

4.1 North America

In the FAO data, North America is defined as Canada and the United States.

4.1.1 Regional Demographics and Poultry Stocks

The North American poultry industry has an estimated 73,335 farms. Duck farms account for a significant share of the total poultry farms but it should be noted that the average duck farm is much smaller than the typical commercial broiler or turkey farm (Figure 25).

The North American broiler industry has 46,824 farms with 22,601 (48.3%) of those being commercial farms and 24,222 (51.7%) being household or micro-producer farms. North American broiler farms have stocks of 1.72 billion chickens with 93.2% being on commercial farms and 6.8% being on household or micro-producer farms.

The average size of commercial broiler farms is 76,292 head. The average size of the household or micro-producer farms is 148 head.

There are 12,667 duck farms in North America with an inventory of 9.185 million head. The average size duck farm is 725 head.

There are 13,844 turkey farms in North America with 104.8 million head of inventory. The average turkey farm has an inventory of 7,567 head.

In 2020, there were 1.96 billion stocks of poultry. Chicken stocks were 1.84 billion birds and there were 9.2 million ducks and 104.8 million turkeys.

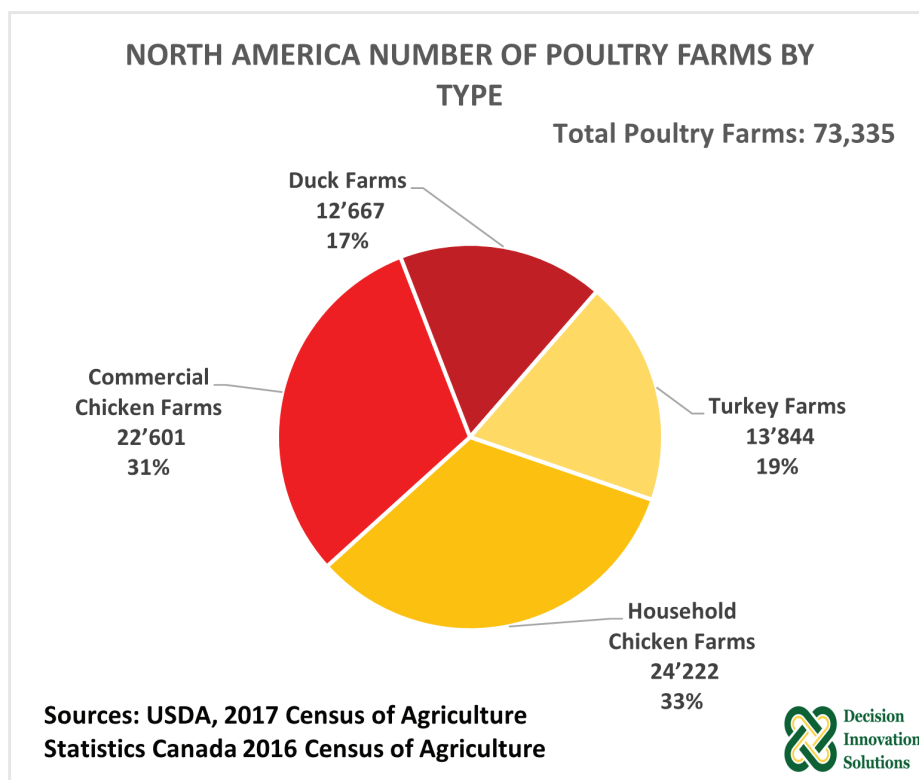


Figure 25. North America number of poultry farms by type

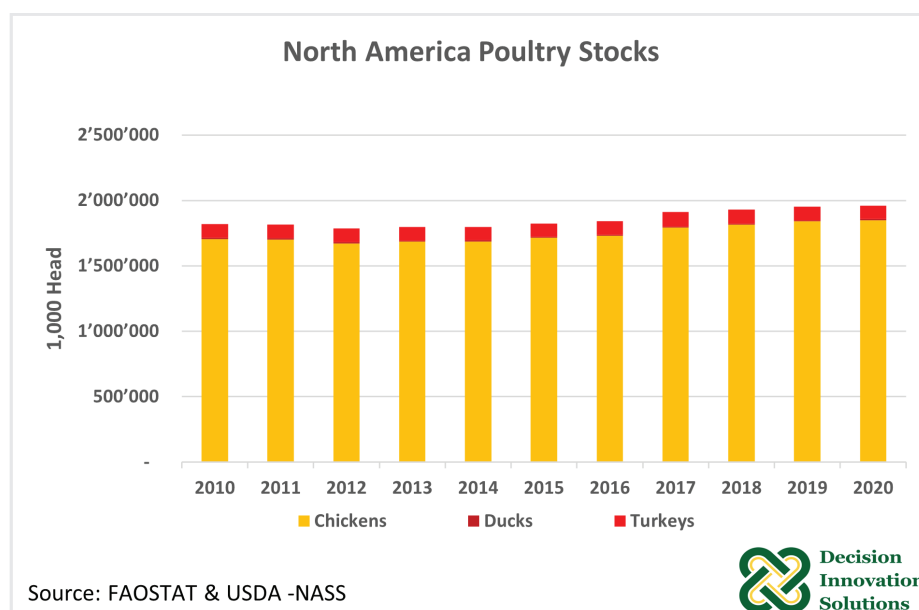


Figure 26. North America poultry stocks

Overall poultry stocks in North America have increased by 7.8% since 2010. Chicken stocks are up 8.4%, duck stocks up 12%, and turkey stocks down 2.4% (Figure 26).

4.1.2 Regional Economics

North American GDP in 2020 was \$22.3 trillion with 98% of that coming from non-ag sectors. The value of agricultural production in 2018 was \$387.6 billion with \$213 billion coming from the crops sector, \$134.4 billion from red meat production, and \$40.1 billion from the poultry sector. Within the poultry sector, the value of chicken production was \$34.7 billion, turkey value of production was \$5.3 billion and duck production was \$123.7 million (Figure 27).

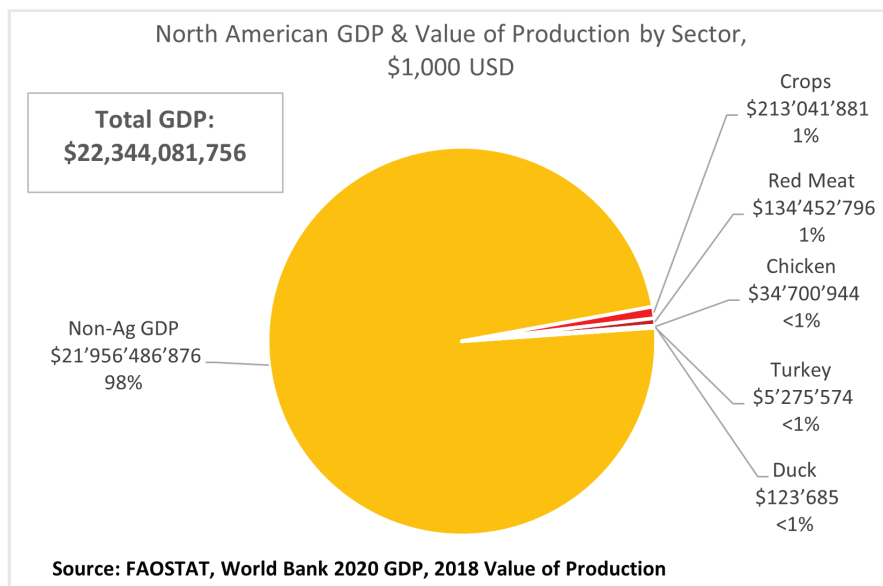


Figure 27. North American GDP & value of production by sector

4.1.3 Regional Poultry Production Volume and Value

Poultry production is increasing in North America. North American poultry production was 24.6 million metric tons with 89% being chicken meat, 11% turkey meat, and less than 1% duck meat (Figure 28).

