

**2018
Update**

**The Economic Impact of
British Columbia's Dairy,
Egg and Poultry Industries**



Executive Summary

British Columbia's dairy, egg and poultry farms and processing industries are some of the most successful agriculture sectors in the province, adding almost \$3 Billion dollars to BC's economy, employing 33,000 people and contributing \$666 million in taxes. In total, British Columbia's supply managed dairy, poultry & egg farms represent about 40% of all farm cash receipts in BC.





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BC DAIRY, EGG AND POULTRY INDUSTRIES

The DEPI Report is an economic impact report on the Supply Managed sectors in British Columbia. This includes Dairy, Egg, and Poultry Industries.

The Partnership

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BC Milk Marketing Board

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BC Chicken Marketing Board

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BC Egg Marketing Board

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bcegg.com

BC Broiler Hatching Egg Commission

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BC Turkey Marketing Board

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Background

BC Dairy, Egg and Poultry Industries (BCDEPI) is a partnership formed on behalf of British Columbia's five supply-managed industries. In BC, cow's milk, broiler hatching eggs, broiler chicken (chickens raised for meat), turkey, and table eggs (eggs produced for consumption), are regulated both provincially and federally under a system of supply management.

What is supply management?

Governments often use regulated marketing to help farmers match supply and demand and ensure farmers receive a fair price. The government of British Columbia regulates the production and marketing of cow's milk, broiler hatching eggs, broiler chicken, turkey and eggs using a system of supply management. Using import controls, farm price controls and production controls, supply management stabilizes the market of these products for farmers, processors and consumers.

What are the benefits of supply management?

Supply management benefits, farmers, processors, consumers and local communities.

At the production level

- Farmers receive a fair market price to assist with business planning, cash flow and capital investments.
- Marketing boards enforce standards in areas such as food safety and animal care using their regulatory authority.
- Because production is paired as closely as possible to market demand production is not wasted.

At the processing level

- Processors are assured volumes of production at regulated prices spread throughout the year to accommodate consumer demand.

At the consumer level

- Consumers receive a steady supply and stable prices of Canadian dairy, egg and poultry products.
- Consumers do not subsidize Canadian dairy, egg and poultry farmers through their taxes.
- Consumers can be assured that Canadian dairy, egg and poultry products meet industry requirements for animal care and food safety.

At the community level

- Supply management generates jobs and spending in local communities because market stability better enables farmers to make investments to maximize efficiencies.
- Similarly, farmers in the supply managed sectors in BC are continuously making investments to maximize efficiencies and minimizing environmental impacts.

At the federal level

- Governments do not have to subsidize Canadian dairy and poultry farmers.

At the international level

- Trading partners can continue to trade with Canada because supply management allows for imports. Canada imports 6% of the market for dairy products and more than 7.5% for chicken duty free¹.

^① In comparison, the USA gives 2.75 % access to their market for dairy products and the European Union gives 0.5% access for poultry. The Canadian dairy industry imports ten times more cheese than it exports to the EU. Dairy Farmers of Canada website.



Methodology – Input/output Model

Statistics Canada's "National Accounts Input-Output Model" is used to demonstrate the economic impact of the poultry and dairy sectors on the BC economy. The model estimates the economic activity generated by a given industry as well as its suppliers. The model takes the sales generated by the industry (direct effect) to calculate the purchases the industry makes from suppliers (indirect effects) and the wage expenditures and activities generated by the direct and indirect players ("induced" impact).

In the case of the BC supply managed farm sectors, the direct industry represented are the dairy and poultry farms, while the indirect industries are those that supply the farms such as the feed mills, animal health providers, materials, equipment, and so on.





While the sales values are the Statistics Canada model inputs, for this report five outputs were assessed using 2015 sales data for dairy, poultry and egg industries:

1. Farm Cash Receipts are the revenues received at the farm level for milk and dairy products, chickens, turkeys and eggs.
2. GDP is defined as the value added contribution due to the economic activity generated by the specified industries.
3. Jobs are the full time equivalent employment resulting from the industries.
4. Taxes are the total federal, provincial and municipal taxes generated by the industries.

In order to generate these output values, the Statistics Canada model contains "multipliers" for each of these factors. The multipliers are both provincial and national in scope and are applied to total provincial and national poultry sales. That is, the multipliers are applied to total sales for the industry to generate gross output, jobs etc. In other words, the multipliers generate the various components of the "economic impact."

