

FCC Ag Economics
Trade Ranking Report:
Agriculture

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Farm Credit Canada
Advancing the business of agriculture



Introduction

There's good reason to be optimistic about the future of Canada's agri-food.

Demand for agricultural commodities and manufactured food products continues to grow. Emerging economies like China and India are dominating import growth thanks to their population growth. In the last decade, other markets have also shown potential as agricultural and food trading partners. They're markets where more households now have more income, which means they're eating more, especially value-added products.

Global agricultural and food trade rankings over the last decade are a barometer of how the world is changing. Between 2007 and 2014, Canada ranked 12th or 13th in world exports of manufactured food products. That ranking has since improved to 11th, with Canada jumping ahead of New Zealand and Malaysia.

Canada has also ranked as the world's fifth-largest exporter of agricultural commodities since 2011. From 2007 to 2009, Canada ranked 3rd globally, and moved to 4th place between 2010 and 2011.

As a top trader of both agricultural commodities and manufactured food, Canada is poised to push even higher in world trade rankings, with increased exports of agricultural commodities and food products that are highly valued or have experienced world-leading growth since 2007. The world's appetite for pulses, soybeans, and fresh fish represents opportunities for Canadian agricultural exporters, while global demand for meat, food preparations, malt, coffee and bread may signal great potential taking shape in the next era for Canadian food exports.

The time is right for Canada to increase its presence in global agri-food export markets. The FCC Ag Economics Trade Rankings reports for agriculture and manufactured food products provide perspective on that goal.

How we collected the data

Global trade: We started with 68 agricultural commodities coded according to the Harmonized System (HS) 4-digit level from the following categories: HS01 (live animals), HS03 (fish and crustaceans), HS06 (live plants), HS07 (edible vegetables), HS08 (edible fruit), HS10 (cereals), and HS12 (oilseeds).

We selected the 44 products whose total export values in 2016 accounted for at least 0.5% of the world's exports of agricultural commodities.

Canada's trade: We started with the same 68 products from the listed HS categories. Of those, 27 products had export values in 2016 accounting for at least 0.5% of Canada's total agricultural exports. We excluded food products that have grown more quickly, but represented very small values.

All trade data were extracted September 2017 from UN Comtrade.

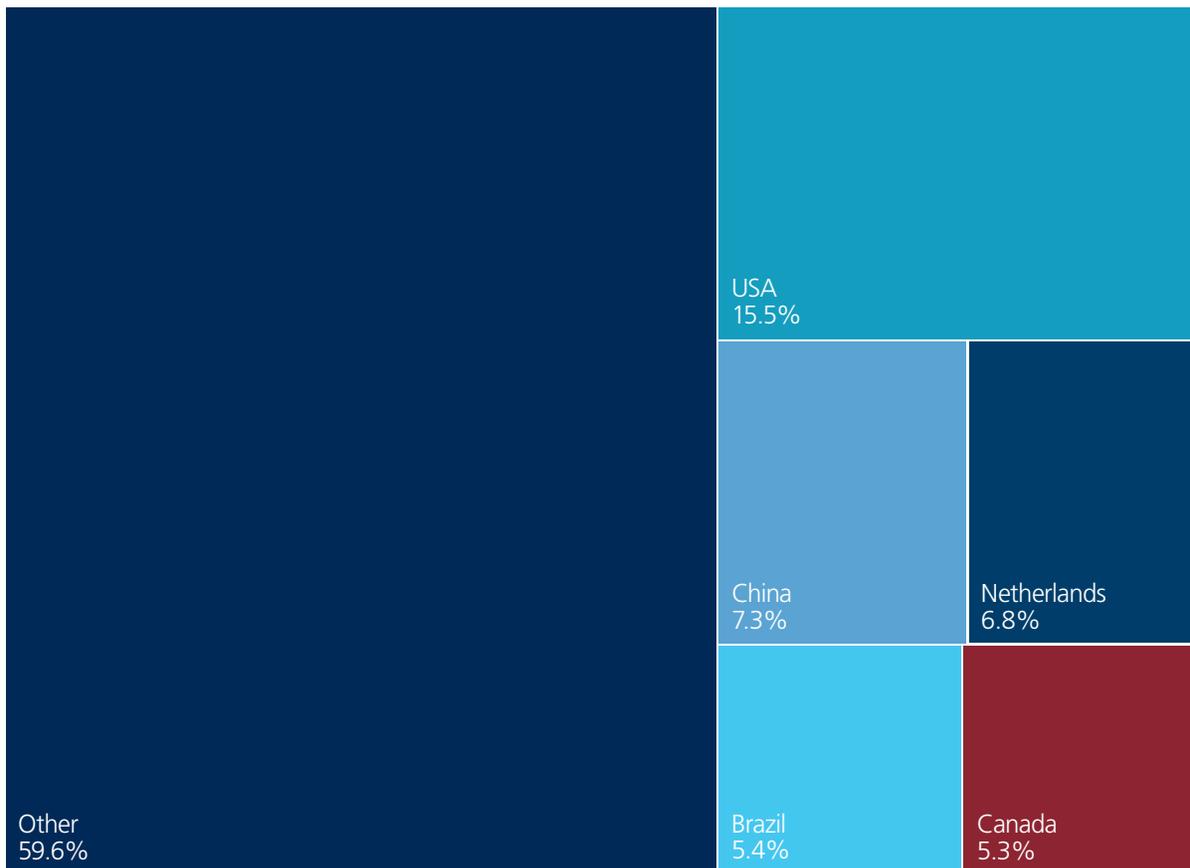
Global rankings: Agricultural commodity exports – 2016

