

Alberta's Role in the Global Agri-foods Marketplace

Part B: Illustrated in Data

September 2021

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Table of Contents

Abstract.....	6
Introduction.....	7
Description of Alberta’s Agri-food Products.....	9
Production and Exports of Agri-food Products in Alberta and Canada.....	19
a. Beef	20
b. Wheat	21
c. Canola Seed	22
d. Canola oil	23
e. Pulses	24
f. Live animals	25
g. Pork	27
Top Markets for Alberta and Canada.....	28
a. Beef	29
b. Wheat	30
c. Canola Seed	31
d. Canola oil	32
e. Pulses	33
f. Live cattle	34
g. Pork	35
Top Exporting Countries in the World.....	36
a. Beef	37
b. Wheat	37
c. Canola Seed	38
d. Canola oil	38
e. Pulses	39
f. Live cattle	39
g. Pork	40
Top Competitors for Alberta's Agri-food Markets.....	41
a. Beef	42
b. Wheat	43
c. Canola Seed	45
d. Canola oil	47
e. Pulses	48

f. Live cattle	50
g. Pork	51
Forecast of Agri-food Products in Canada and the World.....	53
a. Beef	56
b. Wheat	57
c. Oilseeds	58
d. Pulses	59
e. Pork	60
References.....	61

Table of Tables

Table 1: Selected agri-food products with their Harmonized System (HS) Code.....	9
Table 2: Live cattle and live hogs by the Harmonized System (HS) Code and Alberta’s exports in 2019.....	11
Table 3: Beef and pork by the Harmonized System (HS) Code and Alberta’s exports in 2019..	11
Table 4: Pulses by the Harmonized System (HS) Code and Alberta’s exports in 2019.....	12
Table 5: Wheat by the Harmonized System (HS) Code and Alberta’s exports in 2019.....	12
Table 6: Canola seed by the Harmonized System (HS) Code and Alberta’s exports in 2019.....	13
Table 7: Canola oil by the Harmonized System (HS) Code and Alberta’s exports in 2019.....	13

Table of Figures

Figure 1: Share of Alberta’s agri-food exports to the provincial total exports in 2019.....	14
Figure 2: Alberta's major agri-food exports by the Harmonized System (HS) category in 2019	15
Figure 3: Top five products of Alberta agri-food exports in 2019.....	15
Figure 4: Distribution of Alberta food manufacturing exports in 2019.....	16
Figure 5: Top five markets for Alberta agri-food exports in 2019.....	16
Figure 6: Alberta's total agri-food exports to the world, nominal terms, 1990 – 2020.....	17
Figure 7: Alberta's major agri-food exports, nominal terms, 1990-2020.....	17
Figure 8: Proportions of primary agriculture and value-added products to Alberta’s total agri-food exports, 2010 – 2019.....	18
Figure 9: Alberta beef production and exports, 2003-2019.....	20
Figure 10: Canada beef production and exports, 2003-2019.....	20
Figure 11: Alberta wheat production and exports, 1990-2020.....	21
Figure 12: Canada wheat production and exports, 1990-2020.....	21
Figure 13: Alberta canola seed production and exports, 1990-2020.....	22
Figure 14: Canada canola seed production and exports, 1990-2020.....	22
Figure 15: Alberta canola oil exports, 1990-2020.....	23
Figure 16: Canada canola oil exports, 1990-2020.....	23
Figure 17: Alberta pulses production and exports, 1990-2020.....	24
Figure 18: Canada pulses production and exports, 1990-2020.....	24

Figure 19: Alberta total supply and exports of live cattle, 2000-2019	25
Figure 20: Canada total supply and exports of live cattle, 2000-2019	25
Figure 21: Alberta total supply and exports of live hogs, 2001-2020	26
Figure 22: Canada total supply and exports of live hogs, 2001-2020	26
Figure 23: Alberta pork production and exports, 2001-2019	27
Figure 24: Canada pork production and exports, 2001-2019	27
Figure 25: Top five markets for beef exports in Alberta, average 1990-2020	29
Figure 26: Top five markets for beef exports in Canada, average 1990-2020	29
Figure 27: Top five markets for wheat exports in Alberta, average 1990-2020.....	30
Figure 28: Top five markets for wheat exports in Canada, average 1990-2020.....	30
Figure 29: Top five markets for canola seed exports in Alberta, average 1990-2020.....	31
Figure 30: Top five markets for canola seed exports in Canada, average 1990-2020.....	31
Figure 31: Top five markets for canola oil exports in Alberta, average 1990-2020.....	32
Figure 32: Top five markets for canola oil exports in Canada, average 1990-2020.....	32
Figure 33: Top five markets for pulse exports in Alberta, average 1990-2020.....	33
Figure 34: Top five markets for pulse exports in Canada, average 1990-2020.....	33
Figure 35: Top market for live cattle exports in Alberta, average 2012-2020	34
Figure 36: Top market for live cattle exports in Canada, average 2012-2020	34
Figure 37: Top five markets for pork exports in Alberta, average 1990-2020.....	35
Figure 38: Top five markets for pork exports in Canada, average 1990-2020.....	35
Figure 39: Top exporters of beef to the world, sorted by average 2011-2020, nominal terms ...	37
Figure 40: Top exporters of wheat to the world, sorted by average 2011-2020, nominal terms.	37
Figure 41: Top exporters of canola seed to the world, sorted by average 2011-2020, nominal terms.....	38
Figure 42: Top exporters of canola oil to the world, sorted by average 2011-2020, nominal terms	38
Figure 43: Top exporters of pulses to the world, sorted by average 2011-2020, nominal terms	39
Figure 44: Top exporters of live cattle to the world, sorted by average 2012-2020, nominal terms	39
Figure 45: Top exporters of pork to the world, sorted by average 2011-2020, nominal terms ...	40
Figure 46: Market shares of Canada and its competitors to the United States beef imports, average 2011-2020.....	42
Figure 47: Market shares of Canada and its competitors to the United States beef imports, 1991-2020.....	42
Figure 48: Market shares of Canada and its competitors to China's wheat imports, average 2011-2020	43
Figure 49: Market shares of Canada and its competitors to China's wheat imports, 1992-2020	43
Figure 50: Market shares of Canada and its competitors to the United States wheat imports, average 2011-2020.....	44
Figure 51: Market shares of Canada and its competitors to Japan's wheat imports, average 2011-2020.....	44
Figure 52: Market shares of Canada and its competitors to Mexico's wheat imports, average 2011-2020	45
Figure 53: Market shares of Canada and its competitors to China's canola seed imports, average 2011-2020	45

Figure 54: Market shares of Canada and its competitor to Japan’s canola seed imports, average 2011-2020	46
Figure 55: Market shares of Canada and its competitors for the Mexico canola seed imports, average 2011-2020.....	46
Figure 56: Market shares of Canada and its competitors to the United States canola seed imports, average 2011-2020.....	47
Figure 57: Market shares of Canada and its competitors to China’s canola oil imports, average 2011-2020	47
Figure 58: Market shares of Canada and its competitors to the United States canola oil imports, average 2011-2020.....	48
Figure 59: Market shares of Canada and its competitors to India’s pulses imports, average 2011-2020.....	48
Figure 60: Market shares of Canada and its competitors to India’s pulses imports, 1990-2020 .	49
Figure 61: Market shares of Canada and its competitors to China’s pulse imports, average 2011-2020.....	49
Figure 62: Market shares of Canada and its competitors to the United States pulse imports, average 2011-2020.....	50
Figure 63: Market shares of Canada and Mexico to the United Sates imports of live cattle (excluding purebred), 2012-2020.....	50
Figure 64: Market shares of Canada and its competitors to Japan’s imports of pork, average 2011-2020	51
Figure 65: Market shares of Canada and its competitors to the United Sates imports of pork, average 2011-2020.....	51
Figure 66: Market shares of Canada and its competitors to China’s imports of pork, average 2011-2020	52
Figure 67: Market shares of Canada and the USA to Mexico’s imports of pork, average 2011-2020.....	52
Figure 68: Forecast of beef and veal production and exports in Canada, 2020-2029	56
Figure 69: Forecast of beef and veal production and exports in the world, 2020-2029	56
Figure 70: Forecast of wheat production and exports in Canada, 2020-2029	57
Figure 71: Forecast of wheat production and exports in the world, 2020-2029	57
Figure 72: Forecast of oilseeds production and exports in Canada, 2020-2029.....	58
Figure 73: Forecast of oilseeds production and exports in the world, 2020-2029.....	58
Figure 74: Forecast of pulses production and exports in Canada, 2020-2029.....	59
Figure 75: Forecast of pulses production and exports in the world, 2020-2029	59
Figure 76: Forecast of pigmeat production and exports in Canada, 2020-2029.....	60
Figure 77: Forecast of pigmeat production and exports in the world, 2020-2029.....	60

Abstract

Alberta is the third largest exporter of agri-food products in Canada after Ontario and Saskatchewan. Alberta's agri-food exports include both primary agricultural commodities (crops and live animals) and processed food and agricultural products (value-added exports). Using data gathered from different sources, this paper illustrates the role of Alberta in the global agri-foods marketplace considering four primary agricultural commodities (wheat, canola seed, live cattle, and pulses) and three value-added products (beef, pork, and canola oil), collectively accounting for 72 per cent of Alberta's total agri-food exports in 2019. First, historical production and exports of Alberta's and Canada's major agri-food products over the last three decades (1990-2020) are provided using data gathered from Statistics Canada and the top markets for these key products are identified on a product-basis. Second, the global major exporters of the selected agri-food products over the last three decades are provided using trade data gathered from the United Nations Comtrade Database and the performances of Alberta and Canada in exporting agri-food products are compared with other exporting countries. Third, Alberta's major competitors for its top markets are identified using the same database. Finally, forecast of production and exports of major agri-food products in Canada and globally over the coming decade (2020-29) are provided using data gathered from OECD-FAO Agricultural Outlook 2020-2029, prepared by the Organisation for Economic Co-operation and Development (OECD) and the Food and Agriculture Organization (FAO).

Keywords

Agri-food exports, Alberta, beef, canola, wheat, market share.

Introduction

Alberta is the third largest exporter of agri-food products in Canada after Ontario and Saskatchewan. Alberta's agri-food exports include both primary agricultural commodities (crops and live animals) and processed food and agricultural products (value-added exports). In 2019, Alberta exported \$11.6 billion in the agri-food products, representing 10 per cent of the province's total exports and accounting for 18 per cent of the national total agri-food exports. Of the total agri-food exports, 45 per cent (\$5.3 billion) was primary agricultural commodities and 55 per cent (\$6.4 billion) was value-added products (Alberta Agriculture and Forestry 2020; Government of Alberta 2020).

The major agri-food exports in Alberta are beef, wheat, canola seed, crude canola oil, and live cattle. In 2019, beef was the top export, representing 21 per cent of Alberta's agri-food exports, which includes all beef products, such as fresh, chilled, and frozen meat and offal, but excludes live cattle. Wheat was the second largest export, representing 17 per cent. Canola seed and crude canola oil contributed 10 per cent and 7 per cent to the total agri-food exports, respectively. Live cattle (excluding purebred) contributed 6 per cent. There are also other products, such as pulses (dry peas, beans, chickpeas, lentils) and pork that contributed 6 per cent and 4 per cent to the total agri-food exports, respectively (Alberta Agriculture and Forestry 2020; Government of Alberta 2020).

The major markets for Alberta's agri-food exports are the United States, China, Japan, Mexico, and South Korea. In 2019, these markets represented 74 per cent of the total agri-food exports. United States was by far the top market, accounting for 40 per cent of Alberta's total agri-food exports. China was the second largest market, accounting for 14 per cent. Japan was the third

largest market, representing 12 per cent. Mexico and South Korea accounted for 4 per cent and 3 per cent, respectively (Alberta Agriculture and Forestry 2020; Government of Alberta 2020).

The aim of this paper is three-fold. First, it provides historical and forecast of Alberta's and Canada's agri-food exports considering seven major products: beef, wheat, canola seed, canola oil, live cattle, pork, and pulses. Second, it provides estimates of the current and forecast of the global market demand for selected agri-food products. Finally, it develops a list of Alberta's major competitors in the agri-food sector for its major export products.

This paper is divided into seven parts. After this introduction, the second part provides a brief description of the agri-food products and the data sources used in this paper. The third part presents historical production and exports of the major agri-food products in Alberta and Canada. The fourth part presents the top markets for Alberta's and Canada's agri-food exports. The fifth part presents the top exporters of agri-food products in the world by comparing the roles of Alberta and Canada with other exporting countries. The sixth part presents Alberta's major competitors for its major export products. The last part presents the current and forecast of the global market demand by focusing on the production and exports of major agri-food products in Canada and globally.

Description of Alberta’s Agri-food Products

This paper is focused on seven major Alberta’s agri-food products that include four primary agricultural commodities (wheat, canola seed, live cattle, and pulses) and three value-added products (beef, pork, and canola oil). These products accounted for 72 per cent of Alberta’s total agri-food exports in 2019. The trade data for these products was obtained from the Canadian International Merchandise Trade Database (Statistics Canada 2021a) and the United Nations Comtrade Database. In the two data sources, the products are categorized according to the Harmonized System (HS) Code. The production data for the corresponding products was gathered from Statistics Canada. The forecast data for agri-food products was obtained from the OECD-FAO Agricultural Outlook 2020-2029, prepared by the Organisation for Economic Co-operation and Development (OECD) and the Food and Agriculture Organization (FAO) (OECD 2021).

Table 1 below provides a list of the seven selected agri-food products with their corresponding HS Code and category name.

Table 1: Selected agri-food products with their Harmonized System (HS) Code

Chapter (HS-Code)	Product Category	Individual Product
Chapter 1	Live animals	Live cattle, live hogs, others
Chapter 2	Meat and edible meat offal	Beef, pork, others
Chapter 7	Vegetables and certain roots and tubers	Pulses, others
Chapter 10	Cereals	Wheat, others
Chapter 12	Oil seeds and related products	Canola seeds, others
Chapter 15	Animal or vegetable fats and oils	Canola oil, others

The individual products are further broken down by their subproducts (See Tables 2 through 7). A detailed information about the HS-Code product classification in the Canadian context can be found in the Canadian Export Classification (Statistics Canada 2019).

The individual products were determined by aggregating their corresponding subproducts based on the report of Alberta Agriculture and Forestry (2020). The aggregated quantities and values of exports for all selected products were confirmed with this report (Alberta Agriculture and Forestry 2020, 54-55).

According to the report of Alberta Agriculture and Forestry, live cattle include purebred cattle and other cattle. Similarly, live hogs include purebred swine and other swine. In 2019, live cattle and live hogs accounted for 87 per cent and 5 per cent of Alberta's total exports of live animals, respectively (Table 2). Beef includes 10 different products of fresh, chilled, and frozen meat and offal. Similarly, pork includes 13 different products of fresh, chilled, and frozen meat and offal. In 2019, beef and pork accounted for 83 per cent and 15 per cent of Alberta's total exports of meat products, respectively (Table 3). Pulses include 13 products of dried peas, chickpeas, lentils, and dried beans. In 2019, pulses accounted for 93 of Alberta's total exports of the vegetable products category (Table 4). Wheat includes durum wheat and wheat and meslin. In 2019, wheat accounted for 87 of Alberta's total exports of cereals (Table 5). Canola seed includes mainly low erucic acid rape or colza seeds. Canola seed accounted for 79 of Alberta's total exports of oil seeds (Table 6). Alberta's canola/mustard oil exports include four products: crude canola oil, refined canola oil, crude mustard oil, and refined mustard oil. Canola/mustard oil accounted for 88 of Alberta's total exports of animal or vegetable oils (Table 7).

Over the last three decades, the value of Alberta's agri-food exports has significantly increased, notably from \$2.3 billion in 1990 to \$12.4 billion in 2020, growing by 6.5 per cent annually on average. Value-added exports have continued to grow over the last few years due to increase in exports of beef and canola oil. On the other hand, exports of primary agricultural commodities have declined due to lower exports of wheat, canola seed, and live cattle (Government of Alberta

2020). Alberta's beef exports have been negatively affected by the discovery of bovine spongiform encephalopathy (BSE) or mad cow disease in 2003 (Klein and Le Roy 2010).

Table 2: Live cattle and live hogs by the Harmonized System (HS) Code and Alberta's exports in 2019

HS Code	Product Name	2019 (CAN\$)	2019 (% of Ch 1)
10221	Cattle, live, pure-bred	439,367	0
10229	Cattle, live, other than pure-bred	742,266,339	87
10310	Swine, live pure-bred breeding	9,279	0
10391	Swine, live other than pure-bred weighing less than 50 kg	20,752,874	2
10392	Swine, live other than pure-bred weighing 50 kg or more	27,471,809	3
Chapter 1 (Live Animals)-Gross		848,743,049	100

Note: Live cattle include HS 10221 and 10229. Live hogs include HS 10310, 10391, and 10392. Source: Statistics Canada (2021a)

Table 3: Beef and pork by the Harmonized System (HS) Code and Alberta's exports in 2019

HS Code	Product Name	2019 (CAN\$)	2019 (% of Ch 2)
20110	Bovine carcasses and half carcasses, fresh or chilled	8,068,817	0
20120	Bovine cuts bone in, fresh or chilled	176,399,623	6
20130	Bovine cuts boneless, fresh or chilled	1,617,107,542	55
20210	Bovine carcasses and half carcasses, frozen	57,355	0
20220	Bovine cuts bone in, frozen	91,079,648	3
20230	Bovine cuts boneless, frozen	340,352,779	12
20610	Bovine edible offal, fresh or chilled	64,717,699	2
20621	Bovine tongues, edible offal, frozen	26,132,132	1
20622	Bovine livers, edible offal, frozen	7,280,187	0
20629	Bovine edible offal, frozen, nes	94,455,135	3
20311	Swine carcasses and half carcasses, fresh or chilled	-	-
20312	Hams, shoulders and cuts thereof, of swine bone in, fresh or chilled	72,708,776	2
20319	Swine cuts, fresh or chilled, nes	229,818,280	8
20321	Swine carcasses and half carcasses, frozen	-	-
20322	Hams, shoulders and cuts thereof, of swine, bone in, frozen	27,813,266	1
20329	Swine cuts, frozen, nes	72,286,716	2
20630	Swine edible offal, fresh or chilled	5,440,650	0
20641	Swine livers, edible offal, frozen	262,424	0
20649	Swine edible offal, frozen, nes	23,322,199	1
Chapter 2 (Meat Products)-Gross		2,928,091,833	100

Note: Beef includes the HS Codes from 20110 to 20629. Pork includes the HS Codes from 20311 to 20649. The empty cells (-) represent values that were not available in 2019. Source: Statistics Canada (2021a)

Table 4: Pulses by the Harmonized System (HS) Code and Alberta's exports in 2019

HS Code	Product Name	2019 (CAN\$)	2019 (% of Ch 7)
71310	Peas dried, shelled, whether or not skinned or split	508,485,203	66
71320	Chickpeas, dried, shelled, whether or not skinned or split	14,800,622	2
71331	Beans, Vigna mungo, Hepper or Vigna radiata Wilczek, dried, shelled, w/n skin/split	-	-
71332	Beans, small red (Adzuki), dried, shelled, whether or not skinned or split	2,032,376	0
71333	Kidney beans and white pea beans, dried, shelled, whether or not skinned/split	22,798,939	3
71334	Bambara beans, dried, shelled, w/n skinned or split	-	-
71335	Cow peas, dried, shelled, whether or not skinned or split	3,575	0
71339	Beans, dried, shelled, whether or not skinned or split, nes	80,558,900	10
71340	Lentils, dried, shelled, whether or not skinned or split	90,013,959	12
71350	Broad beans and horse beans, dried, shelled, whether or not skinned or split	5,125,566	1
71360	Pigeon peas, dried, shelled, whether or not skinned or split	-	-
71390	Leguminous vegetables, dried, shelled, whether or not skinned or split, nes	11,587	0
71390	Leguminous vegetables, dried, shelled, w/n skinned/split, nes	11,587	0
Chapter 7 (Vegetables and Certain Roots and Tubers)-Gross		772,130,450	100

Note: The empty cells (-) represent values that were not available in 2019.

Source: Statistics Canada (2021a)

Table 5: Wheat by the Harmonized System (HS) Code and Alberta's exports in 2019

HS Code	Product Name	2019 (CAN\$)	2019 (% of Ch 10)
100111	Durum wheat, seed for sowing	197,876	0
100119	Durum wheat, other than seed for sowing	219,018,963	10
100191	Wheat and meslin, other than durum, seed for sowing	1,752,059	0
100199	Wheat and meslin, other than durum, other than seed for sowing	1,788,215,044	78
Chapter 10 (Cereals)-Gross		2,284,177,205	100

Source: Statistics Canada (2021a)

Table 6: Canola seed by the Harmonized System (HS) Code and Alberta's exports in 2019

HS Code	Product	2019 (CAN\$)	2019 (% of Ch 12)
120510	Low erucic acid rape or colza seeds, whether or not broken	1,145,016,360	79
120590	Rape or colza seeds, whether or not broken, other than low erucic acid	404,941	0
Chapter 12 (Oil Seeds and Related Products)-Gross		1,443,258,359	100

Source: Statistics Canada (2021a)

Table 7: Canola oil by the Harmonized System (HS) Code and Alberta's exports in 2019

HS Code	Product	2019 (CAN\$)	2019 (% of Ch 12)
151411	Low erucic acid rape or colza oil and its fractions, crude	828,981,126	77
151419	Low erucic acid rape or colza oil and its fractions, refined	113,033,303	11
151491	Rape, colza or mustard oil, other than low erucic acid, crude	27	0
151499	Rape, colza, other than low erucic & mustard oil & fractions, refined	195,049	0
Chapter 15 (Animal or Vegetable Fats and Oils)-Gross		1,076,334,513	100

Source: Statistics Canada (2021a)

Figures 1 through 8 below provide an overview of Alberta’s agri-food exports by presenting the aggregate value of exports, the distribution of major products, the top markets, and the proportions of primary agriculture and value-added exports over time.

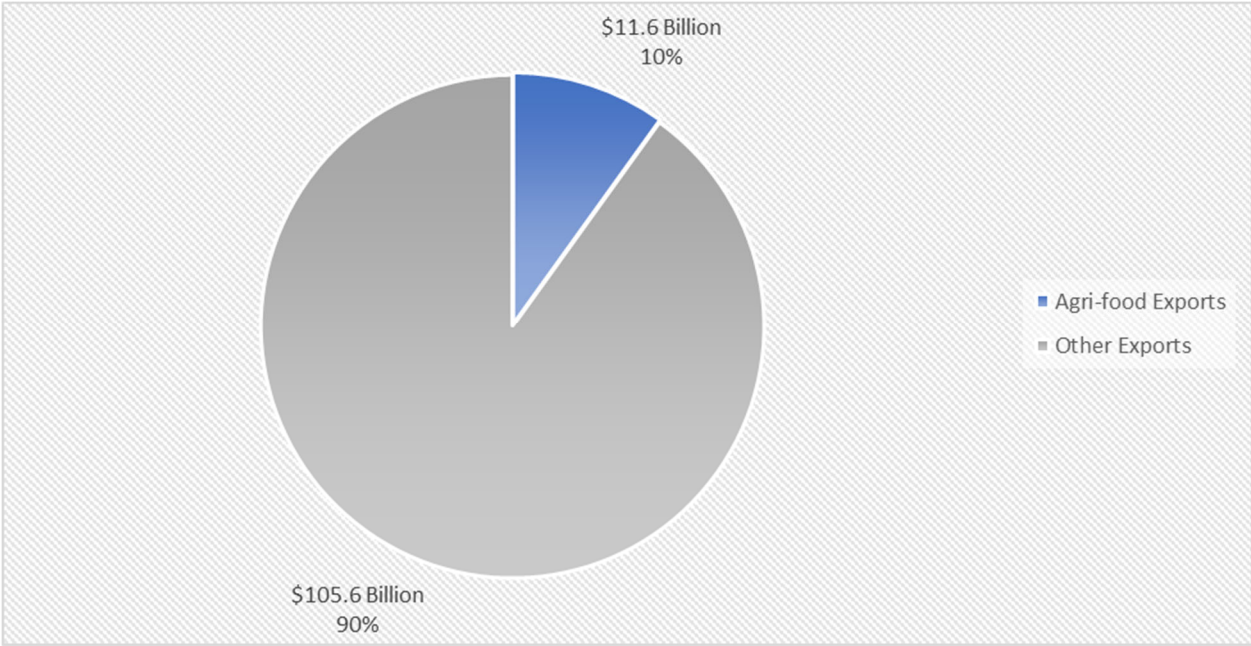


Figure 1: Share of Alberta’s agri-food exports to the provincial total exports in 2019
Sources: Alberta Agriculture and Forestry (2020); Statistics Canada (2021a)