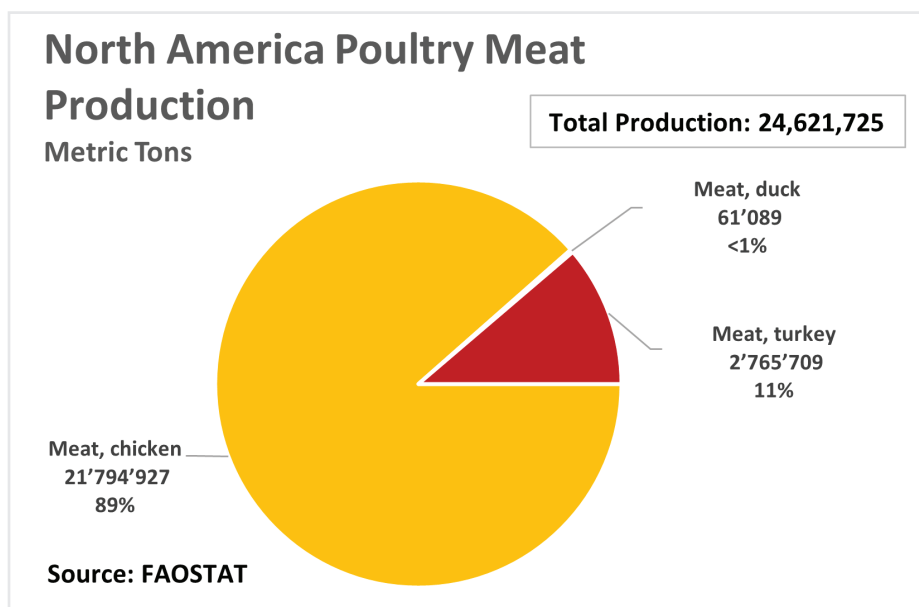


Figure 28. North America poultry meat production

North American poultry production in 2020 was valued at \$40.1 billion with 87% due to chicken production, 13% due to turkey production and less than 0.5% due to duck production (Figure 29).

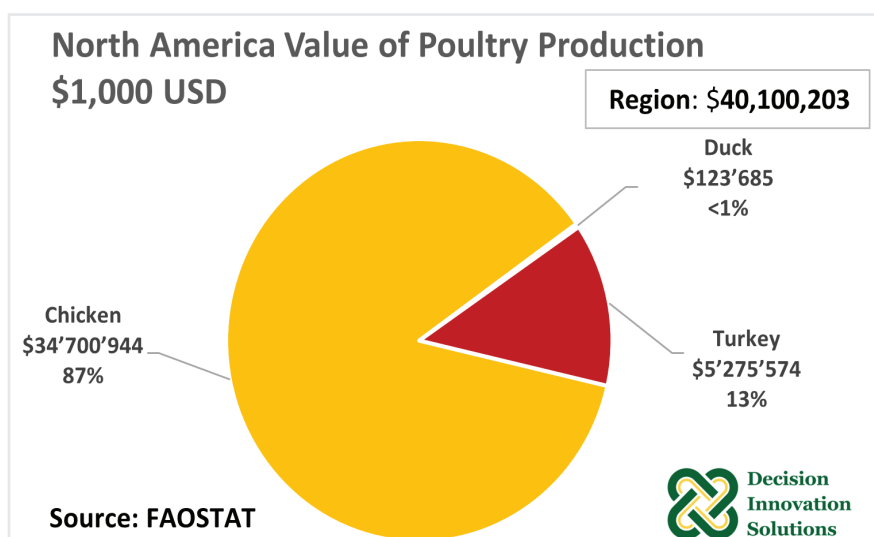


Figure 29. North America value of poultry production

4.1.4 Regional Cost of Production

As indicated in Figure 30, in the USA feed for broiler production is the largest component of total production cost at 68%, followed by day-old chicks at 14%.

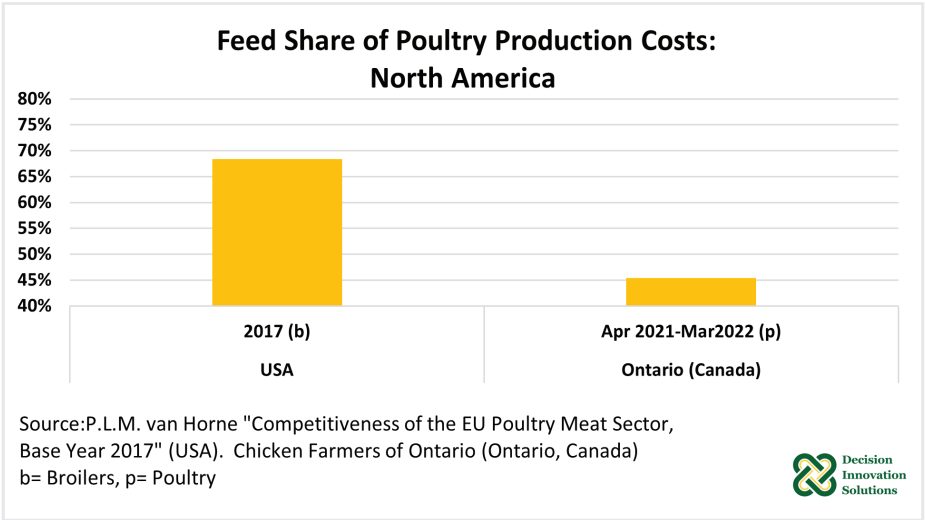


Figure 30. Feed share of poultry production costs: North America

For Ontario, Canada, data was from Chicken Farmers of Ontario. This data shown in the figure below, the cost of feed represented 45.4% of total costs during April 2021 to March 2022. The second largest input in poultry production was day-old chicks with 22.8% of total costs. As indicated by USDA, Ontario is the largest chicken producing province in Canada, accounting for about one-third of the market, and therefore Ontario live bird prices are the basis for the calculation of prices in other provinces.

4.1.5 United States

4.1.5.1 Demographics

The USA had an estimated 51,349 poultry farms in 2020. Commercial chicken farms accounted for the largest share of poultry farms with 30% or 15,348 of the total poultry farms. Duck farms accounted for the fewest number of poultry farms with a share of 14% or 7,444 duck farms. An estimated 11,154 turkey farms were 22% of the total poultry farms for the USA (see Figure 31). On average, a commercial chicken farm in the USA contained 1,677,479 chickens. USA turkey farms had an average of 8,544 turkeys on the farm. A micro-producer chicken farm typically had about 12 chickens. On the average duck farm there were 1,033 ducks.

