic development in Manitoba. In 2001, agricultural undertakings accounted for 5.1 per cent (MB Agriculture "Manitoba Agriculture Review") of Manitoba's GDP and employed 8.8 per cent of the province's employed labour force (MB Agriculture "Manitoba Agriculture Review"). Manitoba is recognized worldwide for the quality of its agricultural products and for its significant contributions to the global food chain.

While agriculture in this province has undergone significant changes over time, no transformation has been more dramatic than the recent expansion of the hog production and processing industry. Whereas pig farms and meatpacking facilities were traditionally owned and operated on a small scale by local people, Manitoba's swine operations are increasingly dominated by larger producers, including corporations. The industry has grown from contributing roughly \$200 million of Manitoba's GDP in 1992 to almost \$900 million in 2001 (MB Agriculture "Manitoba Livestock Profiles 2001").

Although politicians of various political stripes have welcomed and encouraged the dramatic growth of Manitoba's hog industry, citizens and non-governmental groups

are becoming increasingly skeptical of hog development within their localities.

Municipal governments, too, are examining hog barn development proposals with increased scrutiny and encouraging more public input and consultations. It is hard – if not impossible – to find an industry that has spawned so much resistance from Manitoba citizensⁱ.

The impacts of the hog industry, whether perceived, potential or real, have been analyzed and reported on two main fronts: 1) environmental and 2) animal welfare. Studies on the environmental effects of hog farming tend to present scathing comments on the detrimental ecological effects of swine production and meatpacking, and offer strategies how to best mitigate the unfavorable aspects of pig production. Studies from an animal welfare perspective present philosophical arguments about animal rights and wellbeing, and encourage modifications in production aspects of the industry such that its intensive nature be abandoned in favour of more “animal-friendly” techniques.

This particular paper will focus on a less publicized area, the social impacts of the recent large-scale hog industry expansion in Manitoba, and the implications for social sustainability. The many negative social impacts of Manitoba’s current large-scale hog industry raise doubts about the social sustainability, and thus long-term viability, of the industry in terms of societal cohesion. While there are many social implications that can be discussed, this paper will categorize them into four main areas: labour, immigration, community and environmentⁱⁱ.

ⁱ In fact, in response to the outburst of public “anti-hog” activism, the provincial government has adopted several public consultation processes, such as Clean Environment Commission hearings and the Livestock Stewardship Panel (2000). Such are forums whose main objective is to seek public input and compile public reports on the environmental, social and economic impacts of an intensive hog industry. No other industry in the history of Manitoba has created such public concern as to spawn governmental legislation and policy surrounding the use and requirement of public input.

ⁱⁱ In this essay, environmental factors will be assessed from a social perspective, as opposed to a scientific or philosophical perspective. As such, the environment will be considered for its usefulness to human life, in areas such as economic pursuits and recreational activities.

I would like to acknowledge that this paper presents *one* perspective on hog development; that is, the negative social aspects, through the lens of social sustainability. I fully acknowledge that there may be other, positive aspects to the industry but which are not incorporated in this paperⁱⁱⁱ.

History of Hog Farming in Manitoba

Manitoba's first agricultural immigrants, the Scottish Settlers, also known as the Red River or Selkirk Settlers, arrived in 1812 and settled near the junction of the Red and Assiniboine Rivers. The settlers were forced to live off the land, and received much help from the fur traders and aboriginal people who had an understanding of Manitoba's agricultural conditions.

Following Manitoba's inception as a province in 1870, the Government of Canada passed the *Dominion Land Act*, 1872. The Act encouraged western agricultural settlement, and was a primary reason for most of the southern portion of the province being settled by 1885 (Deveson). In subsequent years, agricultural settlers included people from many ethnic backgrounds, including Russian Mennonites, American French, Ukrainians, Poles, and Hutterites.

In Manitoba, livestock has always been deemed an essential component of farming. The Red River Settlers introduced horses, cattle (both dairy and beef), hogs and sheep to the Manitoba landscape. Such animal populations were gradually increased throughout the decades. In the 1970s, the swine industry was not unlike other livestock industries, in that Manitoba produced for both provincial and national, but not international, consumption. In 1971, the province contributed roughly 13 per cent of

ⁱⁱⁱ In closing, I would like to thank many individuals for taking the time to share their thoughts on this topic with me, including Vicki Burns (Executive Director, The Winnipeg Humane Society), Glen Koroluk (Researcher, Hog Watch Manitoba), Wilden Newton and David Rolfe (President and Vice President,

Canada's total hog production. This figure declined to nine per cent in 1982 as the industry shifted to eastern Canadian provinces, particularly Quebec (MB Agriculture "Manitoba Agriculture Review").

By 2001, however, Manitoba's hog production had jumped dramatically. With only four per cent of the country's population, Manitoba produced nearly 24 per cent of the nation's hogs (MB Agriculture "Manitoba Agriculture Review"). In comparison, other prairie provinces, such as Saskatchewan and Alberta, produced 7.1 per cent and 14.2 per cent respectively of the national hog total during the same year. Manitoba's production level was closest to that of Ontario and Quebec, whose annual hog production was 24.7 per cent and 26.5 per cent respectively (MB Agriculture "Hog Production by Province 2001"). Unlike the situation during the 1970s and 80s, the majority of Manitoba's hogs – almost 68 per cent – were targeted for *international* consumption (to more than 40 countries), while 8.1 per cent were for within Manitoba and 24.3 per cent exported to other provinces (MB Agriculture "Manitoba Swine Industry Facts").

Explosion of Manitoba's Hog Industry

In 2001, Manitoba's livestock industry contributed \$1.82 billion (or 49.3 per cent) to the province's total farm cash receipts (MB Agriculture "Manitoba Agriculture Review"). This was a rise of 16.0 per cent from 2000 levels, and presented an all-time high for Manitoba. The incredible increase of livestock production in Manitoba is mainly the result of the expansion of the hog industry, considered "unsurpassed in North America" (Koroluk Image 1). In 2001, swine were considered the province's most valuable agricultural commodity, with production exceeding 6.4 million head and valued at \$860 million (Koroluk Image 1). This represents a 30 per cent growth rate from 2000

to 2001 (Koroluk Image 1) and a 43 per cent increase from 1996 levels. Manitoba led the country in hog industry growth from October 2001 to October 2002, with 2.8 million hogs farmed that year (Fallding).