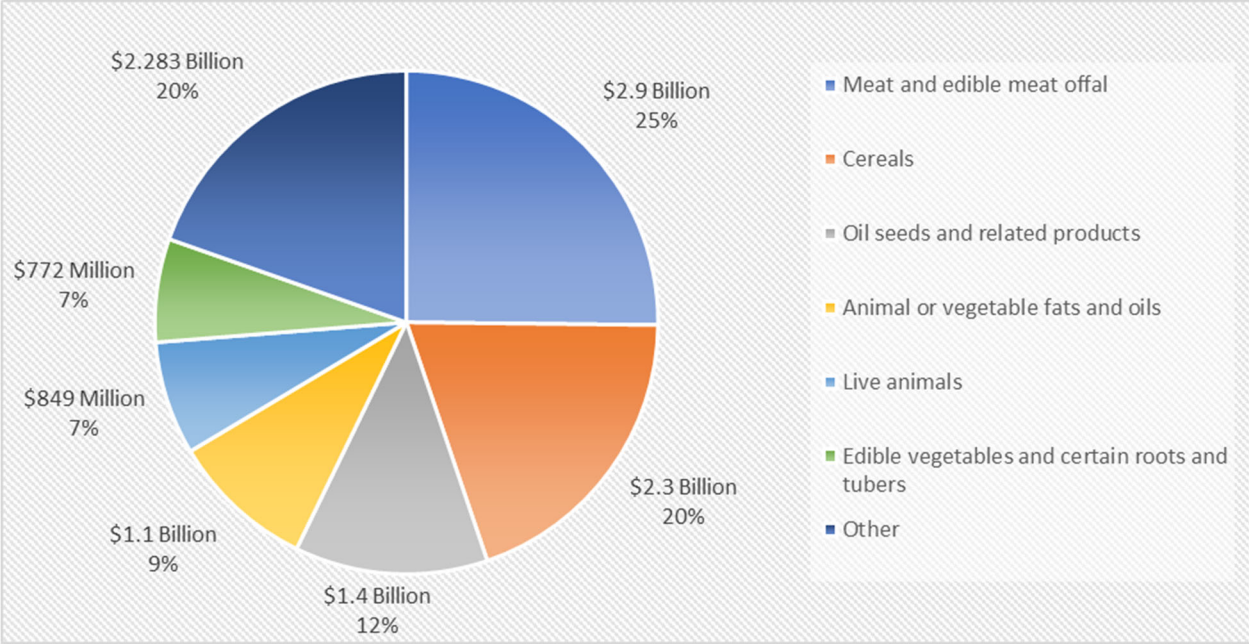


Figure 2: Alberta's major agri-food exports by the Harmonized System (HS) category in 2019
 Sources: Alberta Agriculture and Forestry (2020); Statistics Canada (2021a)

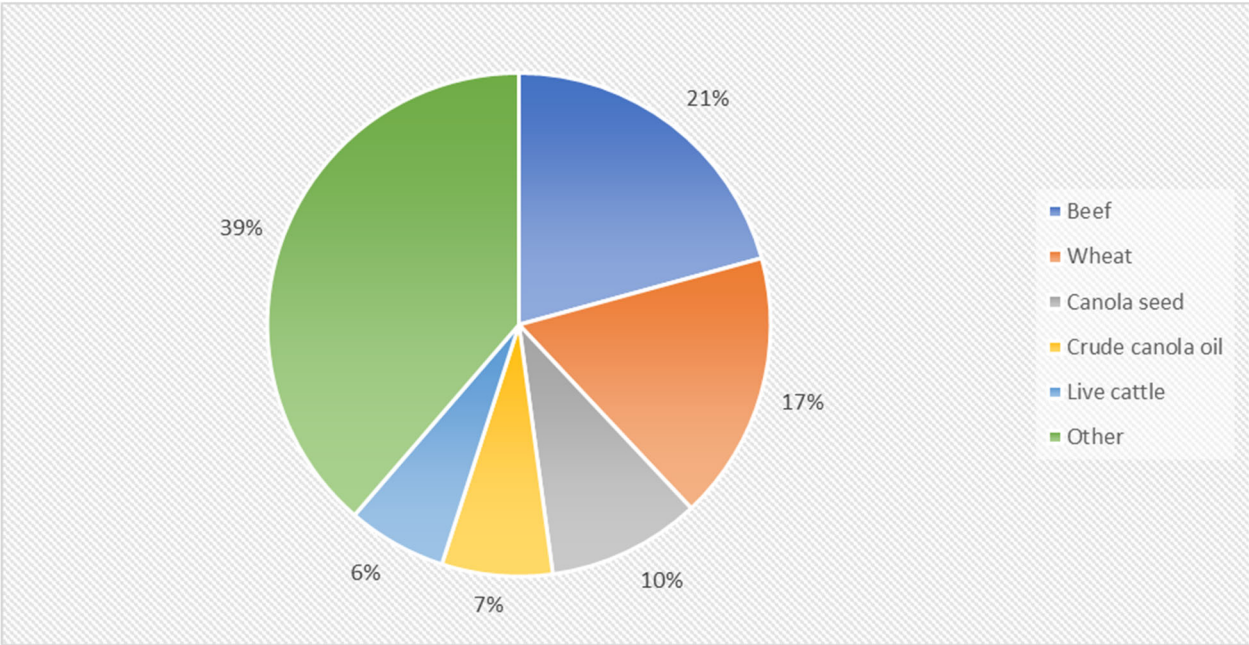


Figure 3: Top five products of Alberta agri-food exports in 2019
 Source: Government of Alberta (2020)

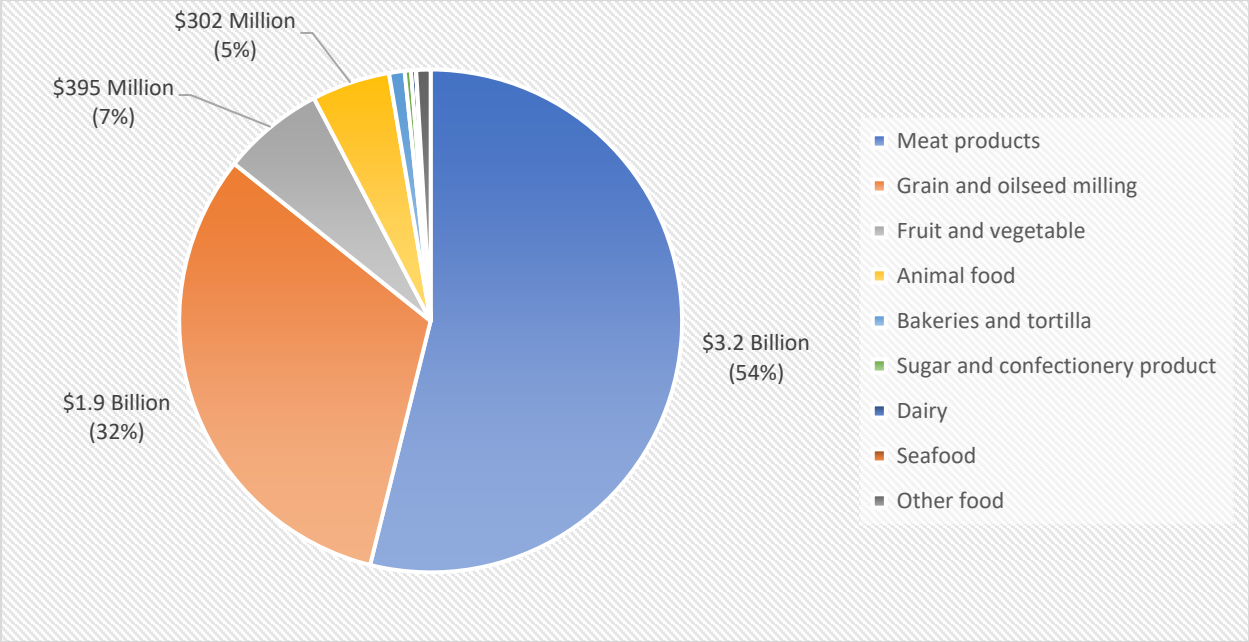


Figure 4: Distribution of Alberta food manufacturing exports in 2019
 Source: Government of Canada (2021)

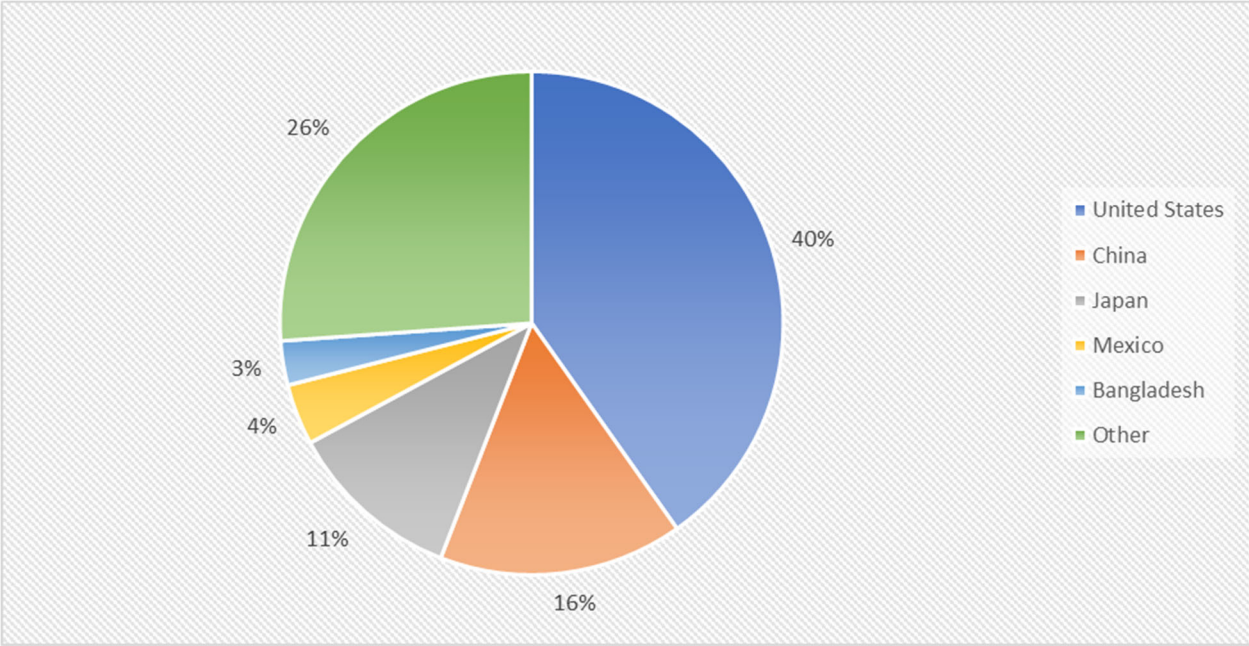


Figure 5: Top five markets for Alberta agri-food exports in 2019
 Source: Government of Alberta (2020)

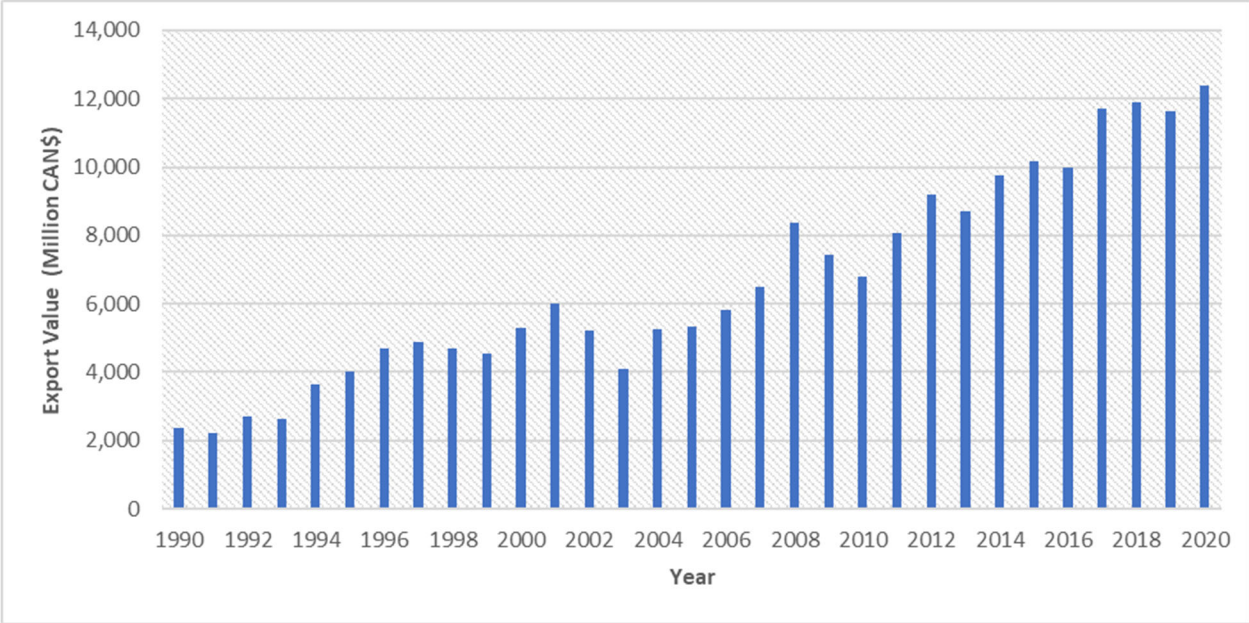


Figure 6: Alberta's total agri-food exports to the world, nominal terms, 1990 – 2020
 Sources: Alberta Agriculture and Forestry (2020); Government of Alberta (2021)

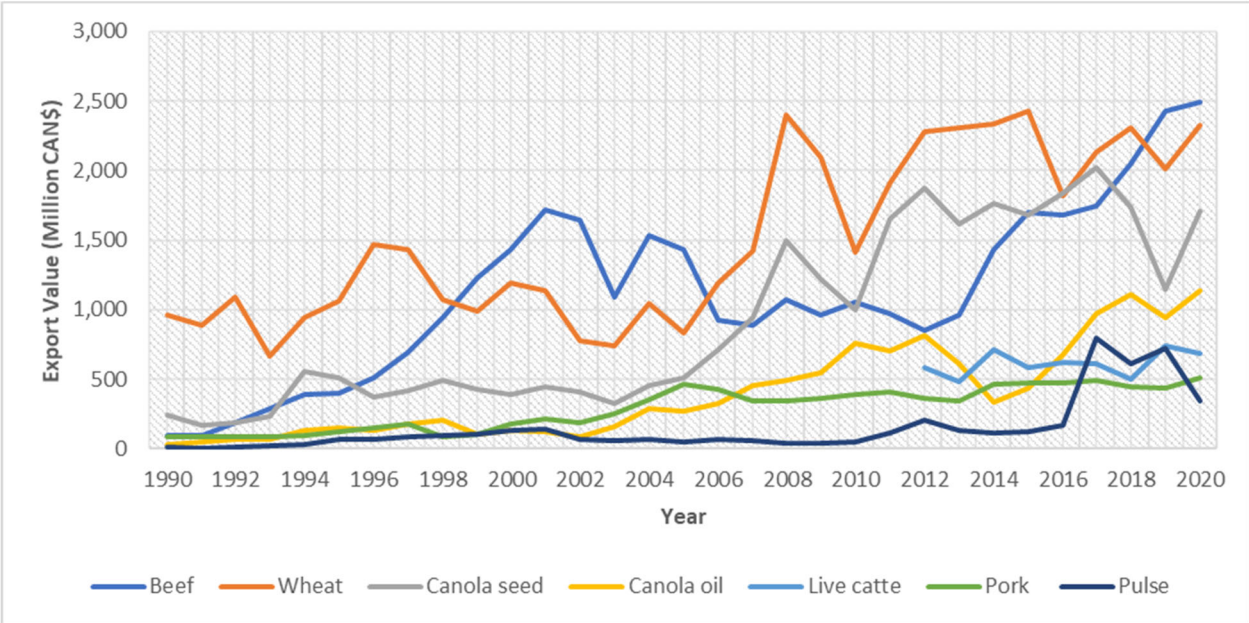


Figure 7: Alberta's major agri-food exports, nominal terms, 1990-2020
 Source: Statistics Canada (2021a)

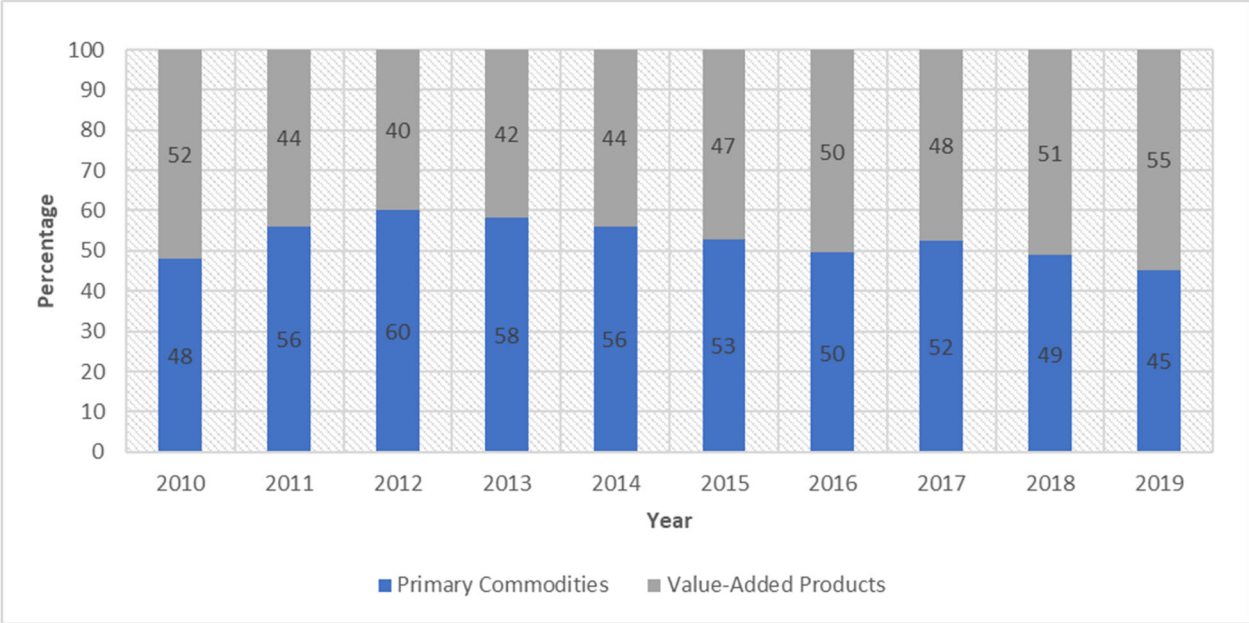


Figure 8: Proportions of primary agriculture and value-added products to Alberta’s total agri-food exports, 2010 – 2019
 Source: Alberta Agriculture and Forestry (2020)

Production and Exports of Agri-food Products in Alberta and Canada

The historical production and exports of Alberta's and Canada's major agri-food products over the last three decades are presented in Figures 9-24 using data obtained from the Canadian International Merchandise Trade Database and other sources from Statistics Canada.

Between 2003 and 2019, Alberta exported 276 thousand tonnes of beef annually on average, representing 38 per cent of its production and accounting for 75 per cent of the national beef exports. Pork exports were 116 thousand tonnes, representing 48 per cent of Alberta's pork production and accounting for 13 per cent of the national pork exports.

Between 1990 and 2019, Alberta exported 5.6 million tonnes of wheat annually, representing 73 per cent of its production and accounting for 30 per cent the national wheat exports. Alberta exported 1.9 million tonnes of canola seed, representing 54 per cent of its production and accounting for 34 per cent of the national canola seed exports. It also exported 407 thousand tonnes of canola oil, accounting for 29 per cent of the national canola oil exports. Alberta exported 353 thousand tonnes of pulses, representing 35 per cent of its production and accounting for 10 per cent of the national pulses exports.

Between 2000 and 2020, Alberta exported 367 thousand of live cattle and 600 thousand of live hogs per year, representing 3 per cent of the province's total supply of cattle and 10 per cent of total supply of hogs, respectively.

a. Beef

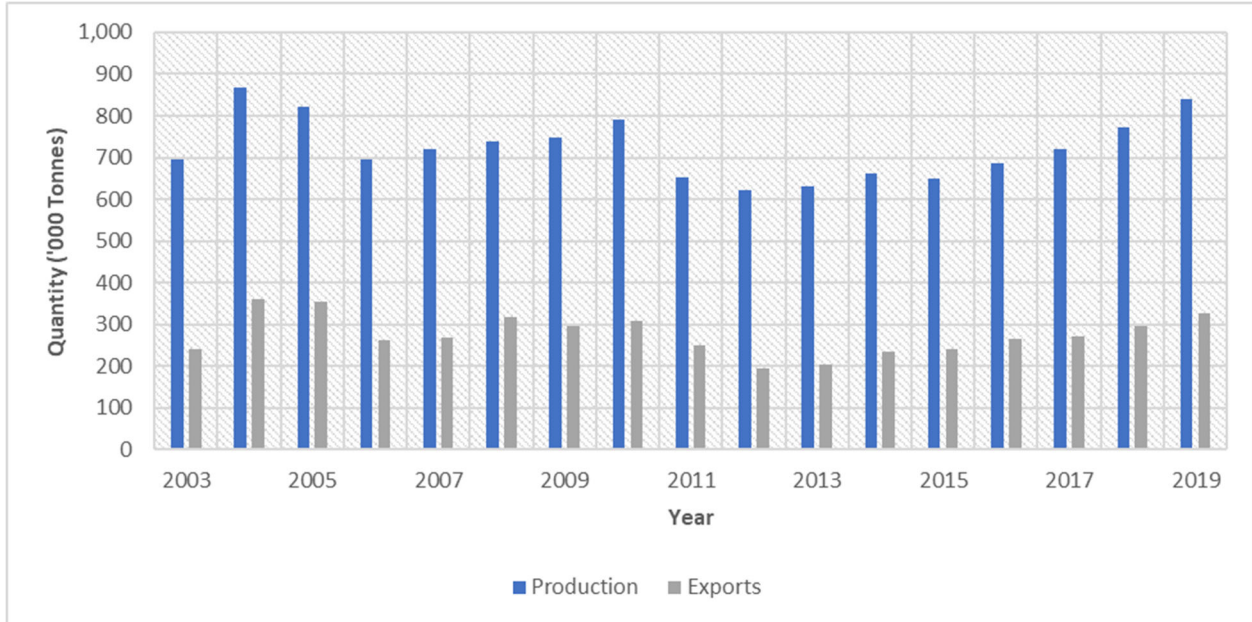


Figure 9: Alberta beef production and exports, 2003-2019

Note: Alberta’s beef production was derived from the Western Canada’s beef production by using Alberta’s share of slaughter of cattle to Western Canada’s slaughter of cattle.

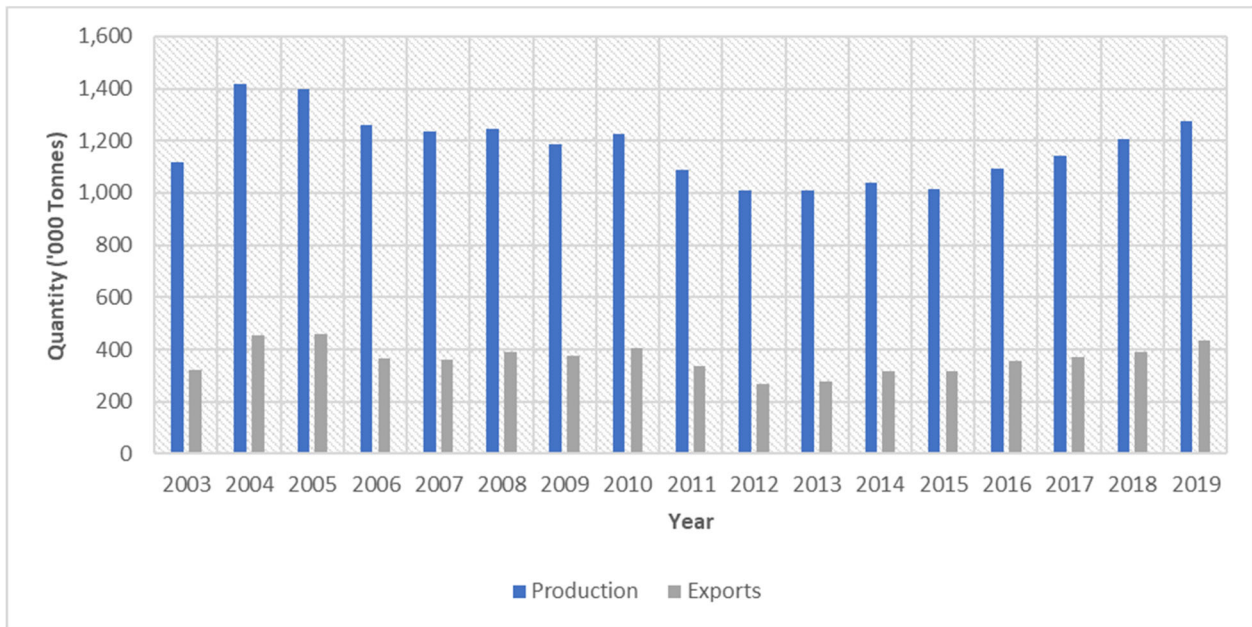


Figure 10: Canada beef production and exports, 2003-2019

Sources: Alberta Agriculture and Forestry (2020); Statistics Canada (2021a; 2021b)

