

## Canadian Cattle and Hog Supply Chain: Structure and Risks

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### Bottom Line

**Canada's meat packing industry faces sharp competition in both export markets and from close substitutes like poultry, fish, and from plant-based proteins.** The packing industry requires deep pockets, careful risk management, flexibility to deal with flares of protectionist pressures, and shifting consumer demands. More recently there has been pressure to consolidate operations in this sector, due in part to identity preservation, and demand for specialty product lines.

**COVID-19 is adding to the pressures facing packing plants.** Company busing for shift workers, physical plant configuration, and work procedures need to be modified to allow social distancing. Therefore, shifts must be smaller, and various changes to workflow made, resulting in lower productivity and less product available for shipping to the market. **In addition to increasing prices for consumers, this puts pressure on the companies and staff, with disruptions to revenues and wages.**

**The slowdown in processing of hogs and cattle in and out of Manitoba has been particularly problematic for Manitoba farmers, as provincial processing capacity remains well below farmers' annual production.**

**Manitoba is currently pursuing a protein processing strategy which includes animal and plant protein.** The continuing expansion of the meat processing sector, and the more recent expansion of the plant processing sector will mean stronger local prices to farmers.

### COVID-19 Pressures on Canada's Cattle and Hog Sectors

In the last two months, meat processing plants have had to slow down their processing to accommodate social distancing, with some plants having to temporarily close due to outbreaks. Cargill's beef processing plant in High River, AB (South of Calgary, AB) had to close for about two weeks, and was scheduled to reopen [May 4, 2020](#). The JBS plant in Brooks, AB (about 2 hours South East of Calgary) slowed down their processing to half of its regular 4,000 to 4,500 head/day. As these two plants represent about 70 per cent of beef processing capacity in Canada, this has created a serious supply bottleneck. Alexis Stockford's May 4 article "[Alberta beef plant closures effects felt in Manitoba](#)," noted that Manitoba cattle farmers' felt a financial hit similar to the BSE crisis of 2003. The supply bottle neck means that cash prices to farmers and feedlot operators are under severe pressure. **The CCA estimates that the beef industry will lose \$500 million dollars by June on market ready cattle alone, due in large part to the**

**reduction in processing capacity. If proportional, this would mean a \$45 million hit for Manitoba cattle farmers during the same time frame.**

**Some have raised the question; why do we have so few processing plants?**

Consolidation among upstream buyers of pork/beef products, including domestic demand (further processors, wholesalers and retailers), and export demand where Canadian meat processors compete with suppliers from other origins, has encouraged consolidation in the meat packing sector.

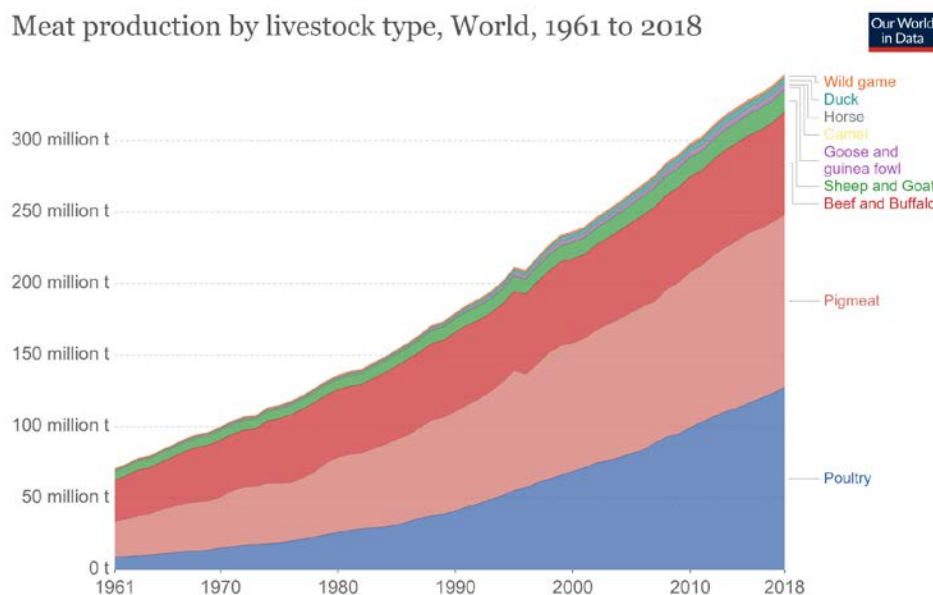
Other factors that forced meat packing consolidation and/or market exits was [BSE](#) (2003), and the mandatory Country-of-Origin-Labeling ([mCOOL](#)) policy in the USA (2008). The mCOOL policy had been driven by protectionist forces. For cattle in particular, it was a mitigating factor in destroying demand diversity. Many mid-sized plants were unable to adjust to requirements of mCOOL and either exited the industry or were bought up by larger operations. mCOOL was finally removed in 2015, but by that point the damage was done to Canadian, Mexican & USA herds, processor demand diversity, and to market demand in general.