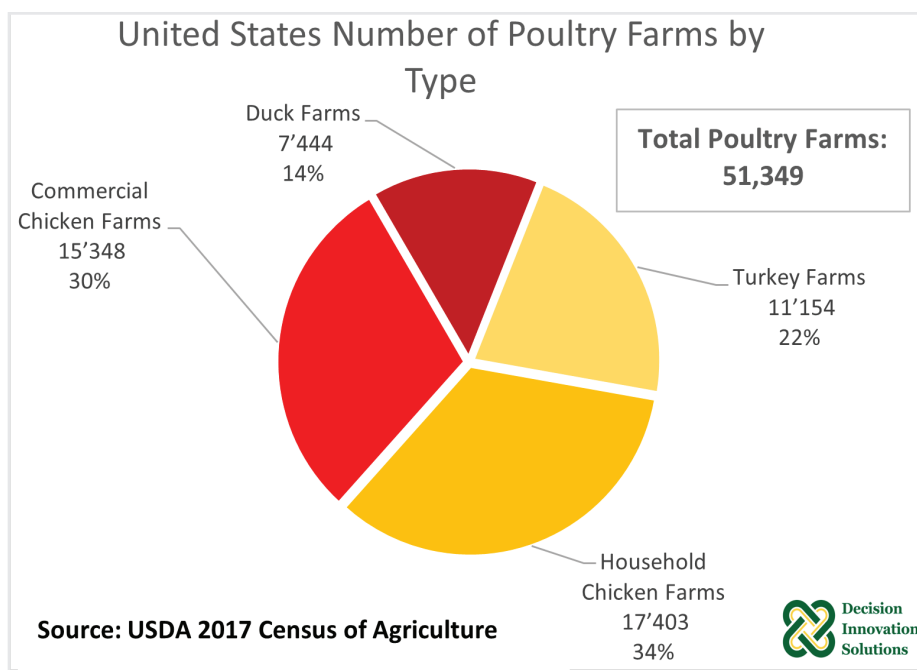


Figure 31. United States number of poultry farms

Poultry production and consumption are both rising in the USA. Poultry production in 2021 totaled 22.6 million metric tons (Figure 32). Poultry consumption in 2021 was 19.2 million metric tons. Poultry production has increased 17% since 2010. Consumption of poultry in the USA has increased 20%.

The USA has the world's largest poultry production and poultry slaughter production by volume. In 2020, there were nearly 1.7 billion chickens, 95.3 million turkeys, and 7.7 million ducks reported in stocks (see Table 4).

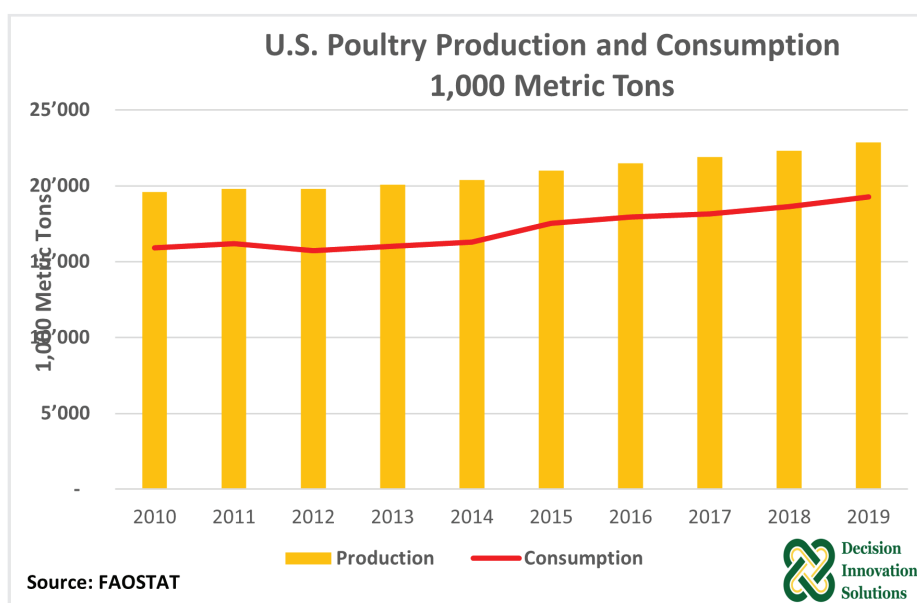


Figure 32. United State poultry production & consumption

Nearly 9.6 billion chicken, ducks, and turkeys were slaughtered in 2020. Chickens accounted for 97% of poultry slaughter. Turkeys represented 2% of poultry slaughter, and ducks represented less than 1% of poultry slaughter.

UNITED STATES POULTRY STOCKS, SLAUGHTER, AND PRODUCTION				
1,000 head	Chickens	Ducks	Turkeys	Total
Stocks	1'677'479	7'689	95'303	1'780'471
Producing Animals/Slaughtered	9'346'660	22'484	223'003	9'592'147
Production (1,000 MT)	20'490	52	2'607	23'150

Sources: USDA 2017 COA Adjusted to 2020 by DIS (chicken and turkey stocks); FAO, 2020 Ducks Stocks; FAO, 2020 Slaughter and Production

Table 4. IPC poultry exporters & importers

Poultry production in the USA included 205 million metric tons of chickens, 2.6 million metric tons of turkey, and 52,000 metric tons of ducks. Since 2010, chicken stocks increased 9%. Turkey stocks decreased 3% since 2010.

4.1.5.2 GDP and Value of Production

The GDP in the USA was valued at \$20.9 trillion in 2020. An estimated 98% of the total GDP was derived from non-agricultural sectors. Agricultural production represented 2% of the total GDP with crop production valued at \$186.6 billion and 1% of the total GDP. The share of red meat production was valued at \$73.1 billion. Chicken meat production was valued at \$32 billion, duck production at \$93 million, and turkey production at \$4.9 billion. Other livestock products were valued at \$44.6 billion (see Figure 33).

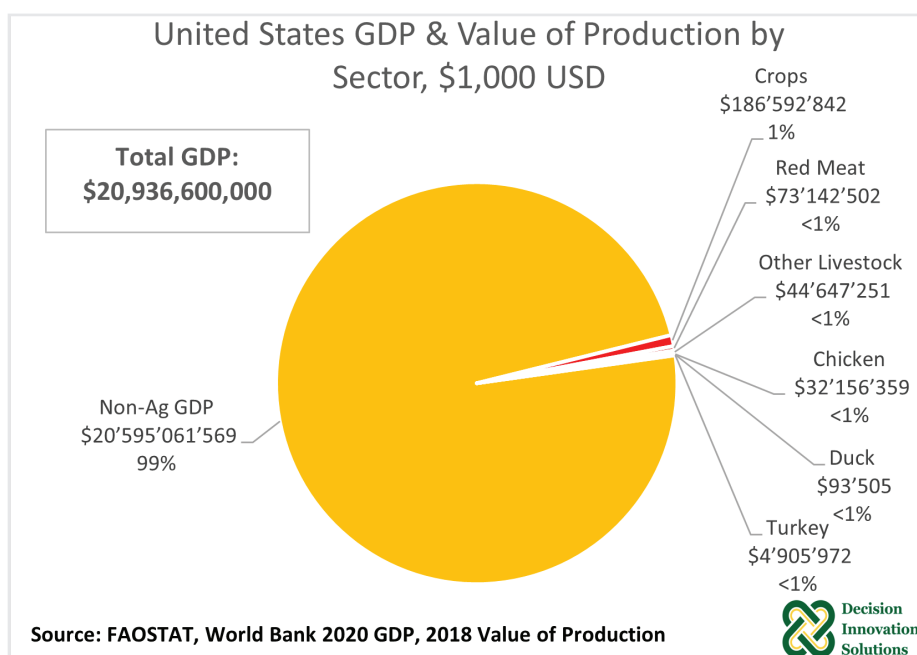


Figure 33. United States GDP & value of production sector

The combined (direct and indirect) effects of agricultural production in the USA are estimated to be \$765.1 billion. Of this amount, \$95 billion comes from the poultry industry, with \$82.2 billion from chicken meat production, \$239 million from duck production, and \$12.6 billion from turkey production. Agriculture pays a net value of \$2.3 billion in taxes, \$266 million of which is estimated to be from the poultry industry (Table 5).