b. Wheat

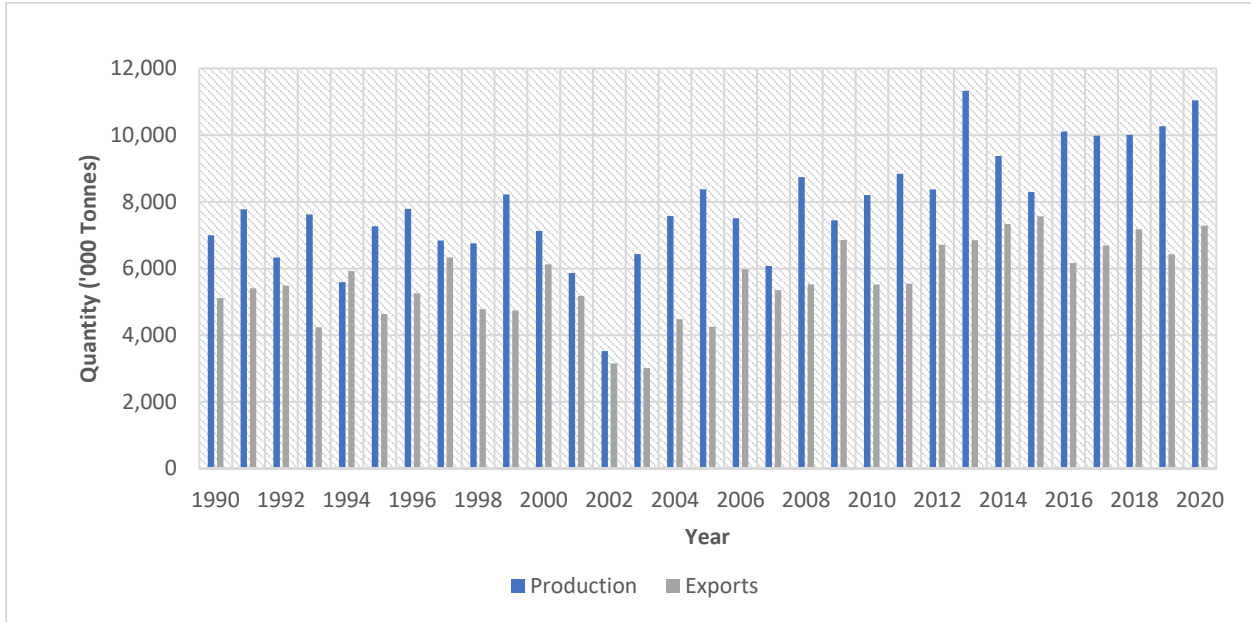


Figure 11: Alberta wheat production and exports, 1990-2020

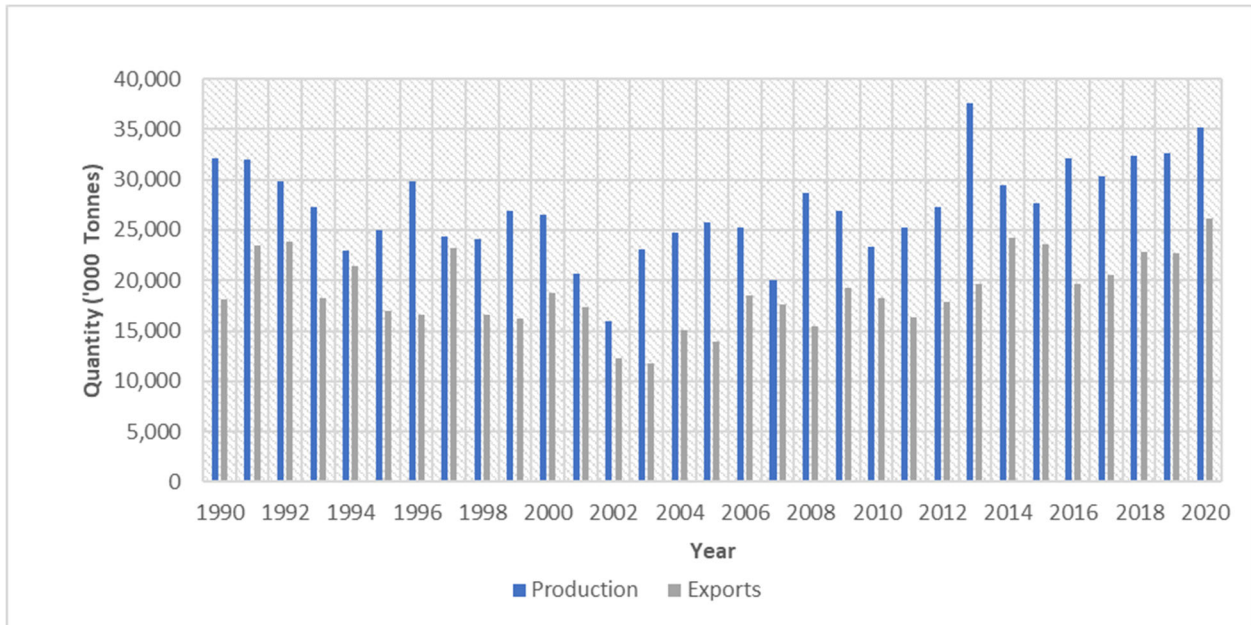


Figure 12: Canada wheat production and exports, 1990-2020

Sources: Statistics Canada (2021a; 2021c)

c. Canola Seed

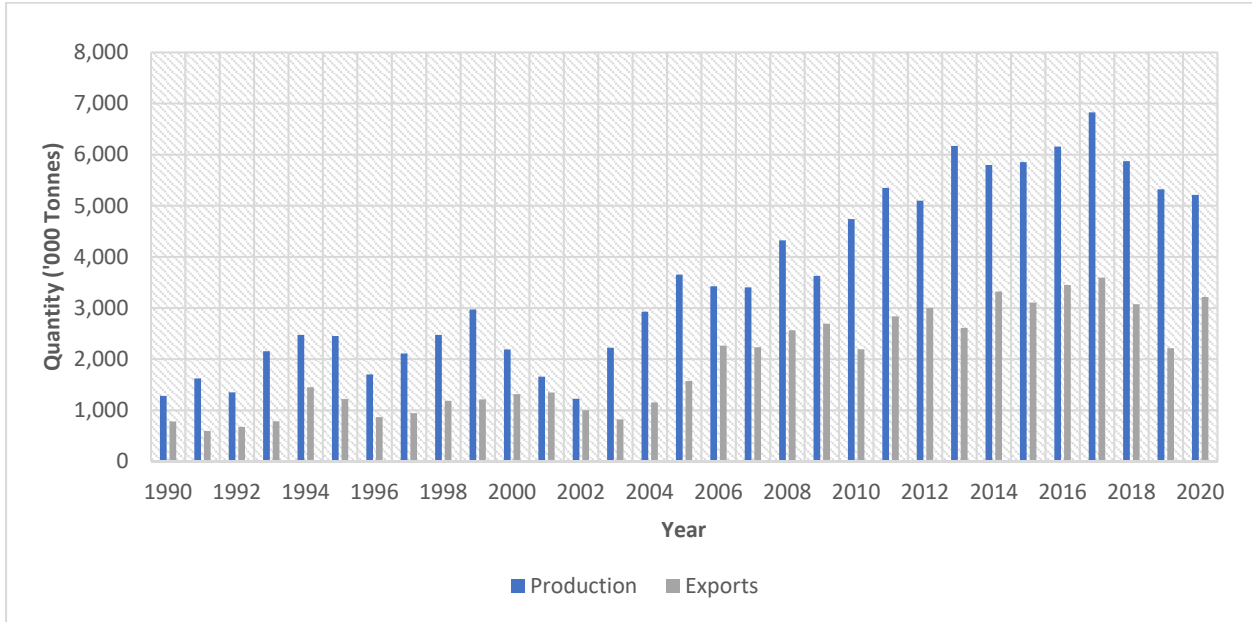


Figure 13: Alberta canola seed production and exports, 1990-2020

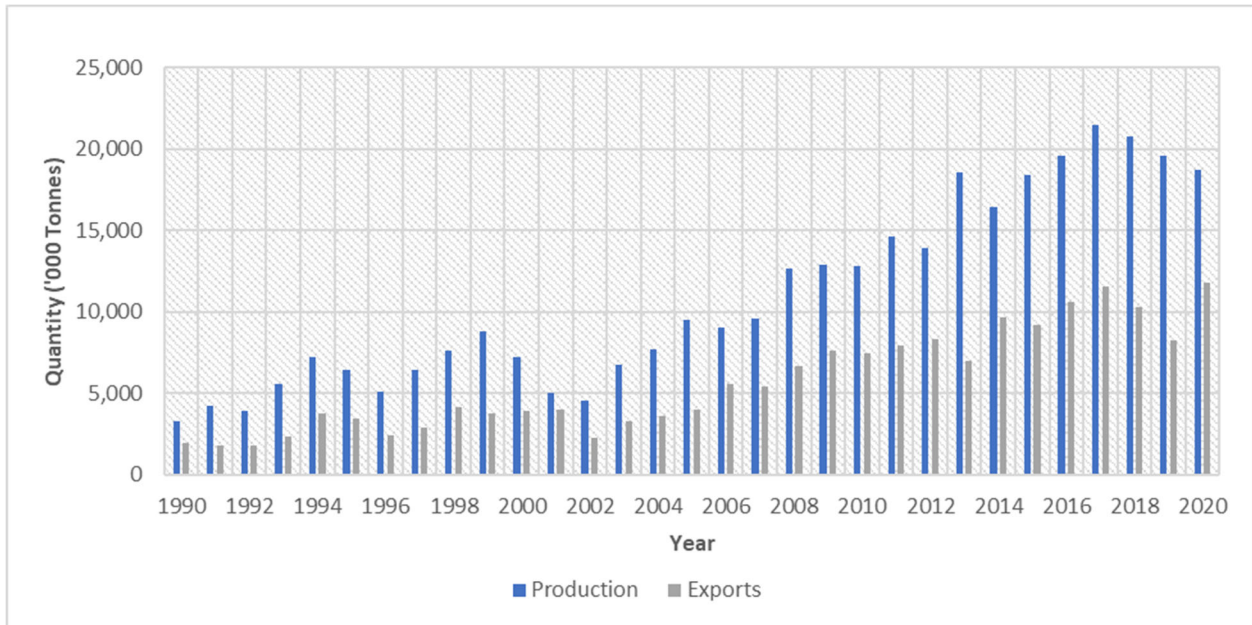


Figure 14: Canada canola seed production and exports, 1990-2020

Sources: Statistics Canada (2021a; 2021c)

d. Canola oil

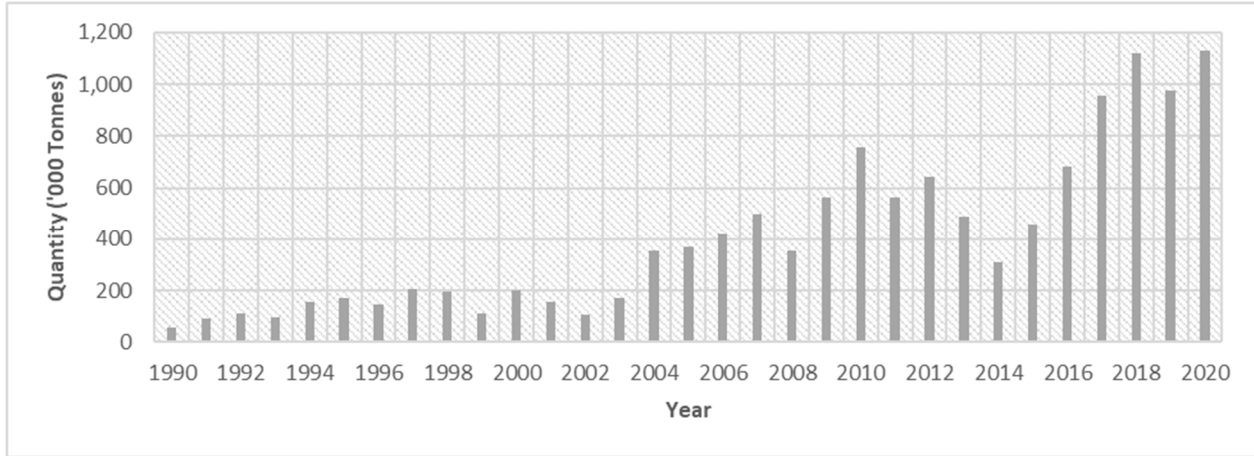


Figure 15: Alberta canola oil exports, 1990-2020

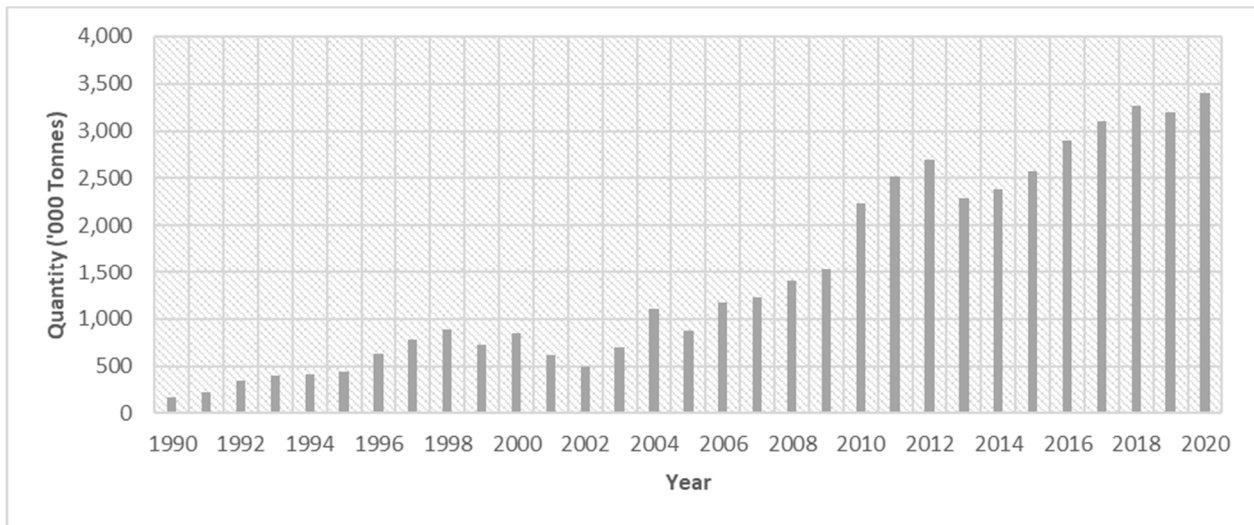


Figure 16: Canada canola oil exports, 1990-2020

Sources: Statistics Canada (2021a)

e. Pulses

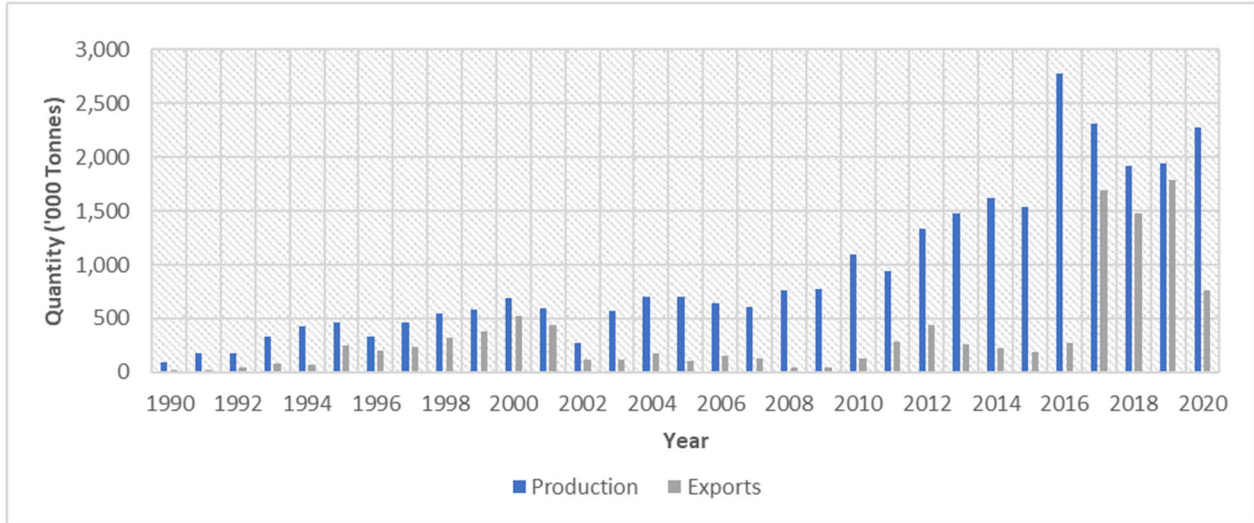


Figure 17: Alberta pulses production and exports, 1990-2020

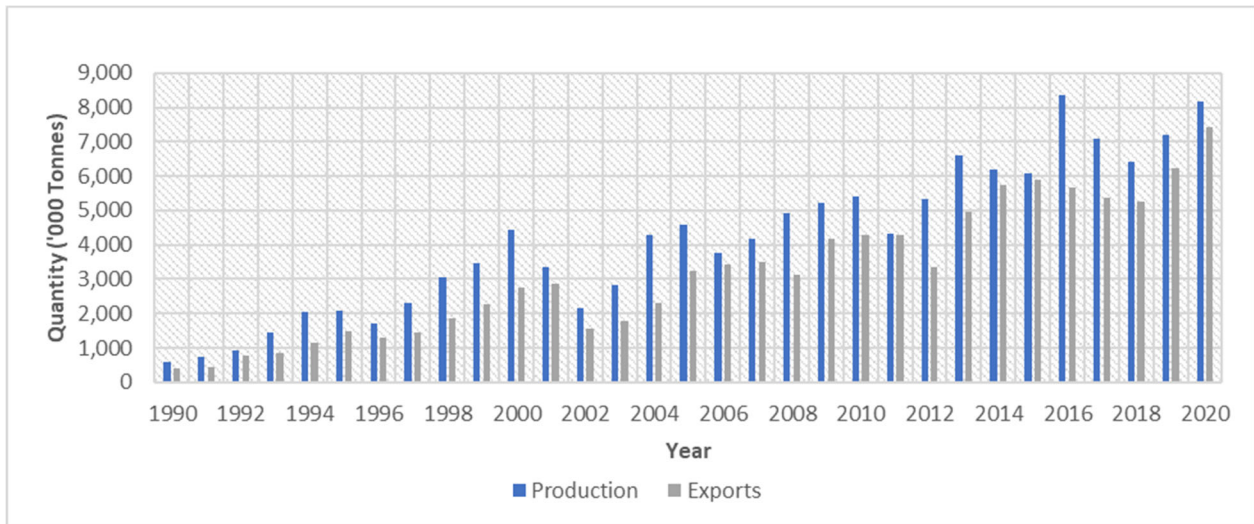


Figure 18: Canada pulses production and exports, 1990-2020

Sources: Statistics Canada (2021a; 2021c)

f. Live animals

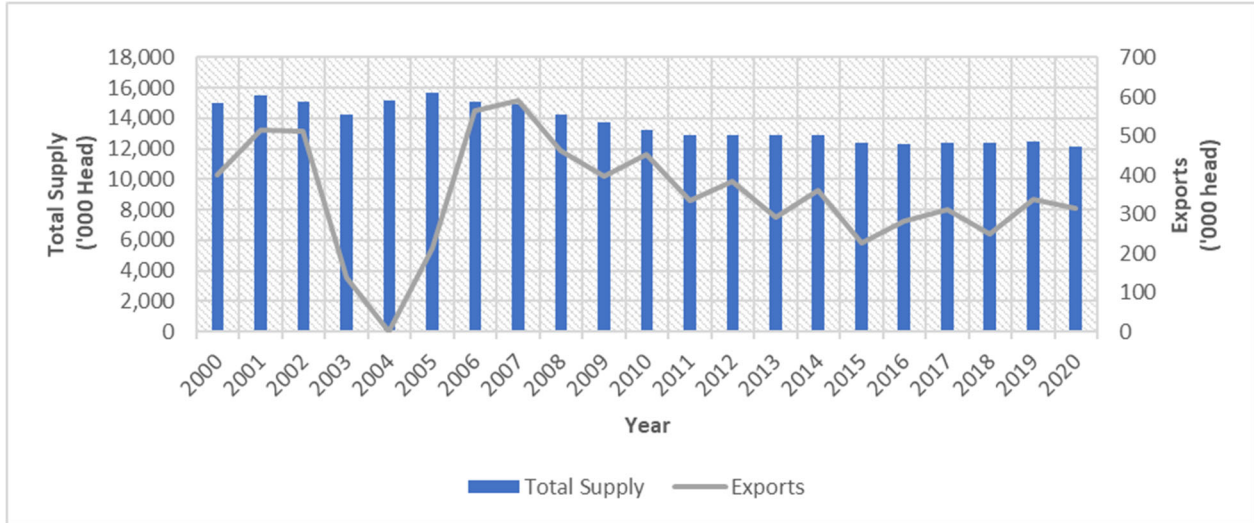


Figure 19: Alberta total supply and exports of live cattle, 2000-2019

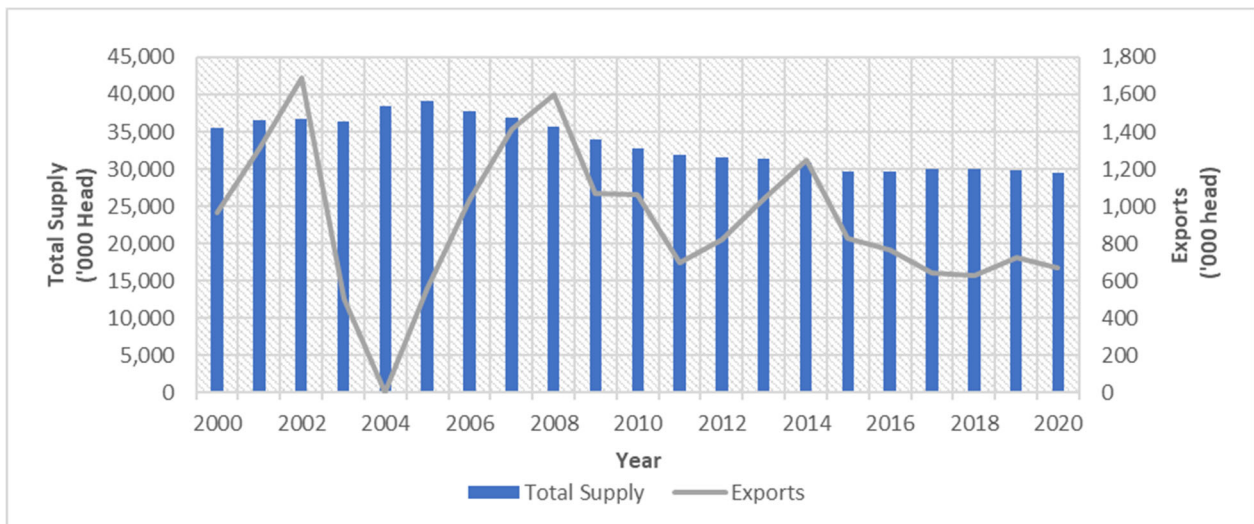


Figure 20: Canada total supply and exports of live cattle, 2000-2019

Sources: Statistics Canada (2021a; 2021b)



Figure 21: Alberta total supply and exports of live hogs, 2001-2020



Figure 22: Canada total supply and exports of live hogs, 2001-2020
Sources: Statistics Canada (2021a; 2021d)

g. Pork

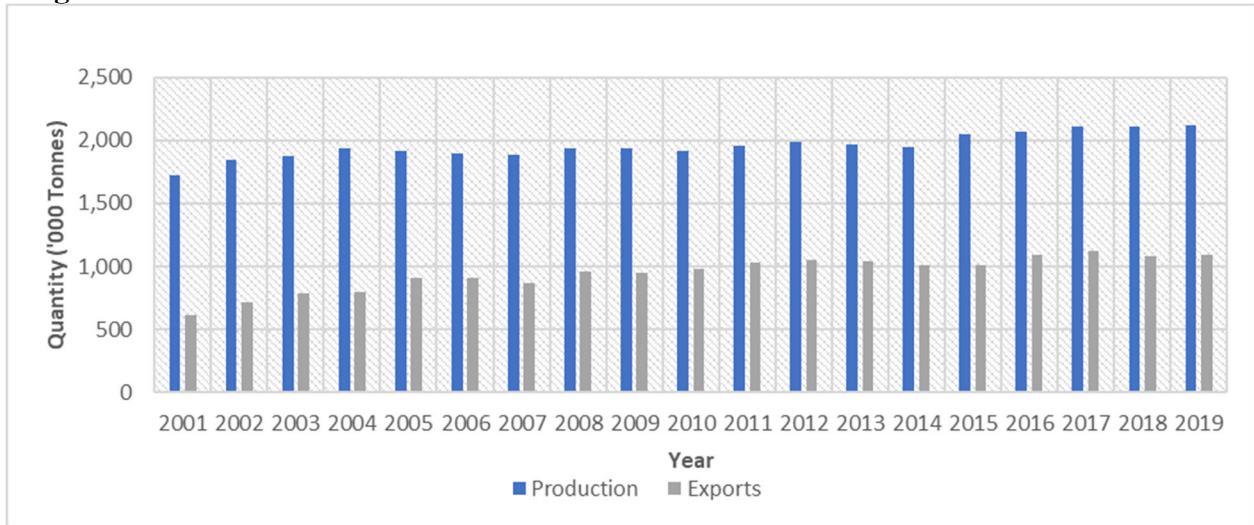


Figure 23: Alberta pork production and exports, 2001-2019

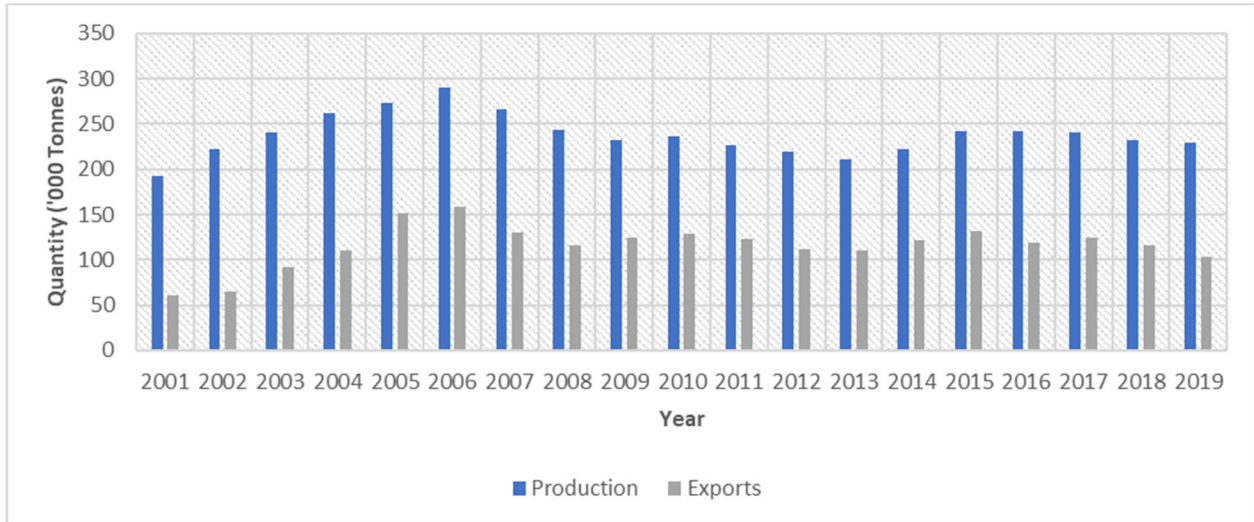


Figure 24: Canada pork production and exports, 2001-2019

Sources: Alberta Agriculture and Forestry (2020); Statistics Canada (2021a; 2021b)

Top Markets for Alberta and Canada

The top five markets for Alberta's and Canada's major agri-food products over the last three decades are presented in Figures 25-38 based on the data obtained from the Canadian International Merchandise Trade Database.