In 2009, 2011 and 2013, BC DEPI (BC's Dairy, Egg, and Poultry Industries) did their own economic report. However, in recent years the national dairy and poultry organizations began preparing similar economic impact reports. In order to be consistent in our reporting, BC DEPI have adopted the approach done nationally for this report. The 2015 BC DEPI economic impact results were generated through Statistics Canada multipliers for production and for processing. There were provincial multipliers applied to each provincial dairy, hatchery, hatching

egg, chicken, turkey and egg production and processing income data point for 2015. The basic methodologies were similar and the key output points of jobs, taxes and output were exactly the same. However, this version uses more specific multipliers for the poultry industries rather than generalized livestock multipliers. Accordingly, the specific results are not directly comparable. Despite these minor differences, both reports clearly demonstrate the critical importance and contribution of the dairy and poultry sectors to the BC economy.



Farm Level

In 2015 the supply managed farms in BC had combined revenues of \$1.14 billion dollars, representing 40% of all farm sales in British Columbia².

From 2010 through 2015, the supply managed farm revenue grew by 18%, which translates to increasing job opportunities, provincial revenues and overall contribution to the economic well-being of British Columbia.

© Statistics Canada Cansim Table 002-0001



Dairy Farms

Using Statistics Canada data from 2010 to 2015, farm cash receipts on total GDP of dairy production in BC increased 18% from 2013 to 2015, or an average of 8% per year. While the general number of dairy farms declined slightly, the over-all sector economic contributions increased significantly.

Figure 6 Dairy industry value chain



In 2015, there were 494 dairy farms in BC. Dairy farms are relatively small, typically family run operations in BC with an average herd size of about 135.

British Columbia is the third largest dairy producing province in Canada, behind Quebec and Ontario. Milk production on-farm is sent to processing facilities to be pasteurized and sold as fluid milk and cream or processed into other products, like cheese and yogurt. The main products produced on a BC dairy farm are fluid milk for consumption and industrial milk for processing. But the farm cash receipts of dairy products only tell part of the economic impact story. Typical dairy farms in BC also sell culled cows for beef, dairy genetics, forage crops, and custom work services. Eco Resources have estimated the value of these sales in their calculation of the economic impact of dairy in BC.

According to Dairy Farmers of Canada research, for 2015, BC dairy farms contributed \$678 million to the Canada's GDP, \$104 million to taxes, and a total 7,391 jobs to the BC economy.

BC Dairy Farms - 2015

	Total All Sectors
*Farm Cash Receipts	\$ 564 Million
**GDP	\$ 678 Million
**Jobs (Persons)	7,391
**Taxes	\$ 104 Million

**Source: Statistics Canada. Farm Cash Receipts by Province*
***Source: ÉcoRessources (2016)*

Poultry Farms

In 2015, there were 582 poultry farms in BC with total farm cash receipts of approximately \$572 million in 2015, which is about 14% of the Canadian total. Using Statistics Canada data from 2010 to 2015, farm cash receipts of poultry products in BC increase from 406 Million in 2010 to \$572 Million in 2015, an increase of 41%. Poultry farms in BC include hatching egg, broiler chicken, turkey and table egg farms.

BC Poultry Farms - 2015

	Total All Sectors
Farm Cash Receipts	\$572 Million
GDP	\$87 Million
Jobs (Persons)	6,042
Taxes	\$39 Million

*Source: Statistics Canada and
Kevin Grier Consulting calculations*

Hatching Egg

Hatching egg farms, also known as “broiler breeder” are part of the supply chain for the broiler chicken industry. These farms house hens and roosters. The hens produce fertilized eggs that are sent to a hatchery. When the eggs are hatched, the chicks are shipped to broiler chicken farms.

In 2015, there were 53 registered hatching egg farms in BC, a decrease of 10% since 2010. Farm gate sales were \$42.8 million, which is about 15% of the Canadian total for hatching egg sales.

Figure 21 BC hatching egg industry value chain

Broiler Chicken

Broiler chickens are chickens raised for meat purposes. In 2015, there were 332 registered broiler chicken farms in BC, an increase of 2% since 2010. The farm gate sales were \$359 million representing about 15% of Canada's total broiler chicken sales.

