U.S. Organic Trade

Data and Trends 2016–2020

Organic trade association SINCE 1985

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Mercaris, a Certified B Corp., helps its customers capitalize on the growing demand for organic and non-genetically modified organism (GMO) agriculture by providing market intelligence, analysis, and trading services exclusively for the identity-preserved agriculture industry. Mercaris hosts the largest organic and non-GMO grain and oilseed market survey across the U.S. and Canada and recently launched an organic dairy initiative. The company also maintains a trading platform for organic and non-GMO commodities. With a dynamic combination of data, insights, and technology, Mercaris' customers can access solutions for every challenge. For more information visit: **www.mercaris.com**.

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Abbreviations & Acronyms

ACE	Automated Commercial Environment
AMS	Agricultural Marketing Service
FAS	Foreign Agricultural Services
FiBL	Research Institute of Organic Agriculture
GATS	Global Agricultural Trade Service
GOTS	Global Organic Textile Standard
HTS	Harmonized Tariff Schedule
MT	Metric Ton
NAFTA	North America Free Trade Agreement
NOP	National Organics Program
OTA	Organic Trade Association
SOE	Strengthening of Organic Enforcement
TRQ	Tariff-Rated Quota
USCBP	U.S. Customs and Border Protection
USD	U.S. Dollar
USDA	U.S. Department of Agriculture
USMCA	U.S.-Mexico-Canada Agreement

Report Overview

Introduction

Driven by expanding consumer demand, organic agriculture continues to demonstrate sustained global growth. Within the U.S., organic consumer sales reached $62 billion over 2020, according to the Organic Trade Association's (OTA) "2021 Organic Industry Survey", up 34% from just four years prior. Likewise, U.S. organic production has steadily grown, with U.S. organic farmers harvesting 5 million acres of organic crops over 2020, a 39% increase from 2016 according to Mercaris estimates. While global organic data is not currently available for 2020, the Research Institute of Organic Agriculture (FiBL, 2021) estimates global organic retails sales reached $126 billion over 2019, up 34% from 2016, while total area dedicated to global organic crop production reached 179 million acres, up 24% from 2016.

The global opportunities for trade have expanded accordingly. The U.S. imported $25 billion of organic crops, or 1.9 million metric tons (MT), over 2020, up 42% from 2016 according to U.S. Department of Agriculture (USDA) Foreign Agricultural Services (FAS) Global Agricultural Trade System (GATS). Meanwhile, U.S. organic exports reached $647 million over 2020, 373,000 MT, up 17% from 2016.

It should be noted that while the data provided by FAS GATS suggest a growing trend for U.S. organic trade, the amount of detail provided by official measures of U.S. organic trade is limited by the number of unique identifiers available within the harmonized system of codes used to measure international trade. As an example, according to FAS GATS data, the $25 billion of organic imports over 2020 included $65 million of organic corn imported under the organic specific Harmonized Tariff Schedule (HTS) Code 1005.20.2015; however, it did not include $256 million of organic soybean meal imported under the non-organic specific HTS Code 2304.00.000. Because of this discrepancy, official trade data currently understates the total scale of U.S. organic trade and its impact on U.S. organic markets.

The broader review of U.S. organic trade conducted by Mercaris on behalf of the OTA in this report confirms that organic trade covered by currently available organic-specific harmonized system trade codes excludes a significant amount of annual trade activity. Specifically, Mercaris found that the U.S. imported more than $4 billion of organic products over 2020, $1.6 billion more than reported under existing organic harmonized system trade codes. U.S. exports of organic products were furthermore found to be $85 million more than reported under existing organic harmonized system trade codes—reaching $732 million in 2020.

In conducting its broader assessment of U.S. organic trade for this report, Mercaris identified 16 chapters within the harmonized system of trade codes that covered primary categories under which organic products are traded. Annual values and volume imports and export for each of these chapters was calculated using bill-of-lading data, as well as existing organic-specific trade codes. Additionally, annual trade volumes were calculated for the top-five import and export trade-partner countries under each chapter. The remainder of this report is divided into sections providing chapter-specific reviews of this research, as well as more granular product-specific analysis where relevant.

U.S. Organic 2020 Trade By HTS/Schedule B Chapters Comparison

2-Digit Chapter	Mercaris		FAS GATS		Unaccounted for Trade	
	1,000 MT	Million USD	1,000 MT	Million USD	1,000 MT	Million USD
2020 Organic HTS Chapters Import Estimates						
Chapter 04	39.2	$84.6	36.5	$75.4	2.7	$9.2
Chapter 07	93.4	$167.1	85.2	$143.4	8.2	$23.7
Chapter 08	725.0	$918.6	706.6	$852.7	18.4	$65.9
Chapter 09	116.5	$555.9	113.1	$533.3	3.4	$22.6
Chapter 10	352.0	$208.0	338.0	$191.5	14.0	$16.5
Chapter 11	231.1	$143.9	6.1	$9.1	225.0	$134.8
Chapter 12	339.5	$406.8	273.9	$171.7	65.7	$235.1
Chapter 15	174.3	$413.2	78.2	$278.2	96.1	$135.0
Chapter 17	389.5	$347.0	226.0	$153.3	163.5	$193.7
Chapter 18	17.1	$76.3	-	$-	17.1	$76.3
Chapter 19	29.2	$61.7	-	$-	29.2	$61.7
Chapter 20	60.6	$166.0	4.6	$1.1	56.0	$164.9
Chapter 21	13.8	$44.9	-	$-	13.8	$44.9
Chapter 22	19.5	$91.2	7.4	$41.8	12.1	$49.4
Chapter 23	453.5	$308.3	-	$-	453.5	$308.3
Chapter 52	3.0	$22.7	-	$-	3.0	$22.7
U.S. Total	3,057.3	$4,016.2	1,875.7	$2,451.4	1,181.6	$1,564.8
2020 Organic Schedule B Chapters Export Estimates						
Chapter 04	2.9	$4.9	2.0	$2.9	0.9	$2.0
Chapter 07	125.5	$234.6	124.4	$233.0	1.1	$1.6
Chapter 08	176.2	$351.5	171.3	$330.6	4.9	$21.0
Chapter 09	3.5	$22.8	2.6	$18.7	0.8	$4.1
Chapter 10	1.3	$1.2	-	$-	1.3	$1.2
Chapter 11	2.0	$2.4	-	$-	2.0	$2.4
Chapter 12	55.2	$23.9	-	$-	55.2	$23.9
Chapter 15	3.4	$4.9	-	$-	3.4	$4.9
Chapter 17	1.0	$1.3	-	$-	1.0	$1.3
Chapter 18	0.1	$0.2	-	$-	0.1	$0.2
Chapter 19	1.1	$3.2	-	$-	1.1	$3.2
Chapter 20	9.7	$14.3	1.9	$3.6	7.8	$10.7
Chapter 21	27.0	$31.9	26.7	$30.6	0.3	$1.3
Chapter 22	47.2	$34.9	43.9	$27.8	3.2	$7.0
Chapter 23	0.8	$0.3	-	$-	0.8	$0.3
Chapter 52	0.1	$0.2	-	$-	0.1	$0.2
U.S. Total	456.9	$732.4	372.8	$647.2	84.0	$85.2

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Key Findings

- U.S. organic exports grew at an average rate of 6% per year since 2016, reaching $734 million over 2020, or 457,000 MT.
- U.S. organic imports have grown at more than twice the rate of organic exports, averaging 14% per year since 2016 to reach $4 billion over 2020, or 3.1 billion MT.
- U.S. organic imports under HTS Chapter 08 have experienced the most growth, reaching $919 million over 2020, up 85% from 2016. Imports under HTS Chapter 08 grew across a large variety of products, including organic bananas, avocados, and a variety of frozen fruits.
- Organic exports under Schedule B Chapter 08 also experienced the most growth in terms of value, although export volumes over 2020 were mostly unchanged from 2016. Over 2020 U.S. organic exports under HTS Chapter 08 reached $351 million, up 20% from 2016. Organic export volumes have held steady as declining tropical fruit product re-exports have been offset by an increase in U.S. organic nut, apple, and berry exports. Over 2020 the value of U.S. organic nut, apple, and berry exports reached $281 million, up 23% from 2016.
- Organic imports under HTS Chapter 23 contained the most trade—in terms of both value and volume—not currently covered by existing organic harmonized system trade codes. Over 2020, U.S. imports under HTS Chapter 23 reached $308 million, or 454 MT. As of 2020, no organic specific trade codes existed for Chapter 23 imports.
- While organic import volumes under HTS Chapter 10 have declined 42% from 2016 to 352,000 MT over 2020, the total value of organic imports under Schedule B Chapter 10 has gained slightly, reaching $208 million over 2020. U.S. import volumes declined following reduced organic corn imports, while U.S. import demand for other high-value organic cereals—including durum wheat, popcorn, quinoa, amaranth seed, and rice—have increased substantially.
- Organic exports under Schedule B Chapter 07 have declined the most in terms of volume, down 12% from 2016 to 126 MT over 2020. However, the total value of Chapter 07 exports increased 10% since 2016, reaching $235 million over 2020. The value of organic exports under Chapter 07 has been supported by growing organic spinach and bagged lettuce exports, which collectively reached $122 million over 2020, up 28% from 2016.
- Over 2020, Canada emerged as the largest destination country by volume for U.S. organic exports, with U.S. exports to the country reaching 134 MT. Exports to Canada increased 23% from 2016 through 2020 supported by growing organic exports under Schedule B Chapters 07, 08, and 21.
- Over 2020, India maintained its position as the largest country of origin for U.S. organic imports. Over 2020, U.S. organic imports from India reached 453 MT, up 274% from 2016. The growth in imports from India was driven primarily by increased organic oilseed meal imports under HTS Chapter 23, which reached 345 MT over 2020.

Methodology Review

Because organic trade includes a wide variety of products—including animal feed, raw commodities, milled products, packaged foods, and textiles—conducting a broad analysis of U.S. organic trade required organizing these products into categories. Due to its delineated structure, Mercaris elected to

organize this research into groups of goods as they correspond to U.S. harmonized system trade codes. These codes are divided into two identical sets of two-digit chapters. The two-digit chapters of the HTS contain lists of 10-digit numerical codes for products imported into the U.S. As of 2020 the U.S. HTS had assigned 52 unique organic-specific 10-digit codes. The U.S. Schedule B contains an identical set of two-digit chapters as the HTS, but a unique list of 10-digit numerical codes for products exported from the U.S. As of 2020 the U.S. Schedule B had assigned 40 unique organic-specific 10-digit codes.

For the research referenced in this report, Mercaris limited the scope of analysis to the following set of harmonized system trade code chapters:

U.S. Harmonized Tariff Code Chapter Descriptions

Two-Digit Chapter	Description
Chapter 04	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not elsewhere specified or included
Chapter 07	Edible vegetables and certain roots and tubers
Chapter 08	Edible fruit and nuts; peel of citrus fruit or melons
Chapter 09	Coffee, tea, maté, and spices
Chapter 10	Cereals
Chapter 11	Products of the milling industry; malt; starches; inulin; wheat gluten
Chapter 12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruits; industrial or medicinal plants; straw and fodder
Chapter 15	Animal or vegetable fats and oils and their cleavage products prepared edible fats; animal or vegetable waxes
Chapter 17	Sugars and sugar confectionery
Chapter 18	Cocoa and cocoa preparations
Chapter 19	Preparations of cereals, flour, starch or milk; bakers' wares
Chapter 20	Preparations of vegetables, fruit, nuts or other parts of plants
Chapter 21	Miscellaneous edible preparations
Chapter 22	Beverages, spirits and vinegar
Chapter 23	Residues and waste from the food industries; prepared animal feed
Chapter 052	Cotton

Source: Mercaris 2021

To produce estimates of U.S. organic trade, Mercaris leveraged its existing trade estimation methodology to generate annual country-level, value, and volume data for organic goods the U.S. has imported and exported over the 2016–2020 time period. Mercaris' approach utilizes data obtained from IHS Markit PIERS™ to identify shipments containing organic products and their corresponding bills of lading. From the bill-of-lading data, specific details that identify the types of goods, volume, value, and country of origin/shipment destination can be determined.

Mercaris has evaluated this methodology relative to the volume of organic corn and organic soybean imports reported under their HTS Codes, 10.05.9020.15 and 12.01.9000.10, respectively. Evaluating the years 2018, 2019, and 2020, Mercaris' methodology resulted in organic corn import estimates averaging within 5% of the official volumes reported under the HTS Code 10.05.9020.15. Organic soybean import estimates were on average within 1% of the official volumes reported under the HTS Code 12.01.9000.10.

Mercaris Organic Estimation Methodology Evaluation

	Organic Corn Imports (1,000 MT)				Organic Soybean Imports (1,000 MT)			
	FAS GATS[1]	Mercaris	Diff	% Diff	FAS GATS[2]	Mercaris	Diff	% Diff
2018	220,222	236,921	(16,699)	-8%	326,963	321,957	5,006	2%
2019	162,821	133,778	29,043	18%	270,437	261,091	9,347	3%
2020	212,449	192,799	19,649	9%	270,194	272,932	(2,737)	-1%
U.S. Total	**595,492**	**563,498**	**31,993**	**5%**	**867,594**	**855,979**	**11,615**	**1%**

Source: Mercaris 2021, USDA FAS GATS
1) Imports under the HTS code 1005902015
2) Imports under the HTS code 1201900010

From this analysis, Mercaris was able organize the identified organic imports and exports into their corresponding two-digit harmonized system trade code chapters to produce annual country-level estimates. Additionally, Mercaris evaluated each of the two-digit chapters for goods for which unique 10-digit trade codes had been established. In instances where 10-digit trade codes were available as a measure of organic trade, Mercaris substituted the results of its bill-of-lading analysis with official trade data collected from FAS GATS. This substitution was made based on a general assumption regarding the superior accuracy of official trade data over the estimates generated by Mercaris. The trade data provide by FAS GATS is generally regarded as superior as it is provided through the U.S. international commerce-monitoring efforts of the U.S. Customs and Border Protection (USCBP), which is privy to information not disclosed to the general public.

Methodology Limitations

In the course of conducting research for this report, Mercaris determined that in most instances in which the organic products were shipped either in bulk, or as containerized units, the values estimated using Mercaris' methodology outlined above did not appear to be significantly different than values that could be verified through comparison to data from FAS GATS. However, Mercaris did identify specific examples in which estimates under the methodology did not align with USDA data, including:

- For 2020, FAS GATS data indicated U.S. exports to Singapore under Schedule B 0401 reached nearly 1,100 MT. By comparison, the methodology used by Mercaris identified 2020 exports of only 335 MT.
- For 2019, FAS GATS data indicated U.S. imports of olive oil from Tunisia under HTS 1509 reached 11,000 MT. By comparison, the methodology used by Mercaris indicated imports of only 8,000 MT.

These observations indicate that, in some instances, the description of goods shipped listed on the bill-of-lading data does not included text identifying it as organic. As a result, the estimates generated by Mercaris are likely below the actual total values.

Another limitation of using bill-of-lading data is associated with mixed shipments of organic products. These shipments primarily consist of packaged foods or processed food inputs, which are not shipped

in bulk or in containerized units. For shipments in which the description of goods shipped included a variety of products categorized under multiple harmonized system trade codes, Mercaris proportionally assigned the volume shipped to the relevant organic harmonized system trade code based on available data. When the description of goods shipped included specific units of measure, those units were used to proportion the volume of the goods shipped. When the description of goods shipped did not include specific units of measure, Mercaris proportioned the volume of the goods shipped based on the share of times that good was listed in the description of goods shipped. For example:

- For description of imported goods shipped (i.e., organic noodles, parboiled rice, organic tomato puree), the HTS Code 19 would be attributed one-third of the volume exported due to organic noodles, while the HTS Code 20 would be attributed one-third of the volume exported due to organic tomato puree.

As a result, the estimates of goods traded in mixed containers may contain an undetermined margin of error, depending on how proportional the volume of the good is relative to its representation in the description of goods shipped.

A final limitation of the methodology is regarding estimates of the value of U.S. organic trade. For instances in which the bill of lading contained sufficient data to determine the value of the organic goods shipped, those values were used. For instances in which the bill-of-lading data did not contain sufficient data, Mercaris used the annual average value of other shipments within the goods harmonized system trade code as a proxy. For instances in which neither of these were available Mercaris relied on industry survey data as a proxy. Industry survey data was sourced from Mercaris' proprietary Market Survey™ and from a broad industry trade survey conducted by Mercaris on behalf of the OTA.

U.S Organic HTS and Schedule B Chapter Breakdown

Organic Import Market Overview

U.S. organic imports have demonstrated substantial growth, according to Mercaris estimates. From 2016 through 2020, U.S. organic imports grew at an average rate of 14% per year, reaching $4 billion over 2020. A large portion of this growth was driven by an increase in imports of organic products under HTS Chapter 08, which grew 85% from 2016, reaching $919 million—725,000 MT—over 2020. Imports under HTS Chapter 08 grew across a large variety of products, including organic bananas, avocados, and a variety of frozen fruits.

Organic imports under HTS Chapter 23 also expanded substantially, reaching $308 million—454,000 MT—over 2020, a 231% increase from 2016. Expanding organic soybean meal imports from India were the primary driver of the Chapter 23 import expansion. Over 2020, U.S. organic soybean meal imports from India reached 342,000 MT, a 1,821% increase from 2016.

With the remarkable growth in U.S. imports of Indian organic soybean meal, the country has emerged as the largest supplier of imports to the U.S. In addition to organic soybean meal, the U.S. imported an increasing amount of products under nearly every HTS Chapter, with the exception of Chapter 12. Organic imports under chapter 12 include organic soybeans, which U.S. imports from India began declining in 2015 following escalating organic soybean meal exports from the country.