Like all goods, there are substitution effects. For example, as beef or pork prices rise, consumers substitute cheaper cuts, or switch to poultry, fish and plant-based proteins such as pulses (e.g. dried peas, lentils, chickpeas). Many consumers are flexitarians (substituting protein products) and others are vegetarians or vegans (choosing pulses, and other plant-based alternatives to the exclusion of meats).

**A Brief Look at World Livestock Production and Pulse Production**

Figure 1: World Meat Production by Livestock Type (Source: Our World in Data)

Meat production by livestock type, World, 1961 to 2018



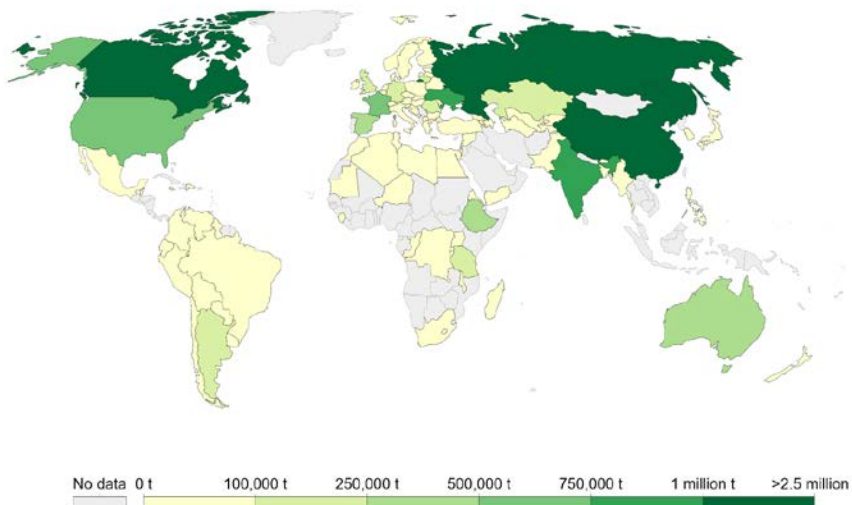
Source: UN Food and Agricultural Organization (FAO)  
 Note: Total meat production includes both commercial and farm slaughter. Data are given in terms of dressed carcass weight, excluding offal and slaughter fats.  
 OurWorldInData.org/meat-production • CC BY

**Figure 1, from [Our World in Data](#), shows world meat production by livestock type. Poultry, pork and beef/buffalo are the three main sources of land animal protein.**

Animal proteins also compete with sea food and plant proteins (pulses such as peas, lentils, and chickpeas).

Figure 2: World Pea Production, 2018 (Source: Our World in Data)

Pea production, 2018  
Pea production is measured in tonnes.



Source: UN Food and Agriculture Organization (FAO)

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World pulse production is rising, with Canada surging from almost no production in the 1970s to being the largest exporter of dried peas and lentils in the world.<sup>1</sup> **Figure 2**, from [Our World in Data](#), shows world pea production in 2018.

An emergent trend of meat-substitutes from

companies like Impossible Burger, and more pulse inclusion by global majors like Nestle, is adding to increased demand for pulses and other plant-based meat substitutes. Manitoba is pursuing a protein processing strategy which includes animal and plant protein. Manitoba has two major plant processing plants scheduled to come online in 2020: [Roquette](#), and [Merit Functional Foods](#). **The more recent expansion of the plant processing sector will mean stronger local prices to farmers. Having more processing in Manitoba makes for a larger economic impact in Manitoba.**

### Canadian Cattle Supply and Demand, and the Beef Processing Sector

The Canadian cattle herd is primarily located in Western Canada, which has an abundance of range land that is unsuitable for crop production. Manitoba’s herd is about 9 per cent of the total national herd (**Table 1**). About 2/3 of Manitoba’s market cattle each year are either shipped inter-provincially (mainly to Alberta) or exported to the USA.

The Alberta Feedlot sector is the largest in Canada, with many of the feedlots located along feedlot alley between Calgary AB, and Lethbridge AB. Not surprisingly, the largest share of beef processing capacity is located in Alberta.