Figure 12 BC chicken industry value chain



Turkey

Turkeys are raised similar to broiler chickens for meat. They share the poultry supply chain with chicken because they have the same hatcheries and processors. In 2015, there were 67 registered turkey farms in BC, an increase of 5% since 2010. The farm gate sales were over \$49 million.

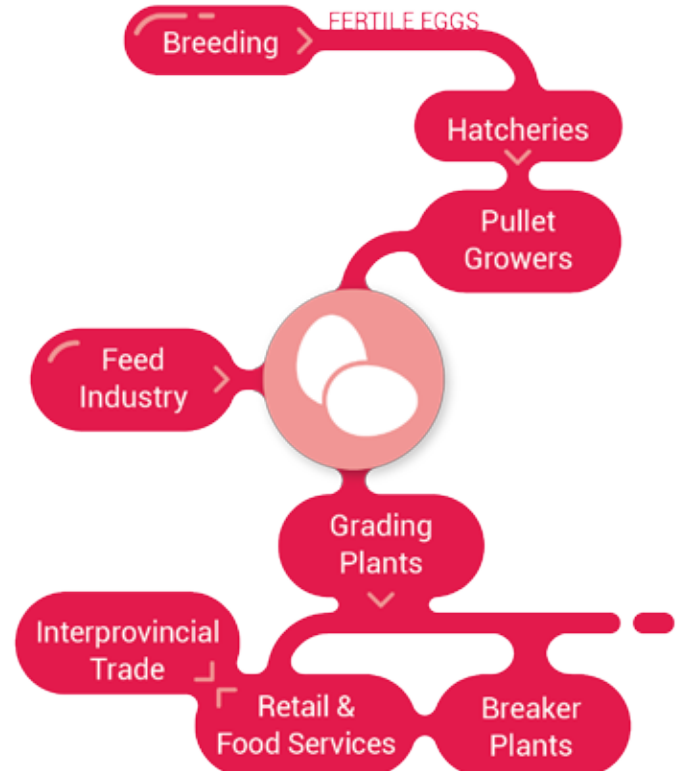
Figure 17 BC turkey industry value chain



Table Egg

Egg farmers produce unfertilized eggs that are graded and sold as whole eggs or are sent to a breaker for further processing. In 2015, there were 128 table egg farms in BC, with farm cash receipts of \$121.1 million, representing approximately 11% of the Canadian total.

Figure 26 BC table egg industry value chain





Food Processing in BC

The food processing industry is a significant component of the British Columbia economy, on par with the wood products industry. The revenue of province's food and beverage processing/manufacturing industry was \$9.8 Billion in 2016, approximately 18 percent of the total provincial revenue from manufacturing. This sector employs 33,000 people of whom 10,500 are in dairy and poultry processing.

Although supply management is a policy developed to provide stability at the farm production level, it also benefits processors. Without an assured supply of locally produced products at regulated prices and with strong import controls, British Columbia processors would find it difficult to compete with lower cost jurisdictions such as the United States of America where the government subsidizes farm products. Also, the supply management system ensures that each province receives an equitable share of the national production of dairy, poultry and egg products.

Downstream Components - Processing and Grading

The downstream components of the supply managed sectors represent the complete industry from farm through processing. Downstream components encompass processors, graders as well as all the associated inputs into the industries that supply them, such as animal health, veterinary services, consultant services, contractors, packaging and other materials. The processors and graders' economic impact best represents the total impact of the supply-managed sectors.