U.S. Organic Imports by Country of Origin

1,000 MT	2016	2017	2018	2019	2020
India	121.0	225.4	289.6	427.9	452.7
Mexico	109.9	166.8	235.1	277.3	327.4
Argentina	177.8	226.3	226.8	312.7	325.0
Turkey	597.1	430.2	377.0	328.7	288.7
Ecuador	209.1	223.4	238.6	212.9	248.7
Brazil	95.0	137.8	162.2	169.8	175.4
Colombia	71.9	98.4	124.7	141.0	163.2
Peru	86.4	99.4	116.1	134.4	136.9
Canada	89.8	115.4	112.8	115.4	119.7
Russia	6.7	3.4	3.6	32.2	85.2
All Others	649.5	706.3	844.2	580.7	734.4
U.S. Total	2,214.2	2,432.9	2,730.6	2,732.9	3,057.3

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. organic imports from Mexico and Argentina since 2016 have also increased substantially. U.S. organic imports from Mexico reached 327,000 MT over 2020, up 198% from 2016 following increased U.S. demand for organic fruits and vegetables traded under HTS Codes 08 and 07. Over 2020, HTS Chapter 08 imports reached 222,000 MT, up 198% from 2016. Similarly, U.S. organic imports under HTS

Chapter 07 grew 343% from 2016, reaching 52,000 MT over 2020. U.S. organic imports from Argentina reached 325,000 MT over 2020, up 83% from 2016. U.S. organic imports from Argentina grew following increased U.S. demand for organic grains and oilseeds for animal feed under the HTS Codes 10 and 12. Over 2020, HTS Chapter 10 imports reached 166,000 MT, up 114% from 2016. Also, U.S. organic imports under the HTS Chapter 12 grew 66% from 2016, reaching 93,000 MT over 2020.

U.S. Organic Imports by HTS Chapter

	2016	2017	2018	2019	2020
1,000 MT					
Chapter 04	22.3	30.7	26.3	26.9	39.2
Chapter 07	25.1	35.8	48.6	79.6	93.4
Chapter 08	486.1	563.7	730.9	663.2	725.0
Chapter 09	76.1	81.9	83.9	108.0	116.5
Chapter 10	608.6	455.7	315.6	262.1	352.0
Chapter 11	54.5	130.6	324.5	330.8	231.1
Chapter 12	409.2	474.8	384.0	337.6	339.5
Chapter 15	99.7	121.5	127.3	126.1	174.3
Chapter 17	223.4	283.0	337.5	338.0	389.5
Chapter 18	8.9	13.1	15.5	17.1	17.1
Chapter 19	10.6	11.3	12.6	12.9	29.2
Chapter 20	23.1	27.6	52.7	47.5	60.6
Chapter 21	4.6	6.2	10.7	10.0	13.8
Chapter 22	21.5	23.9	22.1	23.8	19.5
Chapter 23	139.0	171.8	236.8	347.8	453.5
Chapter 52	1.6	1.4	1.7	1.4	3.0
U.S. Total	2,214.2	2,432.9	2,730.6	2,732.9	3,057.3
Million USD					
Chapter 04	$82.0	$136.2	$87.6	$65.3	$84.6
Chapter 07	$59.6	$72.9	$98.4	$124.3	$167.1
Chapter 08	$496.6	$599.2	$804.8	$886.7	$918.6
Chapter 09	$383.5	$428.6	$418.6	$510.3	$555.9
Chapter 10	$205.3	$191.5	$178.6	$159.8	$208.0
Chapter 11	$51.4	$85.9	$215.5	$228.6	$143.9
Chapter 12	$310.8	$372.2	$318.9	$325.2	$406.8
Chapter 15	$311.8	$411.0	$420.0	$352.0	$413.2
Chapter 17	$180.3	$236.2	$356.4	$319.7	$347.0
Chapter 18	$44.7	$66.0	$77.8	$67.9	$76.3
Chapter 19	$14.7	$15.9	$17.8	$22.1	$61.7
Chapter 20	$39.4	$55.0	$91.8	$94.2	$166.0
Chapter 21	$17.0	$19.7	$39.7	$35.7	$44.9
Chapter 22	$100.6	$153.6	$85.6	$95.3	$91.2
Chapter 23	$93.2	$112.1	$154.7	$219.7	$308.3
Chapter 52	$7.9	$8.8	$11.7	$9.3	$22.7
U.S. Total	$2,398.9	$2,964.7	$3,378.0	$3,516.1	$4,016.2

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Organic Export Market Overview

U.S. organic exports steadily expanded from 2016 through 2020, growing at an average rate of 6% per year to $732 million—457,000 MT—over 2020. Schedule B Chapter 08 organic fruit and nuts remained the largest export category through 2020, but did not experience significant growth. Over 2020, U.S. organic Chapter 08 exports reached 176,000 MT, up only 1% from 2016. In contrast, U.S. organic exports under Schedule B Chapters 12 and 22 grew much more steeply. Over 2020, U.S. organic export under Chapter 12 reached 55,000 MT, a 320% increase from 2016. Additionally, U.S. organic exports under Chapter 22 reached 47,000 MT, up 1,487% from 2016.

The sharp rise in U.S. organic exports under Chapter 12 were primarily from increasing organic alfalfa and hay exports. Over 2020, the U.S. exported 38,000 MT of organic alfalfa and hay to China, a 496% increase from 2016 In contrast, growth in organic exports under Chapter 22 occurred across a variety of countries, with exports to the United Kingdom, Japan, the Philippines, Saudi Arabia, and Singapore each expanding by 3,000 MT or more. The growth in Chapter 22 exports to the United Kingdom were the most dramatic—reaching 6,600 MT over 2020 from virtually zero over 2016—driven by exports of organic vinegar.

U.S. Organic Exports by Destination Country

1,000 MT	2016	2017	2018	2019	2020
Canada	107.6	111.8	129.4	126.5	132.4
Mexico	122.8	139.2	116.6	186.1	101.5
China	11.9	15.0	31.3	26.7	41.9
Japan	28.9	16.6	26.8	36.7	34.0
South Korea	19.5	21.9	26.4	24.6	29.3
Taiwan	24.4	22.5	17.7	15.6	18.9
United Kingdom	2.8	3.4	16.8	6.0	9.3
Australia	2.5	2.7	7.0	4.9	7.1
Singapore	3.0	3.7	4.2	4.0	6.0
Hong Kong	5.5	5.6	4.3	3.8	6.0
All Others	39.4	49.1	65.8	56.4	70.5
U.S. Total	368.4	391.6	446.5	491.4	456.9

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Schedule B Chapter 20 exports also achieved a remarkable rise of 245% from 2016 to 9,700 MT over 2020. Growth in chapter 20 exports was accelerated by multiple factors. U.S. organic tomato paste exports increased substantially from less than 400 MT over 2016 to nearly 3,100 MT over 2020. Similarly, U.S. exports of homogenized organic fruits and vegetables have more than tripled from less than 500 MT over 2016, to nearly 1,700 MT over 2020.

U.S. Organic Export by Schedule B Chapter

	2016	2017	2018	2019	2020
1,000 MT					
Chapter 04	3.4	8.5	6.4	5.0	2.9
Chapter 07	142.1	136.8	149.0	169.4	125.5
Chapter 08	173.9	181.9	167.1	205.7	176.2
Chapter 09	2.7	2.3	2.8	2.7	3.5
Chapter 10	1.1	0.6	0.7	1.1	1.3
Chapter 11	0.6	1.0	1.1	1.3	2.0
Chapter 12	13.3	22.5	34.4	38.2	55.2
Chapter 15	1.3	1.9	1.7	1.2	3.4
Chapter 17	0.3	0.7	0.9	1.0	1.0
Chapter 18	0.0	0.1	0.1	0.0	0.1
Chapter 19	0.3	0.3	0.3	0.5	1.1
Chapter 20	2.8	4.2	7.9	6.8	9.7
Chapter 21	23.1	27.7	27.0	24.2	27.0
Chapter 22	3.0	3.0	47.1	34.3	47.2
Chapter 23	0.3	0.1	0.0	0.0	0.8
Chapter 52	0.1	0.1	-	0.0	0.1
U.S. Total	368.4	391.6	446.5	491.4	456.9
Million USD					
Chapter 04	$3.1	$6.7	$4.4	$4.2	$4.9
Chapter 07	$213.9	$217.8	$224.0	$253.1	$234.6
Chapter 08	$293.7	$299.7	$323.6	$373.3	$351.5
Chapter 09	$22.6	$18.0	$19.2	$19.2	$22.8
Chapter 10	$1.4	$1.5	$1.9	$1.2	$1.2
Chapter 11	$0.9	$1.6	$1.3	$1.7	$2.4
Chapter 12	$3.7	$6.2	$7.6	$12.9	$23.9
Chapter 15	$1.5	$2.2	$2.2	$1.6	$4.9
Chapter 17	$0.3	$1.1	$0.9	$1.1	$1.3
Chapter 18	$0.1	$0.1	$0.1	$0.1	$0.2
Chapter 19	$0.5	$0.5	$0.6	$1.2	$3.2
Chapter 20	$3.8	$5.4	$10.2	$10.0	$14.3
Chapter 21	$26.4	$32.0	$31.6	$29.3	$31.9
Chapter 22	$4.0	$4.1	$29.2	$24.8	$34.9
Chapter 23	$0.1	$0.1	$0.0	$0.0	$0.3
Chapter 52	$0.6	$0.5	$-	$0.1	$0.2
U.S. Total	$576.5	$597.5	$656.9	$733.8	$732.4

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 04: Organic Dairy, Eggs, and Honey

Chapter 04 Highlights

- U.S. trade under Chapter 04 has historically been led by growing organic honey imports from South America. Over 2020, U.S. organic honey imports approached 37,000 MT, accounting for 93% of U.S. organic imports under HTS Chapter 04.
- Excluding organic honey, U.S. organic trade under Chapter 04 is comprised almost entirely of organic dairy products. Over 2020, U.S. organic dairy exports reached 2,600 MT while organic dairy imports reached nearly 2,700 MT.
- Organic cheese accounted for the majority of U.S. organic dairy imports over 2020, reaching 1,700 MT.
- U.S. organic dairy export volumes have consistently fallen since 2017, following declining fluid milk exports to Mexico. Since 2017, U.S. organic fluid milk exports have fallen 76%, down to less than 2,000 MT over 2020.
- Offsetting the decline in U.S. organic fluid milk exports, the value of U.S. organic dairy exports has been supported by increased organic whey and organic dry milk product exports. Over 2020, the value of U.S. organic dairy exports reached $4.9 million, down only 27% from 2017.

Chapter 04 Overview

Organic products traded under Chapter 04 of the HTS and Schedule B trade codes include two of the largest sectors within U.S. organic sales—organic dairy and organic eggs—as well as organic honey. While U.S. consumption of organic egg and dairy products exceeds that of organic honey, U.S. production of organic dairy and egg products has expanded to satisfy consumer demand while production of organic honey has not, resulting in sustained imports. Over 2020, the U.S. imported more than 36,000 MT of organic honey, accounting for 93% of U.S. imports under the HTS Chapter 04. Historically, the majority of U.S. organic honey imports have been sourced from South American countries—primarily Argentina, Brazil, and Uruguay—with the U.S. importing nearly 30,000 MT from Brazil alone over 2020.

U.S. Organic Dairy, Eggs, and Honey Imports

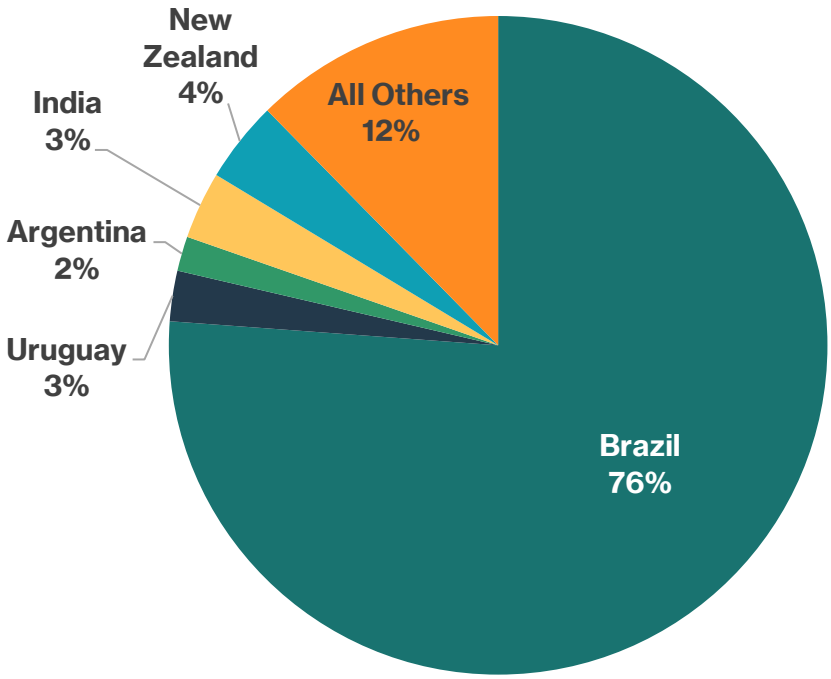
	2016	2017	2018	2019	2020
U.S. HTS Chapter 04 Organic Imports					
Metric Tons	22,277	30,660	26,291	26,871	39,214
$1,000 USD	$81,959	$136,151	$87,561	$65,310	$84,611
Country of Origin (Metric Tons)					
Brazil	15,919	22,097	21,476	21,318	29,866
Uruguay	-	676	428	764	1,731
Argentina	137	197	204	259	1,672
India	763	1,342	824	665	1,219
New Zealand	1,146	1,031	1,431	1,068	1,116
All Others	4,312	5,318	1,928	2,797	3,609

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Imports of organic cheese, primarily from European countries and New Zealand, has remained at a fairly constant 1,000–2,000 MT annually, as has the small amount of organic butter from New Zealand.

U.S. organic exports under Chapter 04 of Schedule B are historically a fraction of Chapter 04 import volumes. The bulk of the discrepancy can be attributed to organic honey, which accounts for nearly 96% of U.S. Chapter 04 imports over 2020, but less than 10% of exports. Excluding organic honey, trade under Chapter 04 is almost exclusively organic dairy products, and was nearly net zero over 2020, with the U.S. importing 2,700 MT and exporting 2,600 MT.

U.S. Organic Dairy, Eggs, and Honey Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

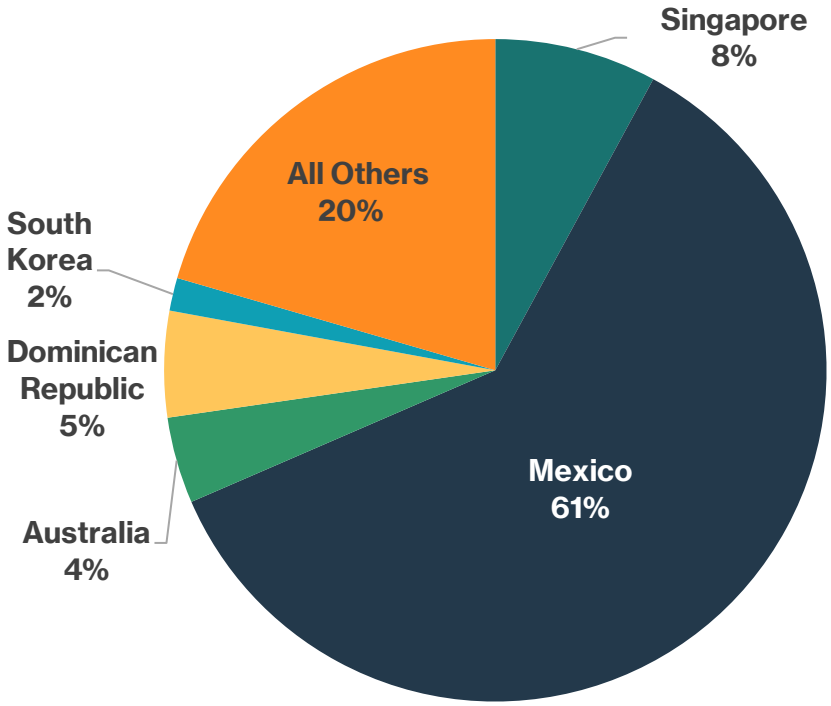
Additionally, since reaching a peak volume of 8,400 MT over 2017, U.S. organic dairy exports have steadily fallen since 2020, led by declining fluid milk exports to Mexico. Along with this decline, the U.S. Chapter 04 trade has experienced an increase in higher-valued organic whey and dry milk products. As a result, the value of U.S. organic dairy exports did increase over 2020 to reach $4.9 million.

U.S. Organic Dairy, Eggs, and Honey Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 04 Organic Exports					
Metric Tons	3,408	8,547	6,396	4,975	2,908
$1,000 USD	$3,085	$6,715	$4,379	$4,234	$4,906
Destination Country (Metric Tons)					
Singapore	165	437	174	230	1,070
Mexico	2,105	4,875	5,360	2,862	692
Australia	-	-	19	620	466
Dominican Republic	709	474	157	-	18
South Korea	10	-	287	80	45
All Others	419	2,760	400	1,184	617

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Dairy, Eggs, and Honey Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 07: Organic Vegetables, Legumes, and Roots

Chapter 07 Highlights

- U.S. imports under HTS Chapter 07 have increased over recent years, up 272% from 2016 to 93,000 MT over 2020.
- Imports from Mexico account for 60% of Chapter 07 imports, with imports growing at 343%—significantly faster than this category. Canadian and Argentine imports are growing at 31% and 18%, respectively.
- Over the past five years, chickpeas imports doubled to $1 million, mushrooms grew by 500% to $560,000, and dried vegetables grew by 1,675% to $560,000—showing some diversification away from fresh and frozen vegetables.
- The U.S. is a net exporter of vegetables and pulses, the overall value of U.S. organic exports under HTS Chapter 07 peaked in 2019 at $163 million. Exports declined to $125 million in 2020—a pandemic-related outlier.
- Overall U.S. organic vegetable and pulse trade continues to increase, with Mexico and Canada being the most important trading partners. Northern Asia countries (Japan, Taiwan, and South Korea) are also important export markets.

Chapter 07 Overview

Organic products traded under Chapter 07 of the HTS and Schedule B trade codes include all forms of vegetables, popular organic consumer products, and legumes—an ingredient that has gained a lot of traction among consumers. A significant increase in the quantity (272%) as well as value (180%) of Chapter 07 imports reflect this increase. Volume grew faster than value, suggesting that lower-value products are being imported, which aligns with the increases in chickpeas and dried vegetables seen in the data compared to higher-value items such as fresh vegetables.