In 2016, Canada had the world's fifth-highest agricultural commodity export values (Figure 1). Canadian operations exported US\$24.6 billion worth of agricultural commodities, accounting for 5.3% of the world's total agricultural commodity exports in 2016, valued at US\$461.8 billion.

The U.S., China, and Netherlands were the top exporters of agricultural products in 2016, a ranking they've maintained since 2013. The three countries together accounted for 29.7% of world exports of agricultural products in 2016.

Canada fell from 3rd to 5th place in 2012 due to the growing presence of China and Brazil in world markets. Brazil increased their exports of corn and soybeans, pushing them to the 4th-place position, while China more than doubled their agricultural exports between 2007 and 2016.

Figure 1: Canada was the world's 5th-largest agricultural commodity exporter in 2016



World's highest-valued agricultural commodity exports – 2016

Canada was a relatively large player in the export of agricultural commodities with the highest overall dollar values in 2016 world trade. The top 15 agricultural exports accounted for US\$287.4 billion, or 62.2% of the world's total agricultural commodity export values in 2016 (Figure 2). Canadian exports of these 15 commodities totaled US\$14.9 billion.

Canada doesn't produce and/or export rice, citrus fruit, and other nuts – three agricultural commodities that were included in 2016's global 15 top-valued exports. Canada's strong showing in global trade instead comes from its "Top 3" ranked position among world exporters of eleven agricultural commodities (canola seed, wheat, rye, oats, buckwheat, linseed, plants for perfumery, crustaceans, pulses, fresh fish and bovine animals). While these commodities are important for Canada, rye, oats, buckwheat and linseed remain relatively small markets.

See Appendix A for the coded HS categories included in Figures 2-7.

Figure 2: World's highest-valued agricultural commodity exports – 2016



(Global 2016 export values in billions of USD)

World's fastest-growing agricultural commodity exports: 2007-16

Among the commodities of which Canada ranks as a "Top 3" exporter, canola seed, fresh fish, pulses and plants used for perfumery were also commodities that grew the fastest in global trade between 2007 and 2016 (Figure 3).

The average annual growth rates of the world's 15 fastest-growing agricultural commodities ranged between 7.0% (fresh fish) to 12.1% (dried vegetables). During this period, global demand grew for plants used for perfumery (with an average annual growth of 7.4%), canola seed (10.9%), and pulses (11.4%).

Commodities that were both global top-dollar exports (Figure 2) and the world's fastest-growing exports during the last decade (Figure 3) included soybeans, fresh fish, pulses, "other nuts" and "other fresh fruit."