There are several reasons for the rise of the hog industry in Manitoba during the mid-1990s. The Livestock Stewardship Panel identified eight main factors responsible for the explosion of Manitoba's hog industry: crisis in the grain sector, risk diversification, loss of the Crow Rate^{iv}, increasing global demand for meat products, programs supporting rural diversification, technological and genetic developments, trends toward an integrated supply chain, and provincial support of the hog-processing sector (Tyrchniewicz et al.).

The growth of Manitoba's pork processing industry shadowed the upsurge in swine-raising operations during the mid-1990s. Currently in Manitoba, there are four major and two minor federally-inspected plants as well as 29 smaller, provincially-inspected plants. While smaller plants process as few as 20 hogs per week, larger, corporate plants such as Maple Leaf Pork (in Brandon) and Springhill Farms (in Neepawa) process millions of hogs per year. In fact, Maple Leaf's environmental license permits the plant to process a maximum of 108,000 hogs per week (Nickel "Maple Leaf adding more jobs"), which will be achieved when the plant goes to a second shift in the near future (Nicholson).

Immigration), and Steve LeBlanc (Human Resources Manager, Maple Leaf Brandon).

^{iv} The Crow Rate was a concession made by the Canadian Pacific Railway in 1897 to decrease freight rates on specific products (mainly cereal crops) in order to receive a subsidy to build an expensive portion of the railway from Lethbridge, Alberta to Nelson, British Columbia through the Crow's Nest Pass (a series of mountains). The Crow Rate remained until 1983 when the Western Grain Transportation Act (WGTA) was passed. The WGTA required shippers of grains and oilseeds to pay only a portion of transportation costs while the government compensated railways for hauling grains from Western Canada to export ports. Low shipping costs encouraged farmers to produce crops destined for export markets, skewing agricultural production toward commodities such as wheat and barley. In 1995, the WGTA was repealed to reduce the federal budget burden and also help the WTO commitment on export subsidy reduction. The move to

A key characteristic of Manitoba's intensive hog industry is the trend toward large-scale hog barns. Traditionally, thousands of small to medium-sized family farms dotted the rural Manitoban landscape, whereby hogs were only one part of highly-diversified farms. Pigs were mainly used to add value to low-quality feed grains, to mitigate risk by diversifying production, to provide winter work, and to produce manure for crop fertilizer (Qualman 23). However, the trend to larger farms has become a Canada-wide phenomenon: "Scale of operation is no longer a guarantee of prosperity or survival. It's not just the small units going out of business. Still, pork production continues to increase in western Canada as the larger units (3,000+ sows) continue to expand" (Gowans and Aherne). Whereas the average Manitoba farm in 1976 and 1990 produced 200 and 388 hogs respectively, by 2000, each farm contained about 1,300 swine (Tyrczniewicz et al. 47).

Additionally, between 1990 and 2001, the total number of individual farms declined from 3,150 to 1,450 (Tyrczniewicz et al. 47). In fact, in 2001, 82 per cent of the hogs that went to market came from 11 per cent of the farms (MB Agriculture "Manitoba Swine Industry Facts"). This means that 180 factory farm operations accounted for \$750 million of the total \$860 million industry, which translates into \$3.85 million per operation (Koroluk Image 2).

A couple of reasons explain the movement to larger individual hog-producing operations. The first relates to the pressures from globalization and technological expansion, which tend to force farmers to expand or else "lose out" on international markets. As farmers become increasingly dependent on global agricultural exports, they must remain competitive with farmers in various other countries. Such competition

repeal the WTGA ended government support that had lowered producers' cost of transporting grain to

forces them to pursue cost-cutting measures and more efficient means of production – encompassed in larger, streamlined operations – in order to be able to sell their produce. A second reason for the increasing average size of individual hog farms has to do with the growing corporate involvement in hog operations. During the mid-1990s, non-farmer and corporate investors began building huge hog barns in Western Canada, modeled after the corporate hog barn development in North Carolina, Missouri, and other American states in the 1980s (Qualman 23). There are currently several corporate barns present in Manitoba.

One characteristic of the current nature of Manitoba's hog processing industry is a high level of corporate involvement. The best example of a large-scale, corporate meatpacking plant in Manitoba is the Maple Leaf Pork plant in Brandon. In 1999, the Manitoba government offered subsidies and tax incentives totaling \$7 million to Maple Leaf to encourage the company to build a \$120 million pork-packing plant in Brandon. Maple Leaf then purchased two Winnipeg plants run by its competitor, J.M. Schneider, for \$44 million^v. This purchase ended a deal of over \$9 million in incentives to Schneider from the province and the City targeted for Schneider's expansion. Following Maple Leaf's takeover of J.M. Schneider, one of the plants was to remain open while the other was to be consolidated into the Maple Leaf plant in Brandon. Although anti-hog advocates and environmentalists breathed a sigh of relief when they felt it was a sign the province's hog industry expansion would occur at a less dramatic pace, it nonetheless serves as an example of the increasing concentration of the hog processing industry, from several smaller plants to fewer larger ones.

export ports from the Prairie Provinces.

^v Two weeks before Maple Leaf Pork's acquisition of J.M. Schneider's Winnipeg plants, American Pork giants Tyson Foods and IBP merged to become a \$24 billion US business, seven times the size of Maple Leaf at the time (Stephenson).

In addition to the corporate concentration within the industry, there is also increasing corporate integration of all facets of the industry. Vertical integration is a term designated to corporations that “own hog barns and packing plants – and often feed mills and other related businesses” (Qualman 24). Large, vertically integrated hog producers and packers “restrict farmers’ access to markets, obscure price signals, and push down prices” (Qualman 28). Although a solution to vertical integration by corporations is single-desk selling agencies, Manitoba terminated its single-desk selling agency following “pressure from large hog producers and packers (which)...invariably push for and win an end to the single-desk selling agencies that formerly protected farmers from such market abuses” (Qualman 28). Again, Maple Leaf Foods serves as an example of a company that is vertically integrated. In 1999, Maple Leaf bought Manitoba-based Landmark Group for \$150 million. Landmark Group included Landmark Feeds (the largest livestock feed company in Western Canada) and Elite Swine, a hog genetics and production management company.