According to Agriculture Canada’s [federally inspected slaughter plants - cattle and hogs](#) report, Canada had 20 federally inspected cattle processing plants in both 2018 and

<sup>1</sup> For a brief, if somewhat dated presentation on pulses, see Chris Ferris (2016), “[2016: International Year of Pulses](#)”, Presentation at Fields on Wheels.

2019.<sup>2</sup> The top four establishments represent an estimated 95 per cent of capacity. Manitoba currently has one federally inspected cattle processing plant, **True North Foods** in Carman, MB. It can process around 200 head/day.

Table 1: Total Supply of Cattle in Canada, Western Canada and Manitoba (Jan – June figures)<sup>3</sup>

Year	Total supply (000's head)			Share of Canada's Total Supply (%)		
	Canada	West Can	MB	Canada	West Can	Manitoba
2008	18,773	14,299	1,865	100%	76%	10%
2009	17,702	13,422	1,737	100%	76%	10%
2010	17,163	12,935	1,619	100%	75%	9%
2011	16,540	12,445	1,540	100%	75%	9%
2012	16,428	12,457	1,498	100%	76%	9%
2013	16,326	12,433	1,492	100%	76%	9%
2014	16,108	12,275	1,428	100%	76%	9%
2015	15,304	11,618	1,356	100%	76%	9%
2016	15,245	11,578	1,319	100%	76%	9%
2017	15,309	11,630	1,329	100%	76%	9%
2018	15,320	11,626	1,341	100%	76%	9%
2019	15,271	11,554	1,314	100%	76%	9%

Figure 3: June 2020 Live Cattle Futures Prices (Source: [Barchart.com](http://Barchart.com))



Futures and cash prices for live cattle are off from where they were back in January 2, 2020. For example, the live cattle June 2020 futures contract was at US\$118.700 on

January 2, 2020. The contract bottomed out on April 6, 2020 at US\$80.300 (75 per cent of the Jan 2 price). The price has risen to US\$89.475 at the close on May 6, 2020 (**Figure 3**). Canadian cattle [cash prices](#) were down in March 2020. The price effect in April will be down sharply in Western Canada in particular, due to the closure of High River, AB for two weeks, and the slowdown in Brooks, AB.

<sup>2</sup> There are provincially inspected plants, but they typically are small and not authorized to ship across provincial borders or export. The CFIA inspects the federally inspected plants.

<sup>3</sup> Source: Statistics Canada, [Table 32-10-0139-01](#) Cattle statistics, supply and disposition of cattle (x 1,000) Jan – June reference period.

The temporary closure or slowdown of beef packing plants has pushed the beef cutout (or estimated gross value) to an all-time high, as noted by Dr. Rob Murphy in J.S. Ferraro's [May 2020 Monthly Red Meat Outlook: Cattle & Beef](#).

An excellent paper by Professor [James Rude](#) (April 18, 2020) appeared recently in the Canadian Journal of Agricultural Economics.<sup>4</sup> **Rude (2020) examines effects on the Canadian cattle/beef supply chain from cow-calf producers to consumers.**

## Canadian Hog Supply and Demand, and the Pork Processing Sector

Since the end of the Crow Rate (1983), and the Crow Rate Benefit (1995), there has been a massive growth of hog production in Western Canada. Manitoba has successfully taken advantage of this policy change in terms of total supply of hogs. As shown in **Table 2**, Manitoba represents 26 per cent of Canada's total supply of hogs.

Table 2: Total Supply of Hogs, Canada, Western Canada and Manitoba (Jan – June figures) <sup>5</sup>

Year	Total supply (000's head)			Share of Canada's Total Supply (%)		
	Canada	West Can	MB	Canada	West Can	Manitoba
2008	30,214	14,114	7,577	100%	47%	25%
2009	27,889	12,592	7,108	100%	45%	25%
2010	27,159	12,218	6,911	100%	45%	25%
2011	27,171	12,304	6,946	100%	45%	26%
2012	27,360	12,626	7,235	100%	46%	26%
2013	27,502	12,418	7,037	100%	45%	26%
2014	26,599	11,996	6,894	100%	45%	26%
2015	27,896	12,707	7,416	100%	46%	27%
2016	28,728	12,896	7,430	100%	45%	26%
2017	29,077	13,258	7,702	100%	46%	26%
2018	28,522	12,932	7,511	100%	45%	26%
2019	28,360	12,796	7,475	100%	45%	26%

Manitoba's international exports for 2019, Jan - June are about 20% of total supply, and 1/3 of the 2019 pig crop (Jan – Jun). This is part of the reason why hog prices dropped sharply with the drop in lean hog futures, and the closure of the Smithfield plant in South Dakota.