Between 1990 and 2020, Alberta exported \$1.1 billion of beef annually to the world; the United States being the top market, accounting for 76 per cent (\$851 million). Between 2012 and 2020, Alberta also exported \$615 million of live cattle (excluding purebred) annually to the United States. Between 1990 and 2020, Alberta exported \$291 million of pork annually; Japan being the top market, accounting for 45 per cent (\$131 million), followed by the United States, accounting for 30 per cent (\$89 million).

Alberta exported \$1.5 billion of wheat annually over the last three decades. The top five markets include the United States, Japan, China, Indonesia, and Mexico, collectively accounting for one third of Alberta's wheat exports. Alberta exported \$921 million of canola seed annually; Japan and China being the largest markets, accounting for 33 per cent (\$304 million) and 32 per cent (\$291 million), respectively. Other markets include Mexico, Pakistan, and the United States, representing 16 per cent (\$145 million), nine per cent (\$87 million), and seven per cent (\$68 million), respectively. Alberta exported \$402 million of canola oil per year; China being the top market, representing 58 per cent (\$233 million), followed by the United States, representing 32 per cent (\$129 million). Alberta exported \$149 million of pulses annually; China being the top market, representing 31 per cent (\$45 million), followed by India, representing 19 per cent (\$28 million). Other markets include the United States, Bangladesh, and Colombia, representing 15 per cent (\$22 million), 11 per cent (\$17 million), and 4 per cent (\$4 million), respectively.

a. Beef

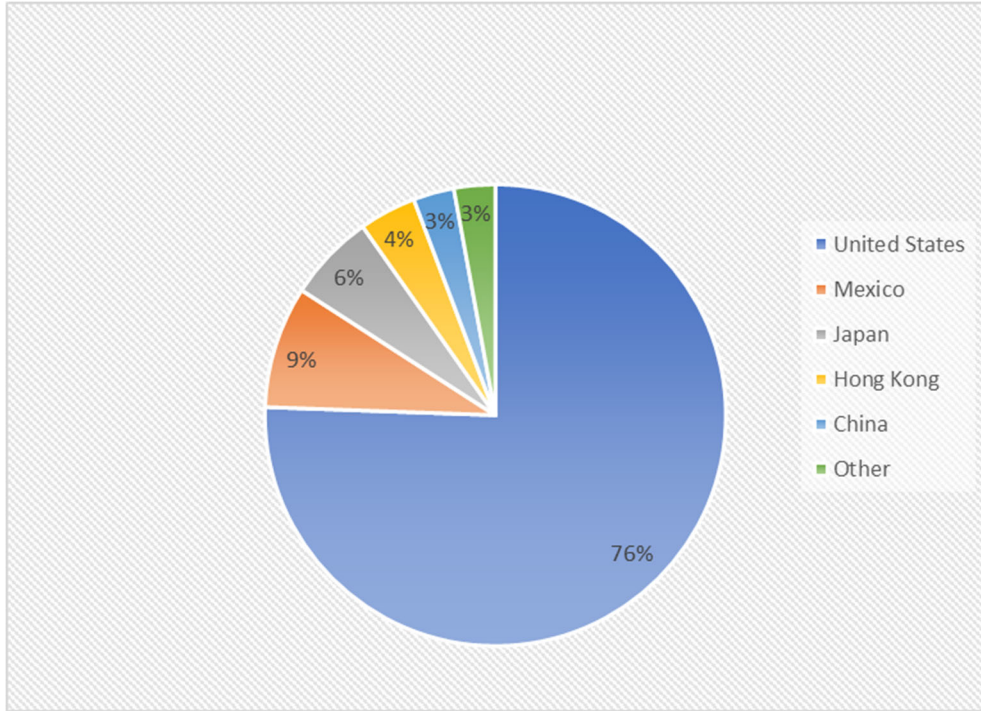


Figure 25: Top five markets for beef exports in Alberta, average 1990-2020

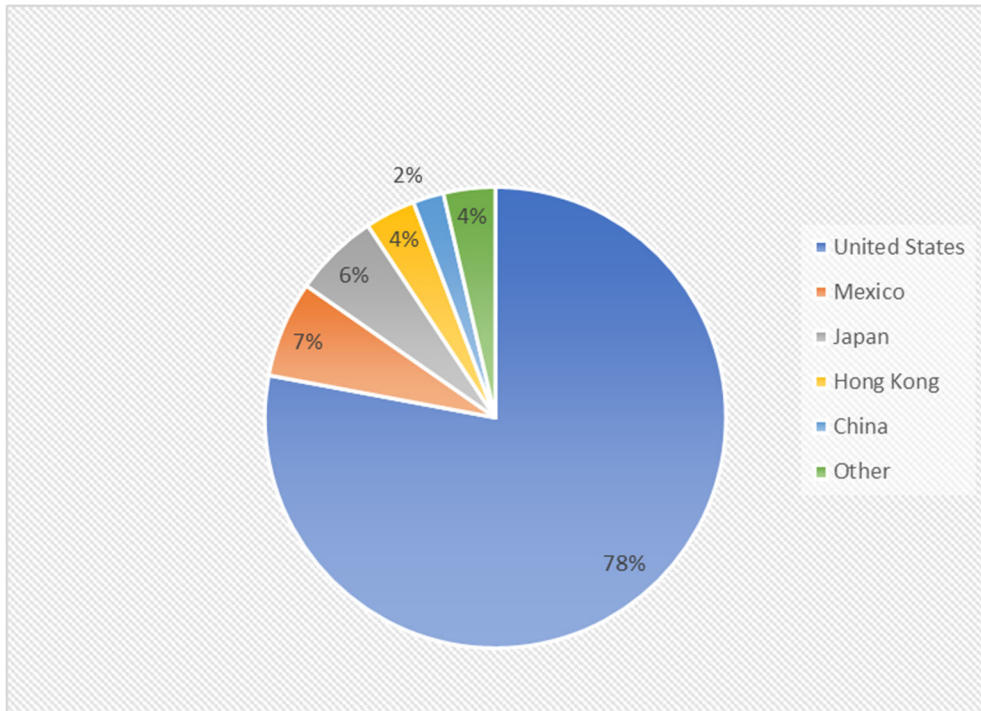


Figure 26: Top five markets for beef exports in Canada, average 1990-2020
Source: Statistics Canada (2021a)

b. Wheat

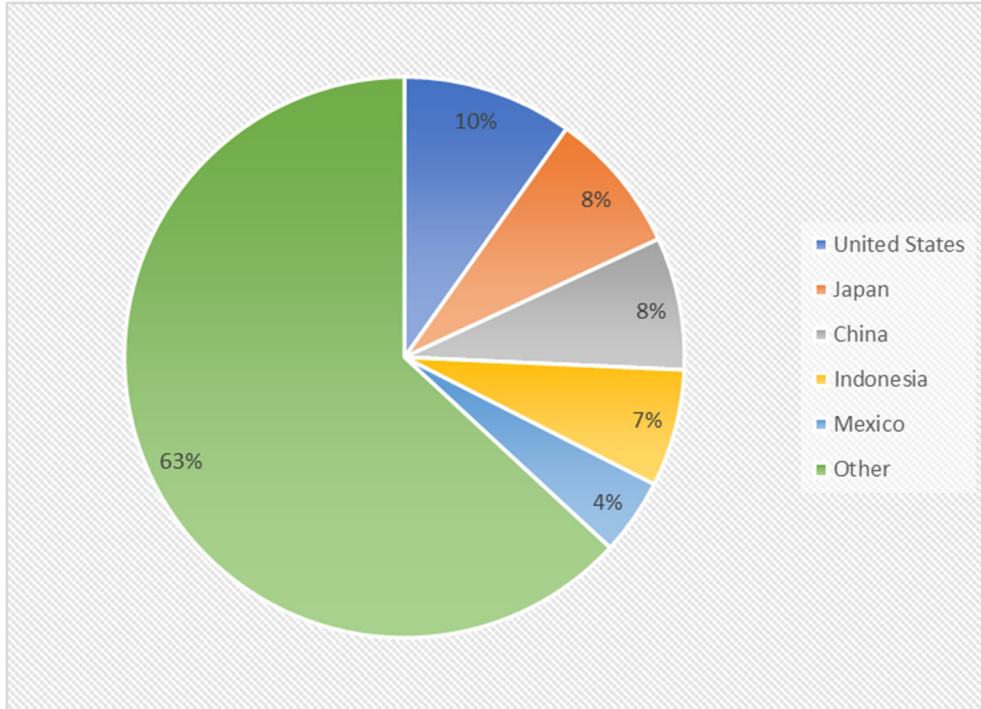


Figure 27: Top five markets for wheat exports in Alberta, average 1990-2020

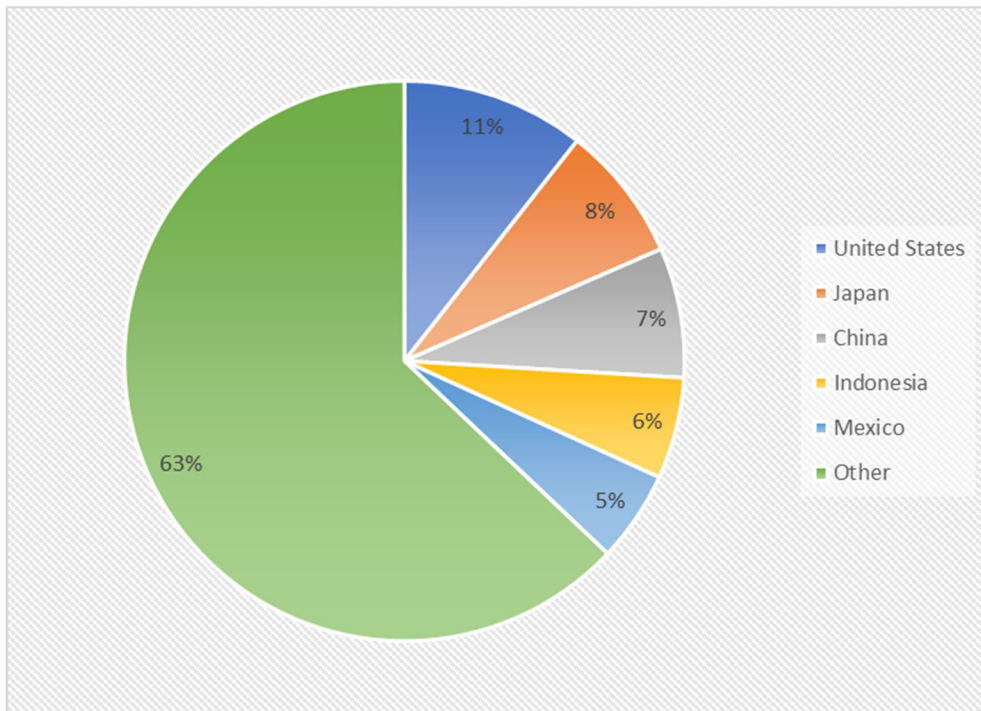


Figure 28: Top five markets for wheat exports in Canada, average 1990-2020
Source: Statistics Canada (2021a)

c. Canola Seed

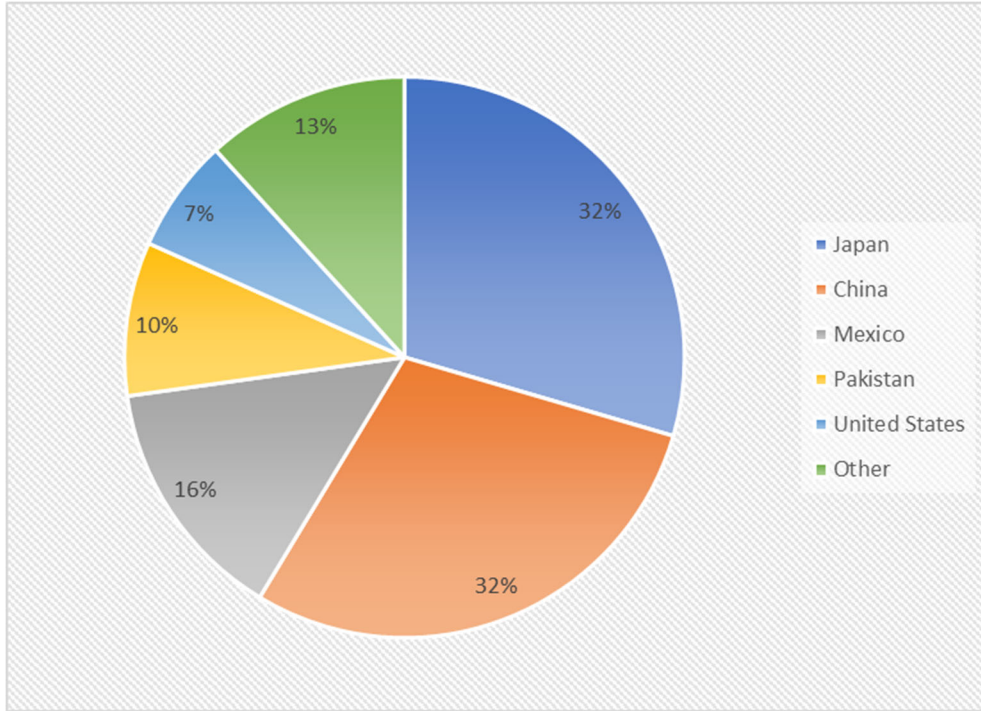


Figure 29: Top five markets for canola seed exports in Alberta, average 1990-2020

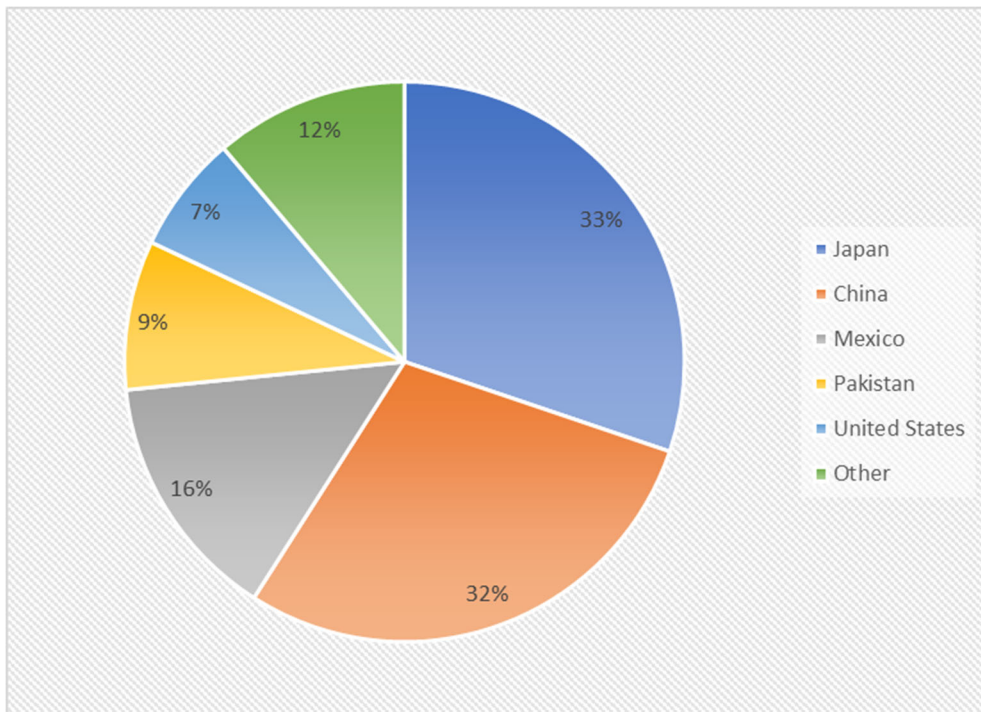


Figure 30: Top five markets for canola seed exports in Canada, average 1990-2020
Source: Statistics Canada (2021a)

d. Canola oil

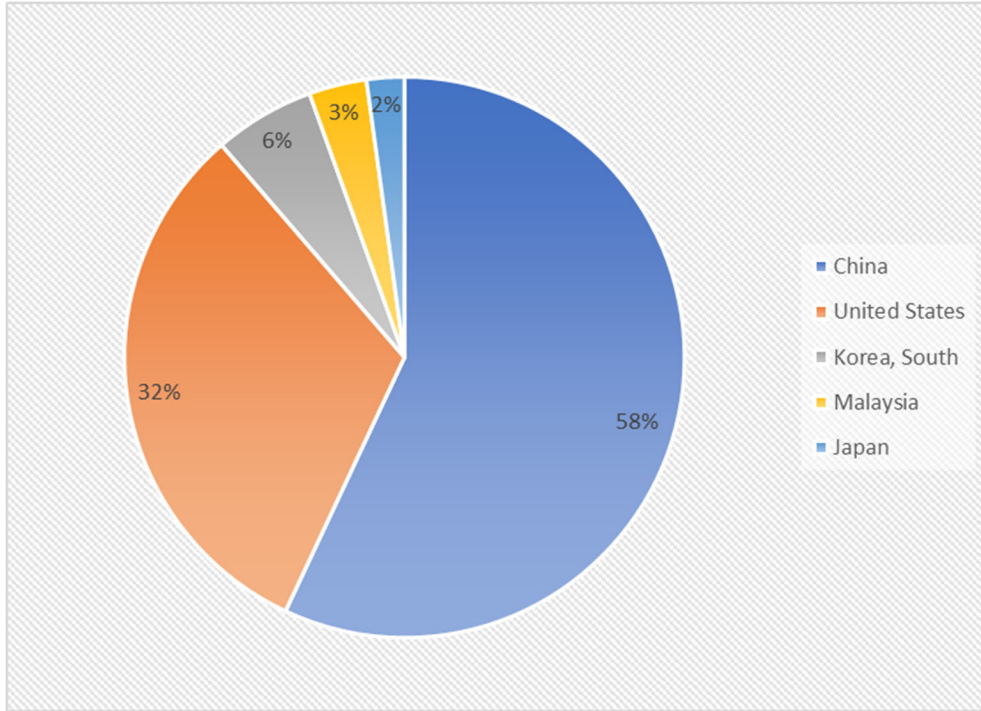


Figure 31: Top five markets for canola oil exports in Alberta, average 1990-2020

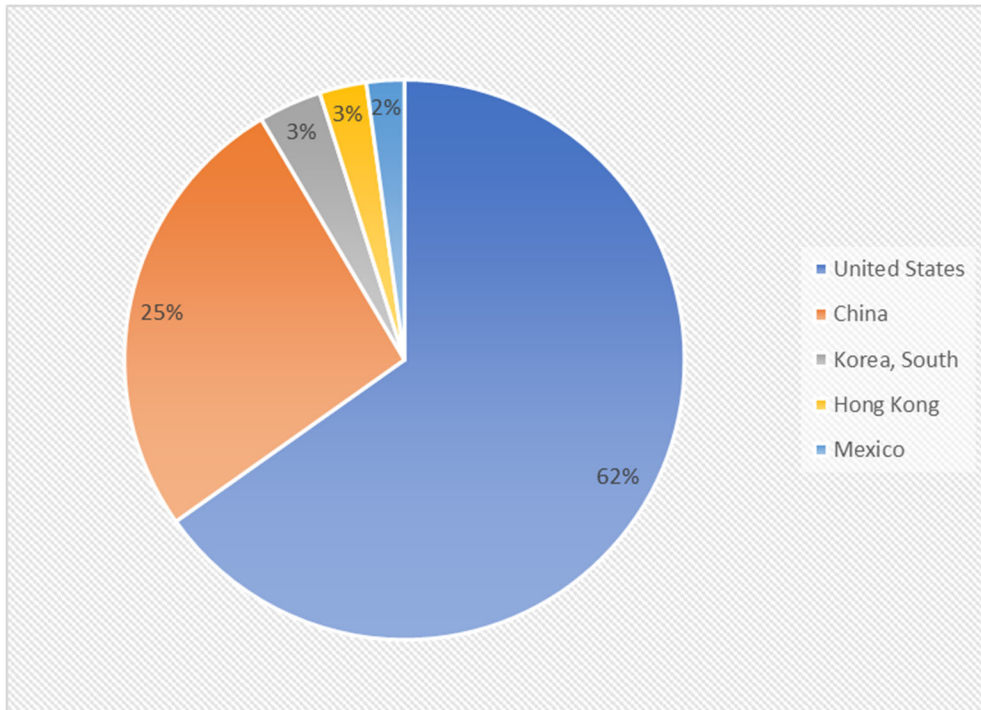


Figure 32: Top five markets for canola oil exports in Canada, average 1990-2020
Source: Statistics Canada (2021a)

e. Pulses

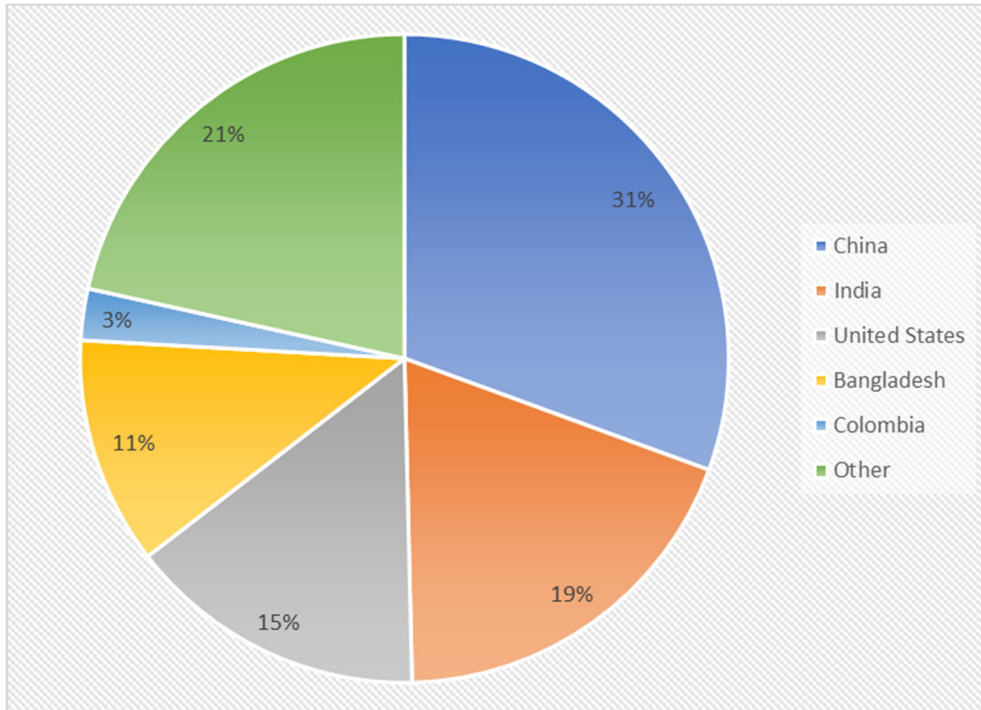


Figure 33: Top five markets for pulse exports in Alberta, average 1990-2020

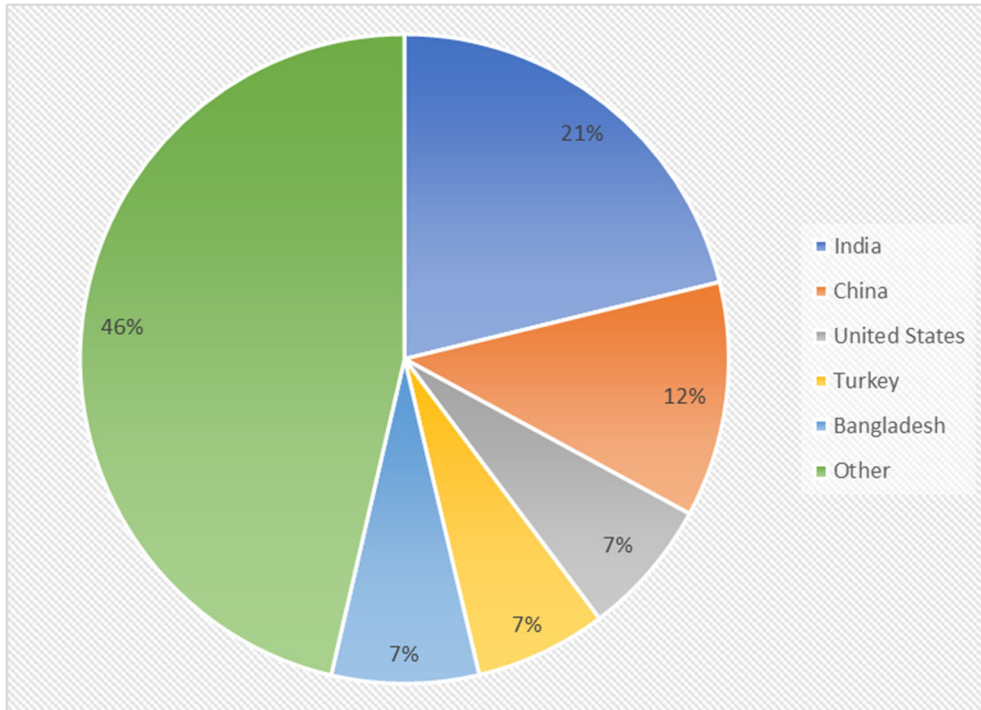


Figure 34: Top five markets for pulse exports in Canada, average 1990-2020
Source: Statistics Canada (2021a)