There are several reasons why Manitoba has become a preferred location for individuals and companies involved in raising hogs and harvesting their meat. Considered by hog industry proponents as “one of the most cost-effective sites in Canada for hog production” (MB *The Manitoba Pork Advantage* 5), the province’s competitive advantages include reasonable land costs, low manure disposal costs, knowledgeable producers, abundant feed supplies, a favourable tax system, and an approving provincial government. Glen Koroluk, Researcher with Hog Watch Manitoba, notes that the industry found opportune conditions in Manitoba as angry American citizens, affected by

the negative effects of unmitigated expansion, pushed it out of the United States (Koroluk Interview).

Regardless of the said economic benefits, though, there have been tremendous negative consequences of Manitoba's expanded hog industry. While the ecological consequences are often reported, social impacts are covered to a much lesser extent.

Social Impacts of the Large-Scale Hog Industry

The following section will examine the social implications of Manitoba's large-scale hog industry in terms of four categories: labour, immigration, community and environmental impacts. It is important that the reader note that, while some of these phenomena may have accompanied pig production historically, their effects have been largely magnified due to the recent dramatic expansion, and intensive nature, of the industry.

a) Labour

Factory farms present dangerous working conditions for swine workers. The high level of dust and endotoxins within the livestock housing and breeding facilities presents respiratory dangers to those who are forced to inhale the dangerous particles. A long-term exposure to such fibers can cause respiratory illnesses such as asthma, chronic bronchitis, and general decreased pulmonary functions (Koroluk Image 9). In fact, the American Lung Association found that almost 70 per cent of swine confinement workers experience one or more symptoms of respiratory illness, and another 58 per cent suffer from chronic bronchitis (Iowa State University qtd. in Qualman 30).

Meat processing is also considered a dangerous occupation, not only in Canada but in several nations. In fact, the United States Occupational Health and Safety Administration described meatpacking as the most dangerous industry in the US during

the 1980s and 1990s (Common-Singh 9). In North America, approximately one-third of meat packing workers are injured on the job every year (Dye qtd. in Common-Singh 9) and workplace injuries and illness are considered two to three times the all-manufacturing average (Personick and Taylor-Shirley qtd. in Tomoda 4). Negative occupational aspects of meat processing include assembly-style work, stress, fatigue, and exposure to noise and cold temperatures^{vi}; contact with biological, chemical, and infectious hazards; and, overall high rate of illness and injury. Rather than ease the rate of injury, it has been reported that the growth in mechanization of meatpacking means that workers are forced to perform repetitive tasks at an ever-increasing rate (Tomoda 2).

The high turn-over rate in both hog farming and pork processing is a common occurrence for the industry across North America. Companies, continuously seeking to expand their operations, have had to pursue different means in order to attract workers. For example, Maple Leaf Pork in Brandon, which as of March 2002 was losing 25-30 employees per week (Nickel “Maple Leaf hires”), has had to experiment with initiatives such as draws for vehicles and minimal pay increases in order to reduce turnover and absenteeism amongst its staff (“Union, Maple Leaf drive home need”). As Maple Leaf plans for a second shift in the upcoming year, its recruitment plans are set to expand dramatically, with plans to further develop its current overseas recruitment strategy.

Another contentious social issue relating to hog industry labour has to do with the exclusion of agricultural workers from important labour legislation. Agricultural

^{vi} Cold temperatures are a requisite when working with meat products due to their perishable nature. Furthermore, due to the increase in trade of frozen commodities, along with the growing popularity of frozen products, more and more workers packing plant workers are forced to work in below-zero temperatures. Problems associated with cold rooms include frostbite, respiratory disorders, and increased accident rates resulting from a loss of dexterity and sensitivity (AMIEU & MIFA qtd. in Tomoda 5). In some countries such as Australia and Belgium, a bonus or premium is provided in collective agreements for workers who must work below certain temperatures.

workers, including those on swine farms, are not covered by Worker's Compensation (although they can voluntarily seek coverage), Minimum Wage Legislation, and Employment Standards Legislation (except for maternity and parental leaves, and the equal pay for equal work and payment of wages provisions). In addition, workers employed in the construction of farm buildings by the building owners are not covered under the *Construction Industry Wages Act*.

There is an historical reason for excluding agricultural workers from key labour legislation. Historically, agriculture was considered a private domain, with individual (and sometimes multi-family) units operating agricultural endeavours. However, the above reasoning is no longer relevant in many cases, given the increasing corporate participation in agricultural undertakings, both in the farming and manufacturing sectors. In acknowledgment of this incongruity, the Employment Representatives of the Minimum Wage Board approached the government in December 2001 to request that all agricultural workers be included in minimum wage legislation^{vii}. Unfortunately, the Minister never implemented the recommendations of the Employment Representatives.

A common criticism of the meat packing industry is the low wages workers are paid. Canadian packing companies aggressively slashed wages by up to 40 per cent in the mid-1990s in order to compete with giant American companies such as Smithfield Foods, which had cut wages more than a decade beforehand (Edmonds). Kevin Grier of the University of Guelph George Morris Centre (which specializes in agribusiness issues) called the meat processing industry's labour shortage a "problem across all of Canadian

^{vii} Glenda Segal, Manager of the Research Branch for the Department of Labour and Immigration, states that, although excluded from minimum wage legislation, agricultural workers in Canada are, for the most part, paid above minimum wage regardless. However, the federal government's Labour Market Information site reveals that the lowest wage in southern Manitoba for "General Farm Workers" (which encompasses swine barn workers) is \$6.50. The highest wage is \$14.78 (HRDC).

meatpacking” (Edmonds). While the beef industry in Alberta reacted and began dramatically increasing starting wages for packing workers, Manitoba’s pork industry’s largest employer, Maple Leaf, has toyed with minor pay increases but has mainly employed a different strategy – the use of out-of-province and overseas recruitment (See next section: Immigration).