Figure 3: World's 15 fastest-growing agricultural commodity exports: 2007-16



(Global 2016 export values in billions of USD)

Canada's highest-valued agricultural commodity exports – 2016

Those agricultural commodities making up Canada's 15 highest-valued exports totaled US\$21.1 billion in 2016, accounting for 85.0% of all Canadian agricultural exports and 4.6% of overall global exports of agricultural commodities (Figure 4).

As one of Canada's highest-valued export markets (US\$4.3 billion in 2016), canola seed expanded between 2007 and 2016, but remains smaller than the wheat and meslin market.

Of the other agricultural commodities that make up a significant portion of Canadian agriculture exports, several stand out for their importance in world trade. Wheat, crustaceans, fish fillets, mollusks, frozen fish and "other vegetables" were among Canada's, and the world's, highest-valued agricultural commodities traded in 2016.

Pulses, soybeans, and fresh fish exports were the only three commodities that counted among Canada's highest-valued exports (Figure 4), the world's highest-valued exports (Figure 2) and the world's fastest-growing exports between 2007 and 2016 (Figure 3).

Figure 4: Canada's highest-valued agricultural commodity exports – 2016



(Canada's export values in billions of USD)

Canada's fastest-growing agricultural exports: 2007-16

Many of Canada's fastest-growing exports aren't growing quickly at the global level (e.g., potatoes, tomatoes, etc.). Other quickly-growing commodities for Canada represent smaller export markets (e.g., linseed) or are agricultural products of which Canada is a relatively small exporter (Figure 5).

For example, Canada was the world's fourth-largest exporter of soybeans in 2016. The commodity was Canada's fifth highest-valued agricultural commodity export, totaling US\$1.9 billion. Despite its relative importance to Canada, our soybean exports represented 3.7% of the global soybean market.

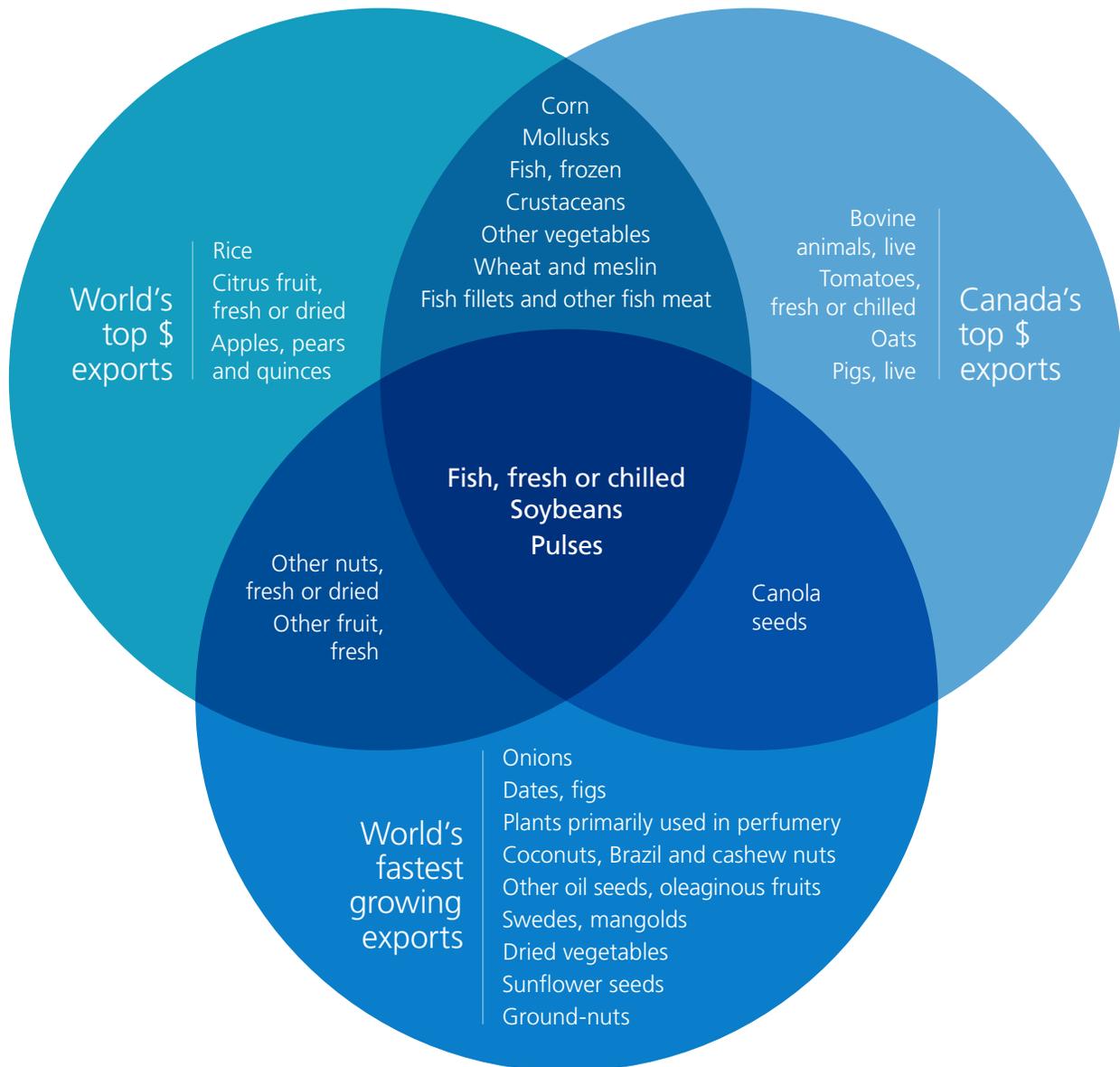
Trade in soybeans is one of the most robust agricultural commodity markets. Among all agricultural commodities, soybeans had the world's fourth-highest average annual growth (10.8%) between 2007 and 2016. Its 2016 global export values totaled US\$51.5 billion, or 64.0% of all oilseeds trade. It accounted for 11.2% of total agricultural commodity trade.