f. Live cattle

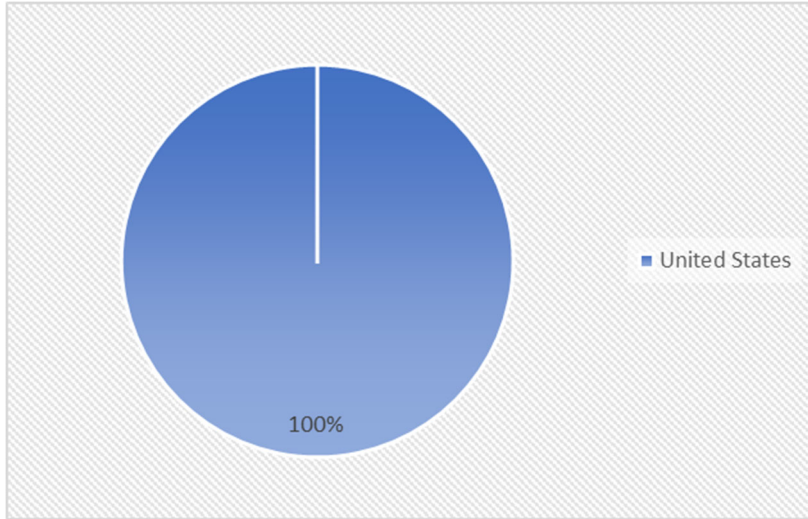


Figure 35: Top market for live cattle exports in Alberta, average 2012-2020

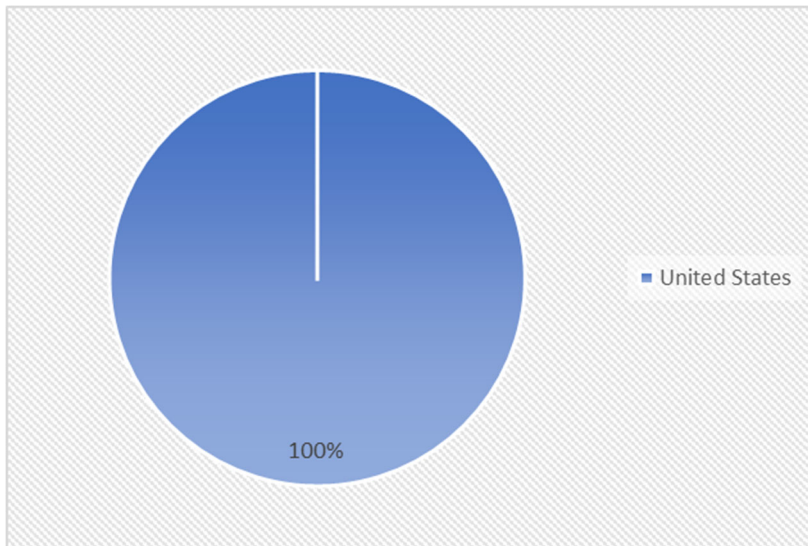


Figure 36: Top market for live cattle exports in Canada, average 2012-2020

Source: Statistics Canada (2021a)

g. Pork

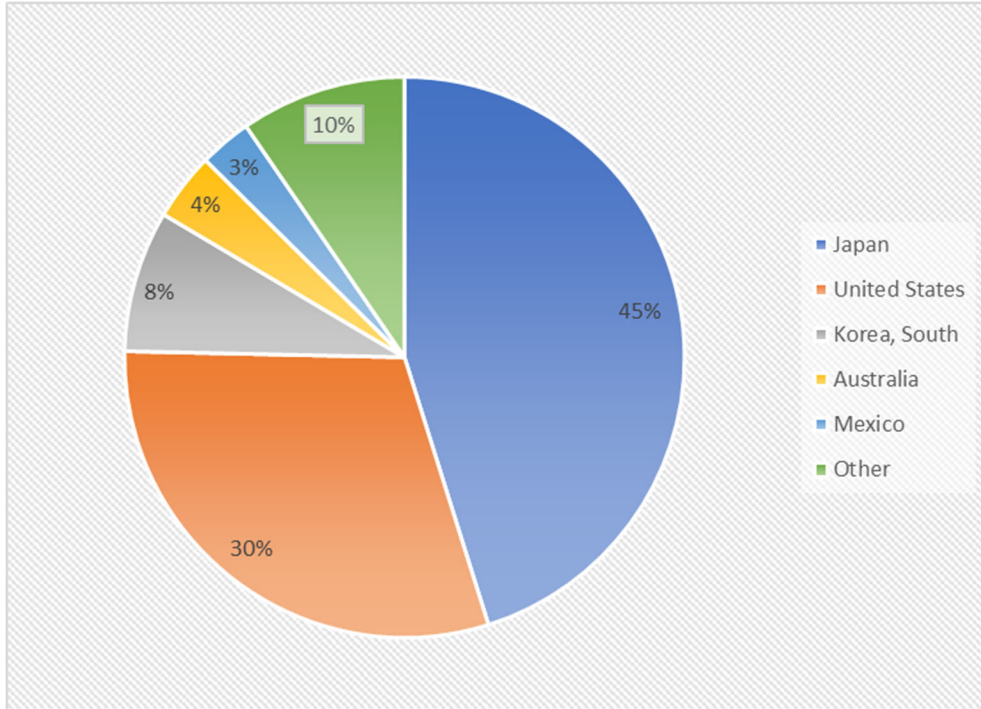


Figure 37: Top five markets for pork exports in Alberta, average 1990-2020

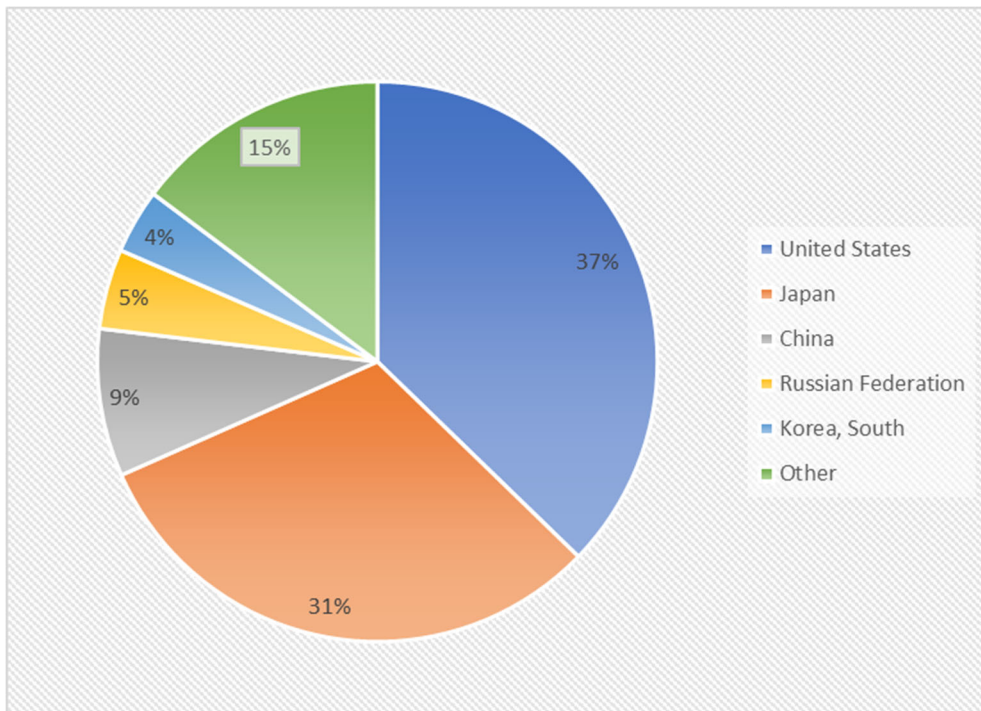


Figure 38: Top five markets for pork exports in Canada, average 1990-2020
Source: Statistics Canada (2021a)

Top Exporting Countries in the World

The world's top exporters of agri-food products over the last three decades (1990-2020) are presented in Figure 39-45 based on exports data obtained from the United Nations Comtrade Database. The role of Alberta to the global agri-food exports was also introduced by using its contribution to the national exports for each product based on the data obtained from the Canadian International Merchandise Trade Database.

Between 2011 and 2020, Canada was the world's number one exporter of canola seed, canola oil, and pulses, the second largest exporter of wheat and live cattle, the fifth largest exporter of pork, and the eighth largest exporter of beef. Alberta contributed 14 per cent (US\$ 1.4 billion) to the global exports of canola seed, nine per cent (US\$ 652 million) to the global exports of canola oil, eight per cent (US\$ 511 million) to the global exports of live cattle, three per cent (US\$ 1.3 billion) to the global exports of beef, three per cent (US\$ 228 million) to the global exports of pulses, two per cent (US\$ 1.8 billion) to the global exports of wheat, and one per cent (US\$ 369 million) to the global exports of pork.

Between 2011 and 2020, the value of global exports of beef was US\$ 47 billion annually on average, Canada being responsible for four per cent (US\$ 1.8 billion). The value of global exports of live cattle (excluding purebred) was US\$ 6.1 billion, Canada being responsible for 18 per cent (US\$ 1.1 billion). The value of global exports of wheat was US\$ 41.6 billion, Canada being responsible for 14 per cent (US\$ 5.9 billion). The value of global exports of canola seed was US\$ 10.5 billion, Canada being responsible for 42 per cent (US\$ 4.4 billion). The value of global exports of canola oil was US\$ 6.9 billion, Canada being responsible for 39 per cent (US\$ 2.7 billion). The value of global exports of pulses was US\$ 10.1 billion, Canada being

responsible for 26 per cent (US\$ 2.6 billion). The value of global exports of pork was US\$ 34.2 billion, Canada being responsible for eight per cent (US\$ 2.8 billion).

a. Beef

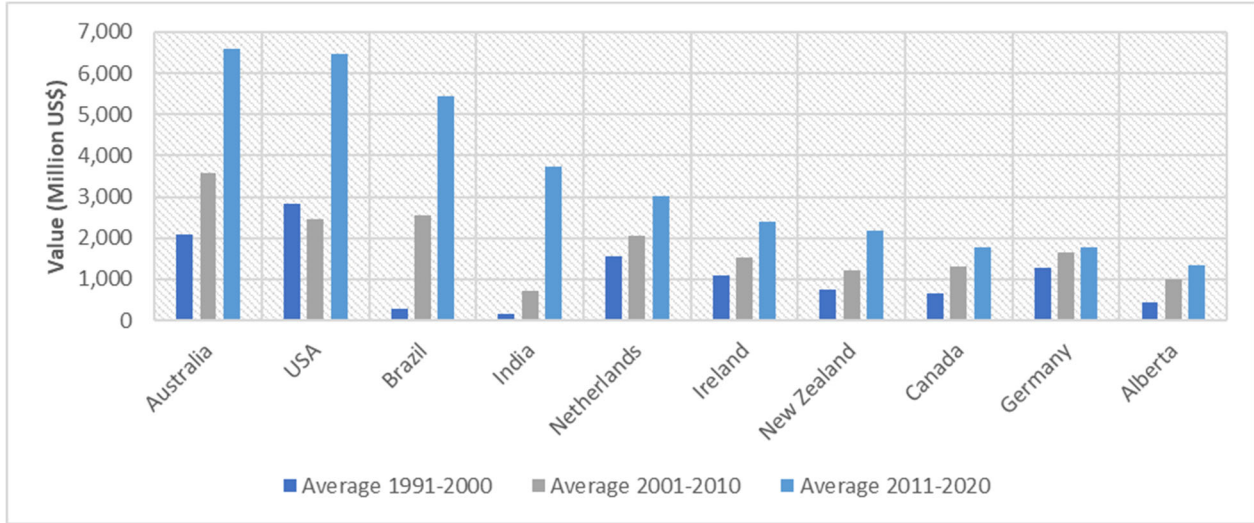


Figure 39: Top exporters of beef to the world, sorted by average 2011-2020, nominal terms
Sources: United Nations Comtrade Database; Statistics Canada (2021a)

b. Wheat

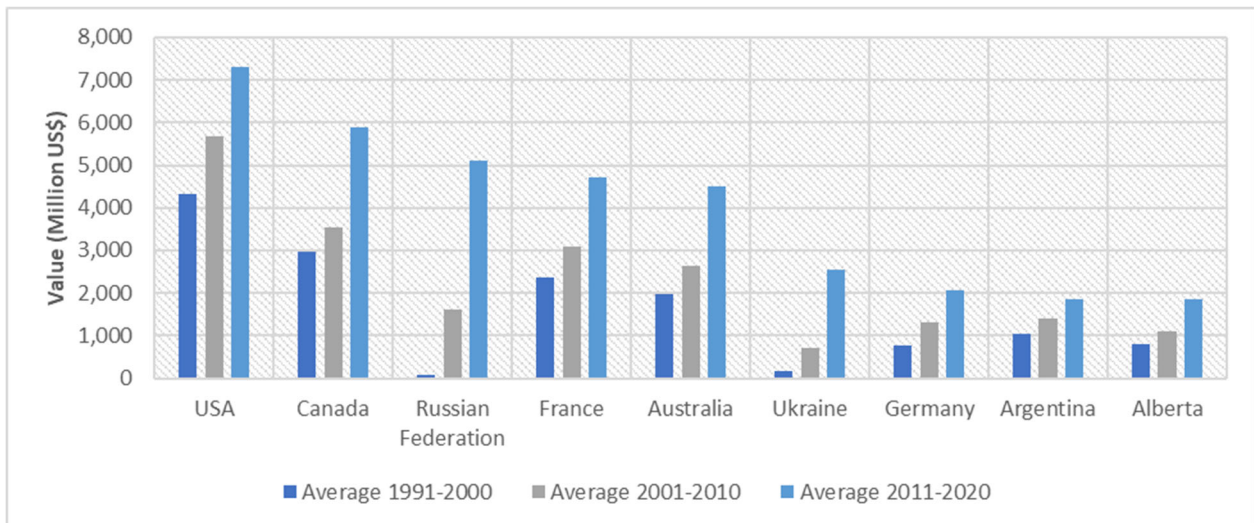


Figure 40: Top exporters of wheat to the world, sorted by average 2011-2020, nominal terms
Sources: United Nations Comtrade Database; Statistics Canada (2021a)

c. Canola Seed

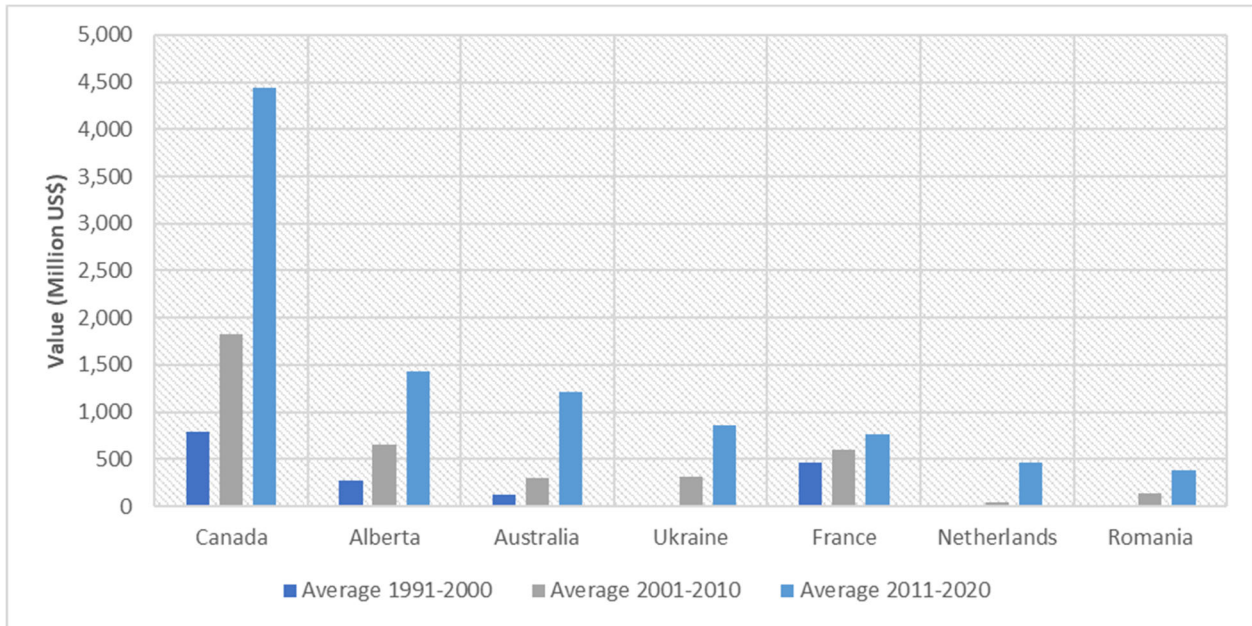


Figure 41: Top exporters of canola seed to the world, sorted by average 2011-2020, nominal terms

Sources: United Nations Comtrade Database; Statistics Canada (2021a)

d. Canola oil

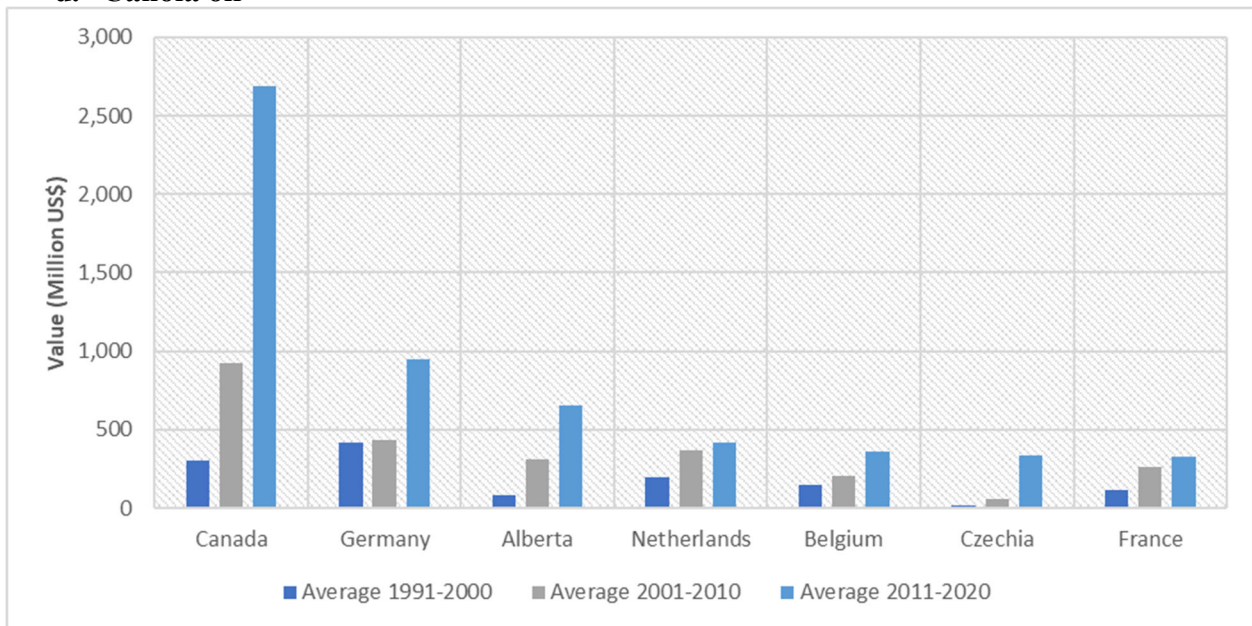


Figure 42: Top exporters of canola oil to the world, sorted by average 2011-2020, nominal terms

Sources: United Nations Comtrade Database; Statistics Canada (2021a)

e. Pulses

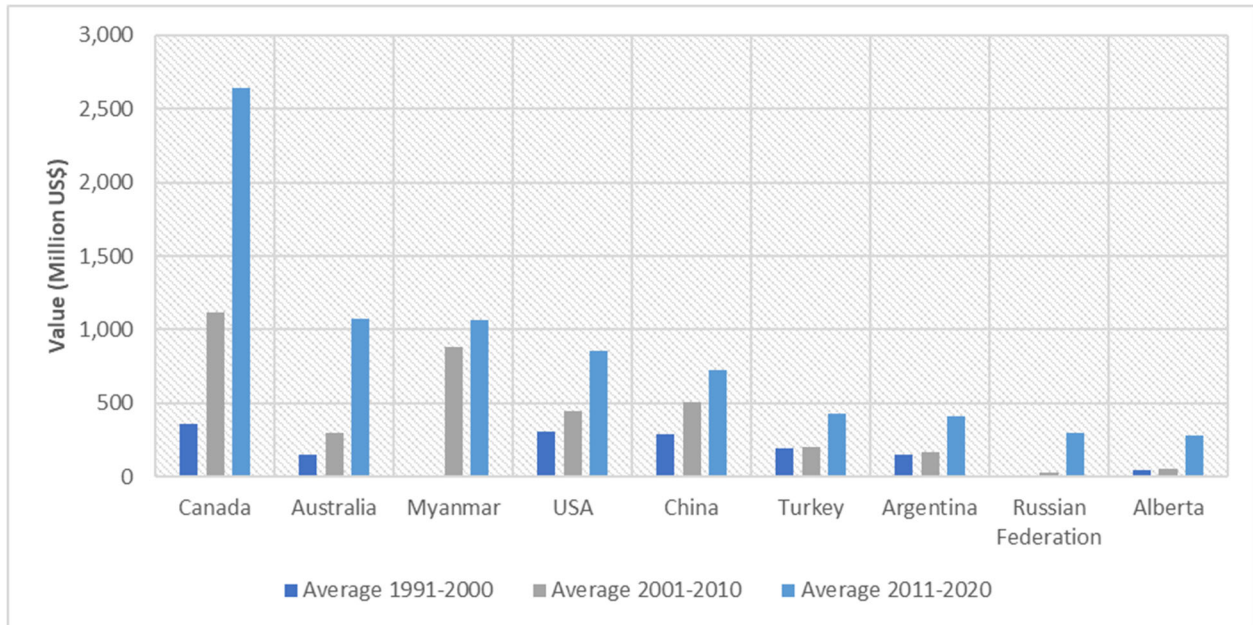


Figure 43: Top exporters of pulses to the world, sorted by average 2011-2020, nominal terms
Sources: United Nations Comtrade Database; Statistics Canada (2021a)

f. Live cattle

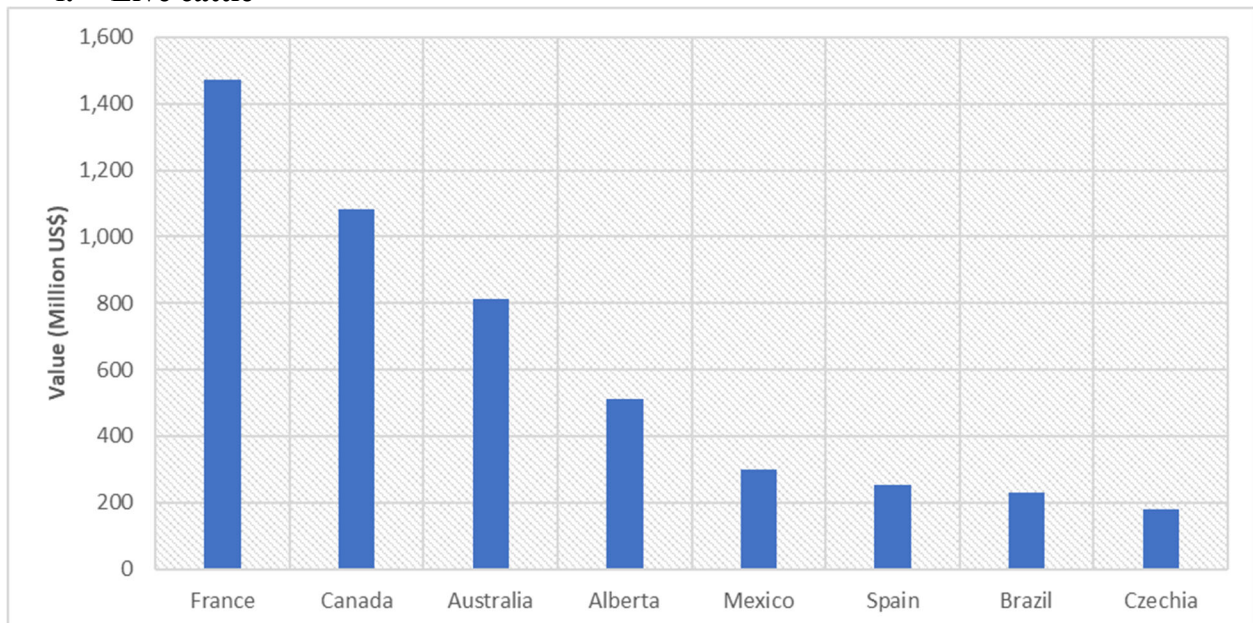


Figure 44: Top exporters of live cattle to the world, sorted by average 2012-2020, nominal terms
Sources: United Nations Comtrade Database; Statistics Canada (2021a)

g. Pork

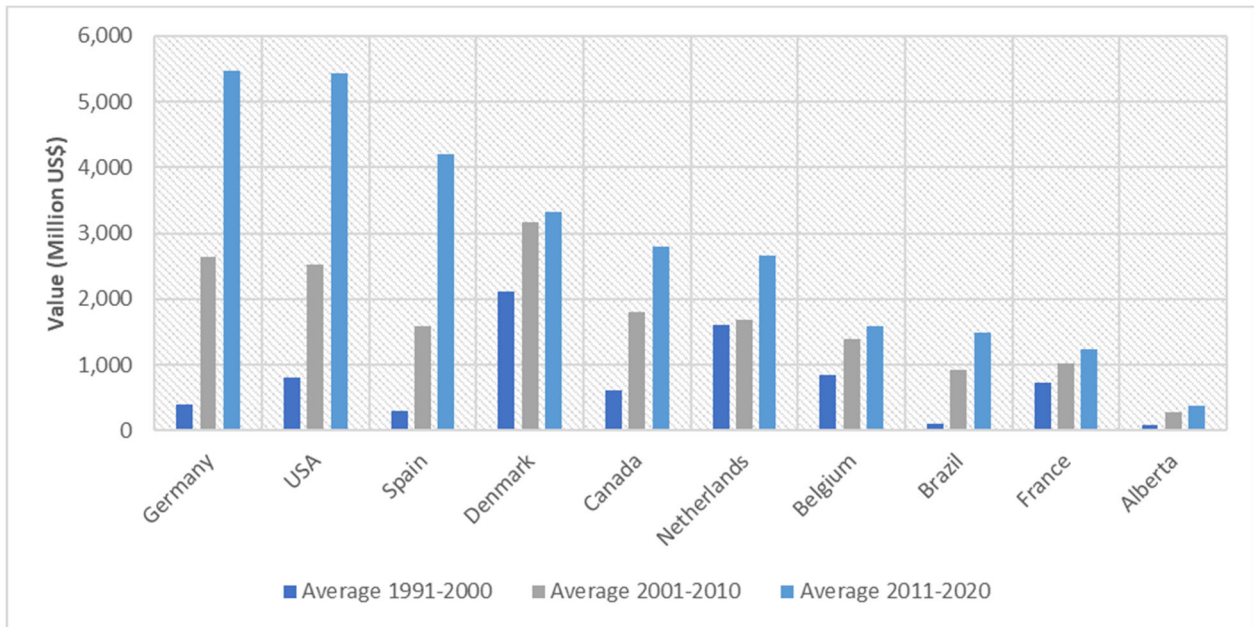


Figure 45: Top exporters of pork to the world, sorted by average 2011-2020, nominal terms
Sources: United Nations Comtrade Database; Statistics Canada (2021a)

Top Competitors for Alberta's Agri-food Markets

By focusing on Alberta's top markets identified for each product earlier, the market shares of Canada and other potential competing countries to each top market for the period 2011-2020 are presented in Figures 46-67. When a given market imports a certain product from many countries, the market share of each exporting country can be measured a ratio of how much a country exported to that given market over how much that market imported in total from all countries across the world (Chen and Duan 2001; Davie and Veeman 2007; Bojnec and Fertó 2014). For example, the market share of Canada to the imports of beef in the United States market can be calculated as a ratio of the value of beef that the United States imported from Canada over the total value of beef that the United States imported from all countries across the world. The market shares were determined based on the imports data obtained from the United Nations Comtrade Database.

a. Beef

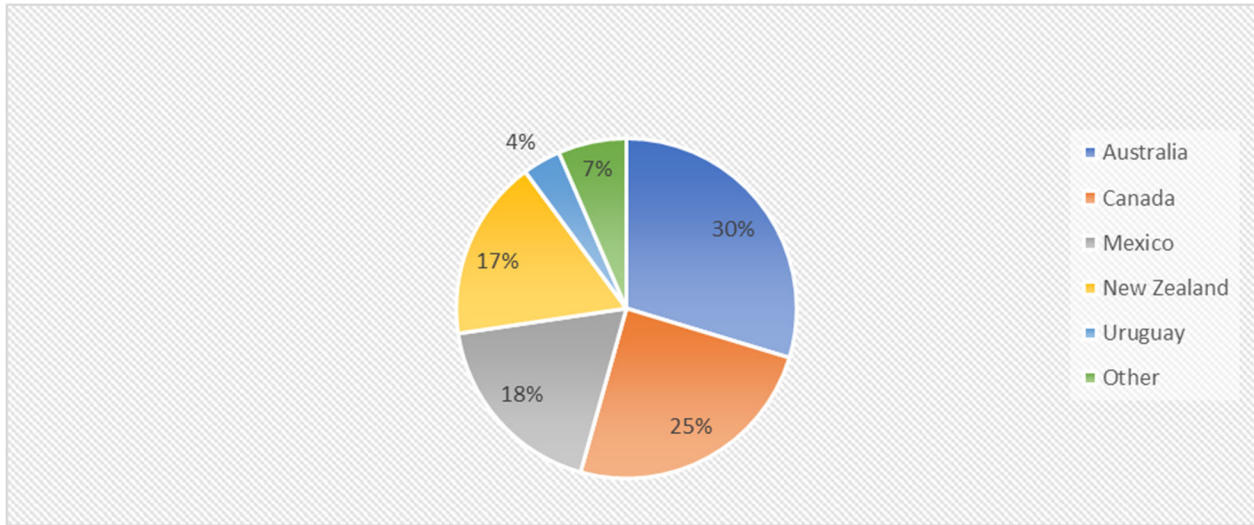


Figure 46: Market shares of Canada and its competitors to the United States beef imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of beef that the United States imported from a country divided by the total value of beef that the United States imported from all countries across the world for the period 2011-20.