ECONOMIC EFFECTS - UNITED STATES OF AMERICA (\$1,000 USD)				
	Direct	Indirect	Total	Taxes paid*
All agriculture	\$ 341'538'431	\$ 423'538'006	\$ 765'076'437	\$ 2'282'463
Livestock	\$ 154'945'589	\$ 192'146'300	\$ 347'091'889	\$ 1'035'484
Poultry	\$ 37'155'836	\$ 57'814'481	\$ 94'970'317	\$ 265'670
Chicken	\$ 32'156'359	\$ 50'035'295	\$ 82'191'654	\$ 229'923
Duck	\$ 93'505	\$ 145'494	\$ 238'999	\$ 669
Turkey	\$ 4'905'972	\$ 7'633'692	\$ 12'539'664	\$ 35'079

Source: FAOSTAT, OECD Input-Output Tables. *taxes is equal to taxes on production net of subsidies

Table 5. Economic effects - United States of America

4.1.5.3 Labor

In the US, agricultural labor⁹ is estimated to be 2.4 million people and makes up approximately 1.4% of the workforce (Table 6). The USA workforce is 46% female and 54% male.

The agricultural labor force is 27% female and 73% male. There are an estimated 14,099 people directly involved in poultry production with 7,386 involved with chicken production, 5,015 doing turkey production and 1,698 involved with production of other poultry products such as duck.

⁹ U.S. labor data from U.S. Bureau of Labor Statistics (BLS).

In 2020, an estimated 529,337 people worked in USA meat processing with 55% in red meat processing and an estimated 240,007 working in poultry processing. Wages earned in the USA meat processing sector totaled \$25.1 billion. Livestock processing accounted 55% of the labor from meat processing and \$15.6 billion in total wages. An estimated 240,007 people worked in poultry processing. Wages earned from poultry processing totaled \$9.5 million.

AGRICULTURAL LABOR FORCE CHARACTERISTICS- UNITED STATES			
	Total	Female	Male
Total Country Labor	163'738'061	75'803'373	87'934'688
Non-Agricultural Labor	161'343'601	75'161'642	86'181'959
Agricultural Labor	2'394'460	641'731	1'752'729
Total Non-Poultry Agricultural Labor	2'380'361		
Total Poultry Labor	14'099		
Chicken Labor	7'386		
Turkey Labor	5'015		
Other Poultry Labor	1'698		
Wages (\$1,000 USD)			
Total Meat Processing Labor	529'337	\$25'071'913	
Livestock Processing Labor	289'330	\$15'578'030	
Poultry Processing Labor	240'007	\$9'493'883	

Source: ILO 2020, World Bank 2020, UNIDO Database, INDSTAT 4 2021, ISIC Revision 3

Table 6. Agricultural labor force characteristics - United States of America

4.1.5.4 Cost of Production

By far the largest component of the cost of broiler production in the USA is feed at 68% of total costs. Three components together, day-old chicks, other variables cost (heating, electricity, litter, and animal health) and housing, make up 28% of total costs. Labor and general costs (i.e., insurance, booking, consultancy, telephone, and transport) represent the lowest share of total cost (see Figure 34).

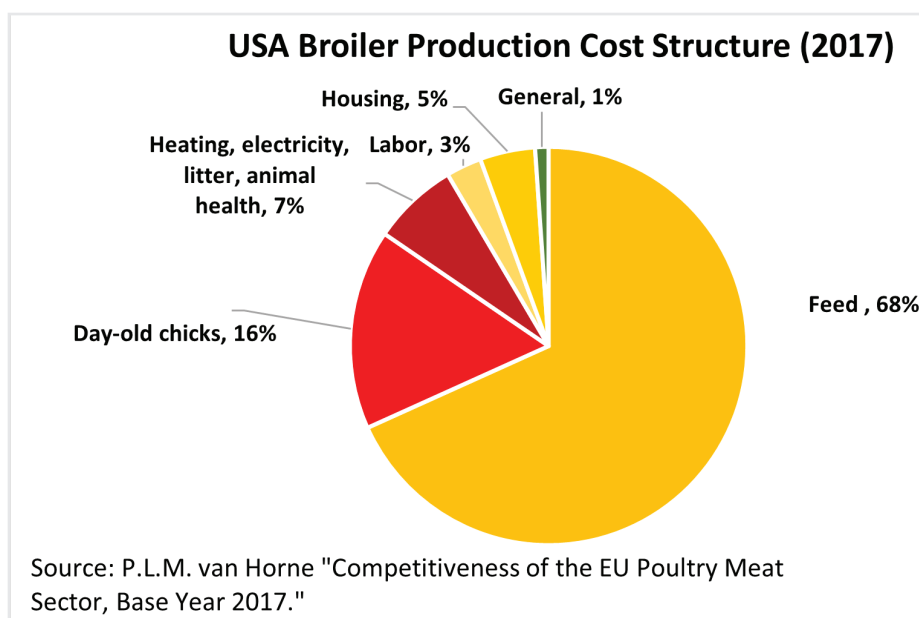


Figure 34. United States broiler production cost structure

4.1.5.5 Trade

The USA is the largest broiler producer in the world and the second largest exporter of broiler meat, after Brazil. In 2020 the USA exported about 3.866 million MT of poultry meat valued at \$4.106 billion. The top destinations for USA poultry meat were Mexico (\$907.7 million), China (\$766.2), and Canada (\$339.5 million) (see Figure 35 and Figure 36).