Growth in Canada's exports of several other commodities has arisen from growing global demand. Canadian exports of "other fruits", pulses, fresh fish and canola, each a commodity with some of the highest global growth rates since 2007, represent large and/or expanding markets.

Figure 5: Canada's 15 fastest-growing agricultural exports: 2007-16

Commodity	Export values, 2016 (USD, billions)	Average Annual % change, 2007-16
Corn	\$0.33	12.1%
Soybeans	\$1.9	11.4%
Plants used primarily in perfumery	\$0.19	10.9%
Other oil seeds and oleaginous fruits	\$0.2	10.8%
Pulses	\$3.1	10.0%
Canola seeds	\$4.3	10.0%
Cucumbers and gherkins	\$0.2	9.2%
Other vegetables	\$0.55	8.9%
Other fruit	\$0.17	8.8%
Linseed	\$0.29	8.0%
Potatoes	\$0.23	5.4%
Crustaceans	\$2.4	5.1%
Tomatoes	\$0.37	4.6%
Fish, fresh or chilled	\$0.85	4.4%
Fish fillets and other fish meat	\$0.33	2.8%

Figure 6: Finding the sweet spot for Canadian exports



In summary, canola seed is a Canadian strength in agricultural commodity exports and canola seed exports are growing at the global level. Canada is also a top exporter of wheat, corn, crustaceans, “other vegetables”, fish fillets, mollusks, and frozen fish – each representing a large global market.

Pulses, soybeans, and fresh fish are current “sweet spots” for Canadian exporters: each is a world top-dollar export, a Canadian top-dollar export and among the fastest-growing exports in the world.

Canada's revealed comparative advantage

Revealed comparative advantage (RCA) is one way to define the sectors in which Canada has an advantage, relative to the competition, in being able to meet potential export opportunities.

Canada has a comparative advantage in 18 different agricultural commodities (Figure 7). The majority of those represent export markets that are neither large nor have grown quickly in the last decade. However, Canada may be particularly well-poised to exploit opportunities to grow exports of wheat, crustaceans, canola seed, "other oil seeds", and plants used in perfumery. Pulses are also well-positioned because Canada has a comparative advantage, it is one of our fastest-growing exports and is a fast-growing, highly-valued export at the world level.

Canada's revealed comparative advantage

An exporting country is considered to have a comparative advantage over other countries if its exports of a commodity represent a greater share of its total exports of that commodity's class of goods than it does in global trade flows.