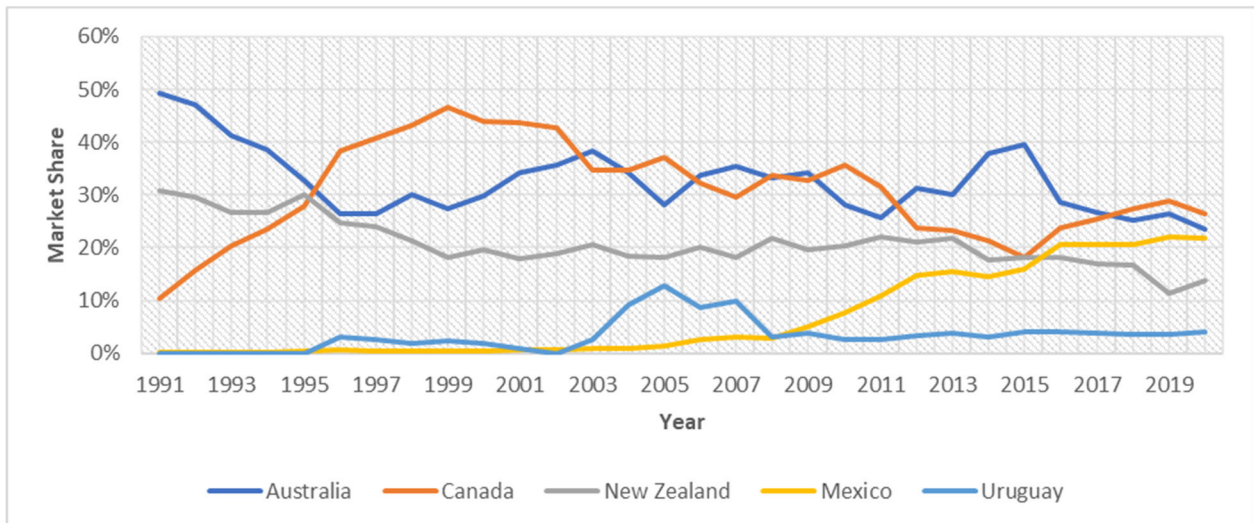


Figure 47: Market shares of Canada and its competitors to the United States beef imports, 1991-2020

Source: United Nations Comtrade Database

b. Wheat

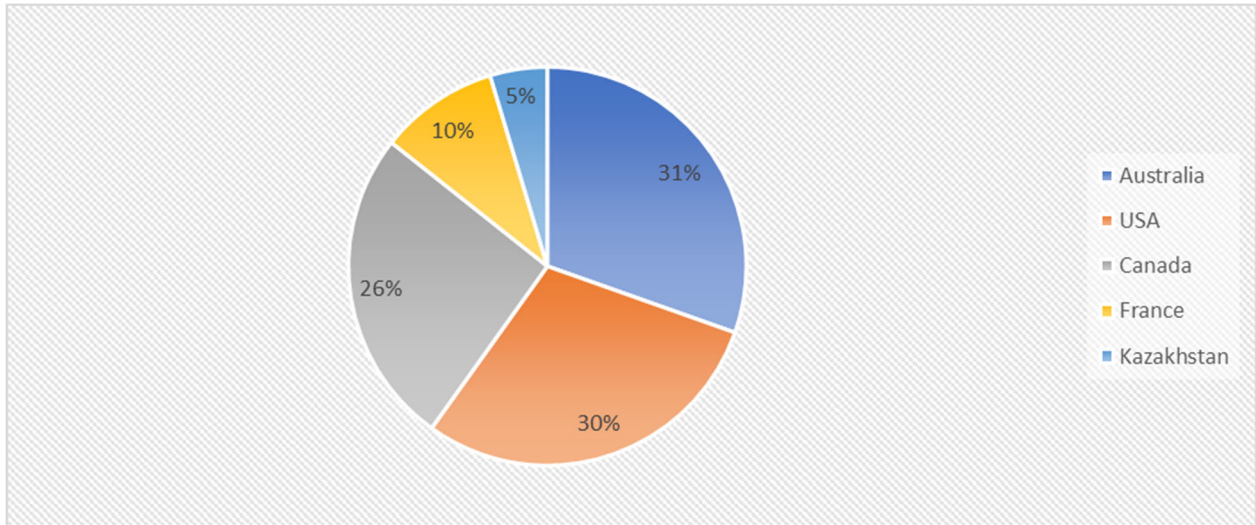


Figure 48: Market shares of Canada and its competitors to China’s wheat imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of wheat that China imported from a country divided by the total value of wheat that China imported from all countries across the world for the period 2011-20.

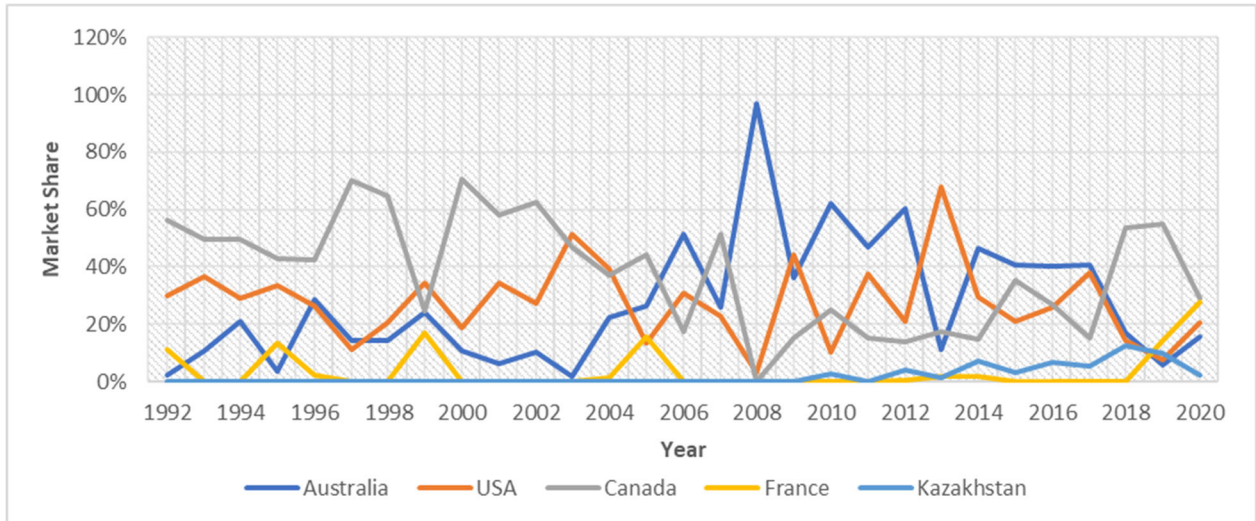


Figure 49: Market shares of Canada and its competitors to China’s wheat imports, 1992-2020

Source: United Nations Comtrade Database

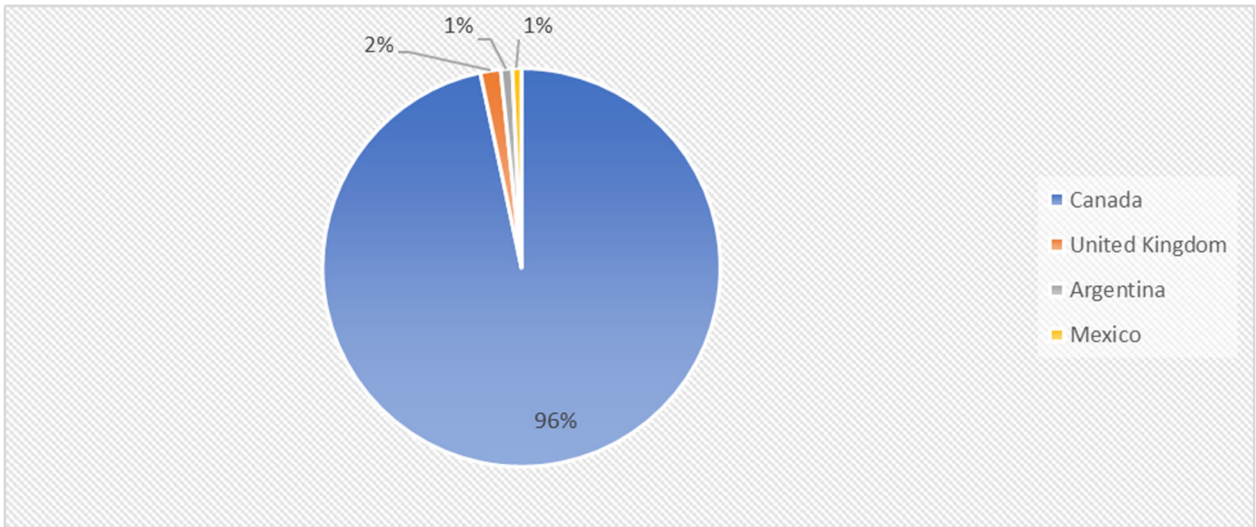


Figure 50: Market shares of Canada and its competitors to the United States wheat imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of wheat that the United States imported from a country divided by the total value of wheat that the United States imported from all countries across the world for the period 2011-20.

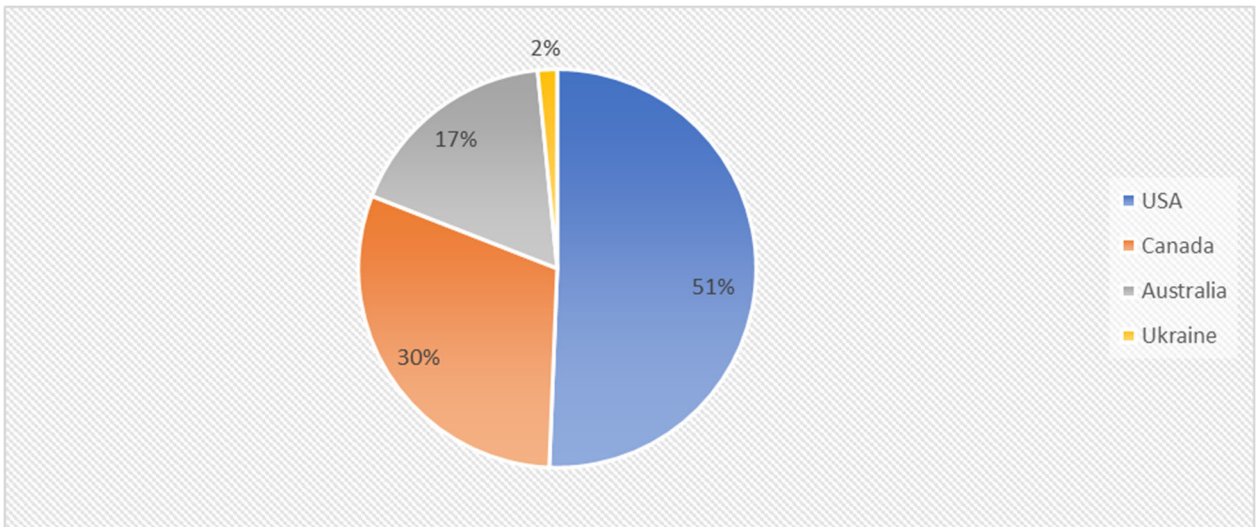


Figure 51: Market shares of Canada and its competitors to Japan's wheat imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of wheat that Japan imported from a country divided by the total value of wheat that Japan imported from all countries across the world for the period 2011-20.

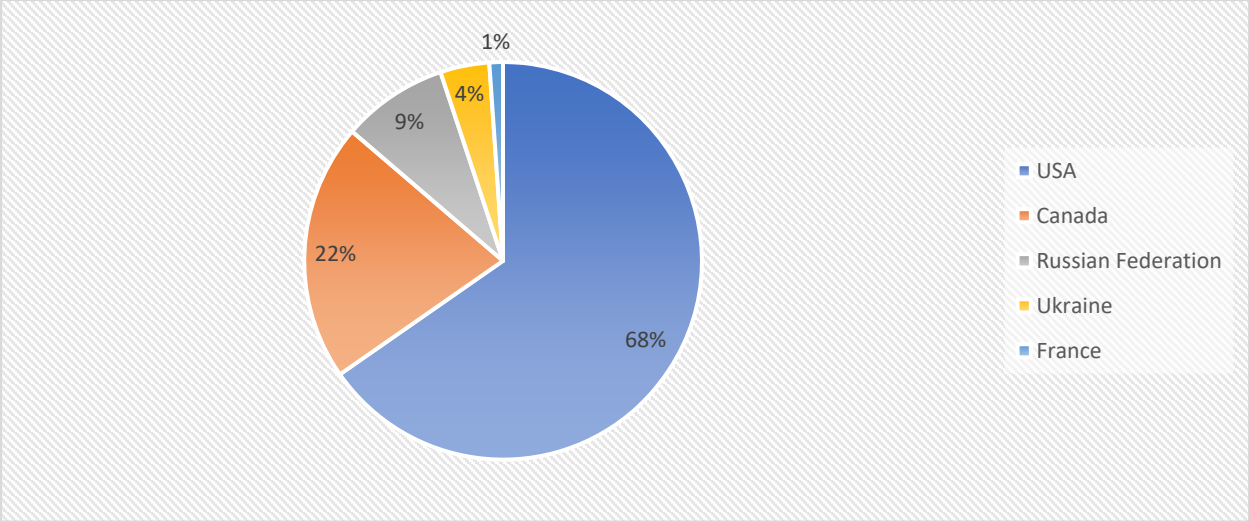


Figure 52: Market shares of Canada and its competitors to Mexico’s wheat imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of wheat that Mexico imported from a country divided by the total value of wheat that Mexico imported from all countries across the world for the period 2011-20.

c. Canola Seed

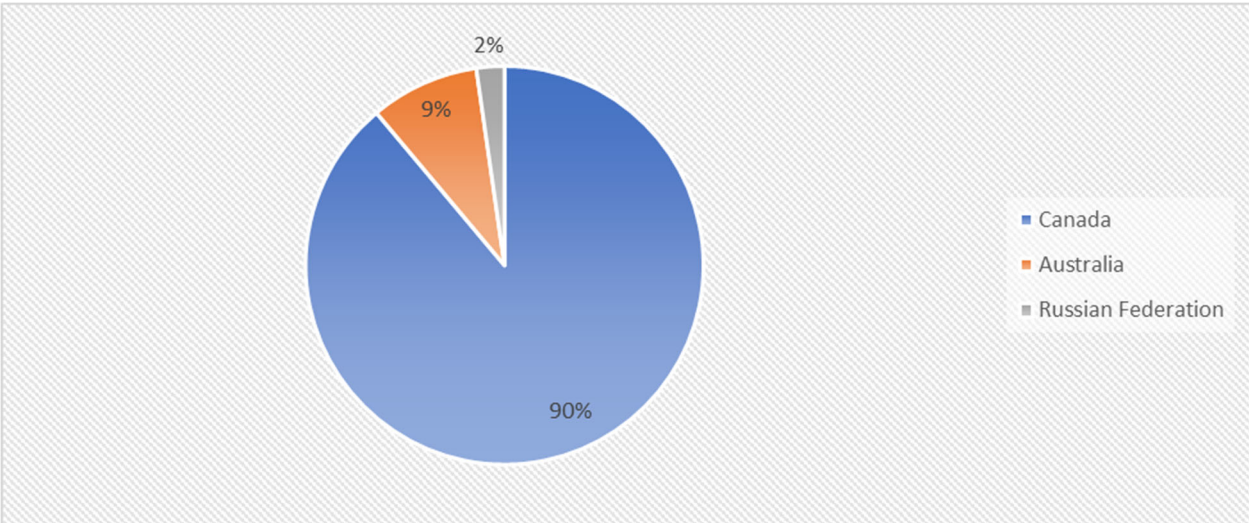


Figure 53: Market shares of Canada and its competitors to China’s canola seed imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of canola seed that China imported from a country divided by the total value of canola seed that China imported from all countries across the world for the period 2011-20.

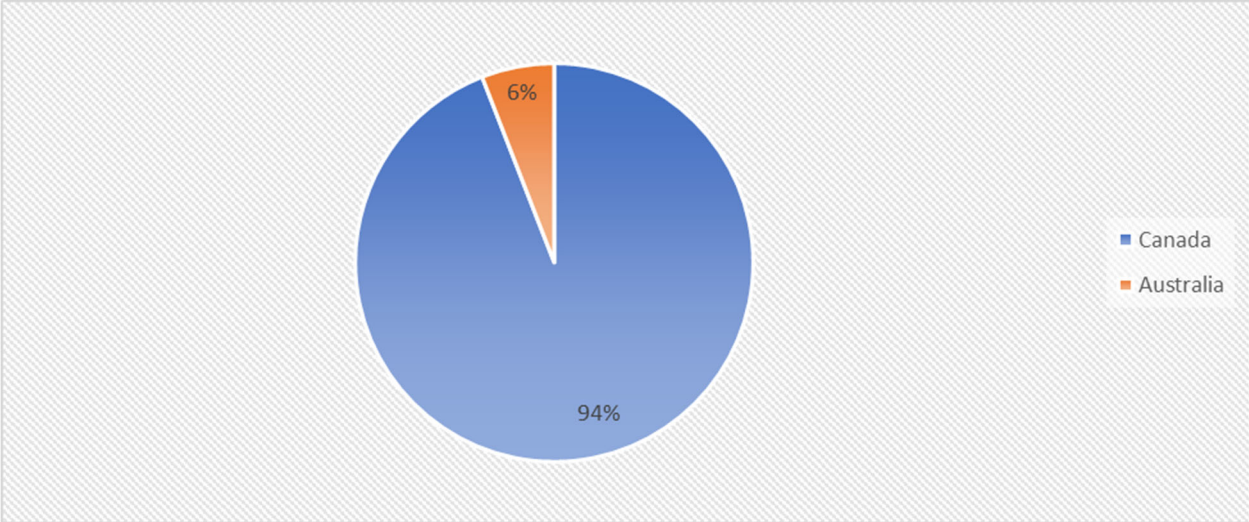


Figure 54: Market shares of Canada and its competitor to Japan’s canola seed imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of canola seed that Japan imported from a country divided by the total value of canola seed that Japan imported from all countries across the world for the period 2011-20.

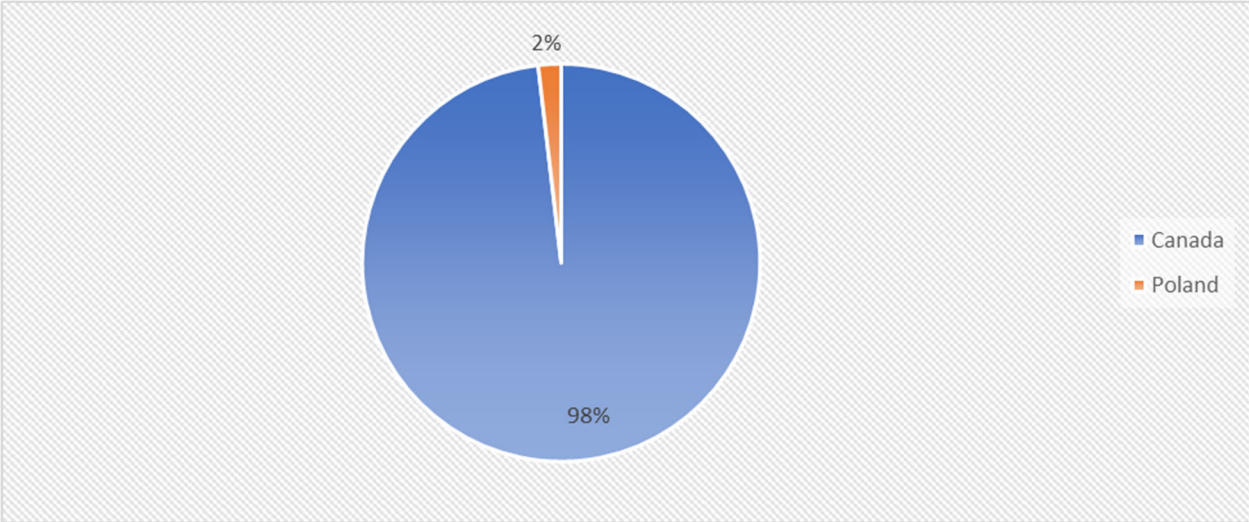


Figure 55: Market shares of Canada and its competitors for the Mexico canola seed imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of canola seed that Mexico imported from a country divided by the total value of canola seed that Mexico imported from all countries across the world for the period 2011-20.