U.S. Organic Vegetables, Legumes, and Roots Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 07 Organic Imports					
Metric Tons	25,133	35,810	48,550	79,644	93,404
$1,000 USD	$59,585	$72,904	$98,367	$124,282	$167,057
Country of Origin (Metric Tons)					
Mexico	11,837	20,171	32,837	54,910	52,430
Russia	-	-	-	11,500	20,713
Netherlands	3,583	4,136	3,930	2,036	2,977
Canada	2,181	4,279	3,887	4,088	2,866
Argentina	2,417	2,729	2,520	1,670	2,851
All Others	5,114	4,495	5,376	5,440	11,567

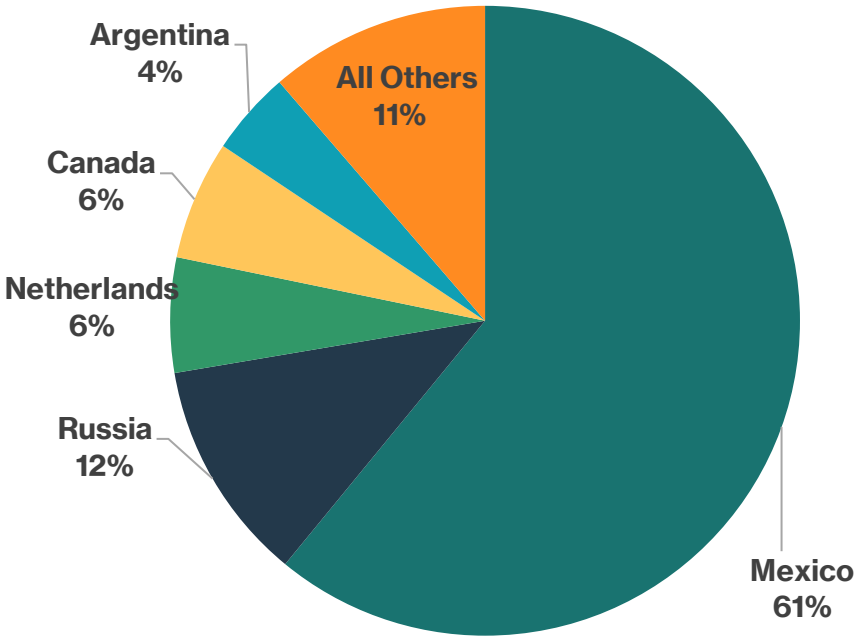
Source: Mercaris 2021, PIERS®, USDA FAS GATS

Alongside the U.S.-Mexico-Canada Agreement (USMCA) and its predecessor the North America Free Trade Agreement (NAFTA) paving the way for increased vegetable imports, Mexico's warm climate, adoption of Dutch-style greenhouses, and inexpensive labor enabled its high-value, labor-intensive organic vegetable industry to expand rapidly. Since 2016, U.S. organic imports under Chapter 07 have

continued to reinforce trends seen in the past decade or so, as well as trends seen within the conventional vegetable and legume markets. Mexican imports have grown by 440% over the past five years, while exports from Canadian greenhouse production are less significant, but still growing. Dutch imports fell by nearly 20%.

Alongside increased imports from Mexico, Russia began exporting significant quantities of organic vegetable to the U.S. in 2019, marking another significant shift in the market.

U.S. Organic Vegetables, Legumes, and Roots Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

The data also show frozen processed vegetable imports from China doubled from 600 MT of frozen vegetable medleys from China or Hong Kong in 2016 to over 1,200 MT in 2020; however, it is impossible to tell where the vegetables were grown because their form changes when processed—resetting the country of origin. The data indicate that private labels are importing vegetable medleys manufactured in China. Finally, a significant number of chickpeas were imported from South America, primarily Argentina.

Within Chapter 07, the U.S. is a net exporter of vegetables and pulses, excluding a small dip in 2020 likely caused by pandemic-induced labor shortages and lockdowns during the harvest season that prevented growers from harvesting and shipping. In 2019, Chapter 07 exports peaked at 169,000 MT worth more than $250 million. These

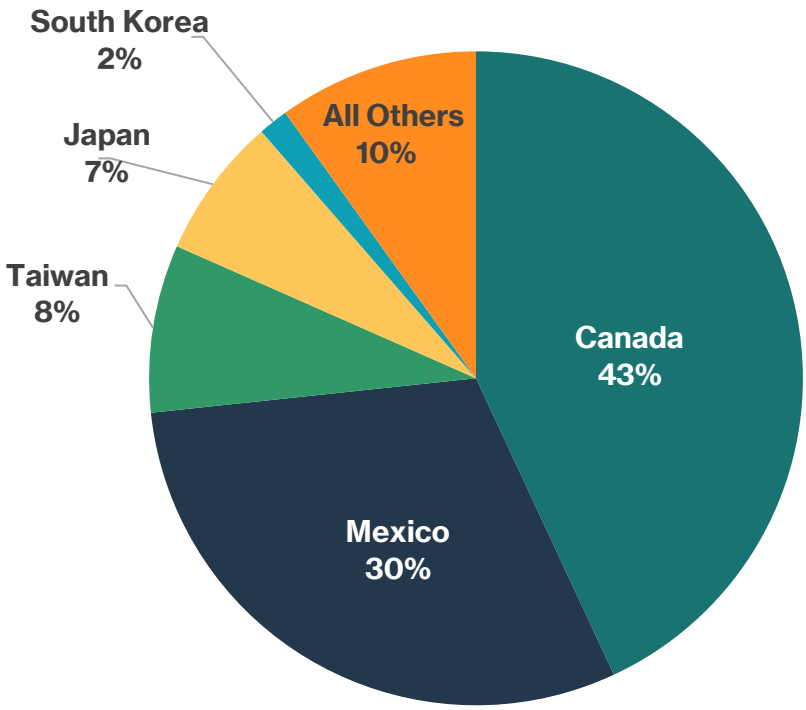
U.S. Organic Vegetables, Legumes, and Roots Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 07 Organic Exports					
Metric Tons	142,129	136,816	148,971	169,363	125,521
$1,000 USD	$213,890	$217,771	$224,041	$253,105	$234,628
Destination Country (Metric Tons)					
Canada	56,042	55,051	66,134	68,233	65,838
Mexico	33,947	41,630	44,306	71,293	27,464
Taiwan	18,045	14,278	10,971	8,119	8,560
Japan	16,062	7,262	11,636	8,019	7,570
South Korea	2,504	2,192	1,801	2,074	2,089
All Others	15,530	16,403	14,122	11,625	14,001

Source: Mercaris 2021, PIERS®, USDA FAS GATS

exports largely stayed in North America, with 43% of exports destined for Canada and 30% going to Mexico. Another 17% went to Taiwan, Japan, and South Korea—three markets with relatively high purchasing power. Though the full impact of the pandemic and the shifts in trade have not been fully realized, trade throughout North America is expected to recover with borders reopening and USMCA being ratified.

U.S. Organic Vegetables, Legumes, and Roots Exports
Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 08: Organic Edible Fruit and Nuts

Chapter 08 Highlights

- U.S. imports under HTS Chapter 08 have increased over recent years, up 85% from 2016 to 725,000 MT in 2020.
- Imports from Ecuador accounted for 35% of imports, followed by Mexico with 24% of imports. Canadian and Argentine imports are growing at 31% and 18%, respectively, highlighting the importance of counter-seasonal production.
- The U.S. exported 176,000 MT worth $350 million in 2020. Export volumes were unchanged over the past five years, while the value increased by 20%. Mexico represents 47% of exports and is the largest export market.
- The next-largest export markets— Canada, Japan, South Korea, and Taiwan—grew 25–50% by volume over the past five years.
- In 2020, the U.S. exported 79,000 MT of apples, totaling 45% of the total exports. The U.S. exported 33,000 MT of table grapes, totaling 19% of total exports. Various citrus products accounted for another 20,000 MT.

Chapter 08 Overview

Organic products traded under Chapter 08 of the HTS and Schedule B trade codes include all forms of edible fruit and nuts, a popular organic consumer product category. Organic fruit and nuts are an important category for both imports and exports. Imports increased by 50% in volume—from 486,000 MT to 725,000 MT—and 85% in value—$497 million to $919 million—between 2016 and 2020.

U.S. Organic Edible Fruit and Nuts Imports

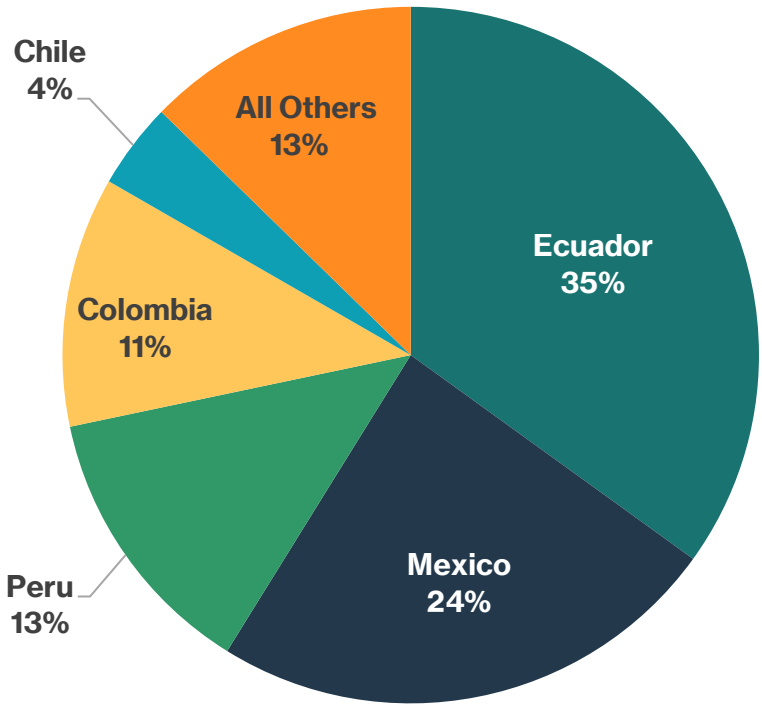
	2016	2017	2018	2019	2020
U.S. HTS Chapter 08 Organic Imports					
Metric Tons	486,086	563,717	730,949	663,178	725,034
$1,000 USD	$496,590	$599,164	$804,788	$886,748	$918,637
Country of Origin (Metric Tons)					
Ecuador	206,970	220,373	233,362	207,826	239,012
Mexico	74,295	122,575	165,109	173,234	221,747
Peru	67,673	71,322	82,830	95,179	90,628
Colombia	56,958	72,034	71,170	81,237	86,649
Chile	17,951	20,818	25,140	32,619	29,821
All Others	62,241	56,595	153,338	73,084	57,177

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Key imports included fruit such as bananas, avocados, coconuts, and mango, as well as nuts such as cashews and macadamia nuts. Dried and frozen fruit—including cherries, strawberries, raspberries, blueberries, dates, figs, and apricots—represented a significant percentage of the imports; however, since the fruit is processed, the data show only from where the processed fruit came and not where it was grown. The fruit could be foreign-grown, or domestically produced fruit that has been exported for processing and subsequently imported back.

The five largest exports of fruit and nuts are Ecuador, Mexico, Peru, Colombia, and Chile; all locations with mild climates or counter-seasonal production. International trade enables U.S. consumers to enjoy fresh fruit nearly year-round. These data suggest counter-seasonal organic produce has followed the conventional trend and is now more in demand and available.

U.S. Organic Edible Fruit and Nuts Imports Country of Origin (2016-2020)



Source: Mercaris 2021, Piers®, USDA FAS GATS

Ecuador is the largest exporter to the U.S. by volume, represent 35% of imports over 2020, or 240,000 MT. However, between 2016 and 2020 imports grew only 15%, which is the slowest rate of growth among the top suppliers of U.S. Chapter 08 imports. Mexico is the only non-South American supplier, with imports from the country growing from 74,000 MT over 2016 to 222,000 MT over 2020. This growth made Mexico by far the U.S.' second largest and fastest growing supplier, highlighting the importance of NAFTA and USMCA to the region.

The U.S. exported 176,000 MT worth $350 million in 2020. Export volumes were unchanged over the past five years, while the value increased by 20%. Mexico remains the largest export market for U.S. fruit and nuts representing 47% of all exports, despite their decline in volume by 18%. The next-largest export markets—Canada, Japan, South Korea, and Taiwan—grew by 25–50% in volume in the past five years. Meanwhile,

U.S. Organic Edible Fruit and Nuts Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 08 Organic Imports					
Metric Tons	173,923	181,894	167,062	205,675	176,213
$1,000 USD	$293,728	$299,747	$323,560	$373,251	$351,530
Country of Origin (Metric Tons)					
Mexico	85,095	91,755	64,866	109,771	69,771
Canada	32,795	35,123	41,141	39,060	43,262
Japan	9,099	5,454	9,811	17,992	13,805
South Korea	10,504	11,343	15,030	10,451	13,130
Taiwan	5,396	6,201	5,417	5,883	7,908
All Others	31,033	32,018	30,797	22,518	28,337

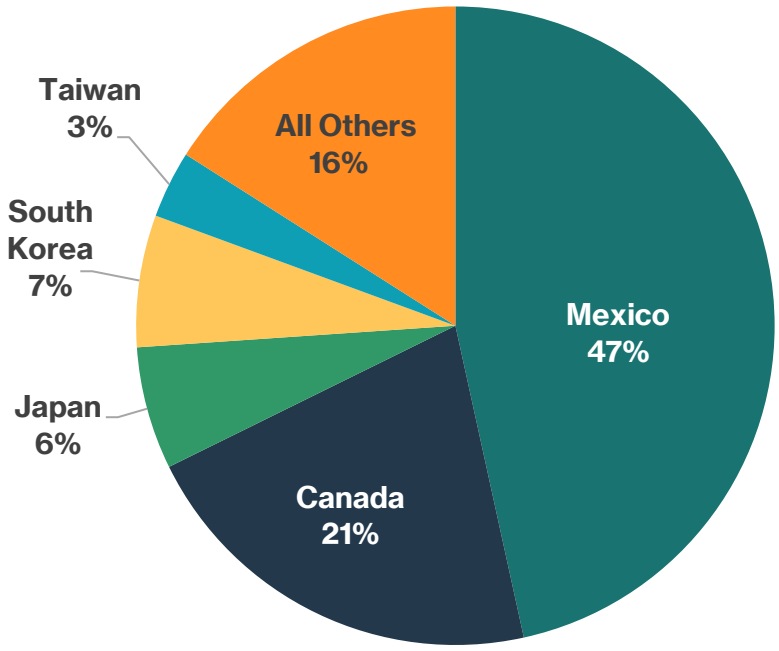
Source: Mercaris 2021, PIERS®, USDA FAS GATS

exports to other regions fell by 9%.

Apples are the U.S.' most important organic export product. In 2020, the U.S. exported 79,000 MT of apples, representing 45% of the total exports. The second-largest export was fresh grapes, of which the U.S. exported 33,000 MT, totaling 19% of total exports, and various citrus products accounted for another 20,000 MT.

Within the citrus category, orange exports have fallen from 16,000 MT in 2016 to 8,000 MT in 2020, following the contraction in the industry of which citrus-greening and insect-borne disease were a factor. Conversely, lemon exports increased from 7,000 MT in 2016 to a peak of 12,000 MT in 2019, after which exports fell to 10,000 MT in 2020; it is too early to know if a trend is being set.

U.S. Organic Edible Fruit and Nuts Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 09: Organic Coffee, Tea, Maté, and Spices

Chapter 09 Highlights

- U.S. organic imports under HTS Chapter 09 have increased over recent years, up 53% from 2016 to 116,000 MT in 2020. The value of these imports grew by 45%, to $556 million.
- In 2020, non-decaf, non-roasted, organic Arabica coffee accounts for 78,000 of the 117,000 MT of imports in Chapter 09. Other types of organic coffee accounted for another 19,000 MT. Only 3,000 MT of organic tea and 14,000 MT of ginger were imported.
- Imports from Peru accounted for 25% of Chapter 09 imports, by Honduras (11%), Mexico (9%), Colombia (8%), and Guatemala (7%). All other countries accounted for 40% of imports.
- Retail bags of non-decaf organic coffee grew by 183% and decaf doubled in five years. Bulk organic coffee imports increased, but at a slower rate. In contrast, organic tea imports fell by 17%, from 3,500 MT in 2016 to 3,000 MT in 2020.
- Unroasted organic coffee is the largest export and has grown ten-fold over the past five years. Exports of organic spices also grew from 16 MT in 2016 to 200 MT in 2020.

Chapter 09 Overview

Organic products traded under Chapter 09 of the HTS and Schedule B trade codes include coffee, tea, maté, and spices, a category where domestic production remains limited. Imports from this category exceed 116,000 MT, worth over $555 million in 2020. Organic coffee accounts for 85% of the imports in Chapter 09.

U.S. Organic Coffee, Tea, Maté, and Spice Imports

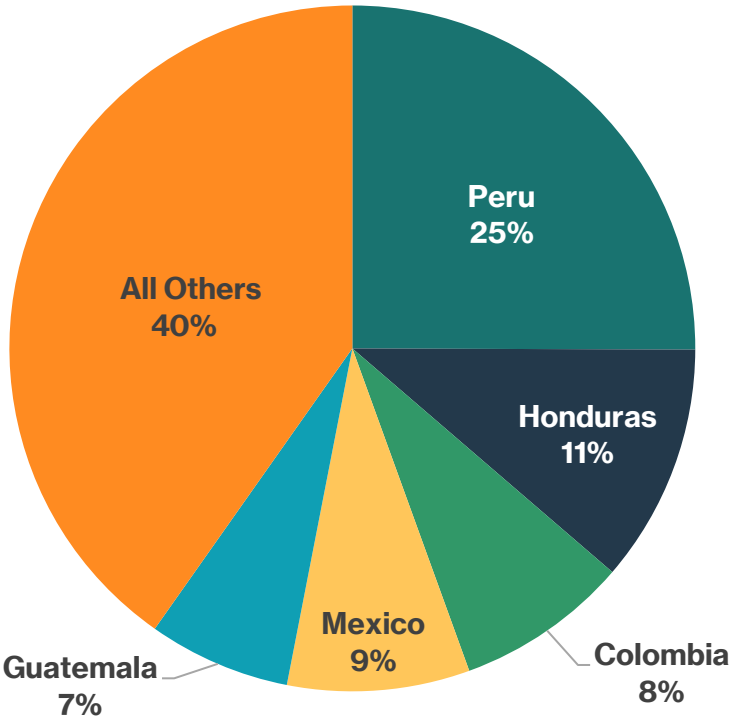
	2016	2017	2018	2019	2020
U.S. HTS Chapter 09 Organic Imports					
Metric Tons	76,108	81,903	83,917	108,027	116,497
$1,000 USD	$383,542	$428,644	$418,564	$510,337	$555,854
Country of Origin (Metric Tons)					
Peru	14,135	18,376	20,712	29,336	34,313
Honduras	6,882	7,376	8,820	12,815	16,582
Colombia	5,178	7,103	6,638	9,861	9,272
Mexico	8,284	8,308	6,703	7,956	8,866
Guatemala	5,243	6,191	5,761	7,301	6,786
All Others	36,386	34,550	35,284	40,758	40,677

Source: Mercaris 2021, PIERS®, USDA FAS GATS

The largest importing countries are major coffee-producing regions, but Chapter 09 imports in broad are less concentrated than other Chapters. Peru, the top importer, represents only 25% of total imports, followed by Honduras (11%), Mexico (9%), Colombia (8%), and Guatemala (7%). All other countries combined account for 40% of imports. However, imports from Peru and Honduras grew at over 140% each over 2016 through 2020, which is much faster than overall imports and imports from other origins.