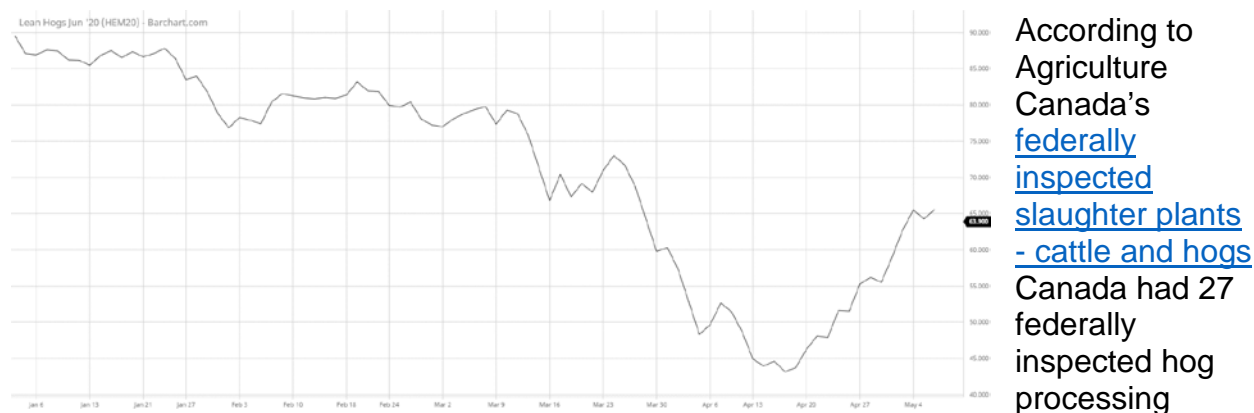
Futures and cash prices for hogs are well off from where they were back in January 2, 2020. For example, the lean hogs June 2020 futures contract was at US\$89.550 on January 2, 2020. The contract bottomed out on April 14, 2020 at US\$43.950 (49 per cent of the Jan 2 price). The price has risen to US\$65.575 by the May 6<sup>th</sup> close (**Figure**

<sup>4</sup> James Rude, **COVID-19 and the Canadian cattle/beef sector: Some preliminary analysis**, Special Issue Article, 2020. <https://onlinelibrary.wiley.com/doi/abs/10.1111/cjag.12228>

<sup>5</sup> Source: Statistics Canada, Table 32-10-0200-01 Hog statistics, S&D of hogs, semi-annual (X 1,000)

4), on the backs of the temporary closure of a number of hog processing plants in the USA, and USDA support programs. Social distancing and related requirements will make for slower processing in processing plants for a while. For a deeper market outlook, see J.S. Ferraro's [May 2020 Hog & Pork Outlook](#).

Figure 4: June 2020 Lean Hog Futures (Source [Barchart.com](#))



According to Agriculture Canada's [federally inspected slaughter plants - cattle and hogs](#) Canada had 27 federally inspected hog processing

plants in both 2018 and 2019.<sup>6</sup> Their report, [distribution of slaughtering activity](#), estimates that in 2018, the top four establishments in Canada represented 71 per cent of hog processing capacity. The top eight represent 93 per cent.

The domestic processing capacity is about 1/3 in Western Canada, and 2/3 in Eastern Canada. Quebec has about 43 per cent of the capacity, while SK/MB represents about 25 per cent as of 2018 (most of that is in Manitoba). **Manitoba's plants are operated by Maple Leaf, HyLife Foods LP, Winkler Meats Ltd., and Country Meat and Sausage.**

The continuing expansion of the meat processing sector in Manitoba will mean stronger local prices to farmers. **More processing in Manitoba makes for a larger economic impact on Manitoba's GDP.**

EDW Contacts for Assistance or Inquiries:

- **For Winnipeg businesses looking for help accessing government programs, please reach out to our Yes! Winnipeg Team** through our [Help us help you form](#) if you are not sure who to contact on the Y!W team.
- For general inquires please email [wpginfo@edwinnipeg.com](mailto:wpginfo@edwinnipeg.com).
- For Marketing & Communications Inquiries, please email [marketingandbranding@edwinnipeg.com](mailto:marketingandbranding@edwinnipeg.com).

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