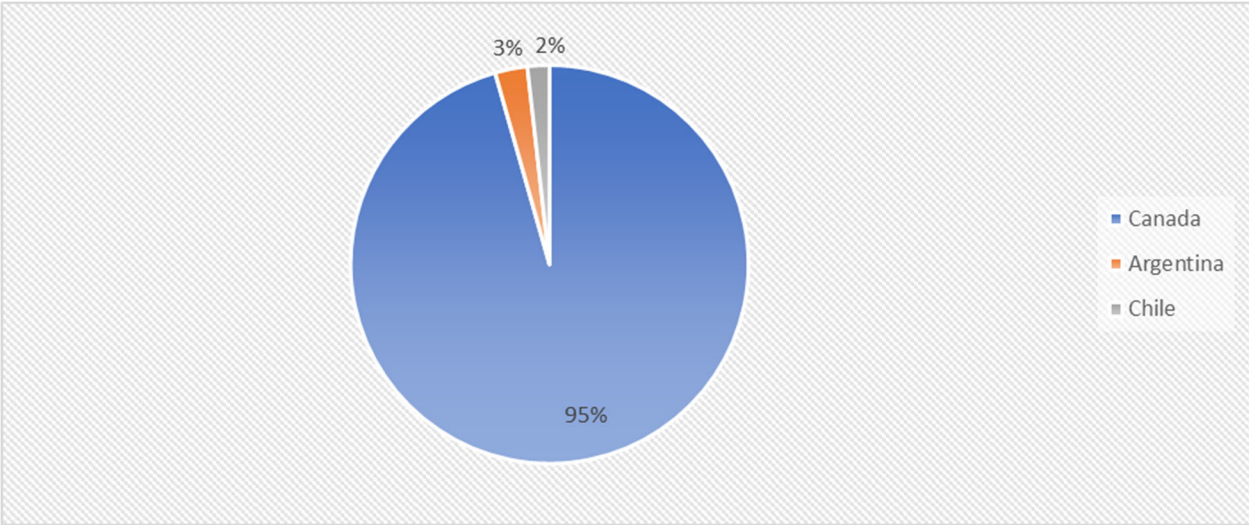


Figure 56: Market shares of Canada and its competitors to the United States canola seed imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of canola seed that the United States imported from a country divided by the total value of canola seed that the United States imported from all countries across the world for the period 2011-20.

d. Canola oil

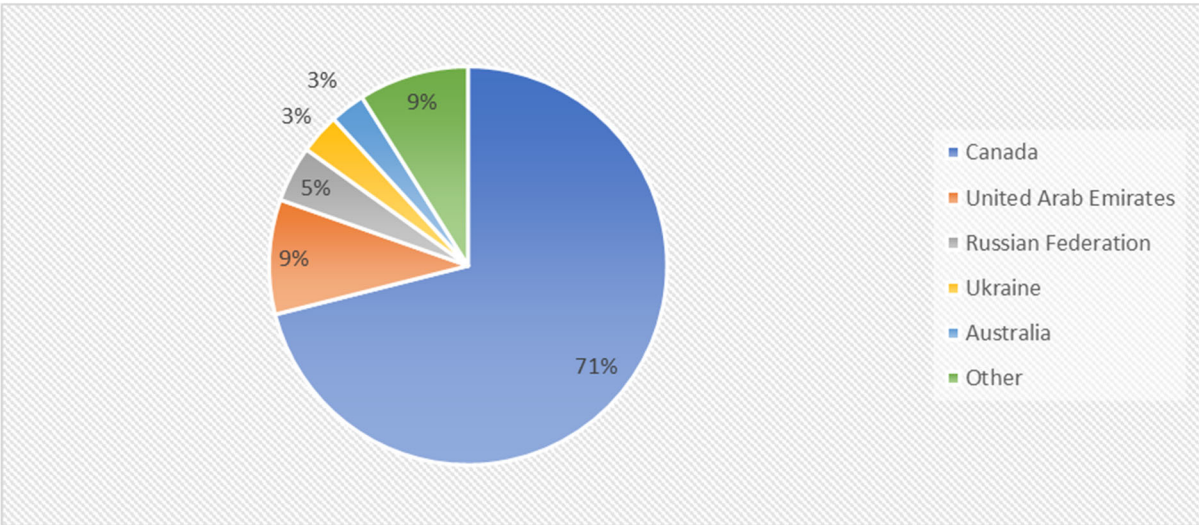


Figure 57: Market shares of Canada and its competitors to China's canola oil imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of canola oil that China imported from a country divided by the total value of canola oil that China imported from all countries across the world for the period 2011-20.

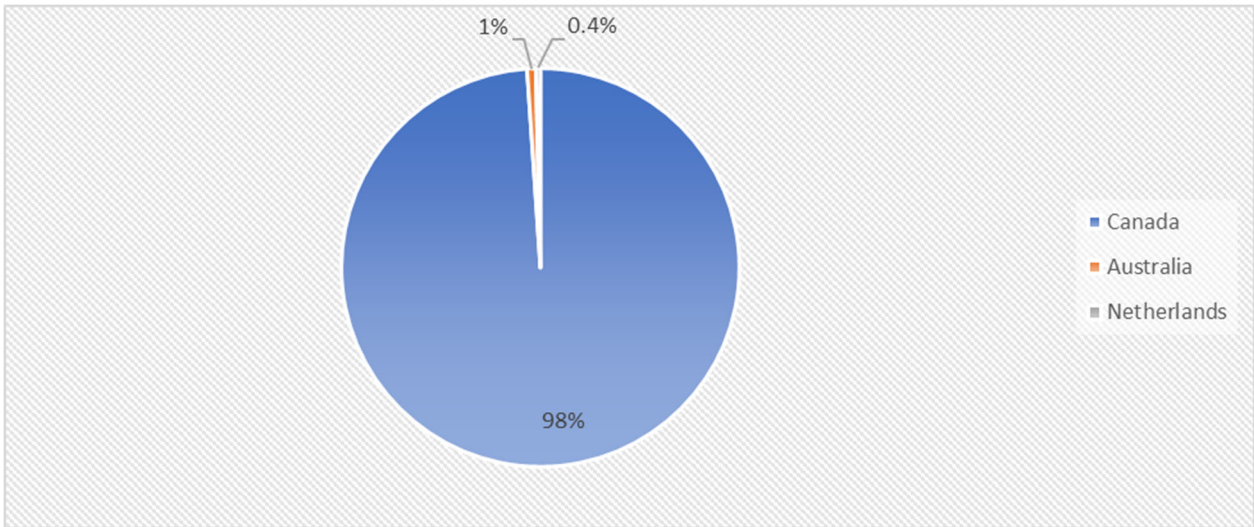


Figure 58: Market shares of Canada and its competitors to the United States canola oil imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of canola oil that the United States imported from a country divided by the total value of canola oil that the United States imported from all countries across the world for the period 2011-20.

e. Pulses

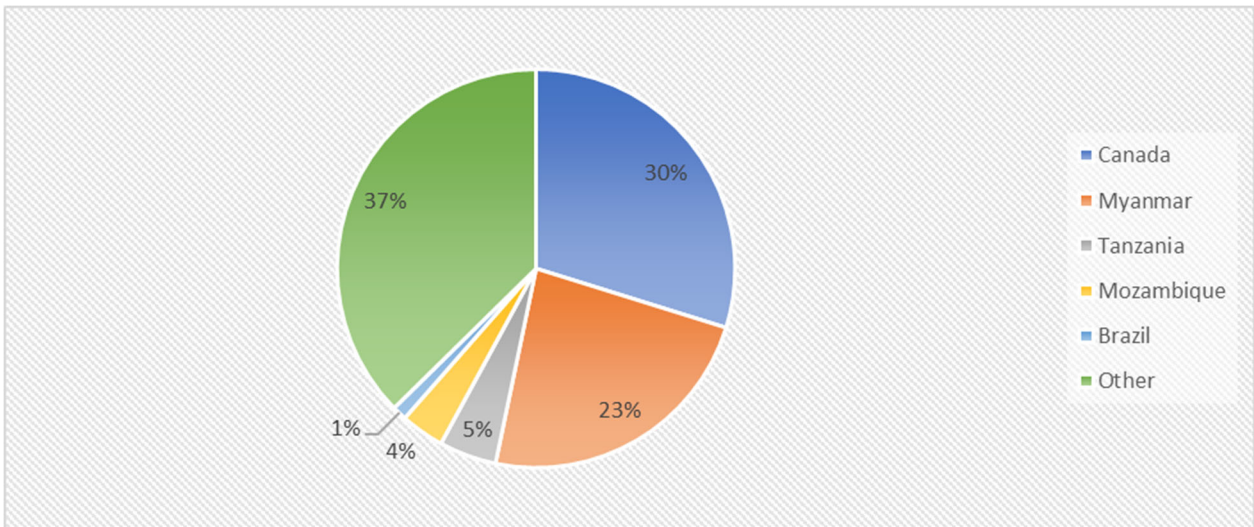


Figure 59: Market shares of Canada and its competitors to India's pulses imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pulses that India imported from a country divided by the total value of pulse that India imported from all countries across the world for the period 2011-20.

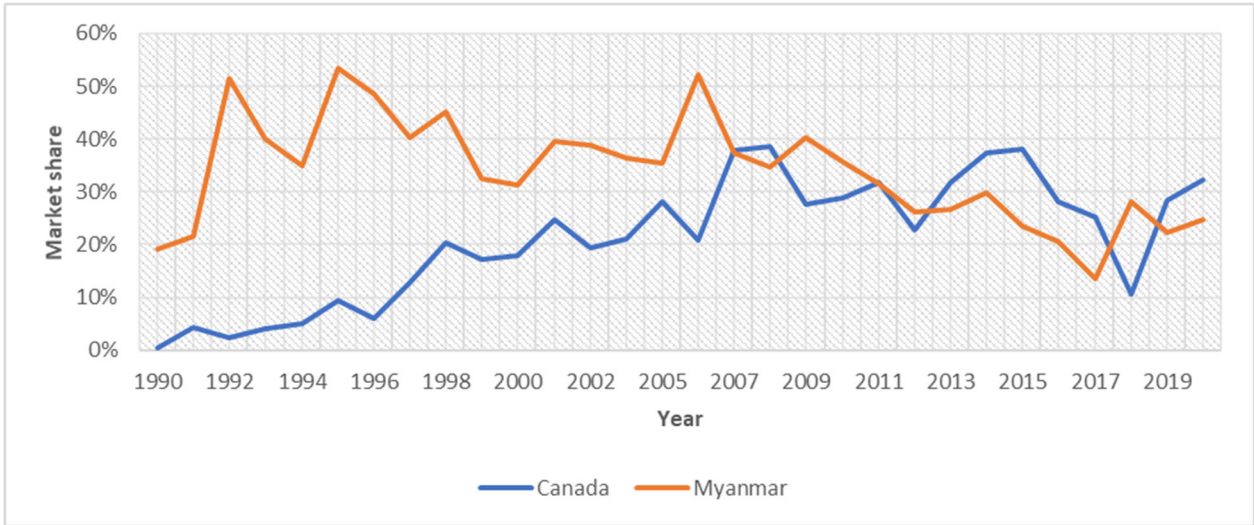


Figure 60: Market shares of Canada and its competitors to India’s pulses imports, 1990-2020
 Source: United Nations Comtrade Database

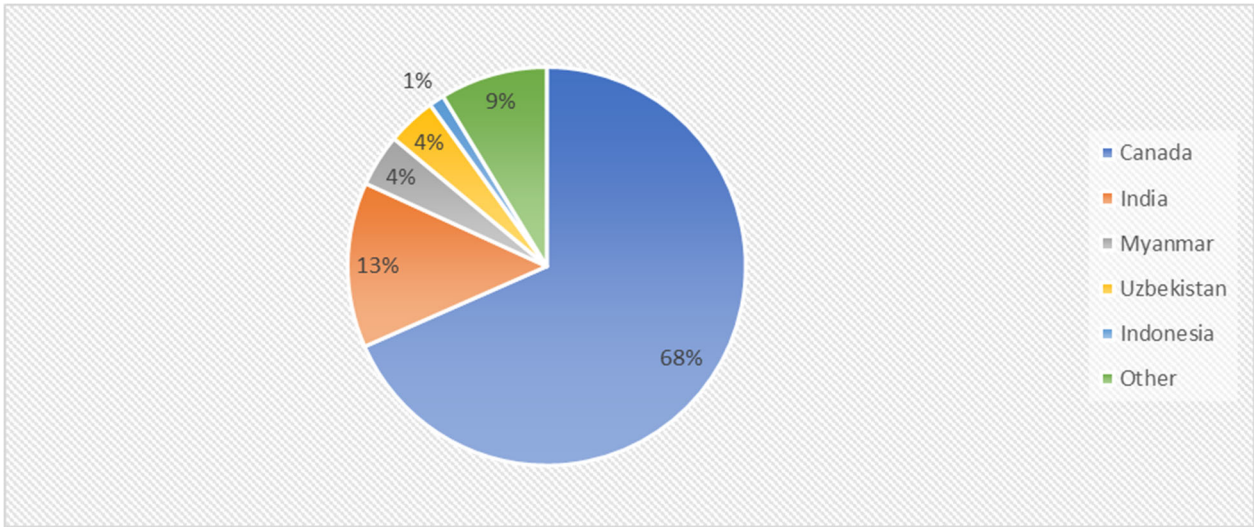


Figure 61: Market shares of Canada and its competitors to China’s pulse imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pulses that China imported from a country divided by the total value of pulses that China imported from all countries across the world for the period 2011-20.

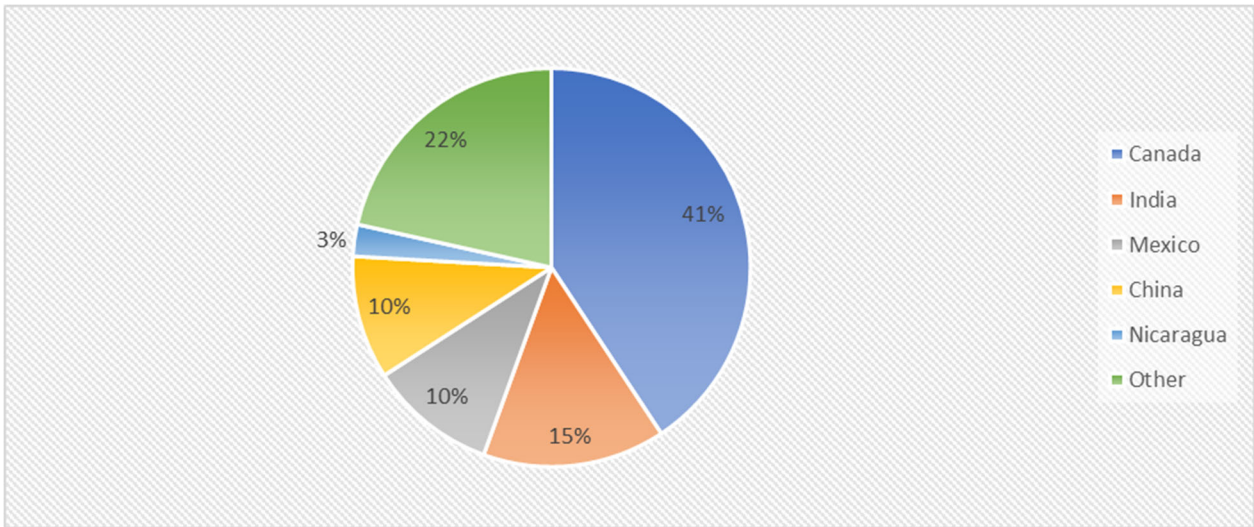


Figure 62: Market shares of Canada and its competitors to the United States pulse imports, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pulses that the United States imported from a country divided by the total value of pulses that the United States imported from all countries across the world for the period 2011-20.

f. Live cattle

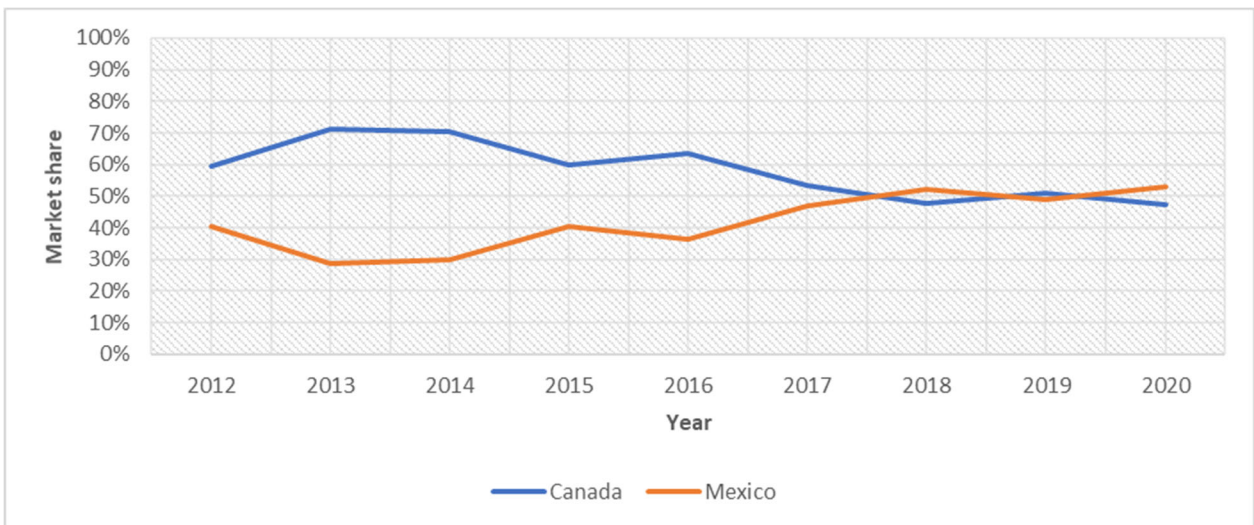


Figure 63: Market shares of Canada and Mexico to the United States imports of live cattle (excluding purebred), 2012-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of live cattle that the United States imported from a country divided by the total value of live cattle that the United States imported from all countries across the world for the period 2011-20.

g. Pork

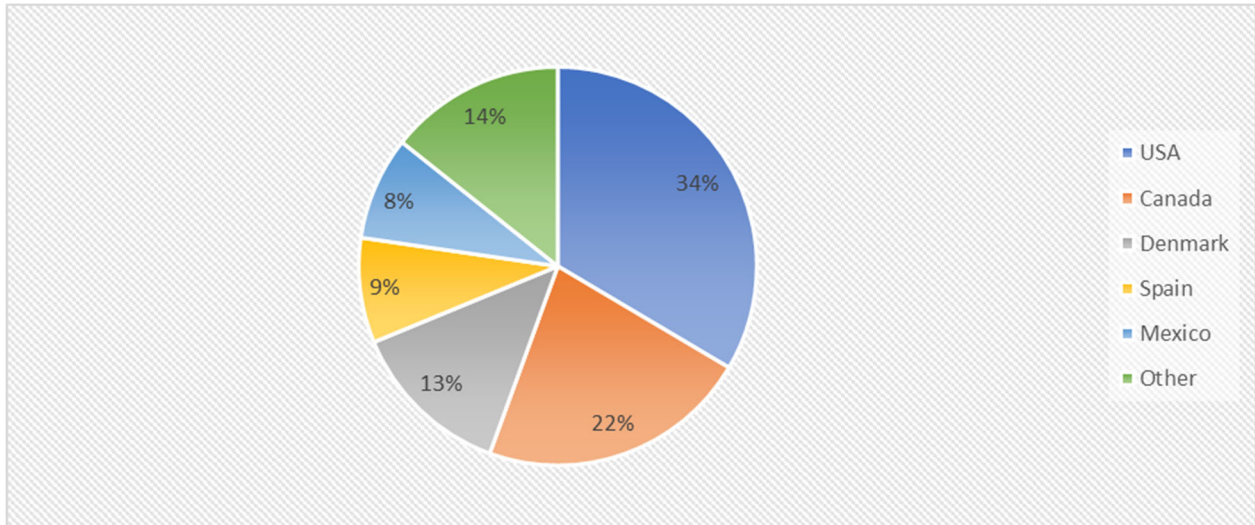


Figure 64: Market shares of Canada and its competitors to Japan’s imports of pork, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pork that Japan imported from a country divided by the total value of pork that Japan imported from all countries across the world for the period 2011-20.

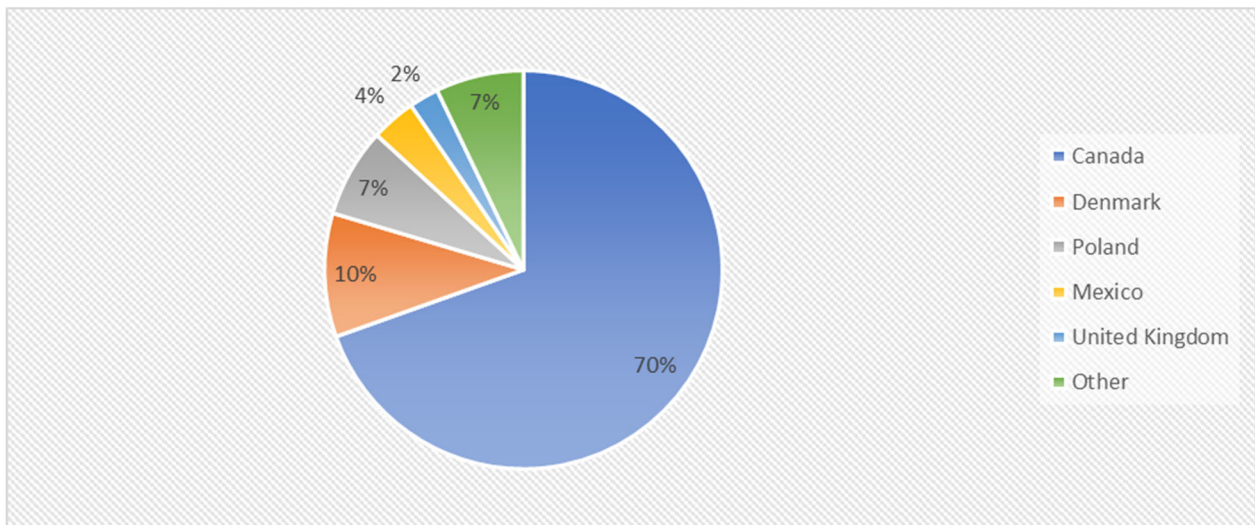


Figure 65: Market shares of Canada and its competitors to the United States imports of pork, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pork that the United States imported from a country divided by the total value of pork that the United States imported from all countries across the world for the period 2011-20.

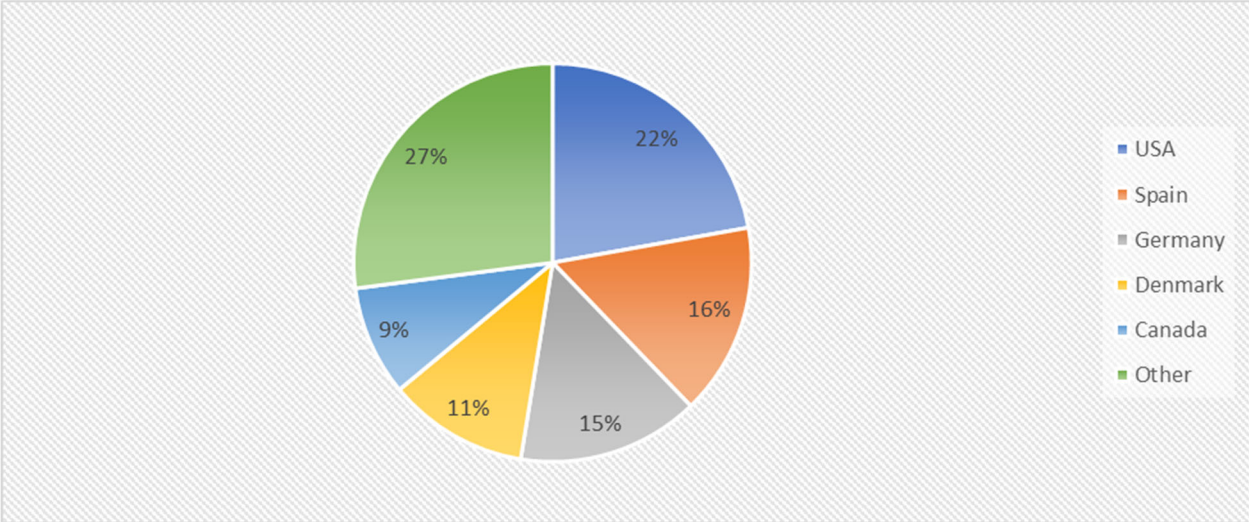


Figure 66: Market shares of Canada and its competitors to China’s imports of pork, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pork that China imported from a country divided by the total value of pork that China imported from all countries across the world for the period 2011-20.

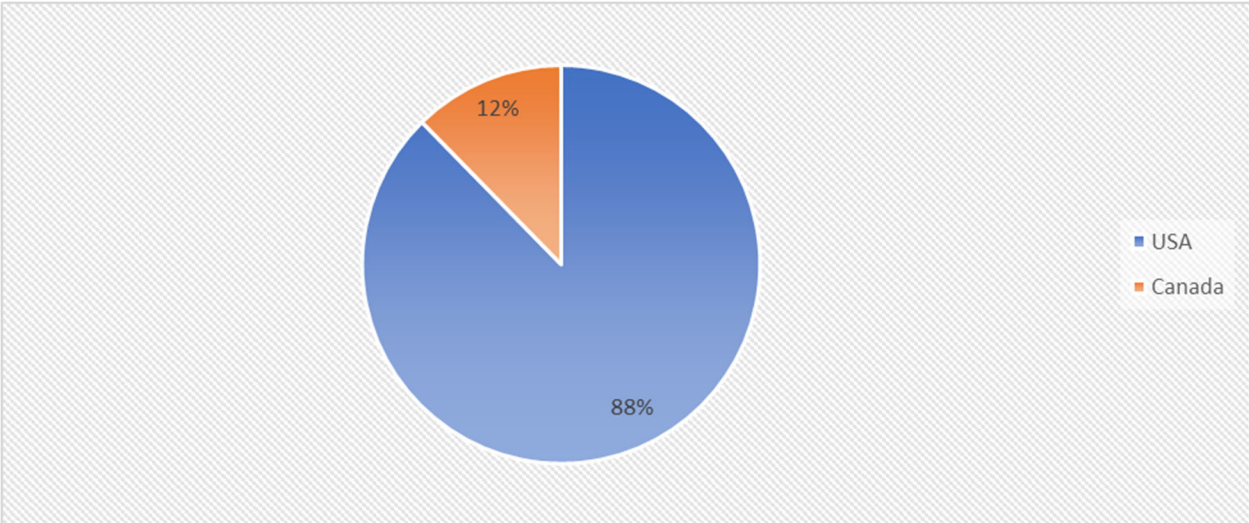


Figure 67: Market shares of Canada and the USA to Mexico’s imports of pork, average 2011-2020

Source: United Nations Comtrade Database

Note: The market share of each country was calculated as the value of pork that Mexico imported from a country divided by the total value of pork that Mexico imported from all countries across the world for the period 2011-20.

Forecast of Agri-food Products in Canada and the World

The OECD-FAO Agricultural Outlook provides projections for agricultural products over the coming decade (2020-2029) at the national and global levels covering consumption, production, trade, and prices. While both population growth and economic growth were considered to be the main drivers of demand for agricultural commodities, both productivity growth and resource availability were considered to be the main factors shaping the production of agricultural commodities (OECD/FAO 2020).

Based on the data obtained from the OECD-FAO Agricultural Outlook 2020-2029, Table 8 below presents projected growth in the production and exports of selected agricultural products in Canada and the world over the coming decade (2020-29) by comparing the projection with the condition in last ten years (2010-19). In general, slower growth of production and exports are expected globally and in Canada for all considered agricultural products except pork and beef over the coming decade relative to the last ten years.