In 2020, non-decaf, non-roasted, and Arabica organic coffee accounted for 78,000 of the 117,000 MT of imports in Chapter 09, representing a 49% increase from 2016. Other types of coffee accounted for another 18,700 MT as imports grew by 68%. Retail bags of organic coffee with packages under two kilograms account for a relatively small amount of Chapter 09 imports, but are the fastest-growing category. Roasted, non-decaf bag imports increased by 183% to 3,600 MT, while roasted, decaf imports doubled to 700 MT.

U.S. Organic Coffee, Tea, Maté, and Spice Imports Country of Origin (2016-2020)



Source: Mercaris 2021, Piers®, USDA FAS GATS

Organic tea imports fell by 17% from 3,500 MT in 2016 to 3,000 MT in 2020. Following the same trend, maté imports fell from 300 MT in 2016 to 65 MT in 2020—an 80% reduction. The organic spice trade is small compared with the size of the Chapter. Pepper, turmeric, and vanilla beans were the only items that broke $1 million in imports.

Chapter 09 exports remained stable at $22 million in value, but the volume increased by 30% over the past five years as non-North American exports grew by 1,700 MT as exports to developed countries such as South Korea, Taiwan, and Australia grew strongly. In the past, these products were re-exported to U.S. North American neighbors, with half of all exports going to Canada and Mexico. Over the past five years, however,

U.S. Organic Coffee, Tea, Maté, and Spice Exports

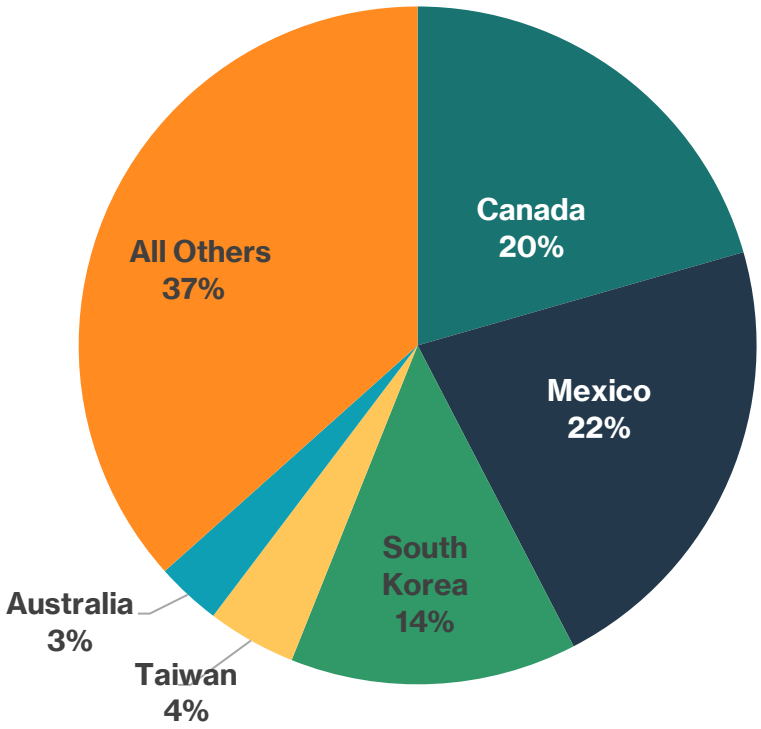
	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 09 Organic Exports					
Metric Tons	2,663	2,286	2,767	2,700	3,460
$1,000 USD	$22,596	$17,981	$19,207	$19,184	$22,817
Country of Origin (Metric Tons)					
Canada	793	505	515	485	555
Mexico	1,176	619	330	397	507
South Korea	129	317	728	257	465
Taiwan	7	10	49	205	317
Australia	27	50	71	39	243
All Others	531	784	1,074	1,317	1,373

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Canadian exports to the U.S. fell by 30% from 800 to 600 MT, while Mexican exports fell by 57% from 1,200 to 500 MT.

The largest export category is unroasted coffee. Exports grew to 400 MT in 2020 from 40 MT in 2016. Similarly, export of spices grew from 16 MT in 2016 to 200 MT in 2020.

U.S. Organic Coffee, Tea, Maté and Spice Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 10: Organic Cereals

Chapter 10 Highlights

- U.S. imports under HTS Chapter 10 have declined over recent years, down 42% from 2016 to 352,000 MT over 2020.
- Imports have declined overall due to reduced organic corn imports, while U.S. import demand for other high-value organic cereals—including durum wheat, popcorn, quinoa, amaranth seed, and rice—have increased substantially.
- Following demand growth for imported high-value cereals, the overall value of U.S. organic imports under HTS Chapter 10 was mostly unchanged over 2020 relative to 2016.
- Although the U.S. remains a heavy net importer of organic cereals, export volumes have grown slightly, up 16% from 2016 to 1,300 MT in 2020.
- U.S. cereal exports are led primarily by a combination of organic corn and wheat exports to Asia, as well as exports of organic wild rice to European countries.

Chapter 10 Overview

Historically, organic products traded under Chapter 10 of the HTS and Schedule B trade codes include many products critically important to U.S. organic cereal growers and purchasers, especially as growth in U.S. consumer demand has outpaced production. The U.S. imported nearly 609,000 MT of organic cereals under Chapter 10 in 2016, the majority of which—more than 550,000 MT—were corn, according to Mercaris. However, this dynamic has changed substantially as U.S. production has expanded.

U.S. Organic Cereal Imports

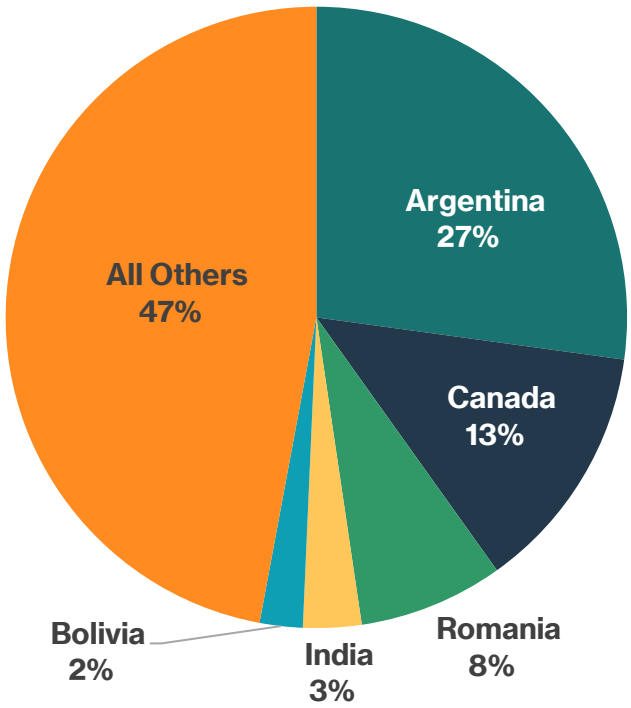
	2016	2017	2018	2019	2020
U.S. HTS Chapter 10 Organic Imports					
Metric Tons	608,577	455,688	315,553	262,120	351,989
$1,000 USD	$205,337	$191,510	$178,583	$159,789	$207,998
Country of Origin (Metric Tons)					
Argentina	77,257	64,369	100,782	133,771	165,564
Canada	30,795	46,525	57,892	58,037	65,169
Romania	56,096	9,525	30,806	10,759	43,011
India	7,957	9,779	12,747	10,001	19,999
Bolivia	-	7,117	12,622	10,651	14,189
All Others	436,472	318,373	100,705	38,901	44,057

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. organic cereal imports under Chapter 10 declined to only 352,000 MT—down 42% from just four years prior—following a 62% decline in organic corn imports over the same period. While organic corn imports have declined, imports of other higher-value organic cereals have expanded. Specifically, imports of organic popcorn, quinoa, amaranth seed, durum wheat, and rice reached a combined 112,000 MT in 2020, up 99% from 2016. Following growth in these imports, the total value of U.S. imports under Chapter 10 have remained stable, reaching nearly $208 million in 2020, up about 1% from 2016.

While the U.S. has remained a large net importer of organic cereals, a small but notable amount of grain exports have persisted—primarily to Asian and European markets—with Japan and Hong Kong accounting for a combined 31% of U.S. organic cereal exports in 2020, and Italy, Netherland, and Belgium accounting for a combined 20% of U.S. exports over the same year. Exports of organic wheat, which is primarily shipped to Japan, reached 364 MT in 2020, or 28% of U.S. organic cereal exports. Organic wild rice exports, which is primarily shipped to European markets, reached 248 MT in 2020, accounting for 19% of U.S. organic cereal exports for the year. Organic corn exports, which are primarily shipped to Japan, reached 167 MT in 2020, or 13% of U.S. organic cereal exports.

U.S. Organic Cereal Imports Country of Origin (2016-2020)



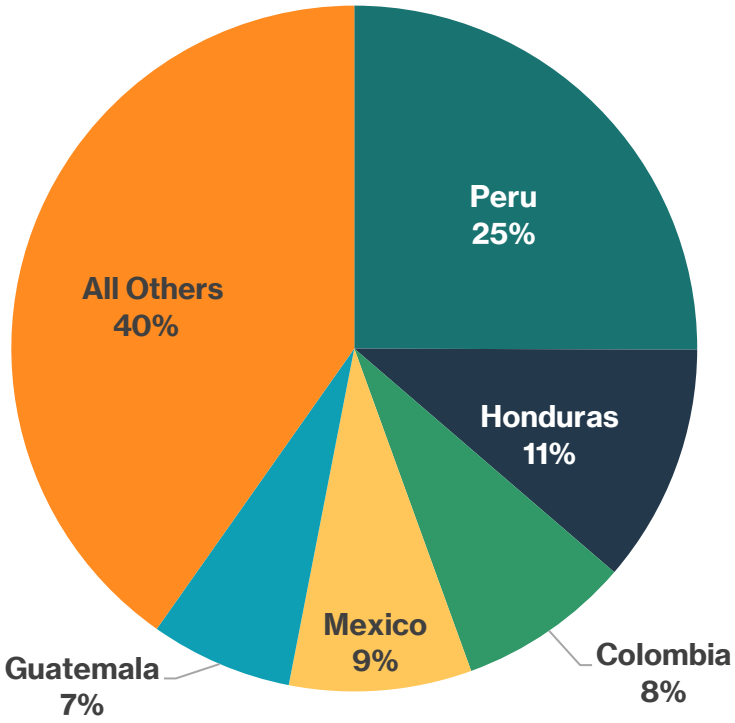
Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Cereal Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 10 Organic Exports					
Metric Tons	1,123	575	702	1,096	1,305
$1,000 USD	$1,355	$1,535	$1,902	$1,237	$1,235
Destination Country (Metric Tons)					
Japan	477	67	153	112	315
Honduras	-	-	-	259	159
Italy	22	8	20	40	111
Hong Kong	93	116	141	75	93
Netherlands	18	-	22	128	79
All Others	511	386	366	482	547

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Cereal Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 11: Organic Milled, Malts, Starches, Inulins, and Gluten

Chapter 11 Highlights

- The U.S. is a significant net importer of organic products trade under Chapter 11, importing 231,000 MT in 2020, while exporting less than 2,000 MT.
- Organic cracked corn for livestock feed imported under HTS Codes 1103 and 1104 account for the majority of imports within Chapter 11, reaching 171,000 MT in 2020. However, organic cracked-corn imports have begun to decline as a result of increased U.S. organic corn production.
- Organic tapioca starch imported under the four-digit HTS Code 1108 was the second-largest import category in 2020, reaching 17,000 MT in 2020.
- Organic exports included in Schedule B Chapter 11 are small but have demonstrated consistent growth, reaching nearly 2,000 MT over, up more than 200% from 2016.
- Exports of processed organic oats to Japan account for the majority of U.S. exports under Chapter 11, reaching 1,000 MT in 2020.

Chapter 11 Overview

Organic products traded under Chapter 11 of the HTS and Schedule B codes cover a large variety, including inputs for baked products, emulsifiers, livestock feed ingredients, and brewing malts. As a result, their trade is impacted by multiple, dynamic factors. Additionally, the products covered by Chapter 11 are primarily derived from organic grains, of which the U.S. has historically been a large net importer and remained so over the time period addressed within this study.

U.S. Organic Milled, Malts, Starches, Inulins, and Gluten Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 11 Imports					
Metric Tons	54,469	130,555	324,528	330,782	231,083
$1,000 USD	$51,430	$85,869	$215,540	$228,569	$143,913
Country of Origin (Metric Tons)					
Turkey	16,435	5,942	276,248	273,592	183,933
Thailand	7,960	6,286	8,274	13,242	16,132
Canada	1,020	1,028	311	10,929	5,244
Netherlands	2,121	3,555	5,118	5,143	4,080
India	1,827	4,119	14,007	10,331	3,601
All Others	25,107	109,625	20,570	17,546	18,093

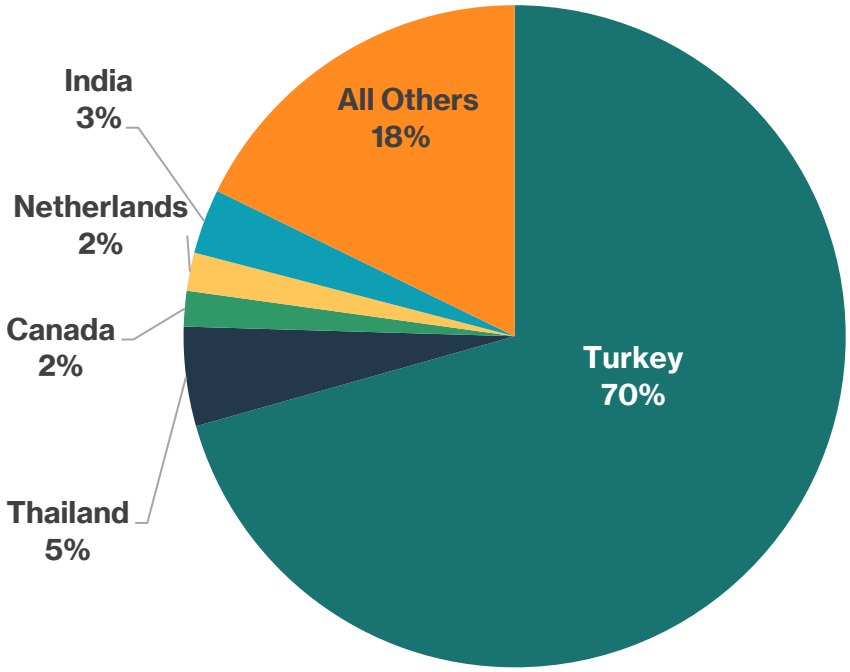
Source: Mercaris 2021, PIERS®, USDA FAS GATS

With the expansion in U.S. organic corn production, imports of organic cracked corn have declined, reaching only 171,000 MT in 2020—down 29% from the prior year—following a years-long period of phenomenal expansion. Prior to 2020, U.S. organic imports under HTS Chapter 11 grew at a phenomenal pace, reaching 331,000 MT in 2019—up more than 500% from 2016—led primarily by a rapid expansion in U.S. organic cracked corn imports from Turkey to meet growing organic poultry feed

demand alongside declining imports of organic whole corn. U.S. organic cracked corn imports exceeded 242,000 MT in 2019—up nearly 2,000% from nearly 12,000 MT over 2016.

Imports of other prepared organic grains under HTS Codes 1103 and 1104 reached nearly 16,000 MT in 2020. Other than organic products under codes 1103 and 1104, U.S. Chapter 11 organic imports in 2020 included a substantial amount of organic tapioca starch imported under HTS Code 1108, which reached 17,000 MT in 2020, as well as 7,600 MT of other non-wheat organic grain flour, 6,600 MT of organic wheat flour, 6,200 MT of organic wheat gluten, and 2,800 MT of organic legume flour. In total, and excluding organic cracked corn, imports under Chapter 11 nearly reached 60,000 MT in 2020.

U.S. Organic Milled, Malts, Starches, Inulins, and Gluten Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

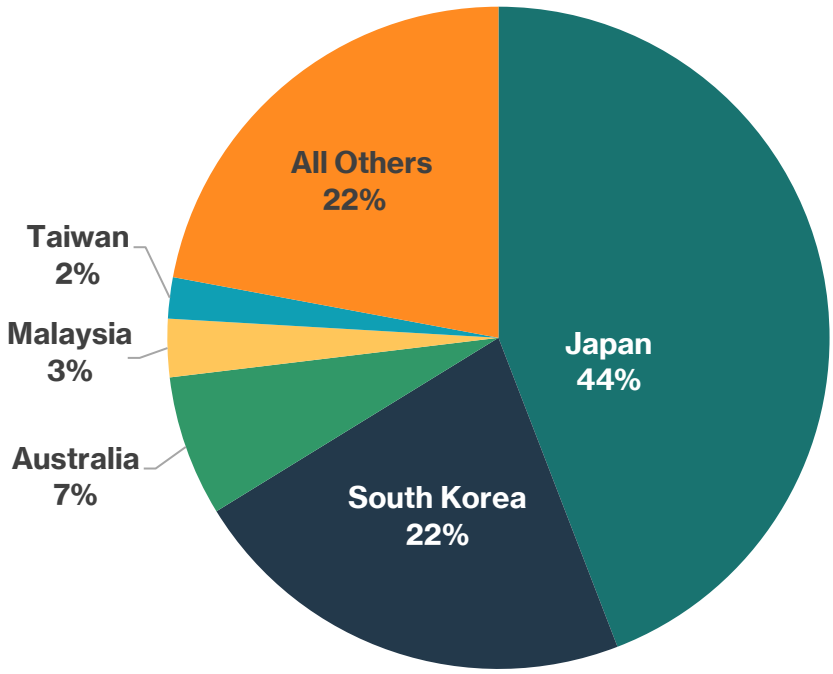
While comparatively smaller, U.S. organic exports under Schedule B Chapter 11 have demonstrated consistent growth. In 2020, U.S. organic exports under Chapter 11 reached nearly 2,000 MT, up more than 200% from 2016. Rolled and flaked organic oat exports to Japan account for the majority of U.S. organic Chapter 11 exports, reaching 1,000 MT in 2020. In addition to organic oat products, the U.S. exported a small amount—less than 400 MT—of organic cracked corn to Japan in 2020.