Employment in corporate hog processing plants tends to be extremely unpredictable. Since global factors influence company profits and worker salaries, jobs are often dependent on international circumstances. In Manitoba, shortly after opening its Brandon plant, Maple Leaf renegotiated with the UFCW to see wages cut by 40 per cent, which occurred at its plants across the country. The company claimed it was forced to reduce processing costs because of competition in the United States (McKie). An additional example of the industry’s volatility occurred in May 2000, when changes were brought about in order to adopt a 4-day work week as a result of 10 per cent decline in the availability of market hogs (Economic Development Brandon “Maple Leaf Facts”).

b) Immigration

For this section on the social impacts of hog industry-related foreign labour recruitment, the Maple Leaf Pork processing plant in Brandon, Manitoba, will serve as the point of analysis. To date, the aforementioned Maple Leaf facility is the only one of its kind in Manitoba to utilize immigration as a significant component of its human resources strategy. However, the use of foreign labour in meatpacking facilities in other provinces and US states is a common strategy used in order to maintain an ample workforce^{viii}.

^{viii} In Brooks, Alberta (186 km southeast of Calgary), IBP Lakeside uses foreign workers to staff its beef packing plant. After exhausting its local labour supply and unsuccessfully attempting to recruit workers from Newfoundland and Nova Scotia, the company began recruiting immigrants, which eventually led to

When Maple Leaf Pork opened in Brandon in 1999, it was anticipated that numerous direct and indirect jobs would be created resulting in undue economic spin-offs for Manitoba's second-largest city. Unfortunately, in terms of labour, such has not necessarily been the case. Maple Leaf has experienced tremendous workforce obstacles, most notably extremely high employee turnover and absenteeism rates. In September 2001, the company reported hiring about 20 Manitobans and losing between 30 and 35 individuals per week (Bird). This worked out to be approximately a full turn-over of its entire labour force on an annual basis.

Concluding that local labour would not suffice to meet its needs, Maple Leaf began looking beyond Manitoba's borders for an additional supply of labour. Not only did the company desire to fill roughly 100 vacant shifts, but also they wanted to find a workforce solution that would enable them to expand to a second shift. Maple Leaf experimented with a national hiring strategy, extending its recruiting efforts to the Atlantic Provinces in mid-2001. The company ended up hiring 79 workers from Newfoundland, PEI and New Brunswick, and Ontario (Economic Development Brandon "Maple Leaf Facts"). Although Maple Leaf considered more recruiting trips to regions east of Manitoba, only one out of ten "eastern" hires remained for a second year (Edmonds). One reason why its eastern recruitment drive was unsuccessful could have been that a line worker who started just above \$8 an hour would have hit the wage ceiling of just over \$11 an hour by his second year (Edmonds). Under such circumstances, Maple Leaf was driven to find another pool of employees.

the creation of an on-site immigration service for workers (Broadway 45). The documented social consequences were numerous, including: a severe housing shortage; a dramatic increase in the use of social services such as welfare, the local foodbank, and emergency medical care; and a rise in crime rates (Broadway 46-48).

It was in 2001 that Maple Leaf began exploring foreign sources of labour. By January 2002, the company had selected 21 recruits from Mexico to begin to fill the approximately 100 vacant positions at the plant. In March 2002, 28 more Mexicans were hired, and again in August 2002, nine more were relocated to Brandon. The largest single recruitment drive occurred in November 2002, when 44 Salvadorians arrived. Maple Leaf plans to continue its foreign recruitment, with a strategy to carry on drawing employees from Mexico and El Salvador, and to explore other potential overseas locations such as the Ukraine. While appearing as a decent arrangement for both Maple Leaf and the migrants who come to Brandon, a closer examination of the situation proves otherwise.

First, the immigrants coming to Manitoba to work for Maple Leaf are classified as temporary foreign workers (TFWs). As such, they are provided with two-year work visas, and may only apply for permanent status after fulfilling a two-year contract with Maple Leaf in Brandon. The contract stipulates that they must work *only* for Maple Leaf in Brandon, where they earn a starting wage. This two-year contract eliminates the possibility that the workers may take up employment a couple of hours away in Neepawa's Springhill farms pork packing plant, where wages are on average \$2-3 per hour higher (Nickel "Maple Leaf having impact").

Jan Chaboyer, President of the Brandon Labour Council, claims that this situation circumvents basic supply and demand forces between workers and their employers. In addition, the fact that the TFWs must wait for a two-year period before being provided with landed-immigrant status, whereby they can work where they please (given that they possess the appropriate credentials and skills) is seen by many as unfair. Chaboyer claims that, "If they're good enough to work here, they're good enough to live here. If

employers can set up shop anywhere in the world under globalization, then likewise workers should be able to move freely, too, to where the salaries are” (Redekop and Welch).

In January 2002, the Editorial Board of the Winnipeg Free Press praised Maple Leaf for recruiting immigrants to work and settle in Brandon. However, they warned the company and provincial officials that additional steps should be taken in order to encourage the foreigners to stay in Manitoba following their two-year work term^{ix}. The Board suggested that the Premier should “see to it that they enjoy efficient health care and other government services” (“Manitoba’s Mexicans”), which, under the temporary foreign worker arrangement, is not always afforded to them.

A second concern with the foreign worker arrangement at Maple Leaf Brandon relates to the low wages they are paid. Migrant workers earn about \$18,000 annually, considered to be at the poverty line, which means that their economic spin-offs in the community might not be significant. This outcome is compounded by the fact that many of the workers send a portion of their wages home to their relatives in Mexico (Bird). A low wage also means that the immigrants can only spend about \$400 per month on accommodations (Bird), which is barely sufficient for an individual, let alone a family. This has led to a shortage of low-income housing in Brandon: “...the city of Brandon already faces housing shortages, an issue that will be amplified with the expansions currently taking place at the Shilo military base just west of Brandon” (Nickel qtd. in

^{ix} Steve LeBlanc revealed that, of the 21 Mexicans who represented the first batch of foreign recruits to arrive at Maple Leaf (arriving in January 2001), only twelve remain. Of the total 58 Mexicans who are presently here, less than half, or 22, are still working at the plant. LeBlanc noted that the company has had much more success in terms of the Salvadorian workers – since their arrival in November 2002, only one out of 44 has left (LeBlanc Interview).