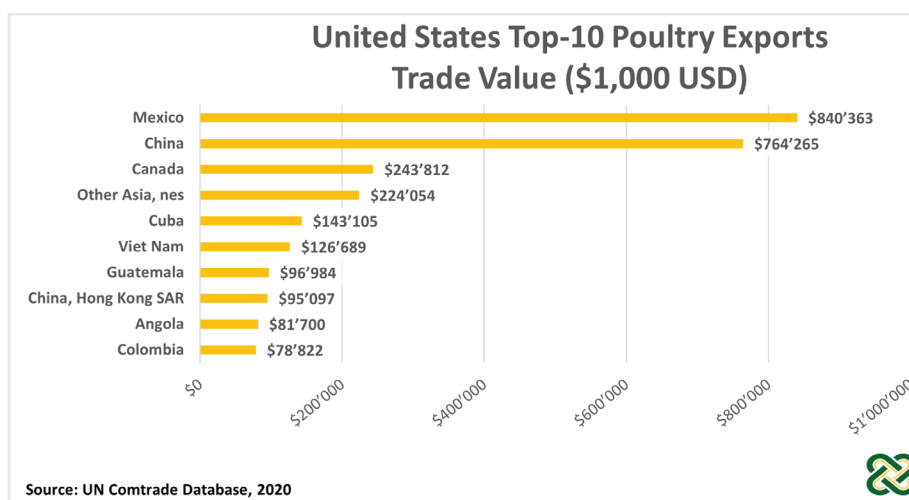


Figure 35. United States top 10 poultry exports, trade value

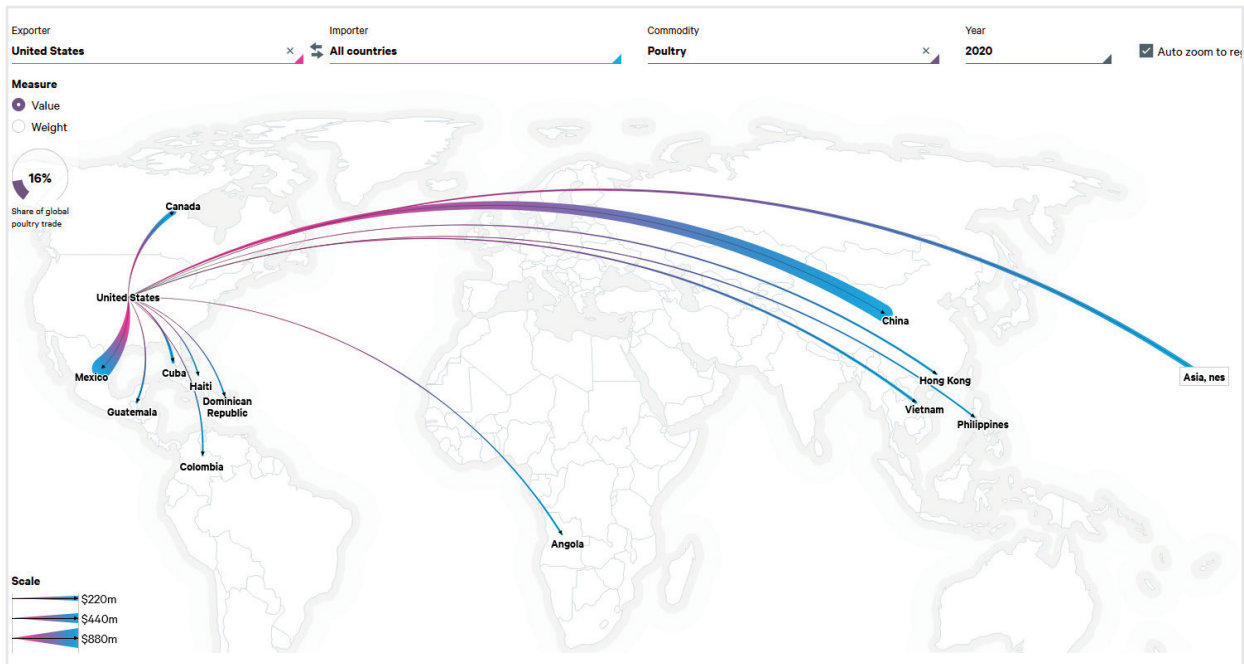
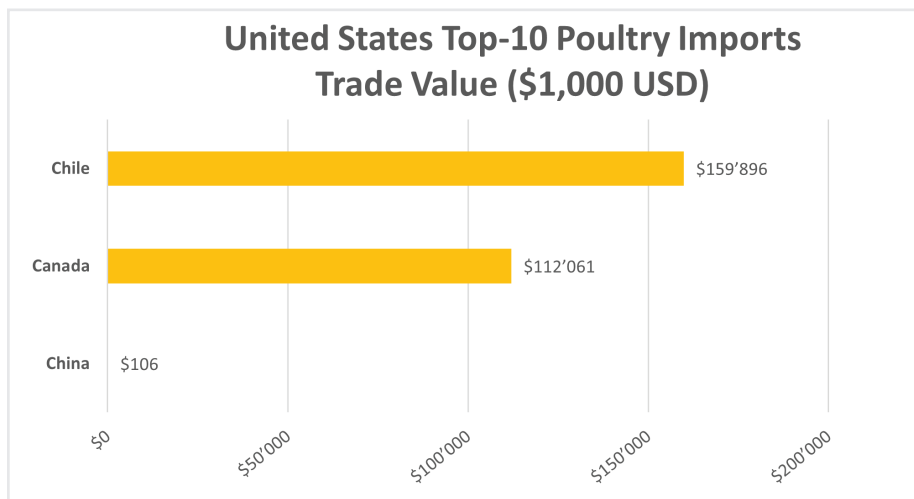


Figure 36. United States poultry export flows



The USA imported 129,691 MT of poultry meat valued at \$573.8 million in 2020. Canada (\$350.7 million) and Chile (\$190.5 million) were the main suppliers of poultry meat to the USA (see Figure 37 and Figure 38).

Figure 37. United States top 10 poultry imports, trade value

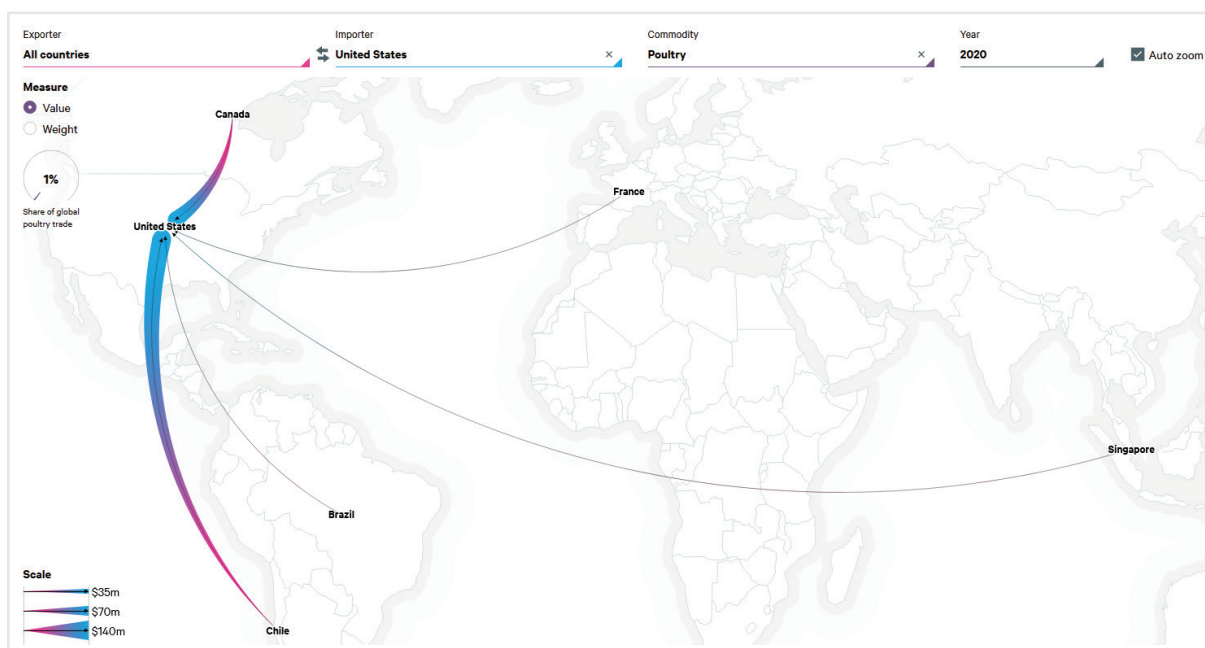


Figure 38. United States poultry import flows

4.1.6 Canada

4.1.6.1 Demographics

Of Canada's 15,162 poultry farms, 34%, or 5,223 were small duck farms or other poultry farms and 34% are small, household chicken farms. The 2,175 commercial chicken farms comprised 14% of poultry operations in Canada and the 2,690 turkey farms (294 commercial turkey farms) account for 18% of Canada's poultry farms. Even though duck and household chicken farms make up 52% of poultry farms in Canada, they only account for 2.5% of total poultry inventory in Canada (Figure 39). Duck farms in Canada had on average, 286 ducks. Turkey farms had an average 2,120 turkeys. A commercial chicken operation, in Canada, had 47,310 chickens compared to 595 chickens on the average household or micro-producer chicken operation.