U.S. Organic Milled, Malts, Starches, Inulins, and Gluten Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 11 Organic Exports					
Metric Tons	640	995	1,119	1,343	1,957
$1,000 USD	$902	$1,606	$1,296	$1,660	$2,439
Destination Country (Metric Tons)					
Japan	174	153	403	595	1,349
South Korea	211	336	272	304	214
Australia	88	56	6	95	170
Malaysia	-	-	4	116	51
Taiwan	19	-	42	12	49
All Others	149	450	392	222	123

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Milled, Malts, Starches, Inulins, and Gluten Exports
Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 12: Organic Oilseeds, Misc. Grains, Etc.

Chapter 12 Highlights

- Driven by growth in demand for U.S. organic livestock feed and vegetable oil, the U.S. has become a substantial net importer of organic products under HTS Chapter 12, with imports approaching 340,000 MT in 2020, or nearly $407 million in value.
- Organic soybeans accounted for the majority of U.S. organic imports under Chapter 12, reaching 270,000 MT in 2020, or 79% of total organic Chapter 12 imports. However, in recent years this dynamic has begun to change as U.S. organic soybean imports have fallen—down 38% in 2020 from their peak import volume of 432,000 MT in 2017.
- The U.S. also imports a variety of other organic oilseeds, primarily for organic food production. In 2020 the U.S. imported 25,000 MT of organic canola and rapeseed, 23,000 MT of organic sunflower seed, and a combined 17,000 MT of organic poppy, sesame, chia, and mustard seeds.
- The U.S. has also established substantial export trade relationships for products under Chapter 12, primarily consisting of organic alfalfa, hay, and soybeans. In 2020, the U.S. exported 38,000 MT of organic alfalfa and hay to China, and 1,700 MT of organic soybeans to Japan.

Chapter 12 Overview

Organic traded under Chapter 12 of HTS and Schedule B trade codes primarily include feedstocks for organic oilseed crushing. As a result, the Chapter 12 trade data reflects changes that have occurred to U.S. organic livestock feed demand, as well as growing U.S. consumer demand for organic vegetable oils. Because feed demand has historically been a driver of organic oilseed trade, the U.S. has been a persistent net importer of organic products included in Chapter 12. Furthermore, among U.S. organic oilseeds, soybeans have remained the largest imported organic commodity, accounting for 79% of total Chapter 12 organic imports.

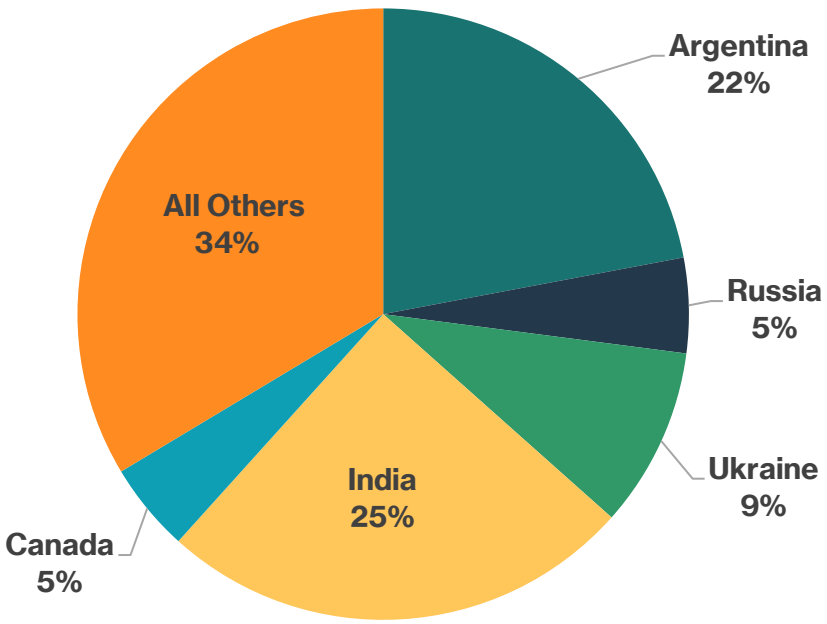
U.S. Organic Oilseeds, Misc. Grains, Etc. Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 12 Organic Imports					
Metric Tons	409,185	474,797	384,013	337,586	339,532
$1,000 USD	$310,785	$372,189	$318,857	$325,173	$406,788
Country of Origin (Metric Tons)					
Argentina	56,151	104,938	61,249	113,022	93,152
Russia	6,677	2,378	3,551	20,661	64,478
Ukraine	31,646	6,408	44,775	45,007	57,367
India	83,862	149,301	125,304	86,560	43,314
Canada	21,544	16,593	15,377	17,127	21,018
All Others	209,305	195,178	133,757	55,210	60,203

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. organic oilseed imports remained dominated by soybeans through 2020, driven by shifting U.S. livestock feed demand and expanding U.S. consumer demand for organic vegetable oils. However, demand for U.S. produced organic soybean meal has since 2017 been increasingly offset by a growing reliance on imported organic soybean meal, primarily from India. As a result, U.S. organic soybean imports have steadily declined, down 38% from 431,000 MT in 2017 to only 270,000 MT in 2020.

U.S. Organic Oilseeds, Misc. Grains, Etc. Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

In contrast to organic soybeans, imports of oilseeds used for organic oil or food production have steadily increased. Organic canola and rapeseed imports reached 25,000 MT in 2020, up 344% from 2016. Similarly, U.S. organic sunflower seed imports reached 23,000 MT in 2020, up 166% from 2016. Also, imports of other organic oilseeds for food production—including chia, mustard, poppy, and sesame seeds—have expanded significantly, increasing 61% since 2016 to 17,000 MT in 2020.

Regarding U.S. trade partners, the source of U.S. organic soybeans has shifted multiple times over recent years, as the primary country of origin transitioned from Turkey, to India, to Argentina. Imports of organic sunflower seed have remained relatively divers, with Argentina contributing the largest share—37% in 2020—and Turkey the second largest

U.S. Organic Oilseeds, Misc. Grains, Etc. Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 12 Organic Exports					
Metric Tons	13,255	22,502	34,441	38,184	55,156
$1,000 USD	$3,710	$6,177	$7,646	$12,887	$23,890
Destination Country (Metric Tons)					
China	6,439	12,797	27,803	25,760	38,181
South Korea	4,333	4,915	5,202	8,338	8,281
Japan	214	848	346	826	2,050
Netherlands	89	146		219	1,680
India	1,371	1,084	186	1,703	1,347
All Others	808	2,712	904	1,338	3,617

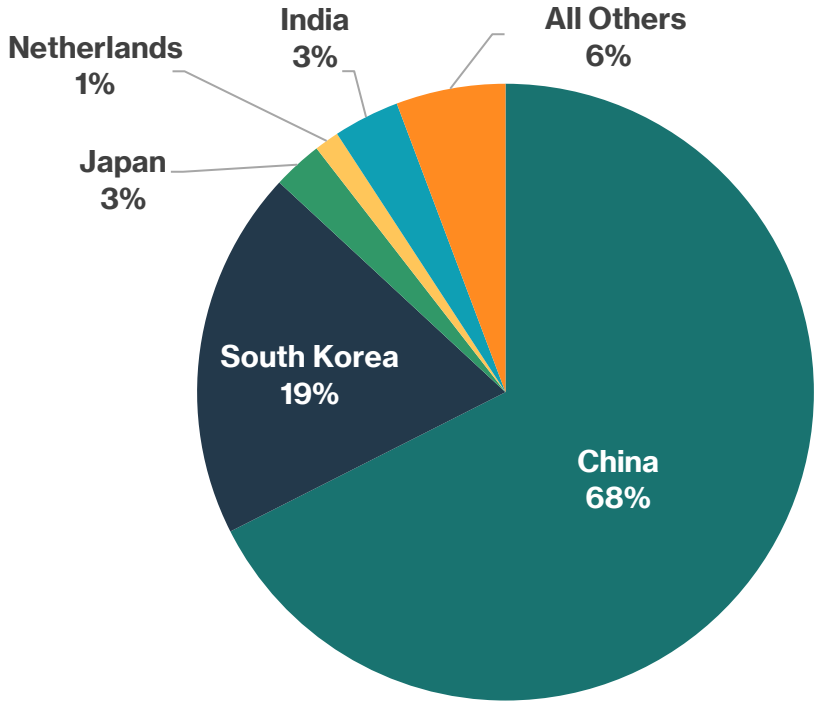
Source: Mercaris 2021, PIERS®, USDA FAS GATS

share—27% in 2020—and Romania, Bulgaria and China each consistently account for 5% or more of U.S. organic sunflower imports. Organic canola and rapeseed imports have been consistently sourced primarily from Argentina and Uruguay, with the two countries accounting for 89% of U.S. imports in 2020. Similarly, imports of organic sesame and mustard seeds have remained primarily sourced from India, imported organic poppy seeds have remand primarily sourced from Turkey, and the majority of organic chia seed imports have been sourced from Paraguay.

The U.S.' export relationship for organic alfalfa and hay to China and South Korea has grown to be the largest for Chapter 12 organic products, with the U.S. exporting 38,000 MT of organic alfalfa and hay to China, and 8,300 MT to South Korea in 2020—the two relationships accounting for nearly all of the 47,000 MT total.

U.S. organic alfalfa and hay exports accounted for 85% of U.S. exports under Chapter 12. The remainder of U.S. Chapter 12 exports is comprised primarily of organic soybeans exported to Asian markets. In 2020, the U.S. exported 6,100 MT of organic soybeans, of which Japan accounted for 1,700 MT and Taiwan nearly 1,000 MT.

U.S. Organic Oilseeds, Misc. Grains, Etc. Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 15: Organic Fats and Oils

Chapter 15 Highlights

- U.S. imports under HTS Chapter 15 have grown substantially in response to increasing U.S. organic food demand. In 2020, U.S. organic vegetable oil imports reached 174,000 MT, up 75% from 2016.
- Growth in U.S. organic vegetable oil imports has been led by expanding olive, sunflower, and palm oil imports. In 2020, U.S. organic olive oil imports reached 78,000 MT, up 97% from 2016. Meanwhile, organic sunflower oil imports reached 29,000 MT, up 90% from 2016, and organic palm oil imports reached 16,000 MT, up 80% from 2016.
- Annual U.S. imports of organic coconut and canola oil remain steady. U.S. organic coconut oil imports reached 33,000 MT in 2020, up only 7% from 2016. Organic canola oil imports reached 2,700 MT in 2020, up only 3% from 2016.
- Though annual U.S. exports of organic vegetable oil have historically been small, U.S. organic canola oil exports escalated sharply in 2020, led by a substantial increase in exports to The Netherlands. Exports of organic canola oil reached 2,200 MT over 2020, of which 1,900 MT was exported to The Netherlands.

Chapter 15 Overview

Keeping pace with growing U.S. consumer demand for organic foods, organic fats and oils traded under Chapter 15 of the HTS and Schedule B trade codes have steadily expanded since 2016. Under HTS Chapter 15, the U.S. imports a wide variety of organic vegetable oils from multiple foreign markets. Of these, organic olive oil is by far the largest U.S. import category, reaching 78,000 MT in 2020. Italy and Spain have historically been the primary source of U.S. organic olive oil imports, with the two countries shipping 28,000 and 14,000 MT, respectively, to the U.S. in 2020. However, Tunisia also emerged as a primary source of U.S. organic olive oil imports in 2020, shipping 25,000 MT to the U.S. over the year. U.S. organic olive oil imports also represent a growing trend, with 2020 imports up 97% from 2016.

U.S. Organic Fats and Oils Imports

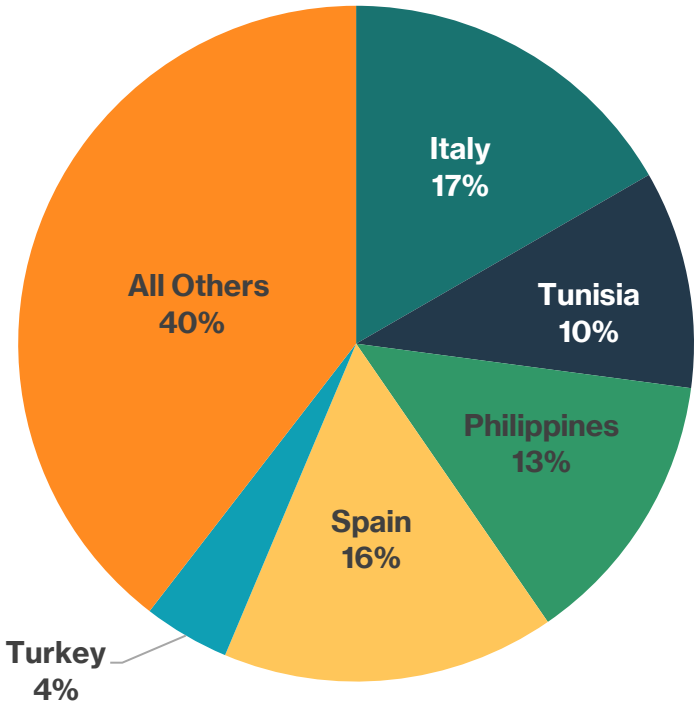
	2016	2017	2018	2019	2020
U.S. HTS Chapter 15 Imports					
Metric Tons	99,668	121,451	127,302	126,113	174,289
$1,000 USD	$311,833	$410,955	$419,994	$351,985	$413,184
Country of Origin (Metric Tons)					
Italy	17,152	19,780	18,270	21,055	31,955
Tunisia	6,144	5,418	19,681	11,498	24,893
Philippines	16,813	14,767	17,780	15,580	21,323
Spain	12,639	28,045	22,213	24,148	16,386
Turkey	477	2,592	5,290	4,902	13,519
All Others	46,444	50,848	44,069	48,930	66,212

Source: Mercaris 2021, PIERS®, USDA FAS GATS

In addition to organic olive oil, the U.S. imports substantial amounts of organic coconut, sunflower, palm, and canola oil. The U.S. imported nearly 33,000 MT of organic coconut oil in 2020, primarily from the Philippines.

U.S. imports of organic sunflower oil reached 29,000 MT in 2020—a 90% increase from 2016. In contrast to coconut oil, organic sunflower oil is imported from a variety of foreign sources. In 2020, the U.S. imported 9,800 MT of organic sunflower oil from Ukraine, 5,900 MT from Turkey, 4,200 MT from Argentina, and 3,900 MT from The Netherlands.

U.S. Organic Fats and Oils Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIES®, USDA FAS GATS

Organic palm oil imports reached 16,000 MT in 2020, up 80% from 2016, and organic canola oil imports reached 2,700 MT in 2020, mostly unchanged from 2016.

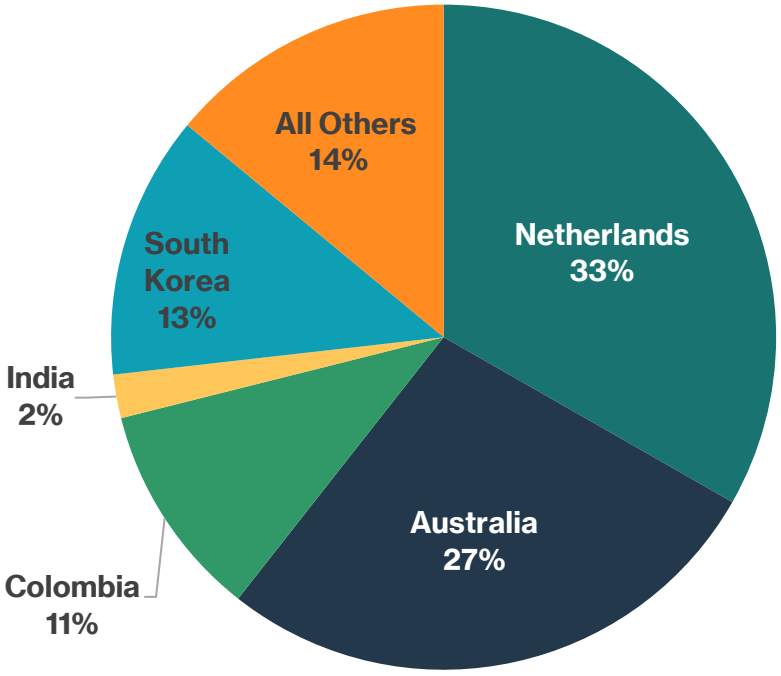
Though the U.S. is a substantial importer of organic vegetable oils and exporting only a small amount—most oil exports well below 500 MT per year—U.S. organic canola oil exports rose four-fold in 2020, reaching 2,200 MT over the year. The sharp rise in was led by a substantial increase of canola oil exports to The Netherlands, which reached 1,900 MT.

U.S. Organic Fats and Oils Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 15 Organic Exports					
Metric Tons	1,342	1,868	1,682	1,247	3,449
$1,000 USD	$1,535	$2,240	$2,188	$1,557	$4,852
Destination Country (Metric Tons)					
Netherlands	120	528	605	85	1,851
Australia	592	434	372	644	580
Colombia	218	221	34	45	487
India	-	7	36	48	112
South Korea	248	426	283	167	103
All Others	164	252	351	257	317

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Fats and Oils Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 17: Organic Sugar and Confectionery

Chapter 17 Highlights

- With limited domestic production, the U.S. is a substantial net importer of organic products under Chapter 17, with imports reaching 389,000 MT in 2020. In comparison, U.S. Chapter 17 organic exports were slightly below 1,000 MT over the same period.
- Following growing organic consumer demand, U.S. organic refined sugar imports have grown substantially to account for the largest share of imports under Chapter 17. In 2020, the U.S. imported 200,000 MT of organic refined sugar, up from 85,000 MT in 2016.
- The U.S. also imports a substantial volume of organic raw sugar annually. In 2020, the U.S. imported 108,000 MT of organic raw sugar.
- In addition to raw and refined sugar, the U.S. imports substantial amounts of organic glucose and fructose syrup. In 2020, the U.S. imported a combined 62,000 MT of organic glucose and fructose syrups, 22,000 MT of which was organic rice syrup imported from Pakistan.
- The U.S. also imports significant quantities of organic agave syrup, primarily from Mexico. In 2020, the U.S. imported 17,000 MT of agave syrup from Mexico.