Ramsey and Everitt 11). The housing shortage will only be compounded with the addition of a second shift, which is anticipated sometime within the next couple of years. Finally, some Mexican workers have expressed concern over the relatively high cost of living in Brandon (“Mexican workers deported”). Coupled with their low wages, the high cost of day-to-day expenses makes it difficult for them to make ends meet.

A third criticism of Maple Leaf’s use of immigrants to sustain its workforce is that foreigners are hired in the place of locals. Although Maple Leaf claims to experience a local workforce shortage due to the area’s low unemployment rate and the plant’s high turn-over rate, there is a significant pool of local *unskilled* labour in the region that the company could draw on. The \$3,000 that Maple Leaf pays to recruit, relocate and train each foreign worker is approximately the same amount of money necessary to hire and train a local individual (Nickel “Cost of recruiting”). Maple Leaf’s reasoning for favouring foreign as opposed to local labour is that the overseas recruits are already trained in meat cutting, whereas it take one to three months to bring a local unskilled person to the same level (Nickel “Cost of recruiting”).

Labour leaders and aboriginal groups are the main critics of Maple Leaf’s strategy of using foreign labour. They say that the practice of importing labour from less-developed countries drags down wages and prevents workers from being able to sell their labour elsewhere (Redekop and Welch). In 1998, the Manitoba Metis Federation (MMF) placed 100 workers with Maple Leaf as a human resources strategy. Unfortunately, the arrangement did not live on; an official with the MMF said that wages are too low to consider moving to, and raising a family in, Brandon (Laplante qtd. in Redekop and Welch).

A final main issue surrounding Maple Leaf's use of foreign staff involves concerns for their health and safety. David Kattenburg, a local community activist, predicted prior to the first slate of Mexican arrivals that they would be "isolated... (and) underpaid. They will be working under brutal conditions. They will be susceptible to repetitive strain injuries" (Bird). Additionally, Don Keith, an official with the United Food and Commercial Workers Union Local 832, which represents Maple Leaf workers, said "We know the company has had trouble attracting workers in the Brandon area It's really heavy dirty work, a lot of it. Basically it's a slaughterhouse. It's not something you or I would want to do" (Bird).

The frequency and magnitude of the migrant workers' injuries might be enhanced by their inability to fully communicate in English. While a familiarity and knowledge of butchering skills is necessary, an English-language proficiency is not. The UFCW and Maple Leaf share the cost of English-as-a-Second Language (ESL) for Maple Leaf's foreign staff, but it is unknown whether they must show a certain proficiency before being allowed to work in the plant. Carol Loveridge, Executive Director of the Occupational Health Centre in Winnipeg, stated that "Even with company- and union-supported English classes, we are very concerned that these workers may not fully understand the training they receive to perform their jobs safely. One liaison worker who speaks Spanish to help more than 200 workers is clearly inadequate" (Loveridge).

Given the high possibility of worker injury, there are also concerns regarding the availability of support for foreign workers injured at Maple Leaf upon their return to their home countries. Since repetitive strain injuries can seriously impact workers' physical capabilities and limit their future employment options, it is questionable whether workers

will be able to access the appropriate care and compensation upon their return to their homelands.

While this paper does not dispute the many positive impacts of immigration in Manitoba or the need for increased immigration to mitigate steady provincial population loss, there remain many concerns regarding Maple Leaf's use of foreign labour to staff its Brandon slaughterhouse. It is important to lessen or eliminate negative factors such that foreign workers are treated with the utmost dignity and fair compensation. This will ensure that their involvement in Manitoba's hog industry is advantageous and sustainable.

c) Community

Since much of Manitoba is considered non-urban, the hog industry affects numerous Manitobans who reside, work and pursue recreational activities in rural areas. Outlined below are some of the many negative effects of a large-scale hog industry on Manitoba communities.

Since the hog industry underwent its tremendous growth during the late 1990s, there has been an ongoing jurisdictional battle between the province and the rural municipalities about who has decision-making power over which aspects of hog development. In the 2003 provincial election, the leaders of all three major parties agreed that the province needs to set the bar for development and environmental standards, and reserves the right to declare moratoriums in overbuilt areas. However, the leaders also expressed their belief that the ultimate decision-making power rests with the municipalities (Lett).

The aforementioned municipal-provincial arrangement (i.e. where the province controls certain areas but relegates final decision-making power to the municipal councils) has created concerns for many people. Environmental activists and worried

community members say that, if the province relegates the final decision-making to the municipalities, large commercial livestock interests will have their way with municipalities who are more dependent on economic development and less concerned about province-wide environmental outcomes (Lett). In addition, the mere fact that municipal governments are concerned only with conditions within their borders could lead to a patchwork of province-wide environmental destruction only the province has the capability of discerning and adjusting accordingly. Many opponents to the current provincial-municipal system in regards to hog barn and slaughterhouse development say that the province is able to conveniently act as the “innocent bystander” by providing the municipal councils with the ultimate authority, therefore absolving itself of responsibility for the negative impacts of hog development (Lett).

Although the province claims to relegate final decision-making to the municipalities, there have been numerous reports of the province's discreet influence in hog barn development in various RMs. Take, for example, the RM of Daly situated near Brandon. In early 2003, 92 per cent of Daly members signed a petition asking the municipal council to examine Intensive Livestock Operations (ILOs) within their municipality. In response, council issued a moratorium on the consideration of ILO conditional use applications, pending the development of a new bylaw that would adequately address the community's concerns. Within 30 days, a package of 35 amendments – developed through an extensive series of broad-based community meetings – was submitted to the council. Following the first reading of the community's ILO bylaw proposal, provincial officials intervened and an alternative set of bylaw amendments, opposite to what the community members had suggested, was introduced. Community members strongly showed their discontent at the alternative proposals during

a public hearing on the newly amended bylaw. Regardless, Daly council rejected the community's initial bylaw amendment proposal. Many members of the RM of Daly accused the provincial government of meddling in municipal affairs, so as to ensure that the municipal council would permit the ongoing development of hog barns.