How it works

In 2016:

Canada's wheat exports were valued at US\$4.5 billion.

Canada's exports of total agricultural commodities were valued at US\$25 billion.

Wheat therefore represented 18.0% of Canada's total agricultural commodity exports (\$4.5 billion/\$25 billion).

World wheat exports were valued at US\$33 billion.

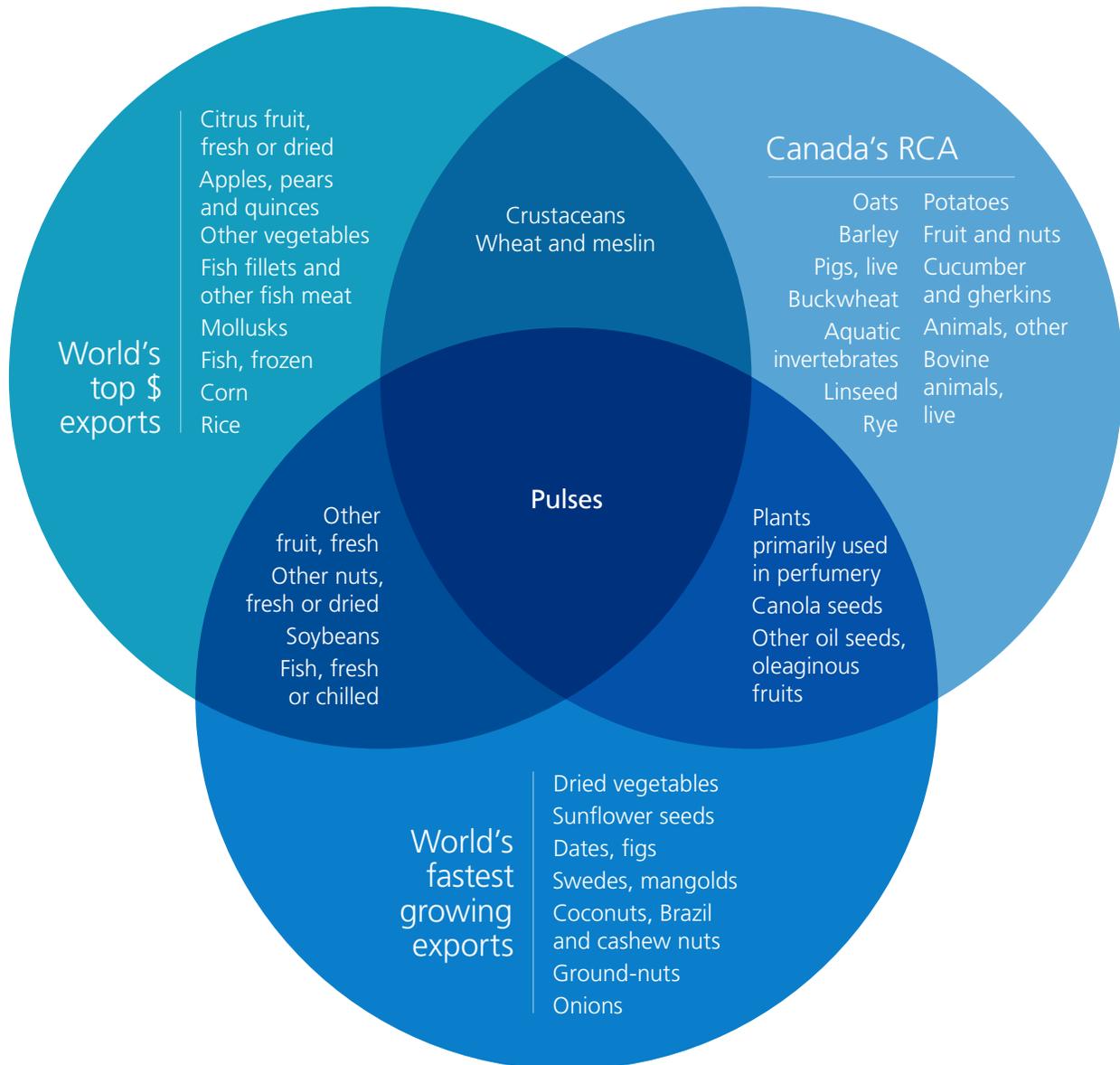
World exports of agricultural commodities were valued at US\$461 billion.