Chapter 17 Overview

U.S. organic trade under Chapter 17 of the HTS and Schedule B trade codes is driven by both U.S. import tariff policy as well as consumer demand trends. Within the U.S., sugar price and supply stability are regulated by the use of tariff-rate quotas (TRQs), by which the tariff rate on any additional imports increases substantially once the volume of sugar imported into the U.S. exceeds an established amount—thereby rendering additional imports cost-prohibitive. Because the majority of sugar produced in the U.S. is derived from sugar beets, the TRQ system effectively is a curb against imported cane sugar.

U.S. Organic Sugar and Confectionery Imports

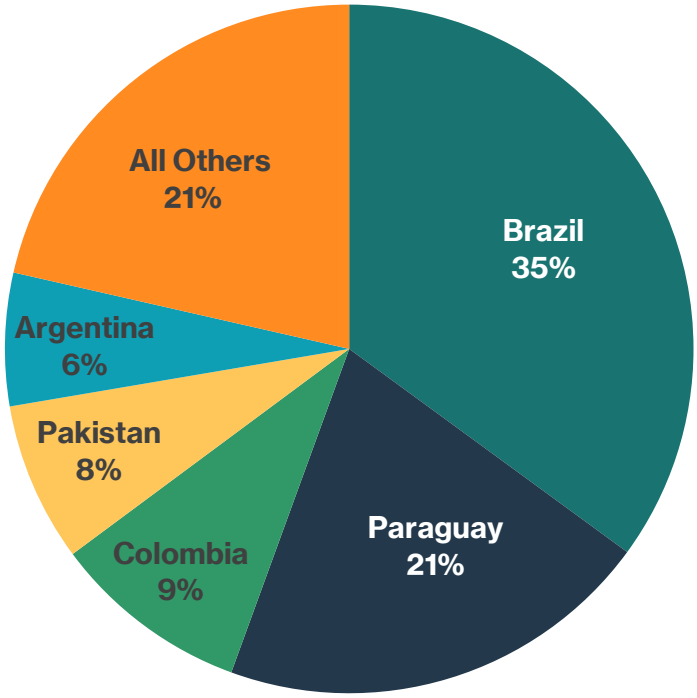
	2016	2017	2018	2019	2020
U.S. HTS Chapter 17 Imports					
Metric Tons	223,368	283,029	337,482	338,027	389,470
$1,000 USD	$180,255	$236,171	$356,404	$319,746	$347,016
Country of Origin (Metric Tons)					
Brazil	69,136	104,601	129,113	119,867	127,952
Paraguay	79,876	86,691	48,363	43,672	63,840
Colombia	2,462	10,874	37,698	39,677	55,093
Pakistan	19,819	26,370	23,802	23,808	23,795
Argentina	7,710	16,343	27,244	23,581	23,156
All Others	44,366	38,149	71,261	87,423	95,635

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Organic sugar produced within the U.S. is exclusively derived from domestically grown organic sugar cane, as organic sugar beet production is functionally non-existent. Furthermore, with the exception of a very limited number of known production acres in Florida, U.S. organic sugar cane production is extremely limited. Because of these factors, the supply of organic sugar within the U.S. is almost entirely reliant upon imports of organic cane sugar, which are subject to the U.S. TRQ policy.

Within the TRQ program, a specific amount is allotted each year for "specialty sugars", a category that includes refined organic sugar. Under this program, U.S. organic refined sugar imports have more than doubled—from 85,000 MT in 2016 to 200,000 MT in 2020. In addition to refined organic sugar, the U.S. annually imports a substantial amount of organic raw sugar. Unlike refined sugar, organic raw sugar is not eligible under the "specialty sugars" TRQ allotment, but rather, is subject to the general TRQ allotment under which all other sugar categories, produced conventionally or otherwise, fall. Under the general sugar TRQ allotment, the U.S. imported nearly 108,000 MT of raw organic sugar in 2020. In total, U.S. organic cane sugar imports reached 308,000 MT in 2020, or more than $207 million in value.

U.S. Organic Sugar and Confectionery Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIES®, USDA FAS GATS

In addition to organic cane sugar, the U.S. annually imports substantial amounts of organic glucose and fructose syrup, organic molasses, and other blended organic sugar syrups. In 2020, the U.S. imported a combined 62,000 MT of organic glucose and fructose syrups, the largest share of which was imported as organic rice syrup from Pakistan. In 2020, the U.S. imported 22,000 MT of organic rice syrup from Pakistan. The U.S. also imports significant quantities of organic agave syrup, primarily from Mexico. In 2020, the U.S. imported 17,000 MT of agave syrup

U.S. Organic Sugar and Confectionery Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 17 Organic Exports					
Metric Tons	342	698	1,000	1,152	1,027
$1,000 USD	$421	$1,020	$1,046	$1,529	$1,942
Destination Country (Metric Tons)					
South Korea	46	149	360	3	219
Puerto Rico	18	-	87	23	186
New Zealand	-	8	8	3	140
United Kingdom	0	63	88	127	137
Germany	19	-	-	161	96
All Others	259	477	458	836	248

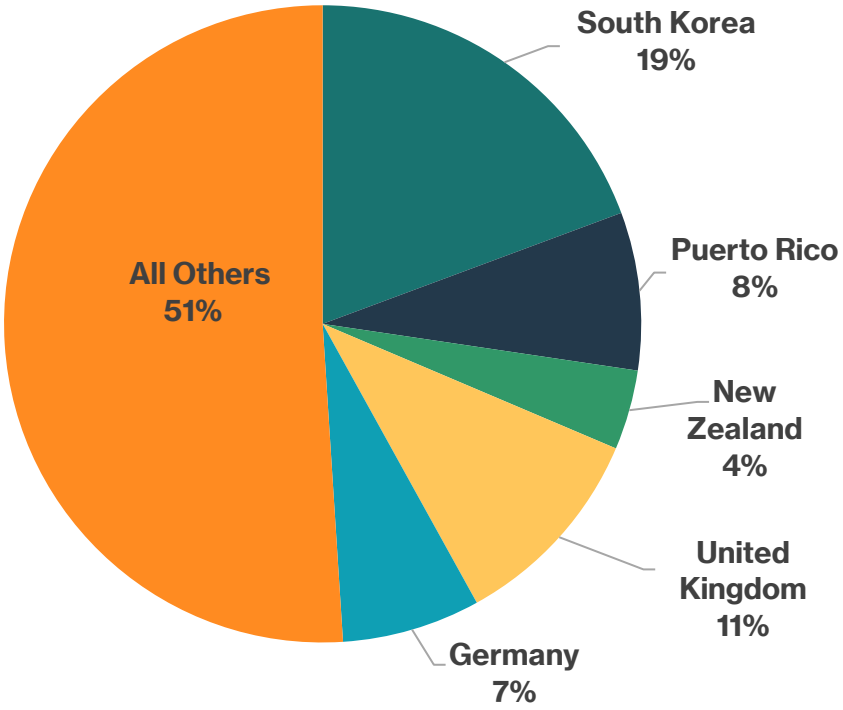
Source: Mercaris 2021, PIERS®, USDA FAS GATS

from Mexico.

With a limited amount of organic sugar production, U.S. organic sugar exports are negligible. Organic lactose exports are the largest category within Chapter 17, reaching only 382 MT in 2020, followed by re-exported organic sugar products, which reached 254 MT in 2020. In total, U.S. organic exports under Chapter 17 were slightly below 1,000 MT in 2020.

While the U.S. has remained a large net importer of organic cereals, a small but notable amount of grain exports have persisted.

U.S. Organic Sugar and Confectionery Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 18: Organic Cocoa

Chapter 18 Highlights

- U.S. imports under HTS Chapter 18 have doubled, up from 9,000 MT in 2016 to 17,000 MT in 2020. The value of these imports grew by 71%, to $76 million.
- Since the U.S. does not produce cocoa, it is dependent on imports from many different sources to meet domestic demand. The top five exporting countries account for 68% of imports. The Dominican Republic accounts for 27% of imports by volume, Peru 17%, the Netherlands 11%, and Panama and the Congo are each 7%.
- Exports from the top five exporting countries to the U.S. all rose considerably between 2016 and 2020, led by The Congo, which grew from 500 to 2,700 MT despite only having begun exports in 2017. Exports from Panama and The Netherlands also grew considerably in the period, from 300 MT to 2,400 MT and from 500 to 2,200 MT, respectively.
- U.S. exports of organic cocoa or cocoa products are negligible, having peaked at a total 80 MT by volume in 2018, and $189,000 by value in 2020.

Chapter 18 Overview

Organic products traded under Chapter 18 of the HTS and Schedule B trade codes include cocoa and cocoa products, a category with limited domestic production. Imports from this category totaled 17,000 MT in 2020, equivalent to $76 million. Cocoa beans represent 51% of the imports in this Chapter.

U.S. Organic Cocoa Imports

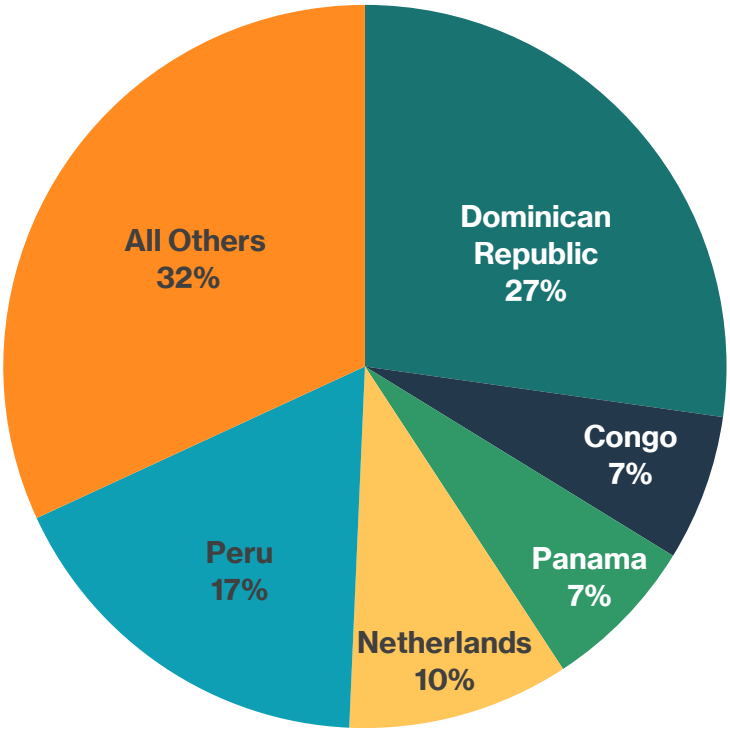
	2016	2017	2018	2019	2020
U.S. Schedule HTS Chapter 18 Organic Imports					
Metric Tons	8,852	13,050	15,541	17,088	17,080
$1,000 USD	$44,709	$66,038	$77,829	$67,919	$76,285
Destination Country (Metric Tons)					
Dominican Republic	2,976	2,639	4,623	5,876	3,389
Congo	-	483	232	1,273	2,690
Panama	288	399	429	1,495	2,404
Netherlands	507	1,161	1,760	1,489	2,188
Peru	1,652	3,200	3,386	2,191	2,047
All Others	3,428	5,168	5,111	4,764	4,362

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Though the U.S. imported Chapter 18 cocoa and cocoa products from 25 countries in 2020, the top five countries accounted for 68% of the imports, despite not all them being in major cocoa-producing regions. The Dominican Republic, Peru, Panama, and the Congo all grow cocoa beans and ship them to the U.S. In contrast, The Netherlands and Italy, the next largest exporters, process the cocoa and export chocolate.

In 2016, cocoa beans represented 42% of Chapter 18 imports. In 2020, they accounted for 51% of the imports or 9,000 of 17,000 MT. Cocoa butter exports reached 1,100 MT in 2019 and accounted for $7.8 million. No other individual product accounted for a significant percent of the volume or value of U.S. imports.

U.S. Organic Cocoa Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 19: Organic Preparations of Cereals, Flour, Starch, Milk, or Bakers' Wares

Chapter 19 Highlights

- U.S. trade under HTS Chapter 19 has steadily increased since 2016, with the U.S. importing 29,000 MT in 2020—up 175% from 2016—and exporting more than 1,000 MT—up 283% from 2016.
- U.S organic imports under Chapter 19 are primarily pasta and noodles from Italy and China under HTS Code 1902. The U.S. imported nearly 15,000 MT of organic pasta and noodles from Italy in 2020—up 158% from 2016. The U.S. also imported 5,800 MT of organic pasta and noodles from China in 2020—up 154% from 2016.
- Since 2016, the U.S. has consistently exported between 200 and 300 MT of packaged baked items under the four-digit trade code 1905, with the majority of exports sent to either the United Kingdom, or Australia.
- Since 2019, the U.S. has been exporting a growing quantity of packaged cereal under Code 1904 to the United Kingdom; in 2020, that amount was 776 MT.

Chapter 19 Overview

Organic trade of products under Chapter 19 of the HTS and Schedule B trade codes has steadily increased since 2016. Under Chapter 19, organic pasta and noodles account for the majority of U.S. imports, reaching 22,000 MT in 2020. Imports from Italy account for the majority of U.S. organic pasta and noodle imports, nearly reaching 15,000 MT in 2020, followed by China, which shipped 5,800 MT to the U.S. in 2020.

U.S. Organic Preparations of Cereals, Flour, Starch, Milk, or Bakers' Wares Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 19 Imports					
Metric Tons	10,623	11,328	12,576	12,902	29,185
$1,000 USD	$14,750	$15,896	$17,837	$22,113	$61,669
Country of Origin (Metric Tons)					
Italy	6,440	6,393	6,268	6,967	16,348
China	2,751	2,867	3,211	2,847	6,123
Thailand	13	919	870	1,189	2,688
Netherlands	82	60	311	705	1,072
Belgium	14	134	176	100	843
All Others	1,324	955	1,740	1,094	2,111

Source: Mercaris 2021, PIERS®, USDA FAS GATS

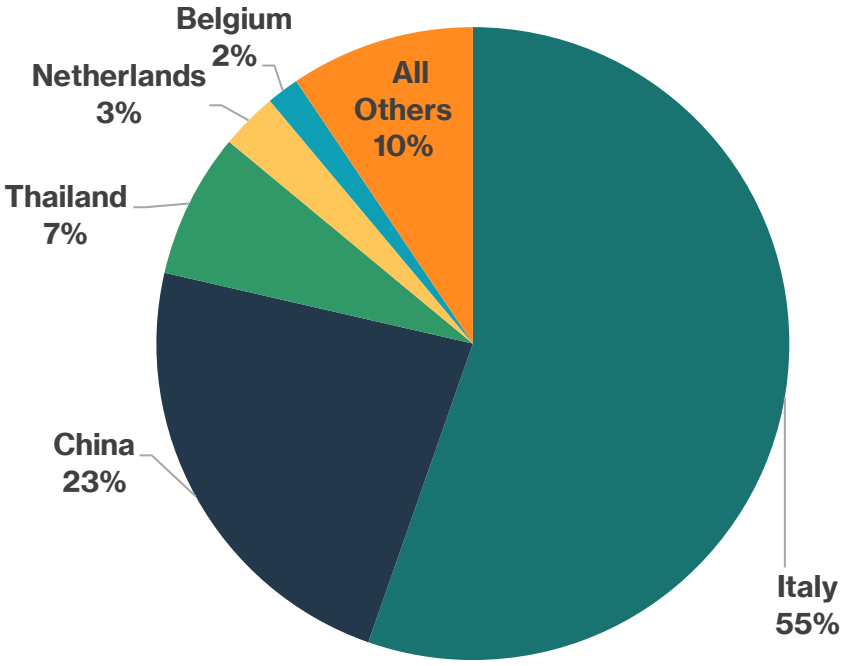
The U.S. has also seen imports of Chapter 19 organic products from Thailand increase since 2016—primarily, organic rice-based baby food from Thailand under the four-digit HTS code 1905. In 2020, the U.S. imported 1,500 MT of organic rice-based baby food from Thailand.

In general, U.S. organic imports under HTS Chapter 19 have steadily grown across nearly all countries of origin, and across all product groups. Imports from Italy reached 16,000 MT in 2020, up 154% from

2016, and imports from China reached 6,100 MT in 2020, up 123% from 2020. Growth in Chapter 19 organic imports from Thailand has demonstrated phenomenal growth, reaching 2,700 MT in 2020, up from nearly zero in 2016.

The U.S. also exports a small but growing volume of organic products under Schedule B Chapter 19. Since 2016, the U.S. has consistently exported between 200 and 300 MT of packaged baked items under the four-digit trade code 1905, with the majority of exports sent to either the United Kingdom, or Australia. Furthermore, beginning in 2019 the U.S. began exporting a growing quantity of packaged cereal under the four-digit trade code 1904 to the United Kingdom, with the U.S. exporting 776 MT over 2020.