In McAuley, in the RM of Archie, citizens have mounted lobbying campaigns in order to discourage large hog farms within their municipality. So far, their campaigning efforts have been successful in warding off any potential large swine operations opening up shop in their vicinity. However, it is uncertain how much longer council will heed to opposing citizens' demands. Concerned citizens against hog barn development compiled a 226-name petition, and lobbied the municipal council to hold a referendum asking, "Do you want large-scale hog operations in the community, yes or no?" By a vote of four to three, the councillors decided against holding a referendum on the hog issue. While community protesters felt that this signaled the end of a hog barn-free RM, one of the protesters went so far as to say that, "This is the end of our community. It's just these corporations. They just come in here and have no regard for us. They don't care about people in the community" (Barkely qtd. in Thompson).

A second negative community-related aspect of dramatic hog barn development concerns the deep rifts that are forged within communities as a result of such development. Whereas rural communities are traditionally known for their cohesiveness, hog barn expansion has created two main camps: those *for* hog operations and those *against* them. Rural newspapers carry ample examples of citizens' pleas for a return of small-scale, quiet rural life encompassing small-scale hog farming for local consumption. While one individual expresses that he "laments the polarization and animosity that has developed in rural Manitoba over the expanding hog industry" (Braun), another

exemplifies what many rural community members feel about hog development within their localities:

“...the corporate hog industry has succeeded to put dispute against neighbour, family against family, friends against friend, and all this, in the praises of economic development. Why? Must this continue and go on? Has the government lost all respect for the farmers and residents of rural Manitoba? Why must the people, who do not want these factories, continually have to fight and put up defences?... Once, there was peace and harmony amid ourselves and a common spirit of community, now with hog industry intrusion, there is but confrontation after confrontation” (Fefchak).

There are, of course, opponents to the view that swine operations are a negative thing for rural Manitoba. Some people view large-scale swine operations as a means to ensure rural sustenance in the days of strong urban migration. They feel, for example, that, if their “municipality continues on its current path without any economic development, it will simply exist as a retirement community” (Gilbertson). For some, expanded hog barns represent hope for the future of the communities as opposed to the reason for their potential demise.

However, welcoming outside investment in the form of mega-barns can produce the opposite results that rural communities ultimately want. Such communities often feel that large-scale and/or corporate barns will create jobs, invest in their towns, and provide a local market for their feed grains. Unfortunately, they employ a false comparison: the presence of mega-barns versus no hog barns at all. However, such communities avoid acknowledging that the greatest form of community economic development is found in a traditional alternative – the production of millions of hogs on hundreds of local family farms:

“Family farms employ more people per pig, retain profits in the community, and buy more supplies locally. Family-farm hog production slows the extraction of wealth.... Unlike corporate producers, when local families produce hogs on their farms, they receive the profits and spend a significant portion of them in their communities.... Small producers buy most of their supplies locally while large producers tend to stock many barns in many communities with supplies purchased in one location – usually a large city” (Qualman 29).

In addition, many studies have shown that several smaller producers employ more people than fewer larger producers. While the average 2,400 hog barn employs about 15 individuals, each of these barns can push as many as 50 small to medium-sized farmers out of business (Qualman 29). Also, since large farms derive profits from lower labour costs per pig by using increased technological inputs and mechanization, machines tend to take precedence over human resources resulting in overall lower wages, higher incidents of accidents, less worker satisfaction, and a greater out-flow of profits^x.

A final major impact of extensive hog barn development is the devaluation of land prices for properties located near hog barns. An Alberta tax-appeal board recently ruled that property values can be lowered by up to 50 per cent when located within a two mile radius of a factory farm (Hog Watch *What's the Big Stink?*). There are three main reasons why large-scale swine operations bring about a drop in real estate value of peripheral residences. The first is the possibility of surface and groundwater pollution as a result of manure tank leaks. Most rural properties utilize private wells to supply their drinking water, which are under threat of contamination in the event of a manure tank spill. The second problem is the tremendous odour associated with hog barns. The odour is mainly the result of millions of litres of hog manure stored in holding tanks, which is eventually treated and spread on outlying agricultural land. The third concern is the rise in traffic, noise, dust and deterioration of municipal roads as a result of more movement surrounding hog operations. Additionally, residents living next to swine-raising facilities report an increase in rodents, skunks, flies and coyotes (Lozinsky).

^x Mass-production technologies used by mega-producers, such as automated feeding, central marketing and accounting, and standardized genetics, transfer many of the management positions to centralized corporate headquarters, usually located in larger urban areas. Therefore, the salaries earned by much of the management staff at corporate mega-barns are not spent in the communities in which the barns are located.

Perhaps the most frustrating aspect for residents living near swine operations is that they feel they have no control over where the hog facilities are located. One rural resident expressed her concern that intensive hog operations are virtually “plunked down in our own backyards” (Lozinsky). Regardless of their expressed opposition, as long as hog barn development continues in Manitoba, certain residents will be forced to deal with the negative consequences related to large-scale, intensive swine operations.

d) Environment

While acknowledging that there is a school of thought surrounding the inherent right of nature to exist, this paper purposely takes the approach that the environment is significant due to its value for human life, rather than for its intrinsic ecological value or ecosystemic importance. Because it takes this human-centered approach, environmental factors are discussed insofar as their relation to human life, and in the context of this paper, to social cohesion and thus social sustainability. Some environmental impacts have been left out because they do not directly affect human settlement, mobility and quality of life^{xi}.

Until now, environmental consequences of the expanded hog industry have tended to shadow the social impacts. This is probably mostly due to the objectivity and measurability of environmental aspects. Nonetheless, since humans inhabit, rely, and subsist on their surrounding environments, the environmental impacts of the hog industry have undoubtedly infiltrated socio-economic aspects of peoples’ lives, and will continue to do so as the industry expands in Manitoba.