Poultry production and consumption are both rising in Canada. Poultry production in 2021 totaled 1.46 million metric tons. Poultry consumption in 2021 was 1.51 million metric tons. Poultry production has increased 21% since 2010. Consumption of poultry in Canada has increased 24% (Figure 40).

Canada's poultry inventory consisted of 178.9 million head in 2020 with 96% of inventory being chickens, 3% being turkeys, and less than 1% being ducks (see Table 7). Since 2010, Canada's chicken stocks increased 4%, duck stocks increased 15%, and turkey stocks increased 6% since 2010.

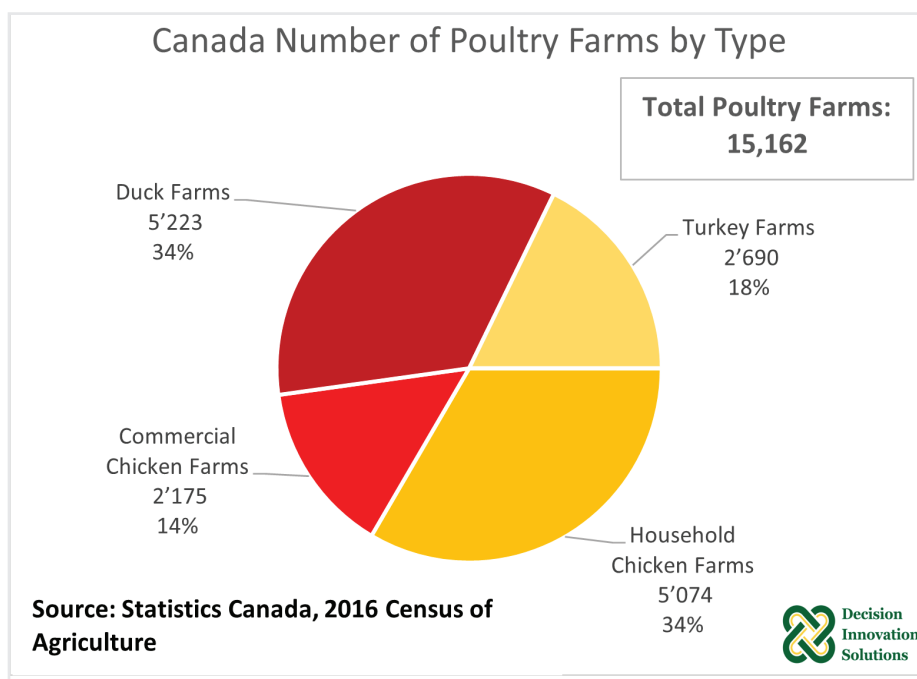


Figure 39. Canada number of poultry farms by type

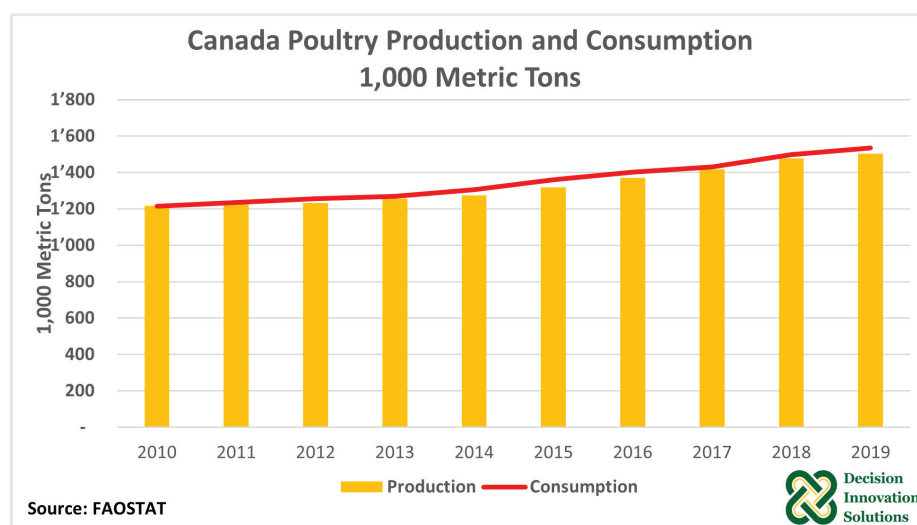


Figure 40. Canada poultry production & consumption

CANADA STOCKS, SLAUGHTER, AND PRODUCTION					
	1,000 head	Chickens	Ducks	Turkeys	Total
Stocks		171'718	1'496	5'703	178'917
Producing Animals/Slaughtered		754'946	4'484	18'732	778'162
Production (1,000 MT)		1'305	9	158	1'472
Sources: FAO, 2020					

Sources: FAO, 2020

Table 7. Canada poultry stocks, slaughter & production

Canada's poultry slaughter totaled 778.2 million head in 2020. Approximately, 97% or 754.9 million head of poultry slaughter was chickens. More than 18.7 million head were turkeys, which accounted for 2% of Canada's poultry slaughter. Ducks were the smallest share of poultry slaughter with 4.5 million head and less than 1% of total poultry slaughter. Turkey production Canada's chicken slaughter increased 18%, duck slaughter increased 21%, and turkey slaughter decreased 9% from 2010.

Canada's poultry production in 2020 included 1.3 million metric tons of chicken, 158,000 metric tons of turkey, and 9,000 metric tons of duck. Since 2010, chicken production increased 24%, duck production increased 20%, and turkey production increased 82%.

4.1.6.2 GDP and Value of Production

For Canada, the GDP was an estimated \$1.6 trillion in 2020 (Figure 41). The agricultural production of crops and red meat contributed a combined 3% of the total. Crop production was estimated at \$26.4 billion and was 2% of the total GDP. Red meat production was nearly \$10.2 billion or 1% of the total. Other livestock products were valued at \$6.4 billion. Although chicken production contributed less than 1% to the total GDP, it was valued at \$2.5 billion. Turkey and duck production followed with \$369.6 million and \$30.2 million, respectively.