U.S. Organic Preparations of Cereals, Flour, Starch, Milk, or Bakers' Wares Imports Country of Origin (2016-2020)



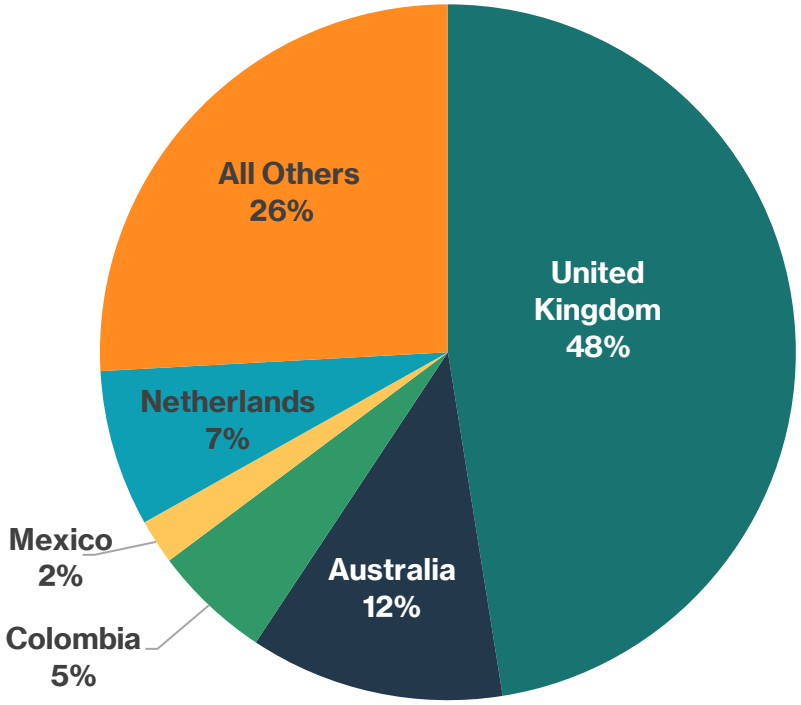
Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Preparations of Cereals, Flour, Starch, Milk, or Bakers' Wares Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 19 Organic Exports					
Metric Tons	293	272	317	520	1,123
$1,000 USD	$499	$527	$605	$1,187	$3,190
Destination Country (Metric Tons)					
United Kingdom	53	38	13	215	879
Australia	42	44	94	24	94
Colombia	2	12	46	60	17
Mexico		10		21	21
Netherlands	15	33	79	39	18
All Others	180	134	85	160	93

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. Organic Preparations of Cereals, Flour, Starch, Milk, or Bakers' Wares Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 20: Organic Prepared Vegetables, Fruits, and Nuts

Chapter 20 Highlights

- U.S. imports under HTS Chapter 20 have increased, up 162% from 2016 to 61,000 MT in 2020. The value of these imports grew by 322% to $166 million.
- Fruit juices—specifically apple and orange juice—are imported in the highest volumes, but both saw a marked decline in 2020. Apple juice imports fell to below 4,000 MT, down nearly 50% from two years prior. Orange juice was down to 5,000 MT in 2020, falling over two-thirds from 2018.
- Fruit purees, commonly in baby food—which consistently account for nearly 20% of imports by volume—have not experienced the sharp decline seen for juices.
- Prepared Indian foods were not imported prior to 2019. In 2019, 2,300 MT were imported and in 2020, 7,200 MT were imported—amounting to about 10% of imports.
- U.S. Chapter 20 exports grew by 200% by volume and value.
- Juice and tomato paste accounted for most of the exports by volume. Tomato pastes exports are growing, reaching 3,000 MT in 2020. In contrast, juice exports have stabilized at around 2,000 MT in 2020.
- The Netherlands has overtaken Japan as the largest buyer of U.S. Chapter 20 organic exports, following a 1,260% increase over the past five years amounting to 1,200 MT of imported products in 2020. Exports to Japan declined 15% from 2016, down to 1,000 MT over 2020.

Chapter 20 Overview

Organic products traded under Chapter 20 of the HTS and Schedule B trade codes include preparations of vegetables, fruits, nuts, and other plant products. Imports of Chapter 20 products increased by 162% from 23,000 MT in 2016 to 61,000 MT in 2020, while the value increased by 322% from $39 million to $166 million. Chapter 20 exports are smaller than the imports, but growing quickly. U.S. exports grew from 2,800 MT in 2016 to 10,000 MT in 2020, worth $4 million and $14 million, respectively.

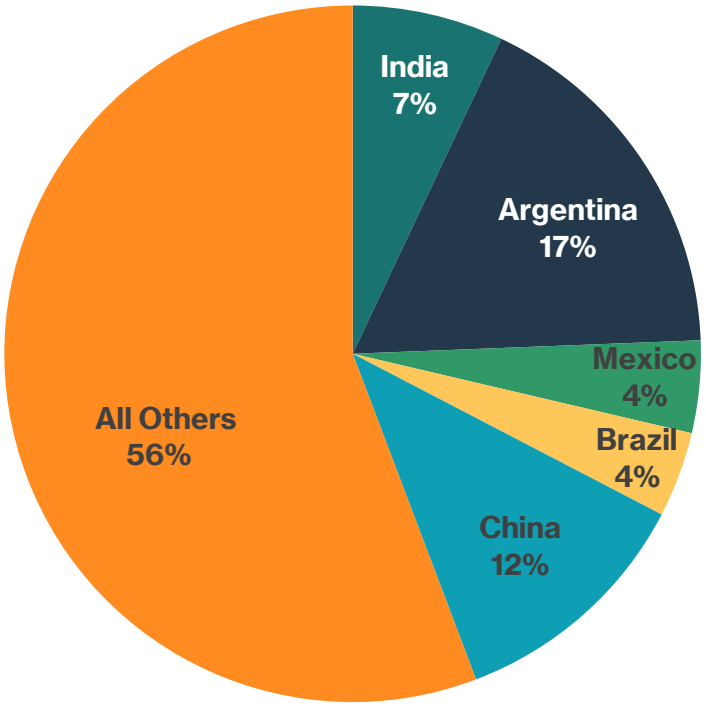
U.S. Organic Prepared Vegetables, Fruits, and Nuts Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 20 Organic Imports					
Metric Tons	23,148	27,591	52,656	47,547	60,625
$1,000 USD	$39,378	$55,003	$91,824	$94,214	$166,035
Destination Country (Metric Tons)					
India	65	18	101	4,102	10,566
Argentina	4,206	7,885	9,615	5,988	9,041
Mexico	167	416	1,202	884	6,390
Brazil	498	1,241	663	323	5,675
China	1,186	1,630	11,211	5,406	5,111
All Others	17,027	16,401	29,863	30,844	23,842

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Common Chapter 20 imports include organic baby food purees, fruit juices, dried fruits/nuts, and other ready-to-eat items. These items tend to enter the country in mixed shipments making the exact size of each product difficult to track. In addition, the bill of ladings for Chapter 20 were often mislabeled. Many of these products are confused with their non-prepared counterparts in Chapters 7 and 8, or with beverages in Chapter 22.

U.S. Organic Prepared Vegetables, Fruits, and Nuts Imports
Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

The U.S. has established unique HTS codes for both organic apple and orange juice, making their volumes and values more transparent than all other types of juice. Organic apple juice imports peaked in 2018 at 8,000 MT, before falling to 4,000 MT in 2020. Data for organic orange juice was available starting in 2018, with a volume of 15,000 MT; in 2019 the volume fell to 5,000 MT and then 4,600 MT in 2020, partly caused by citrus-greening disease, an insect-borne illness that resulted in lower domestic production.

In 2019, there was a large increase in imported organic prepared foods from India, primarily prepared lentil dishes sold in retails and box store. These imports from India swelled to 11,000 MT—$30 million –in 2020, up from just 4,000 MT in 2019. Mushroom imports grew from 500 MT in 2016 to 2,000 in 2020 worth $4 million.

U.S. Organic Prepared Vegetables, Fruits, and Nuts Exports

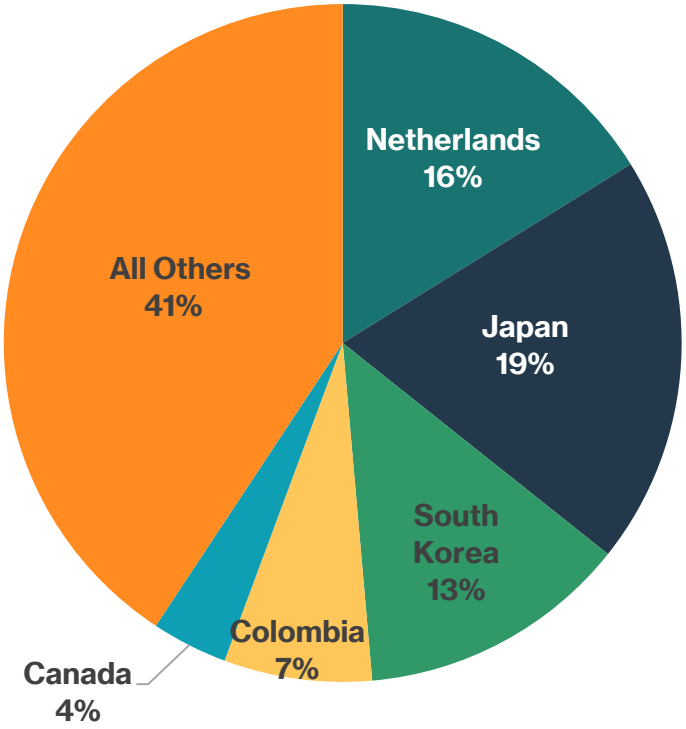
	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 20 Organic Exports					
Metric Tons	2,799	4,150	7,908	6,789	9,667
$1,000 USD	$3,836	$5,365	$10,238	$10,016	$14,300
Destination Country (Metric Tons)					
Netherlands	92	643	2,498	582	1,246
Japan	1,458	1,156	1,207	1,055	1,242
South Korea	182	375	972	1,410	1,104
Colombia	18	43	394	655	1,100
Canada	35	184	0	130	786
All Others	1,014	1,749	2,837	2,957	4,189

Source: Mercaris 2021, PIERS®, USDA FAS GATS

Imports from Mexico grew from 200 MT in 2016 to 6,000 MT or by 3,731%. Imports from Brazil grew by 1,040% in the same period reaching 5,700 MT in 2020. Based on FAS GATS data, the U.S. imports 17% of its Chapter 20 products from Argentina, followed by 12% from China, 7% from India, and 4% from both Mexico and Brazil—accounting for 44% of the imports. The U.S. imports most of its prepared vegetables, fruits, nuts, and other plant parts from other countries in relatively small quantities.

Chapter 20 exports rose more than 200%, indicating strong growth in demand for organic, prepared, and processed, U.S. products globally. Juice and tomato paste accounted for most of the exports by volume. Tomato pastes exports grew from 300 MT in 2016 to 3,000 in 2020. In contrast, juice exports grew rapidly from 500 MT in 2016 to 4,000 MT in 2018, subsequently falling to 1,500 in 2019, then recovering slightly to 2,000 MT in 2020.

U.S. Organic Prepared Vegetables, Fruits, and Nuts Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

The Netherlands surpassed Japan as the largest buyer of Chapter 20 organic U.S. exports, following a 1,260% increase over the past five years amounting to 1,200 MT of imported products in 2020. Exports to Japan have declined by 15% to 1,000 MT.

The U.S. is the largest exporter of organic products to South Korea, accounting for 30% of all organic imports (Korea Ministry of Food and Drug Safety (MFDS), 2020). Exports to South Korea grew by 507%, reaching 1,000 MT in 2020, or to $42 million from $26 million in 2017. Most of this is processed fruits, juices, and teas as the phytosanitary requirements for fresh produce are generally cost-prohibitive for U.S. exporters.

Colombian imports of U.S. products grew by 6,000% in five years, reaching 1,100 MT in 2020. Most of the recent shipments to Colombia were mixed container loads. Though the FAS is actively participating in trade missions to increase demand for U.S. organic products in Colombia, they did not have an explanation for the exponential growth rate.

Chapter 21: Organic Miscellaneous Edible Preparations

Chapter 21 Highlights

- Chapter 21 organic imports and exports are relatively small compared to other chapters reviewed. Imports reached 14,000 MT in 2020, up 197% since 2016. The value of these imports grew by 165%, to $45 million.
- U.S. Chapter 21 exports grew more slowly, only 17% from 23,000 in 2016 to 27,000 MT in 2020. However, the value of these exports increased by 21%.
- Thailand imports accounted for 45% of all Chapter 21 imports, followed by China (20%), Italy (12%), India (7%), Chile (2%), and all other countries (20%).
- Chapter 21 imports represent the growing consumer demand for alternative protein products. Coconut milk accounted for a third of imports by volume in 2020, with pea protein representing another 10%.
- Imports from India grew the fastest, at a rate of 13,000%, followed by Italy with a growth rate of 6,500%.
- The U.S. is the fourth-largest trading partner to Chile in this category, growing from virtually zero imports prior to 2019.
- Seventy-seven percent of U.S. exports are destined for Canada, followed by Japan (6%), and South Korea (5%). Non-specified organic tomato sauce was the most important export, of which the U.S. exported 27,000 MT—representing 99% of the 2020 volume.

Chapter 21 Overview

Organic products traded under Chapter 21 of the HTS and Schedule B trade codes are diverse and include preparations of miscellaneous edible preparations, comprised primarily of processed oilseeds such as sesame and mustard, and plant proteins such as pea protein and tofu. Importers also use this code when importing herbal teas, sticky rice, and tomato sauces. Overall, imports of Chapter 21 products are relatively small, yet growing quickly. Imports increased by 197% from 5,000 MT in 2016 to 14,000 MT in 2020, while the value increased by 165% from $17 million to $45 million in 2020. Chapter 21 exports are larger than the imports, but still not a major source of exports for the U.S. Exports grew by 17% from 23,000 MT to 27,000 over 2016–2020,

U.S. Organic Miscellaneous Edible Preparation Imports

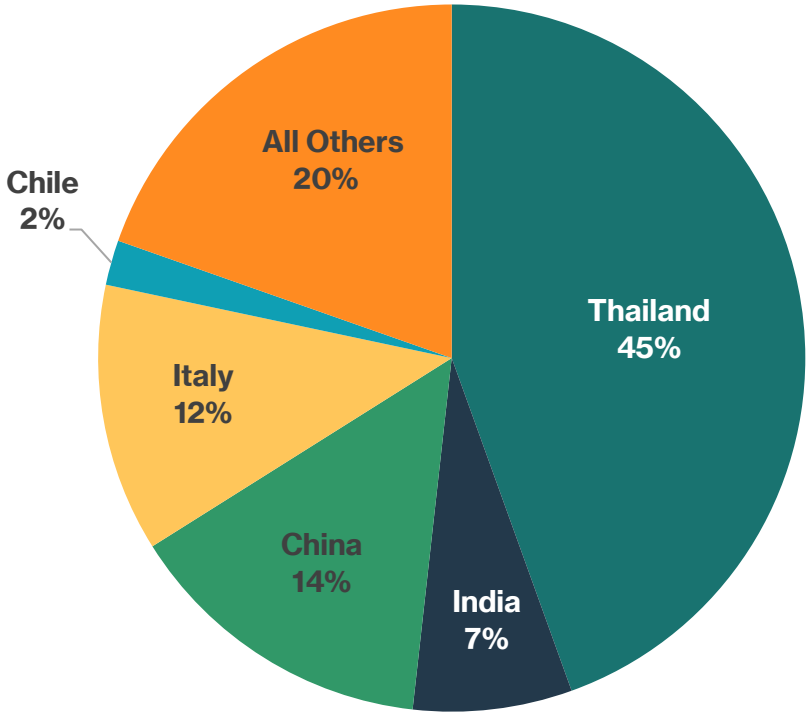
	2016	2017	2018	2019	2020
U.S. HTS Chapter 21 Organic Imports					
Metric Tons	4,639	6,193	10,671	10,032	13,785
$1,000 USD	$16,969	$19,729	$39,736	$35,704	$44,941
Destination Country (Metric Tons)					
Thailand	3,585	3,760	4,414	3,801	4,605
India	16	21	135	979	2,144
China	142	469	2,261	1,793	1,815
Italy	28	332	1,767	1,628	1,804
Chile	-	-	-	6	925
All Others	868	1,611	2,093	1,826	2,492

Source: Mercaris 2021, PIERS®, USDA FAS GATS

while the value increased by $5 million to $32,000.

Growth in the Chapter 21 category is fueled by growing consumer demand for alternative protein sources. Organic coconut milk is the largest import by volume, reaching 4,500 MT in 2020, up from 3,500 MT in 2016. Pea protein imports rose from zero in 2016 to 2,000 MT in 2020. Imports of purees, sticky rice, and tomato sauce had almost no imports in 2016 but in 2020, 2,000 MT for purees, 1,000 MT of sticky rice, and 2,000 MT of tomato sauce were imported. It is unclear if these items are mislabeled or if they prepared in a specific manner that results in Chapter 21 classification.

U.S. Organic Miscellaneous Edible Preparation Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Thailand is the largest exporter, accounting for 45% of all Chapter 21 exports. Thai exports grew by 28% by volume, from 4,000 MT in 2016 to 5,000 MT in 2020. Following Thailand are India, China, Italy, and Chile, respectively, which combined grew to 7,000 MT of exports in 2020 from a combined 200 MT in 2016. All four countries experienced much faster growth than the overall chapter, or exports from other countries.

Chapter 21 exports to Canada grew by 20% from 2016 rt comprise 77% of U.S. chapter exports. Exports to Japan, the second-largest export partner grew by 27% but still comprise only 6% of chapter exports. China is the fastest-growing market

U.S. Organic Miscellaneous Edible Preparation Exports

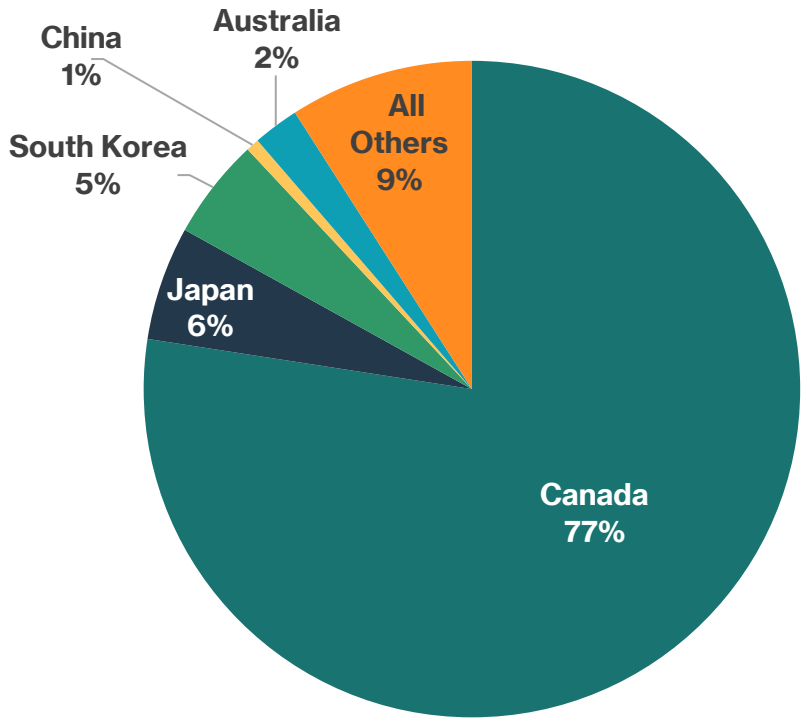
	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 21 Organic Exports					
Metric Tons	23,090	27,708	26,989	24,170	27,025
$1,000 USD	$26,362	$31,960	$31,624	$29,276	$31,921
Destination Country (Metric Tons)					
Canada	17,883	20,859	21,381	18,321	21,444
Japan	1,281	1,507	1,046	1,785	1,623
South Korea	1,141	1,589	1,380	962	1,335
China	24	55	6	217	533
Australia	245	782	840	604	451
All Others	2,516	2,917	2,335	2,280	1,639

Source: Mercaris 2021, PIERS®, USDA FAS GATS

for U.S. Chapter 21 exports, growing from virtually zero in 2016 to 500 MT in 2020, while exports to other regions since 2016 have declined by 35%. Chapter 21 exports are dominated by tomato sauce, which accounted for 99% of all exports.