Canadian beef exports are projected to grow by 1.2 per cent per year over the coming decade, higher than that of the world (0.7 per cent). Canadian pork exports are projected to grow by 1.1 per cent per year while the world's pork exports are expected to fall by 0.1 per cent per year. Canadian wheat exports are expected to grow by 0.6 per cent per year, lower than that of the world (2 per cent). Canadian oilseeds exports are expected to grow by 2 per cent per year, higher than that of the world (1.5 per cent). Canadian pulses exports are expected to grow by 1.3 per cent per year, higher than that of the world (0.7 per cent).

Table 8: Projected growth of production and exports of selected agricultural products in Canada and the world over the coming decade (2020-29) compared with the last ten years (2010-19)

Commodity	Variable	Last 10 years (Average 2010-19) Growth Rate Per Year (%)		Coming Decade (Average 2020-29) Growth Rate Per Year (%)	
		Canada	World	Canada	World
Beef and veal	Production	-0.2	0.8	0.5	0.7
	Exports	0.7	3.2	1.2	0.7
Pigmeat	Production	0.8	0.1	0.6	1.6
	Exports	1.4	3.7	1.1	-0.1
Wheat	Production	4.9	1.9	0.8	0.9
	Exports	4.8	3.7	0.6	2.0
Other oilseeds*	Production	5.1	2.8	1.9	1.4
	Exports	4.2	4.6	2.0	1.5
Pulses	Production	4.4	2.5	1.3	1.5
	Exports	5.1	3.8	1.3	0.7

Source: OECD-FAO Agricultural Outlook 2020-2029

*Note: Other oilseeds represents rapeseed (canola), sunflower seed, and groundnuts (peanuts).

Table 9 below presents the projections of production and exports of agricultural products in Canada and the world over the coming decade by comparing with the condition in the last ten years. The proportion of Canadian beef exports to its production is projected to grow to 58 per cent over the coming decade, significantly higher than that of the last ten years (49 per cent). It also appears that Canada's role in the global beef exports will increase from 6.4 per cent to 7.2 per cent. Similarly, the proportion of Canadian pork exports to its production is expected to grow to 77 per cent over the coming decade, significantly higher than that of the last ten years (72 per cent). However, the proportion of Canadian oilseed exports will decrease from 53 per cent to 51 per cent; for wheat it will increase only marginally from 71 per cent to 72 per cent; and for pulses it will remain constant at 87 per cent. As such, Canada's role to the global exports of primary agricultural commodities is expected to fall over the coming decade.

The projected annual production and exports of selected agricultural products in Canada and the world are presented in Figure 68-77.

Table 9 : Projection of production and exports of selected agricultural products in Canada and the world over the coming decade (2020-29) compared with the last ten years (2011-19)

Commodity	Variable	Last 10 Years (Average 2010-19) (Tonnes, Thousands)			Coming Decade (Average 2020-29) (Tonnes, Thousands)		
		Canada	World	Canada/World (%)	Canada	World	Canada/World (%)
Beef and veal	Production	1,409	67,302	2.1	1,591	73,406	2.2
	Exports	692	10,862	6.4	916	12,670	7.2
	Exports/Production (%)	49	16		58	17	
Pigmeat	Production	2,000	115,793	1.7	2,174	119,371	1.8
	Exports	1,450	8,927	16.2	1,684	10,325	16.3
	Exports/Production (%)	72	8		77	9	
Wheat	Production	29,758	721,778	4.1	33,725	802,816	4.2
	Exports	21,273	161,413	13.2	24,351	199,647	12.2
	Exports/Production (%)	71	22		72	25	
Other oilseeds*	Production	17,510	140,349	12.5	20,832	165,801	12.6
	Exports	9,267	19,062	48.6	10,678	22,330	47.8
	Exports/Production (%)	53	14		51	13	
Pulses	Production	6,587	78,538	8.4	8,326	96,084	8.7
	Exports	5,755	14,925	38.6	7,247	17,519	41.4
	Exports/Production (%)	87	19		87	18	

Source: OECD-FAO Agricultural Outlook 2020-2029

*Note: Other oilseeds represents rapeseed (canola), sunflower seed, and groundnuts (peanuts).

a. Beef

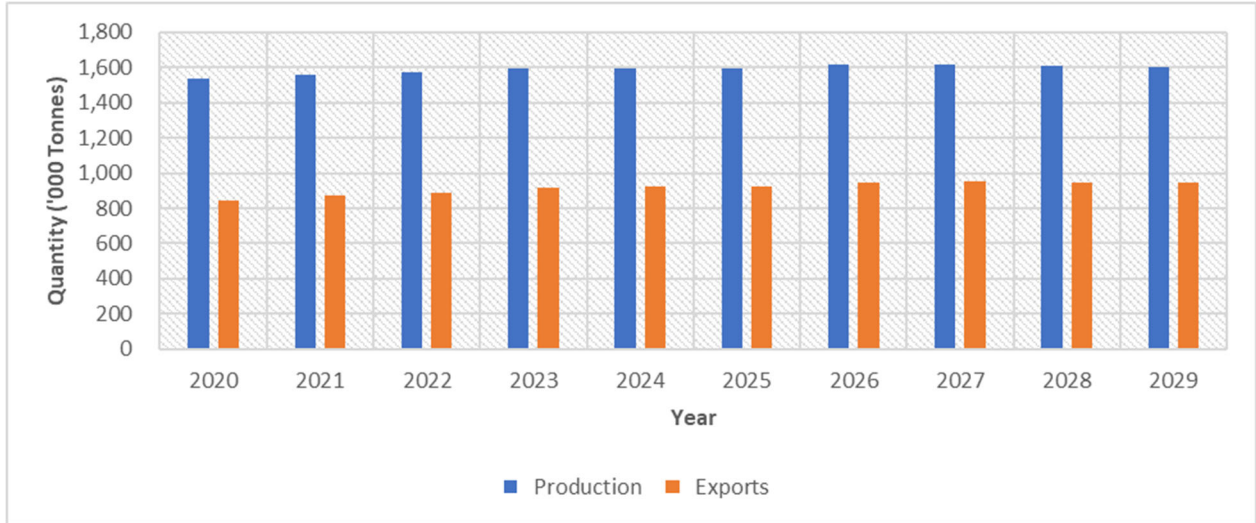


Figure 68: Forecast of beef and veal production and exports in Canada, 2020-2029
Source: OECD-FAO Agricultural Outlook 2020-2029

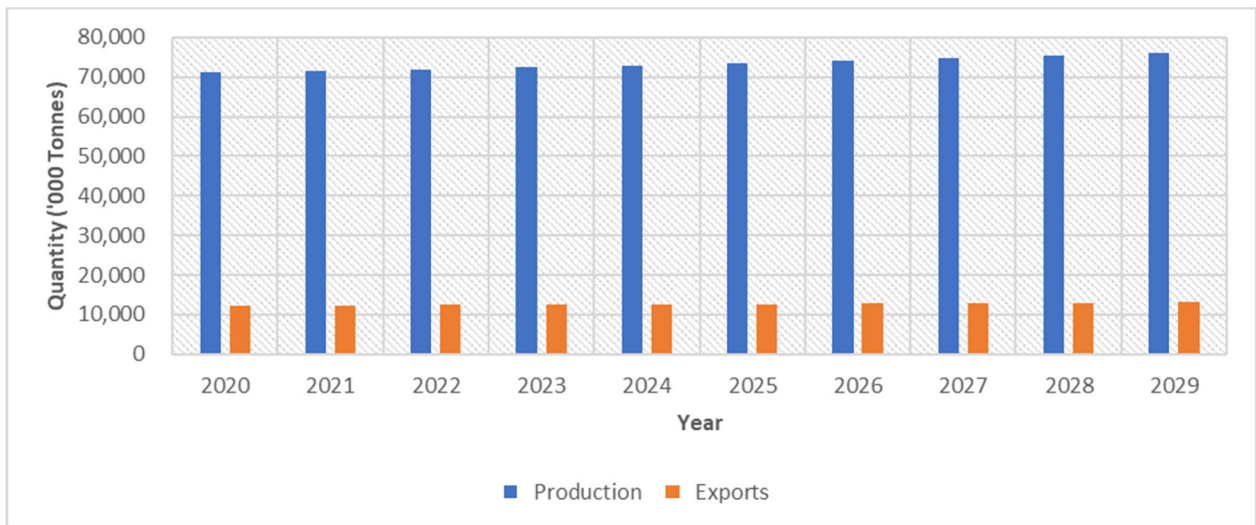


Figure 69: Forecast of beef and veal production and exports in the world, 2020-2029
Source: OECD-FAO Agricultural Outlook 2020-2029

b. Wheat

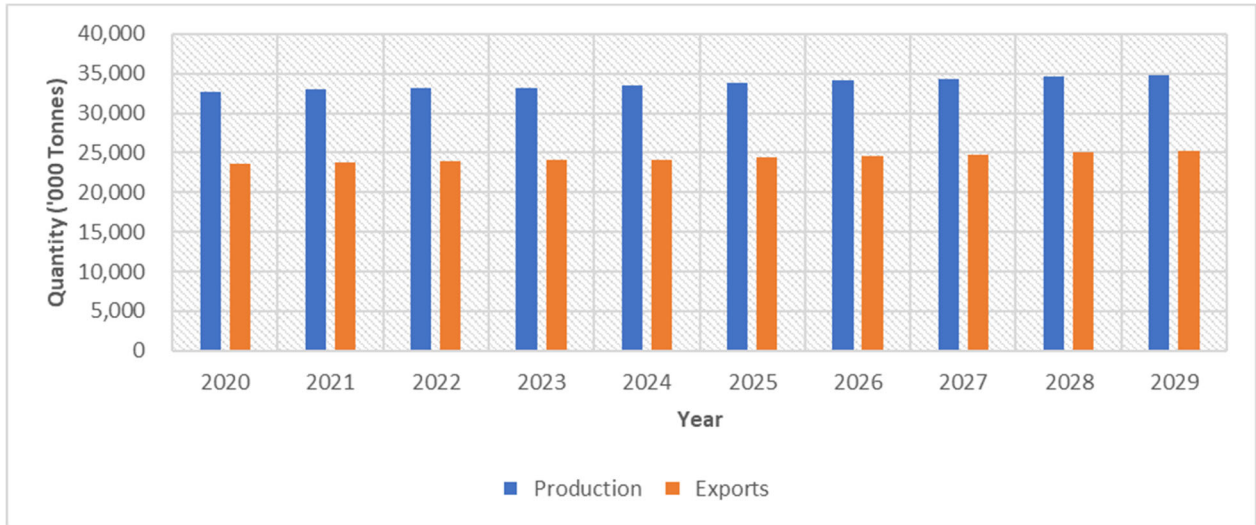


Figure 70: Forecast of wheat production and exports in Canada, 2020-2029
 Source: OECD-FAO Agricultural Outlook 2020-2029

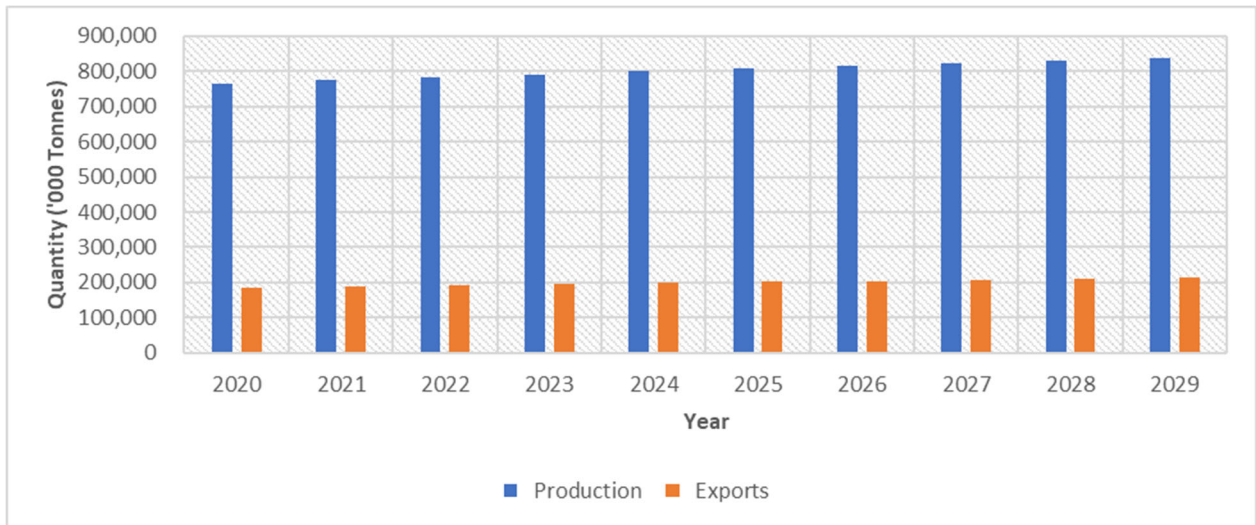


Figure 71: Forecast of wheat production and exports in the world, 2020-2029
 Source: OECD-FAO Agricultural Outlook 2020-2029

c. Oilseeds

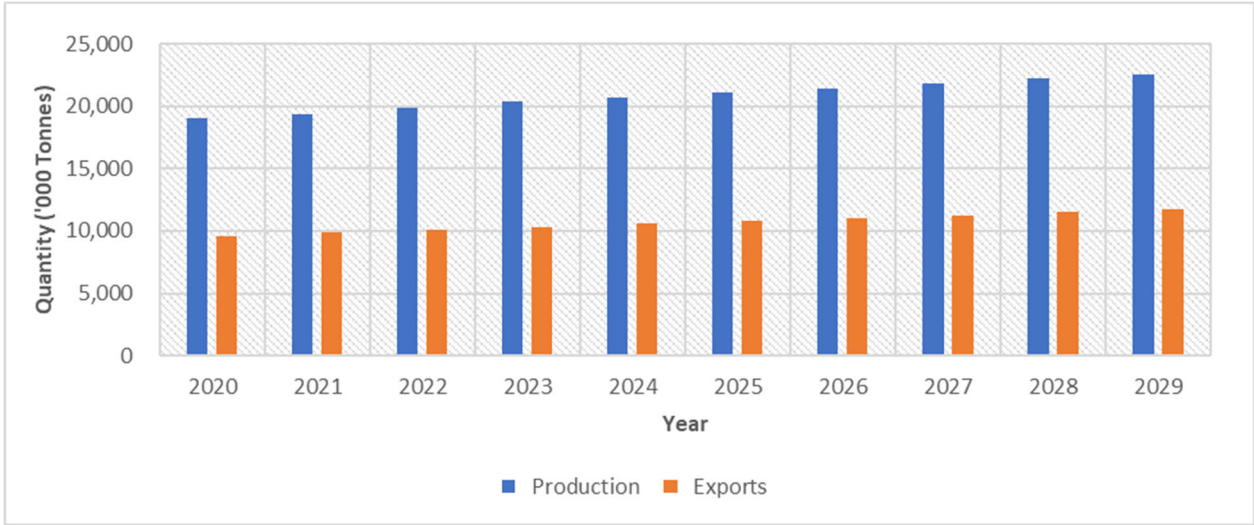


Figure 72: Forecast of oilseeds production and exports in Canada, 2020-2029
 Source: OECD-FAO Agricultural Outlook 2020-2029

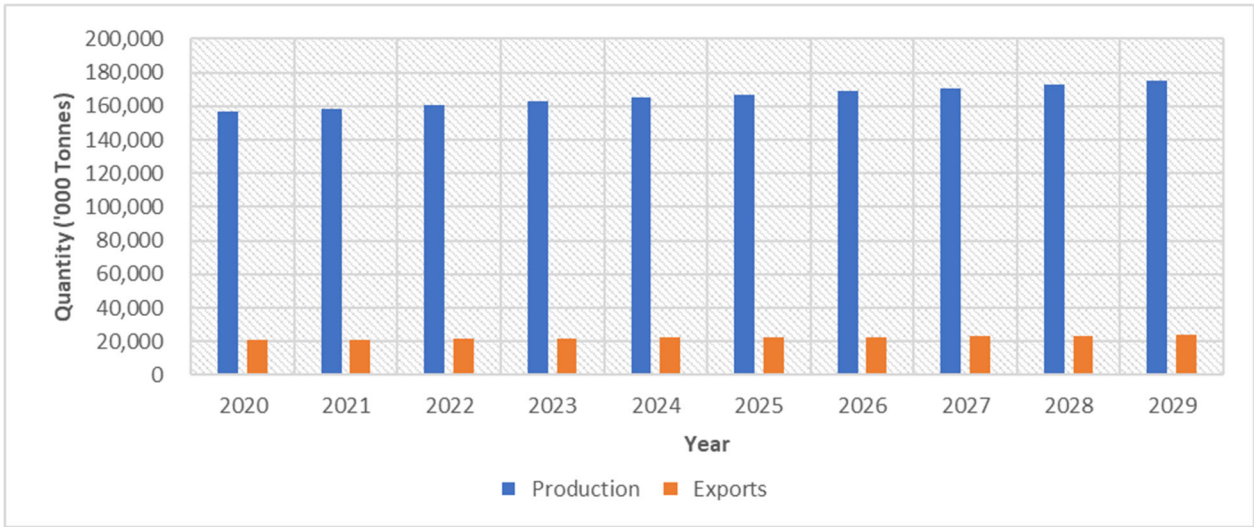


Figure 73: Forecast of oilseeds production and exports in the world, 2020-2029
 Source: OECD-FAO Agricultural Outlook 2020-2029

d. Pulses

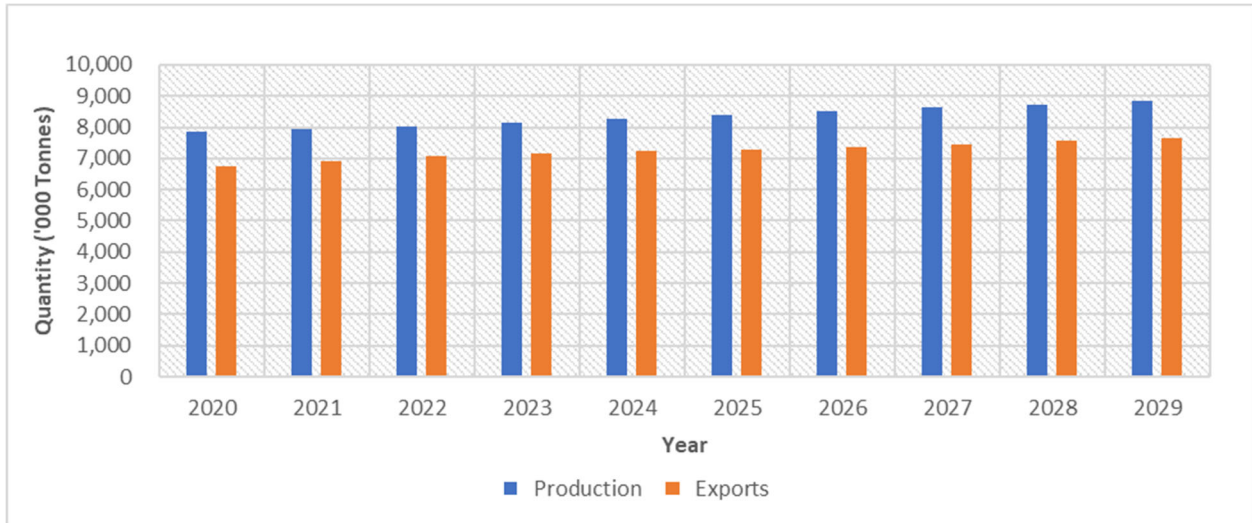


Figure 74: Forecast of pulses production and exports in Canada, 2020-2029

Source: OECD-FAO Agricultural Outlook 2020-2029

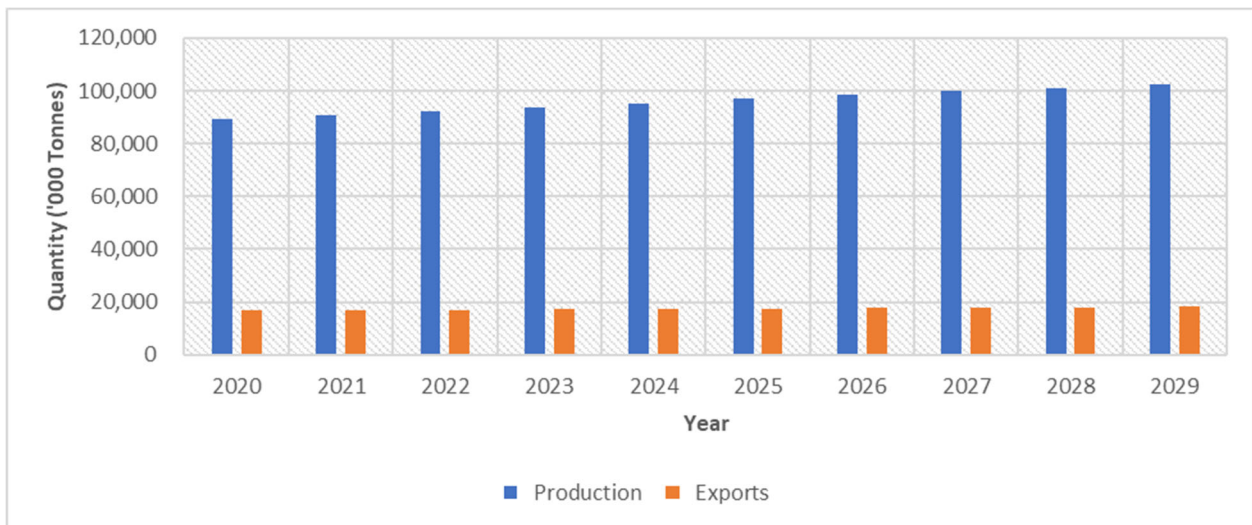


Figure 75: Forecast of pulses production and exports in the world, 2020-2029

Source: OECD-FAO Agricultural Outlook 2020-2029

e. Pork

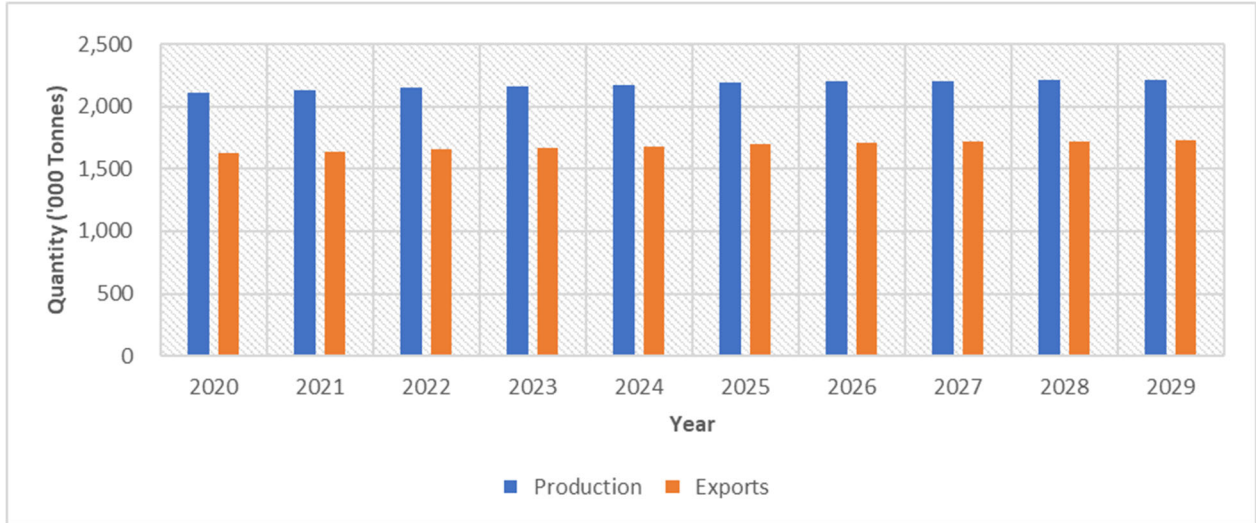


Figure 76: Forecast of pigmeat production and exports in Canada, 2020-2029
Source: OECD-FAO Agricultural Outlook 2020-2029

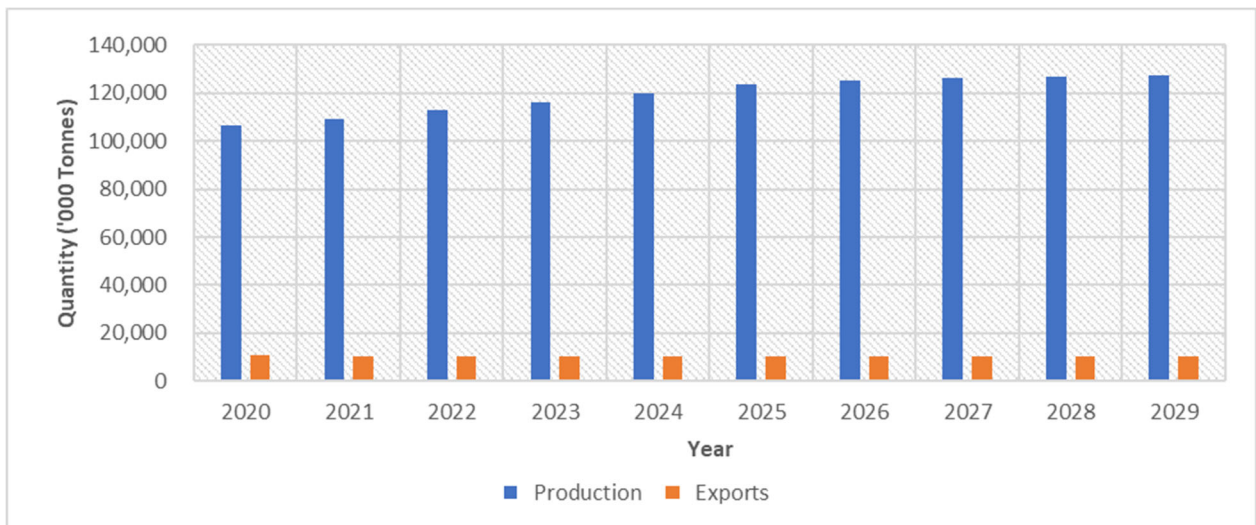


Figure 77: Forecast of pigmeat production and exports in the world, 2020-2029
Source: OECD-FAO Agricultural Outlook 2020-2029

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