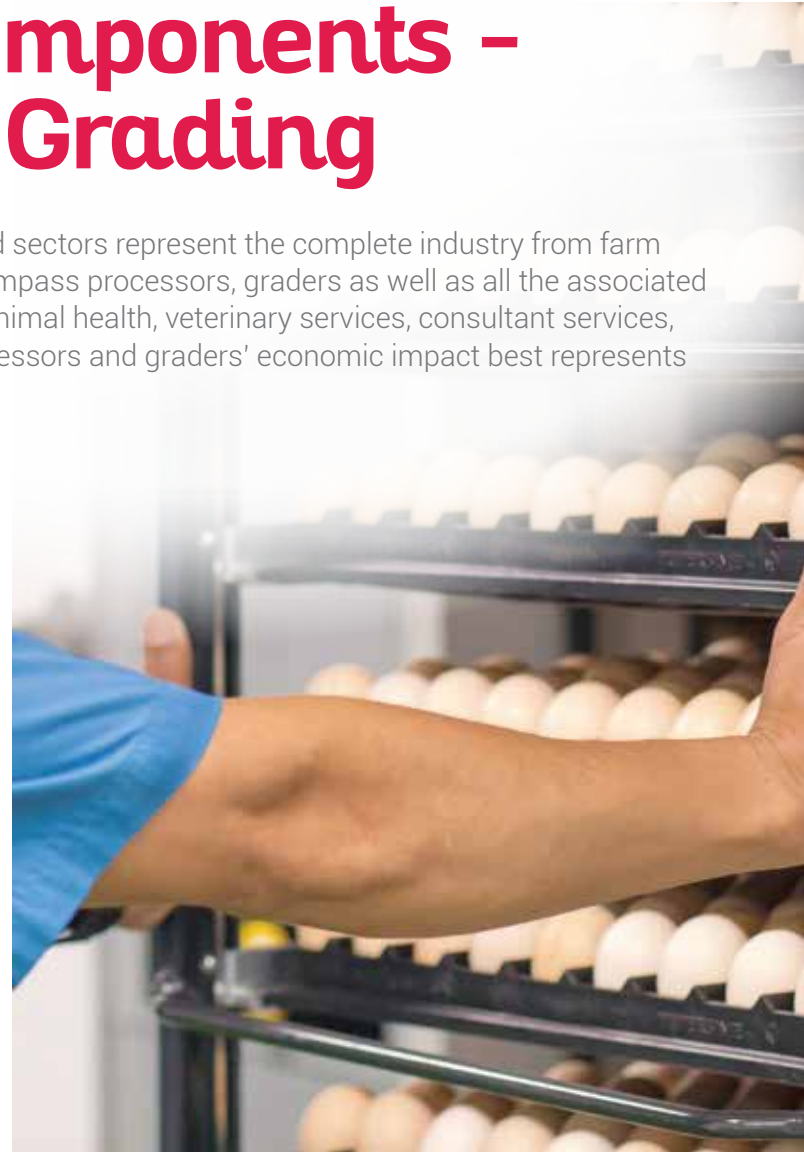
Dairy Processing

In 2015, British Columbia's 59 dairy processors contributed \$831 million to Canada's GDP, an increased 12% since 2013. These processors employed a total of 7,400 people, an increase of 5% and tax revenues were \$138 million, an increase of 12% since 2013.

Dairy Processors - BC

	Dairy Processing
GDP	\$831 Million
Jobs (Persons)	7,368
Taxes	\$138 Million

Source: *ÉcoRessources*





Poultry Processing and Egg Grading

In 2015, British Columbia's 70 poultry processing and egg grading plants consisted of 15 chicken processing facilities, 5 turkey processing facilities, and 23 egg graders.

In total, BC's poultry processing and egg grading facilities add \$313 million to BC's GDP, employing 3,713 people, contributing about \$104 million in taxes.

Poultry Processing And Egg Grading – BC

	Processors
GDP	\$313 Million
Jobs (Persons)	3,173
Wages, Salaries & Benefits	\$201 Million
Taxes	\$104 Million

Source: Statistics Canada and KGMCA calculations

Total Impact – Farming and Processing

In 2015 British Columbia had over 1,000 dairy, broiler chicken, hatching egg, table egg and turkey farms with a combined farm gate sales of over \$1.14 Billion dollars. Together with 129 processing plants, graders, hatcheries, they add 2.8 Billion to the British Columbia's GDP, generating almost 33,000 jobs and contributing over \$675 million in taxes.

Dairy

The BC dairy industry contributes \$1,509 million to British Columbia's economy, employing 14,759 workers and pays \$241 million in taxes.

Dairy Industry - BC

	Total
GDP	\$1,509 Million
Jobs (Persons)	14,759
Taxes	\$241 Million

Source: ÉcoRessources

Poultry & Egg

The BC poultry and egg industry contributes \$1,305 million to British Columbia's economy, employing 16,820 workers, and paying \$425 million in taxes.