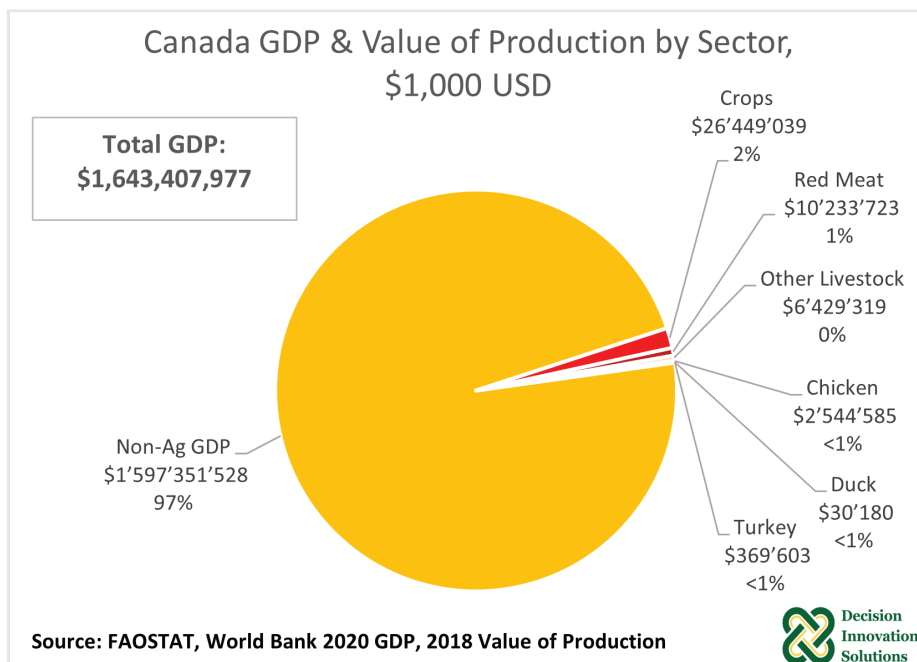


Figure 41. Canada GDP & value of production by sector

The combined (direct and indirect) effects of agricultural production in Canada are estimated to be \$99.9 billion. Of this amount, \$7.3 billion comes from the poultry industry, with \$6.3 billion from chicken meat production, \$75 million from duck production, and \$915 million from turkey production. Agriculture pays a net value of \$617 million in taxes, \$33 million of which is estimated to be from the poultry industry (Table 8).

ECONOMIC EFFECTS - CANADA (\$1,000 USD)				
	Direct	Indirect	Total	Taxes paid*
All agriculture	\$46'056'449	\$53'789'470	\$99'854'919	\$617'418
Livestock	\$19'607'410	\$22'903'387	\$42'510'797	\$262'851
Poultry	\$2'944'368	\$4'342'943	\$7'287'311	\$32'622
Chicken	\$2'544'585	\$3'753'263	\$6'297'848	\$28'193
Duck	\$30'180	\$44'516	\$74'696	\$334
Turkey	\$369'603	\$545'164	\$914'767	\$4'095

Source: FAOSTAT, OECD Input-Output Tables. *taxes is equal to taxes on production net of subsidies

Table 8. Economic effects - Canada

4.1.6.3 Labor

The Canadian labor force numbered about 20.5 million people with an estimated 47% being female and 53 % being male.

The agricultural production labor force is estimated to be 285,582 people with 31% being female and 69% being male. Poultry production labor is estimated to be 20,750 people with 2,304 involved with chicken production, 188 in turkey production, and 18,257 reported to be working with other poultry production.

AGRICULTURAL LABOR FORCE CHARACTERISTICS - CANADA			
	Total	Female	Male
Total Country Labor	20'492'683	9'650'490	10'842'193
Non-Agricultural Labor	20'207'101	9'562'814	10'644'287
Agricultural Labor	285'582	87'676	197'906
Total Non-Poultry Agricultural Labor	264'832		
Total Poultry Labor	20'750		
Chicken Labor	2'304		
Turkey Labor	188		
Other Poultry Labor	18'257		
		Wages (\$1,000 USD)	
Total Meat Processing Labor	68'469	\$2'420'832	
Livestock Processing Labor	53'171	\$1'879'948	
Poultry Processing Labor	15'298	\$540'884	

Source: ILO, World Bank 2020, UNIDO Database, INDSTAT 4 2021, ISIC Revision 3

Table 9. Agricultural labor force characteristic - Canada

The meat processing sector in Canada employed 68,469 people in 2020 (Table 9). Total wages earned from meat processing were more than \$2.4 billion. Approximately, 78% or 53,171 meat processing jobs were from livestock meat processing. Wages earned from livestock meat processing was \$1.9 billion. An estimated 15,298 people worked in poultry processing. Wages earned from poultry processing totaled \$540.9 million.

4.1.6.4 Cost of Production

Data from the Chicken Farmers of Ontario provides some insight into relative cost of production in Canada. Data from quota periods A-169 through A-174 shows that feed cost averages 45.4% of total cost of production with the cost of day-old chicks making up 22.8% of cost, operational and capital costs being 29.8% of cost of production, other costs being 2%. These cost of production factors are used to calculate the Farm-Gate Minimum Live Price in Ontario (Figure 42).

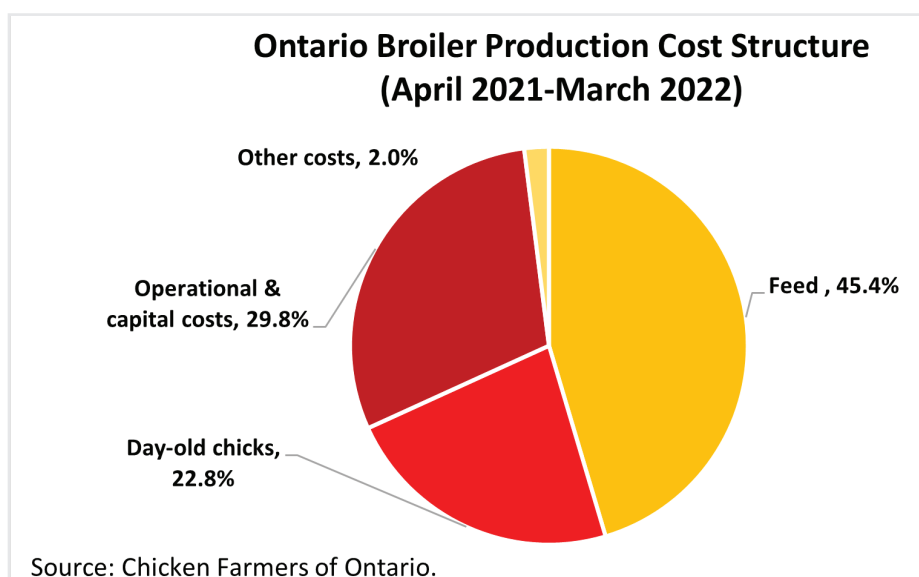


Figure 42. Ontario broiler production cost structure

4.1.6.5 Trade

The USA was the largest market for Canada's poultry meat, which were valued at \$350.6 million in 2020. Canada also exported \$14.3 million and \$5.3 million worth of poultry meat to the Philippines and South Africa, respectively. Note that Canada exported 20,404 MT of poultry products valued at \$16.8 million, which were shipped to "Other" Asia countries, which were not specified in the data (Figure 43 and Figure 44).