^{xi} Examples of such environmental aspects, which are not necessarily solely connected to human life, include increased greenhouse gas emissions which affect weather patterns, and increased concentration of heavy metals (such as zinc and copper) in the soil which changes its natural composition and stresses existing ecosystems.

One environmental-social impact of the expanded hog industry is the effect of hog manure on water quality. The amount of waste one hog produces is as much as four times what a human excretes (Hog Watch *What's the Big Stink?*). Of course, this is magnified by not only by the sheer number of hogs in Manitoba but also by the concentrated nature of where the swine barns are located. Massive storage tanks (also called “manure lagoons”), located either above or below the ground, store the waste indefinitely or until it can be applied on fields as fertilizer.

Unfortunately, the use of manure tanks, while probably the best solution of a bad lot, has proven problematic. While some waterways experience contamination as a result of illegal dumping (“straight piping”^{xii} [Hog Watch *What's the Big Stink?*]), manure spills, mostly as a result of outdated tanks, are the most publicized issue surrounding waste lagoon pollution. Even though the provincial government raised the standards for manure storage tanks in 1998 and again in 2002, tanks built prior to 1998 were not affected by the new regulations. As such, hundreds (“Manure tanks”) of tanks pre-date the new rules and thus pose a serious risk to the environment and to the people living in those surroundings.

In fact, the “risk” of outdated manure tanks rupturing has become a true danger on numerous occasions. As recently as March 2003, an above-ground steel manure tank on a northern Interlake Hutterite colony ruptured, leaking more than two million litres of liquid hog waste into the surrounding environment. The spill ruptured propane lines (although no gas ignited), and made its way toward a nearby stream^{xiii}. In the summer of

^{xii} Straight piping involves the illegal practice of dumping hog waste straight into waterways, such as streams and rivers.

^{xiii} Fortunately, the liquid waste did not reach a nearby waterway because colony residents quickly spread snow over the manure to soak it up. The snow was then spread on nearby fields, preventing it from reaching the stream.

2002, a spill of over four million litres of hog manure near MacGregor contaminated two wells on the farm after its steel manure tank split open. The hog barn owner escaped prosecution because the new provincial regulations did not apply to his older tank.

Dangerous manure spills, as occurred in the aforementioned scenarios, have resulted in loud cries for a more viable solution from concerned onlookers. Some, such as the Editorial Board of the Winnipeg Free Press, have called for the government to incorporate older tanks in the new, stricter regulations. They claim that the old tanks need to be either replaced or retrofitted and reinforced, and state that, “Unless the provincial government tightens regulations governing older bins now in use, Manitobans and their waterways will remain at the mercy of such luck for many more years” (“Manure tanks”). Others claim that the only means to ensure ecologically sound waterways and safe drinking water is to set serious limits on swine production in Manitoba.

While manure spills have dramatic effects, there is a slower, less sensational (but potentially more dangerous) effect of intensive livestock operations. Chemical run-off, consisting of massive concentrations of nitrates and phosphorus, is a constant output of concentrated hog operations. The presence of excessive amounts of nitrates in the soil, resulting from the application of manure fertilizer, encourages the contamination of well water. This occurs when excess liquid from the manure tank is sprayed onto a nearby field that is already too high in nutrients or overly water-saturated and the soil cannot properly absorb the waste. While nitrate contamination can also occur as a result of other livestock or heavy fertilizer use, a recent study by AXYS Agronomics correlated the high nitrate concentration in southeastern Manitoba with the fact that the area is considered the densest hog-growing region in the province (“Hogs threat to rural water”).

The presence of nitrates in drinking water can result in negative effects such as oxygen deprivation in babies (“blue baby syndrome”) as well as cancer and thyroid problems. Unfortunately for large hog producers, correcting the excessive nitrate problem could mean forcing them to switch to manure-spreading practices that would be uneconomical for existing operations

Phosphorus is another main component of hog waste run-off that is threatening human health. Excess concentrations of phosphorus in water systems results in toxic algae blooms that threaten to deprive aquatic life of oxygen. In Manitoba, Lake Winnipeg is the most frequently-touted “victim” of excess phosphorus resulting from agricultural run-off. Although controversial^{xiv}, the Red River was also recently characterized by Vancouver-based EarthWild International as one of ten waterways in Canada most threatened by human activity. EarthWild’s executive director, Nola Poirier, stated that the river’s contamination is largely a result of the “rapid expansion of the hog industry in Manitoba that’s increasing the phosphorus and nitrogen levels in the water” (Poirier qtd. in “Red River threatened by agriculture”).

Politicians and hog industry proponents cite the vast spatial characteristics of Manitoba as a primary factor in the province’s comparative advantage for hog production^{xv}. However, there are certain areas with characteristic topographical features whereby the negative environmental effects of expansive hog barns are magnified. For example, the sandy soil in the southeastern portion of Manitoba, such as La Broquerie and

^{xiv} To be fair, it is important to note that EarthWild’s claim that the Red River is being largely contaminated by hog farm run-off was disputed on two fronts. Ted Muir, general manager of the Manitoba Pork Council, stated that Manitoba hog farmers handle livestock manure properly (“Hog Claims Rejected”). In addition, Don Flaten of the University of Manitoba, who recently led a study on Manitoba’s water quality, said that problems affecting the Red River range from crop production run-off to municipal sewage treatment. He said that the hog industry is most likely only marginally responsible for the high level of phosphorus in the river (“Local experts dispute”).

Stuartburn (where there is a heavy concentration of hog operations), makes wells there vulnerable to nitrate pollution. As a result, Manitoba's "Prairie sea", Lake Winnipeg, is "choking from algae build up, spurred on by excessively high nutrient levels washing in primarily... from Manitoba agricultural land draining ultimately into Lake Winnipeg" ("Set limits on swine"). Therefore, the notion that Manitoba has ample land to support a large-scale – and potentially expanded – hog industry must be seriously reconsidered.