Poultry Processing, Egg Grading and Total Industry - BC

	Total All Sectors
GDP	\$1,305 Million
Jobs (Persons)	16,820
Taxes	\$425 Million

Source: Statistics Canada and KGMCA calculations

The contribution of the supply managed industry is significant to many communities throughout British Columbia. While most of British Columbia's poultry and dairy industries are centered in the Fraser Valley, Okanagan and Vancouver Island, supply managed dairy and poultry farms also contribute to the economies in the Peace River, Kootenays, Bulkley Valley and Cariboo regions.

Supply Management Total Industry Economic Impact - BC

	Total All Sectors
GDP	\$2,814 Million
Jobs (Persons)	31,579
Taxes	\$666 Million

Source: Dairy data for BC was not available for 2010 so 2013 data was used.

Source: ÉcoRessources.

British Columbia's supply managed sectors of dairy, egg and poultry industries, processors, egg graders and suppliers add \$2.8 Billion to British Columbia's GDP, provide 33,000 full time jobs and contribute \$ 666 million in municipal, provincial and federal taxes. The dairy and poultry industries are two of the top farm sectors in BC and are major contributors to the provincial economy. The orderly marketing of these products through supply management allows these industries to thrive and grow at levels meeting and/or exceeding provincial averages. Supply management provides stability to farmers, processors and consumers and contributes to the economic and social impact of local economies.



Appendices





Appendix One BC Poultry & Egg Economic Impact

Chicken Farming and Processing

Indicator/Region	British Columbia	Canada - Total
Farm Cash Receipts (Million \$)	358.6	2,400.0
Number of Producers	328	2,803
Chicken Processing Plants (Federal and Provincial)	33	191
Contribution to total employment (Jobs)	12,625	87,200
Contribution to GDP (Million \$)	979.0	6,762.1
Total Tax Revenues (Million \$)	318.6	2,200.4

Hatching Egg Farming and Processing

Indicator/Region	British Columbia	Canada - Total
Farm Cash Receipts (Million \$)	42.8	290.4
Number of Producers	53	244
Hatcheries (Federally Registered - broiler hatching eggs)	10	40
Contribution to total employment (Jobs)	1,429	8,447
Contribution to GDP (Million \$)	69.2	470.2
Total Tax Revenues (Million \$)	16.4	132.9

Turkey Farming and Processing

Indicator/Region	British Columbia	Canada - Total
Farm Cash Receipts (Million \$)	49.3	395.9

Number of Producers	67	535
* Turkey Processing Plants (Federal)	4	20
Contribution to total employment (Jobs)	1,758	14,301
Contribution to GDP (Million \$)	137.0	1,112.0
Total Tax Revenues (Million \$)	44.5	362.0

**Provincial plants excluded to minimize double counting with chicken processing plants*

Egg Farming and Grading

Indicator/Region	British Columbia	Canada - Total
Farm Cash Receipts (Million \$)	121.1	961.5
Number of Producers	134	903
Egg Graders (Federal and Provincial)	23	199
Contribution to total employment (Jobs)	2,166	17,600
Contribution to GDP (Million \$)	168.0	1,365.1
Total Tax Revenues (Million \$)	54.6	443.9

Amalgamated: Poultry Farming and Processing

Indicator/Region	British Columbia	Canada - Total
Farm Cash Receipts (Million \$)	571.8	4,047.7
Number of Producers	582	4,485
Processing Plants, Graders and Hatcheries (Federal and Provincial)	70	450
Contribution to total employment (Jobs)	17,978	127,548
Contribution to GDP (Million \$)	1,353.2	9,709.4
Total Tax Revenues (Million \$)	434.1	3,139.3

**contribution to GDP in report was slightly less to avoid double counting of broiler hatching egg sector, which is an input for the broiler industry.*

Source: Kevin Grier Consulting. 2016. The Economic Impact of the Poultry & Egg Industries in Canada