Wheat therefore represented 7.2% of the world's total agricultural exports (\$33 billion/\$461 billion).

Because wheat represented a greater share of Canada's agricultural commodity exports than it did at the world trade level, Canada has a revealed comparative advantage of 2.5 (18:7.2).

We defined Canada's revealed comparative advantages for all 68 agricultural commodities.

Figure 7: Canada's comparative advantage in growing agricultural commodity exports



Canada produces many raw agricultural commodities that are currently either highly valued global exports or are experiencing growing demand in world markets. That's a key strategic advantage as global growth in household income allows consumers to, first, eat more calories and, eventually, change the composition of those calories.

A further strategic advantage lies in Canadian production and export of vegetable oils, red meat and plant-based proteins. Growing world demand for these products will help Canada strengthen its current ranking as a leading exporter of manufactured food products.

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Appendix A:

Figure 2 includes:

HS1201- Soybeans, HS1001- Wheat and meslin, HS1005- Corn, HS0306- Crustaceans, HS0303- Fish, frozen, HS0302- Fish, fresh or chilled, HS0304- Fish fillets and other fish meat, HS0802- Other nuts, fresh or dried, HS1006- Rice, HS0805- Citrus fruit, fresh or dried, HS0709- Other vegetables, HS0307- Mollusks, HS0713- Pulses, HS0810- Other fruit, fresh, HS0808- Apples, pears, and quinces

Figure 3 includes:

HS0712- Dried vegetables, HS0713- Pulses, HS1205- Canola seeds, HS1201- Soybeans, HS1202- Ground nuts, HS0802- Other nuts, fresh or dried, HS1206- Sunflower seeds, HS0703- Onions, HS0804- Dates, figs, HS1214- Swedes, mangolds, HS0810- Other fruit, fresh, HS0801- Coconuts, brazil, and cashew nuts, HS1211- Plants primarily used in perfumery, HS1207- Other oil seeds and oleaginous fruits, HS0302- Fish, fresh or chilled

Figure 4 includes:

HS1205- Canola seeds, HS1001- Wheat and meslin, HS0713- Pulses, HS0306- Crustaceans, HS1201- Soybeans, HS0102- Bovine animals, live, HS0302- Fish, fresh or chilled, HS0709- Other vegetables, HS1004- Oats, HS1005- Corn, HS0304- Fish fillets and other fish meat, HS0103- Pigs, live, HS0307- Mollusks, HS0303- Fish, frozen, HS0702- Tomatoes, fresh or chilled

Figure 5 includes:

HS1005- Corn, HS1201- Soybeans, HS1211- Plants primarily used in perfumery, HS1207- Other oil seeds and oleaginous fruits, HS0713- Pulses, HS1205- Canola seeds, HS0707- Cucumbers and gherkins, HS0709- Other vegetables, HS0810- Other fruit, HS1204- Linseed, HS0701- Potatoes, HS0306- Crustaceans, HS0702- Tomatoes, HS0302- Fish, fresh or chilled, HS0304- Fish fillets and other fish meat

Figure 6 includes:

HS0712- Dried vegetables, HS0713- Pulses, HS1205- Canola seeds, HS1201- Soybeans, HS1202- Ground nuts, HS0802- Other nuts, fresh or dried, HS1206- Sunflower seeds, HS0703- Onions, HS0804- Dates, figs, HS1214- Swedes, mangolds, HS0810- Other fruit, fresh, HS0801- Coconuts, brazil, and cashew nuts, HS1211- Plants primarily used in perfumery, HS0302- Fish, fresh or chilled, HS1001- Wheat and meslin, HS0306- Crustaceans, HS0102- Bovine animals, live, HS0709- Other vegetables, HS1004- Oats, HS1005- Corn, HS0304- Fish fillets and other fish meat, HS0103- Pigs, live, HS0307- Mollusks, HS0303- Fish, frozen, HS1006- Rice, HS0805- Citrus fruit, fresh or dried, HS1207- Other oil seeds and oleaginous fruits, HS0808- Apples, pears, and quinces, HS0702- Tomatoes, fresh or chilled

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