Another environmental effect of hog production that has social ramifications is the odour created by intensive swine operations. One rural journalist describes the smell of waste lagoons as the "rank, nose-prickling ammonia aroma of hog manure" (McKay), considered by many as the most objectionable issue related to the hog industry. In addition to negative olfactory sensations, lagoons release toxic emissions such as ammonia and hydrogen sulfide, which, even in low concentrations, can cause lasting damage to the nervous system (Hog Watch *What's the Big Stink?*). Although many experimental products, such as the *Gulla Guard* straw blanket (comparable to a giant quilt with straw sewn in between an ultraviolet black netting with clear poly plastic on top) are in the works in an attempt to mitigate odour problems, none has yet been 100 per cent effective in eliminating the putrid smell. In the meantime, many rural residents will have to continue inhaling hog manure fumes with subsequent effects on their health and quality of life.

Social Sustainability and the Socially Unsustainable Nature of Manitoba's Hog Industry

Sustainable development as a theory and practice has been receiving increasing consideration since its inception in the mid-1980s. The Brundtland Commission first

^{xv} In a pre-election debate in Morris, PC Agriculture critic Jack Penner stated that "We have lots of room (for livestock in this province)", while the Agriculture Minister Rosann Wowchuk also stated "We have

coined the term in its report titled *Our Common Future* (1987). In that report, the Commission defined “sustainable development” as “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (“What are National Sustainable Development Strategies?”). Sustainable development policies and practices encompass three main dimensions: economy, environment, and society.

While environmental and economic sustainability are frequently touted in industrial and economic policy, social sustainability is explored to a much lesser extent. This is perhaps due to the subjective nature of social indicators, as compared to the more objective nature of scientific data espoused in economic and environmental reporting. Despite its relative under-analysis as a component of sustainable development, social sustainability (both as an ideal and a practice) has been gaining popularity. Researchers with the Institute for Social-Ecological Research (ISOE), a Frankfurt-based organization dedicated to studying the linkages between society and the environment, state that “Recently... social sustainability has achieved undreamed of popularity due to, above all, a (newer) understanding of the social in terms of the social tolerability of ecological measures” (Empacher and Wheling “Project”).

Social sustainability focuses on the creation of principles, processes, and programs that promote social interaction and cultural enrichment. It emphasizes protecting the vulnerable, respecting social diversity and ensuring that humans combine their efforts to build social capital within their communities. Social sustainability is related to how we make choices that affect other humans surrounding us, whether in our

immediate vicinity or across the globe. In broad terms, social sustainability is related to human needs such as happiness, safety, freedom, dignity and comfort.

According to Claudia Empacher and Peter Wheling, encouraging and protecting social sustainability requires four criteria to be met. These criteria include: 1) that the existence of all members of society is safeguarded; 2) that social resources are maintained and developed; 3) that equal opportunities regarding access to resources are created and sustained; and 4) that participation within social decision-making processes is encouraged and upheld (Empacher and Wheling “Discussion Paper”).

The social impacts of large-scale hog farming and processing discussed in this paper raise important questions regarding the social sustainability of the industry. When the social implications are cross-referenced with the tenets of social sustainability, it is easy to infer that the industry, in its current state, is socially unsustainable. According to the first precept, which states that socially sustainable enterprises safeguard the existence (and health) of all members of society, the labour, immigration and environmental impacts of the hog industry do not necessarily fit the mould of social sustainability. While workforce dangers are ever-present, environmental degradation and contamination as a result of mega-hog barns and huge processing plants threaten human health and safety. According to the second determinant of social sustainability, the development and maintenance of social resources, all categories discussed in this essay pertain to this level of analysis.

The third characteristic used to determine social sustainability is the existence of equal opportunities regarding access to resources. With the increasing concentration of the hog industry (and profits) into the hands of few, along with the low wages and marginalization of migrant labour, it is doubtful that the current state of Manitoba’s hog

industry adheres to this third tenet. The fourth and final determinant of social sustainability is public participation in decision-making processes. Given the concerns outlined in the Community section regarding citizens' lack of input and influence in public decision-making, their frustration as a result, and the ongoing development of hog barns despite such resistance, this fourth principle is also not being met.

Given that the many social impacts of a large-scale hog industry do not meet the determinants of social sustainability, the continued expansion of the industry raises doubts about the industry's sustainability, and thus viability, in the future. If the industry remains at its current level, or continues to grow, the negative social implications will persist unless dramatic intervention somehow dramatically alters many facets of the industry. Otherwise, citizens will develop more and more unrest with increasing antagonism, thereby completely shutting down the industry. The precedent is there: numerous American states, as well as the province of Quebec, have imposed indefinite moratoriums on all further hog development.

Conclusion

This essay has sought to show that given the social impacts of large-scale hog farming and processing in Manitoba, the industry's social sustainability is brought into question. As such, the future viability of the entire industry is dubious. This poses many dangers, because as the hog industry expands, more and more individuals will come to rely either directly or indirectly on the industry for employment. If an economic, environmental or social crisis strikes, entire communities could face complete chaos and turmoil^{xvi}. If one takes the assumption that sustainability involves ensuring economic

^{xvi} The town of Neepawa is an example of a community with a high dependence on its pork packing plant, Springhill Farms. In the summer of 2002, the plant was on the verge of closure if its unionized workers went on strike. When the strike was closely averted, Chamber of Commerce president John Harapiak

development is not only environmentally, but also socially, sustainable, then intensive hog farming in Manitoba must be modified in order to incorporate tenets of environmental *and* social sustainability in order to ensure that Manitobans can continue to live and work comfortably in rural areas of the province.

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breathed a sigh of relief, saying that, “Virtually ever business would have been affected (by a strike)” and “I don’t think we’ve ever had a business employ so many people” (Nickel “Two-year contract”). At the end of June 2003, more than 300 of the plant’s 400 workers were laid off indefinitely, with the remainder of the workers let go at the end of July. The plant management stated that the layoffs were mainly a result of shrinking profit margins for pork processors, the impact of the BSE scare on agriculture, and a brief labour dispute at Maple Leaf Pork in Winnipeg (“120 lose jobs at plant”).

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