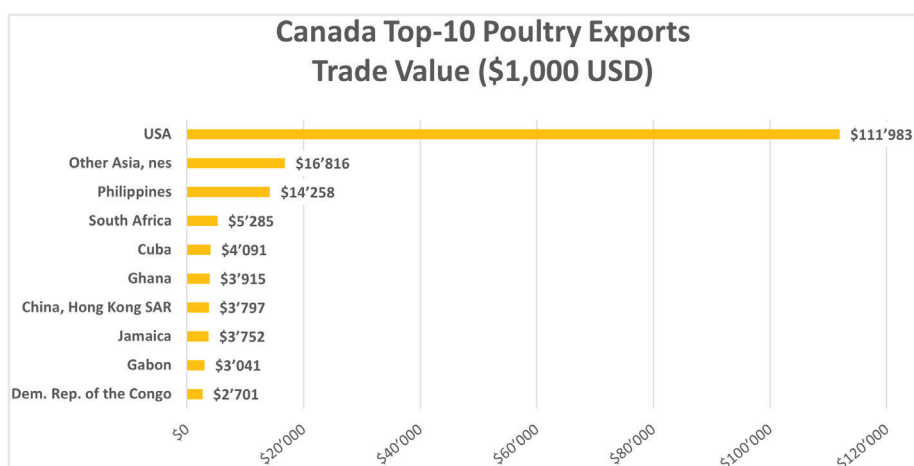


Figure 43. Canada top 10 poultry exports, trade value

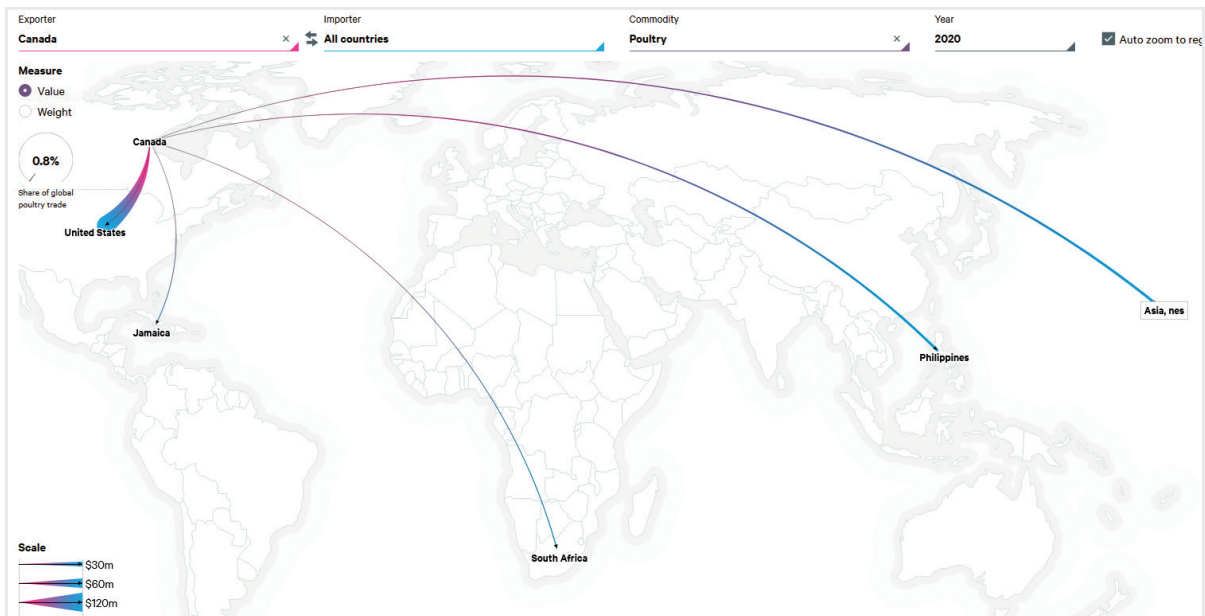
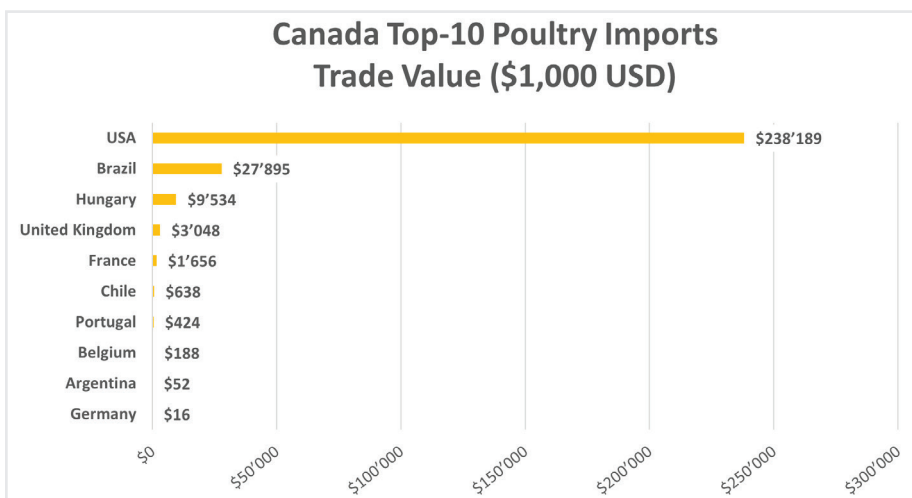


Figure 44. Canada poultry export flows



Canada's main supplier of poultry meat was the USA at \$331.5 million, equivalent to 166,129 MT in 2020. Thailand shipped to Canada 7,590 MT of poultry products (meat preparations) valued at \$33. 2 million. Canada also imported 10,657 MT from Brazil and 3,628 MT from Hungary, which consisted mostly of fresh poultry. Imports from those two countries were valued at \$27.9 million and \$9.5 million, respectively (see Figure 45 and Figure 46).

Figure 45. Canada top 10 poultry imports, trade value

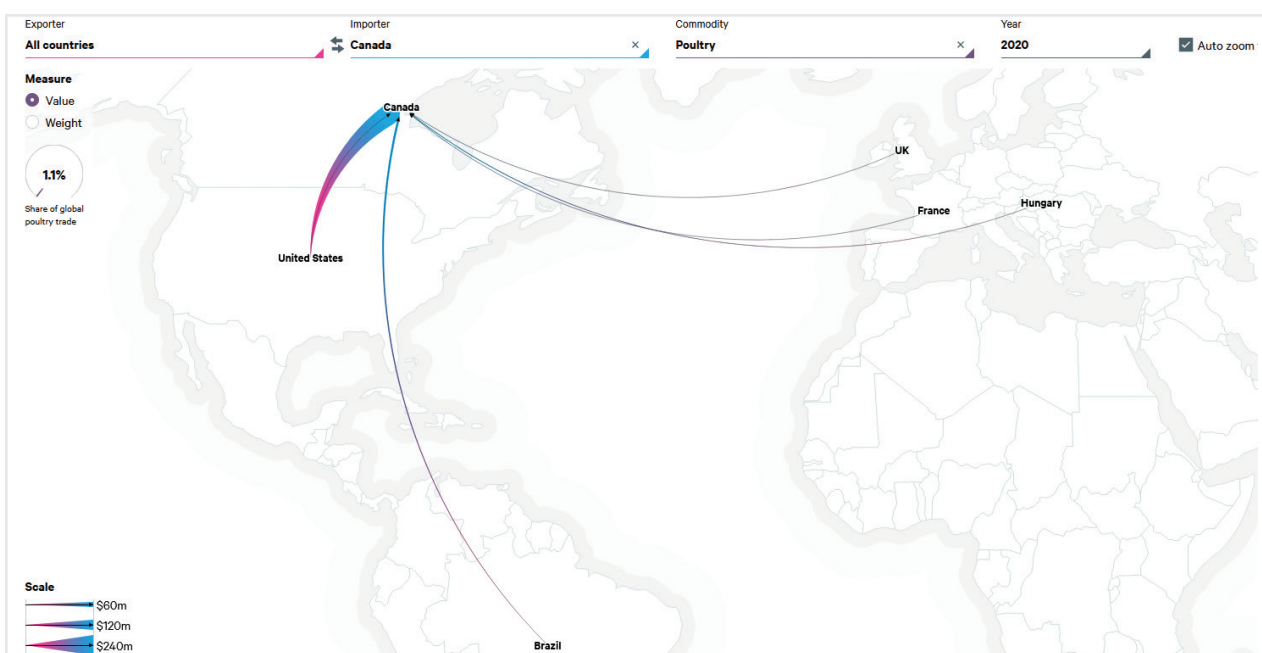


Figure 46. Canada poultry import flows