Appendix Two BC Dairy Industry Economic Impact

Total impacts of the dairy industry, by province, 2013 and 2015

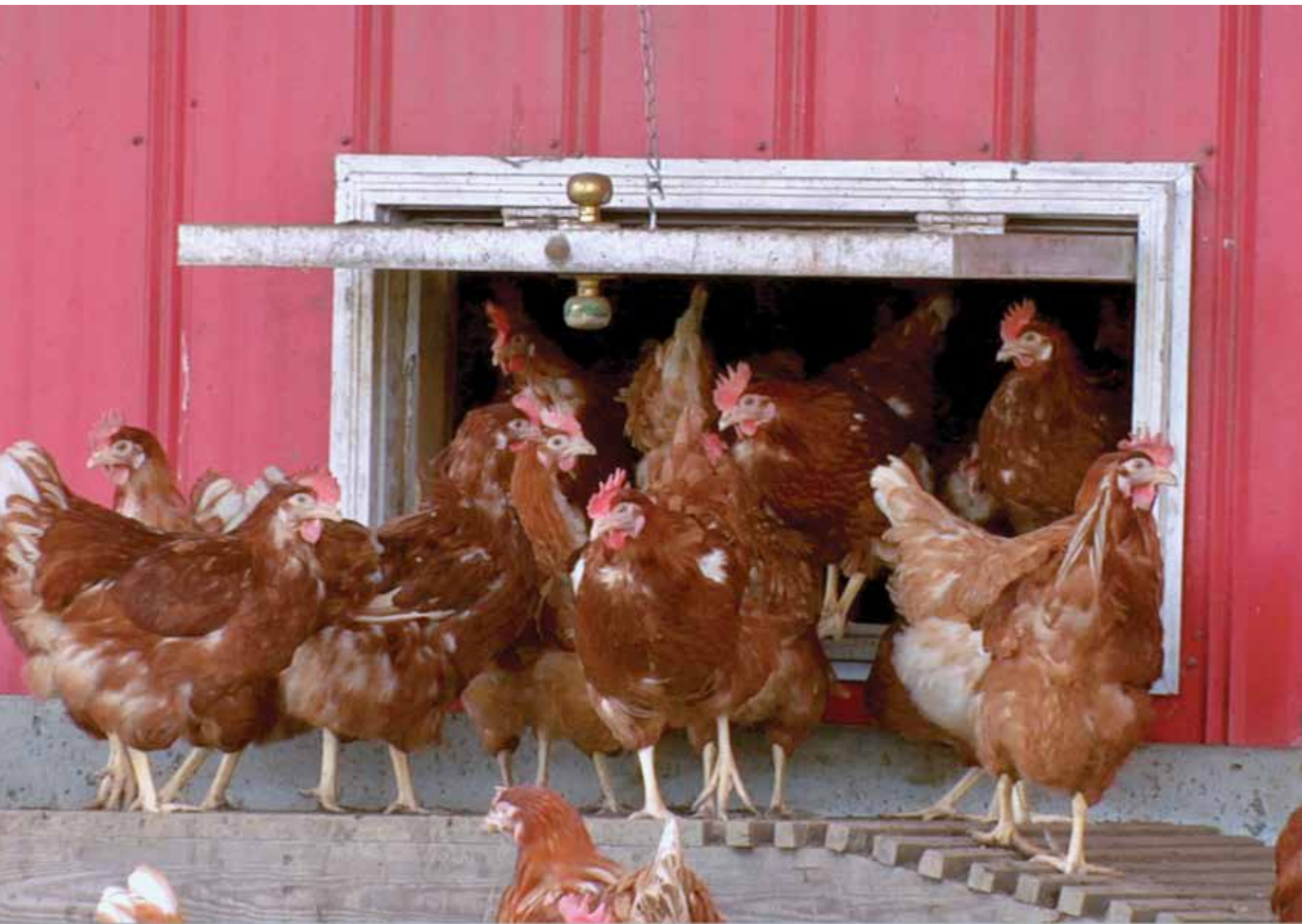
Prov	Total GDP (\$M)			Total tax revenues (\$M)			Total jobs (FTE)		
	2013	2015		2013	2015		2013	2015	
BC	1316	1509	15%	211	241	14%	14009	14759	5%
AB	2063	2030	-2%	372	364	-2%	16841	17743	5%
SK	429	413	-4%	70	66	-6%	4561	4805	5%
MB	642	582	-9%	100	88	-12%	7551	7955	5%

Source: Eco Resources. 2016. *The Economic Impact of Canada's Dairy Industry*.

*Statistics Canada

**Totals may not add up because farm sales value has been discounted by rate of inflation from 2008-2015.

StatsCan says that should be done because the multipliers were for 2008.







References

- BC Ministry of Agriculture. 2017. Sector Snapshot 2015: BC Agriculture.
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- Statistics Canada. 2016. Farm Cash Receipts.
- Statistics Canada. 2016. Input-Output Model for estimating economic impact.

For further information go to:

depi.ca