Though other products such as soy sauce and mixed foods typically ebb and flow at a small percentage from year to year, exports fell to zero in 2020.

U.S. Organic Miscellaneous Edible Preparation Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 22: Organic Beverages, Spirits, and Vinegar

Chapter 22 Highlights

- U.S. imports under HTS Chapter 22 have declined by 9% in both volume and value since 2016. In 2020, the U.S. imported 20,000 MT of beverages worth $91 million.
- Beverage imports are not concentrated to a few countries, with the top five largest exports together representing only 58% of total imports.
- Major wine-growing regions such as Italy and France both saw export declines of 34%. In contrast, exports from Switzerland, Argentina, and the Netherlands expanded.
- U.S. exports were 21,000 MT in 2016 and grew by 1,500% to 47,000 MT in 2020. The value of exports grew by 800%, reaching $35 million in 2020.
- U.S. exports of organic vinegar grew rapidly from about 1,800 MT in 2016, to nearly 44,000 MT in 2018, driven primarily by exports of organic vinegar to the U.K.
- The U.S. exported beverages to 86 countries in 2020. The top five countries accounted for 56% of total exports. The U.K. was the largest export destination with 6,600 MT, followed by Japan with 5,500 MT, and the Philippines with 5,000 MT.

Chapter 22 Overview

Organic products traded under Chapter 22 of the HTS and Schedule B trade codes includes beer, cider, coconut water, liquor, non-liquor beverages, soda, vinegar, water, and wine. Imports of Chapter 22 products decreased by 9% from 21,000 MT in 2016 to 20,000 MT in 2020. The value also fell by 9% to $91 million. Over the same time, exports grew 1,500% by volume and 800% by value. Exports reached 47,000 MT in 2020 and were valued at $35 million.

U.S. Organic Beverages, Spirits, and Vinegar Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 22 Organic Imports					
Metric Tons	21,454	23,949	22,061	23,764	19,524
$1,000 USD	$100,605	$153,565	$85,581	$95,259	$91,184
Destination Country (Metric Tons)					
Italy	10,757	11,968	6,613	7,051	7,049
Switzerland	2	0	7	938	2,763
Argentina	1,176	783	1,089	1,428	1,393
France	2,040	1,897	1,942	1,521	1,344
Netherlands	579	749	691	192	920
All Others	6,900	8,551	11,720	12,635	6,055

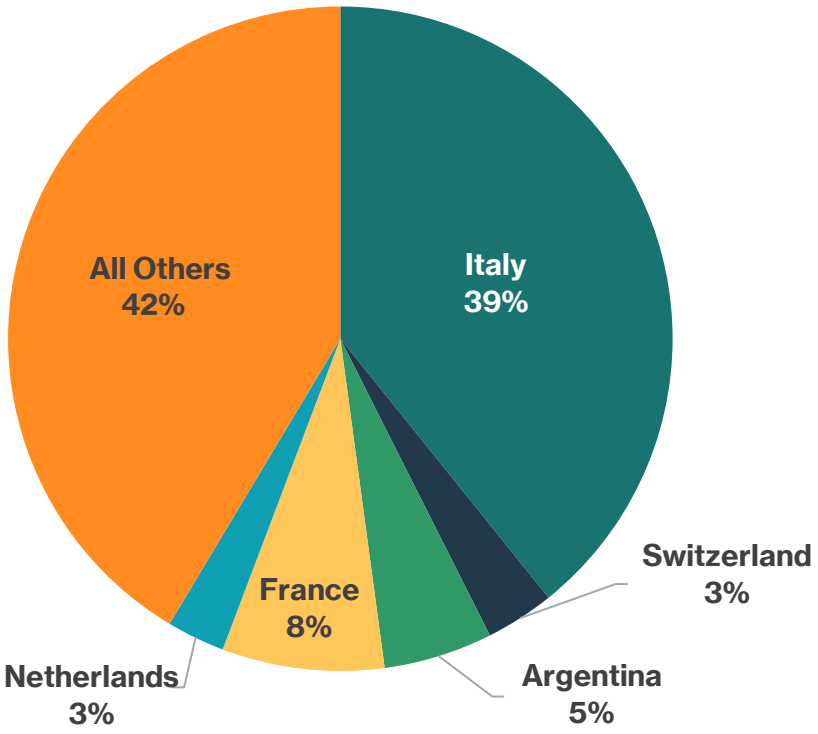
Source: Mercaris 2021, PIERS®, USDA FAS GATS

In 2020, wine imports represented 38% of total volume or 7,400 MT. This includes 4,000 MT of red wine, 2,000 MT of white wine, and 1,500 MT of sparkling wine. White wine imports fell by 43% since 2016, followed by sparkling wine (34%), and red wine (30%).

After wine, products labeled "non-liquor", was the second-largest category with 3,500 MT of imports, increasing 600% from 2016 to 2020. Vinegar imports grew the fastest, by 1,000% to 1,600 MT in 2020.

In 2020 Italy was the largest source of U.S. organic imports within Chapter 22, accounting for 39% total imports. In 2016, half of all organic U.S. organic beverages imports were Italian in origin. Switzerland became the second largest country of origin in 2020, as U.S. imports grew to 2,800 MT in 2020 from zero over 2016. Argentina was the third largest supplier of Chapter 22 organic imports over 2020, although volumes fluctuated from a low of 800 MT in 2017 to a high of 1,500 MT in 2019. France fell from the second largest country of origin to the fourth in 2020. And imports from the Netherlands, Brazil, Colombia, and the U.K. all increased significantly to around 800 MT each in 2020.

U.S. Organic Beverages, Spirits, and Vinegar Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

With the decline in wine imports, key wine-producing regions such as Italy, France, Chile, and Spain saw the largest declines. The one exception was Argentina, which saw an overall increase despite the shift away from wine.

U.S. Organic Beverages, Spirits, and Vinegar Exports

	2016	2017	2018	2019	2020
U.S. Schedule B Chapter 22 Organic Exports					
Metric Tons	2,973	2,985	47,100	34,319	47,186
$1,000 USD	$3,998	$4,139	$29,189	$24,820	$34,859
Destination Country (Metric Tons)					
United Kingdom	53	78	12,247	3,634	6,625
Japan	38	41	2,013	6,158	5,538
Philippines	995	626	14,396	7,625	4,972
Saudi Arabia	103	78	1,007	1,081	3,499
Singapore	9	2	554	1,726	3,187
All Others	1,775	2,160	16,883	14,095	23,365

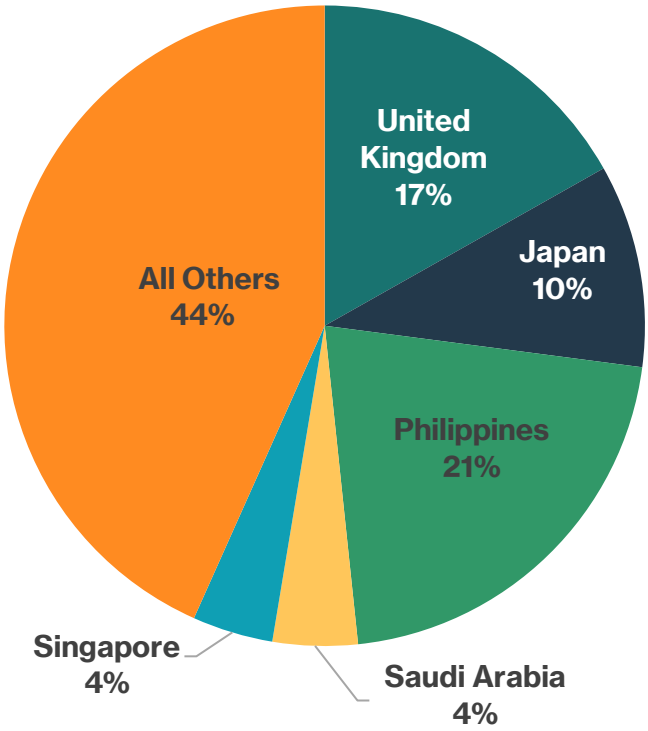
Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. exports of Chapter 22 products were merely 3,000 MT in 2016 but in 2018 exports grew to 47,000 MT, worth $29 million, of which 45,000 MT were organic vinegars—specifically apple cider

vinegar. Exports of organic vinegars fell to 31,000 MT in 2019 and rebounded to 44,000 MT in 2020. The U.K. imported 12,000 MT in 2018, but fell to 3,600 MT in 2019 and partially recovered to 6,600 MT in 2020. Japan's imports were more stable, starting with 2,000 MT in 2018, growing to 6,200 MT in 2019, and falling slightly to 5,500 MT in 2020. In total, 12 countries imported 1,000 MT or more from the U.S. in 2020.

Organic almond beverage, lemonade, soy beverage, and wine have increased in the past five years, but still represent a tiny fraction of total trade.

U.S. Organic Beverages, Spirits, and Vinegar Exports Destination Country (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 23: Organic Residues and Waste from the Food Industries; Prepared Animal Feed

Chapter 23 Highlights

- Following growing organic livestock feed demand, U.S. imports of organic products under HTS Chapter 23 have grown to reach nearly 454,000 MT in 2020, up 226% from 2016.
- Organic soybean meal imports have grown 223% since 2016, reaching nearly 400,000 MT in 2020. With growing organic soybean meal imports, India has emerged as the largest country of origin, with the U.S. importing 342,000 MT from the country in 2020.
- The U.S. imported over 16,000 MT of organic canola meal in 2020, with 6,800 MT imported from China, 5,100 MT imported from Turkey, and 4,100 MT imported from India and Paraguay combined.
- The U.S. imported more than 15,000 MT of organic sunflower meal in 2020, primarily from Turkey.
- U.S. organic rice bran imports reached 3,100 MT in 2020, sourced primarily from Pakistan.
- U.S. imports of organic rumen bypass fat from Ecuador began to escalate in 2018, reaching 4,400 MT in 2020.

Chapter 23 Overview

U.S. imports of organic products under HTS Chapter 23 have grown substantially over recent years alongside growing demand for organic livestock feed in the U.S. In 2020, the U.S. imported nearly 454,000 MT, or nearly $309 million under HTS Chapter 23. The majority of these imports, as well as the category with the most growth, were organic soybean meal imported under the four-digit code 2304. In 2020, the U.S. imported nearly 400,000 MT of organic soybean meal, up 223% from 2016. India has emerged as the largest exporter of organic soybean meal to the U.S. by far, shipping 342,000 MT to the U.S. in 2020. U.S. organic soybean meal imports from Turkey have also achieved significant volumes, with the U.S. importing 41,000 MT from the country in 2020.

U.S. Organic Residues and Waste from the Food Industries; Prepared Animal Feed Imports

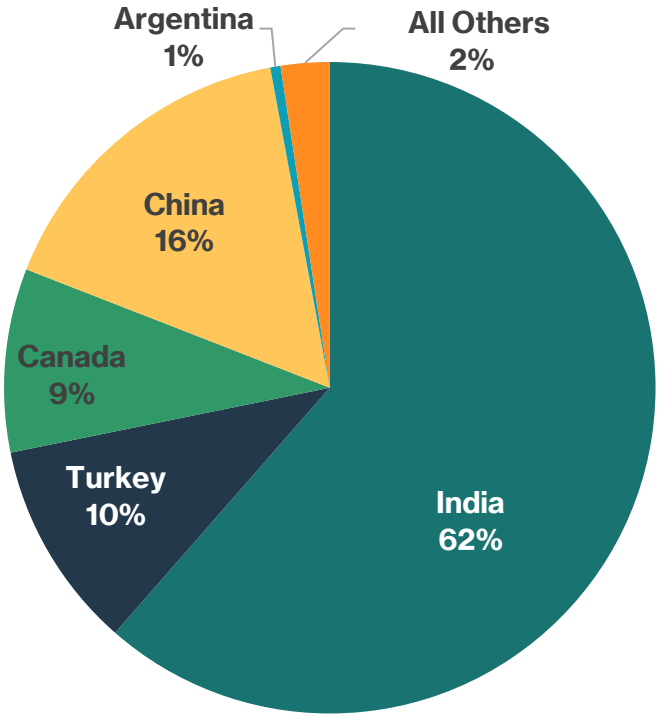
	2016	2017	2018	2019	2020
U.S. HTS Chapter 23 Imports					
Metric Tons	139,011	171,802	236,788	347,850	453,516
$1,000 USD	$93,211	$112,111	$154,746	$219,689	$308,315
Country of Origin (Metric Tons)					
India	17,784	56,116	120,509	289,708	344,848
Turkey	1,665	9,845	34,617	23,489	70,086
Canada	27,926	39,334	25,487	13,981	16,189
China	84,957	59,673	50,291	13,830	9,141
Argentina	2,015	428	473	1,298	2,643
All Others	4,665	6,404	5,411	5,543	10,610

Source: Mercaris 2021, PIERS®, USDA FAS GATS

In addition to organic soybean meal, the U.S. imports significant volumes of canola meal, sunflower

meal, organic rice bran, and rumen bypass fat. The U.S. imported over 16,000 MT of organic canola meal, with 6,800 MT imported from China, 5,100 MT imported from Turkey in 2020, in addition to 4,100 MT imported from India and Paraguay combined. The U.S. also imported more than 15,000 MT of organic sunflower meal in 2020, primarily from Turkey. U.S. organic rice bran imports reached 3,100 MT, primarily from Pakistan. U.S. imports of organic rumen bypass fat from Ecuador—which began to escalate in 2018—reached 4,400 MT in 2020.

U.S. Organic Residues and Waste from the Food Industries; Prepared Animal Feed Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Chapter 52: Organic Cotton Products

Chapter 52 Highlights

- U.S. imports under HTS Chapter 52 increased substantially in 2020, reaching 3,000 MT, up 94% from 2016.
- The expansion in imports was led by an increase in shipments from India and Pakistan, the two largest exporters of organic Chapter 52 products to the U.S.
- In 2020, U.S. organic Chapter 52 imports from India increased 155% year-over-year to 1,300 MT, led by a 185% increase in organic cotton fabric imports from the country and a 119% increase in organic yarn imports.
- In 2020, U.S. organic Chapter 52 imports from Pakistan increased 269% year-over-year to 918 MT, led by surge in organic cotton imports from the country. In 2020, the U.S. imported 310 MT of organic cotton from Pakistan, up from zero MT in 2019.

Chapter 52 Overview

Organic cotton products imported under HTS Chapter 52 of have experienced recent expansion. Prior to 2020, the U.S consistently imported between 1,300 MT and 1,700 MT annually. Historically, the largest country of origin for U.S. organic chapter 52 imports has been India, which shipped 850 MT to the U.S. over 2019, followed by Pakistan which shipped 340 MT to the U.S. over the same year. Over 2020, however, U.S. impots of organic chapter 52 products increased substantially, led by an expansion in organic fabric and yarn imports from India, and organic cotton imports from Pakistan.

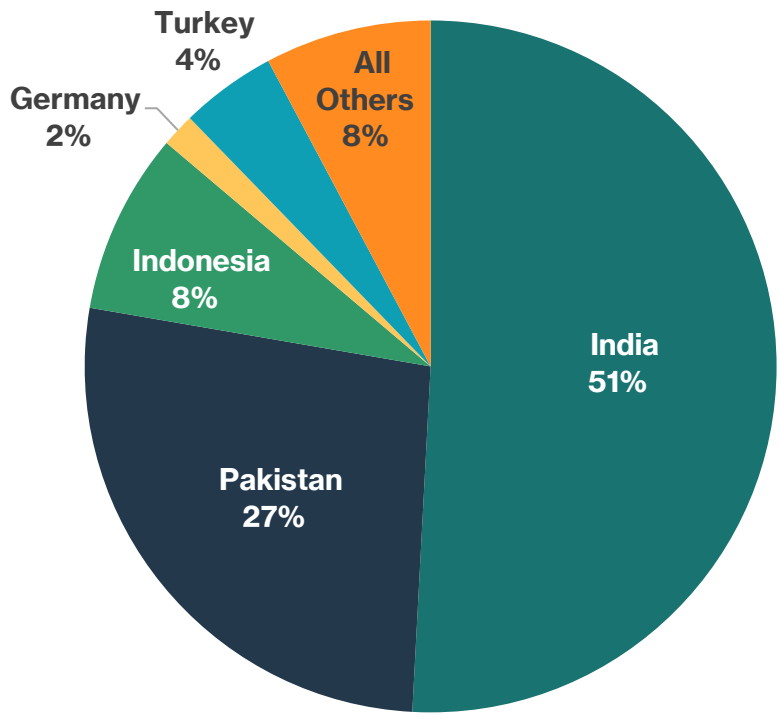
U.S. Organic Cotton Product Imports

	2016	2017	2018	2019	2020
U.S. HTS Chapter 52 Imports					
Metric Tons	1,560	1,367	1,687	1,357	3,042
$1,000 USD	$7,931	$8,785	$11,742	$9,286	$22,745
Country of Origin (Metric Tons)					
India	690	683	1,040	850	1,319
Pakistan	365	391	407	341	918
Indonesia	288	180	97	9	187
Germany	1	-	-	20	120
Turkey	179	23	40	68	94
All Others	37	89	102	69	403

Source: Mercaris 2021, PIERS®, USDA FAS GATS

U.S. organic fabric imports reached 1,400 MT over 2020, with 780 MT imported from India. Organic yarn imports reached 930 MT over 2020, with 490 MT imported from India. Finally, organic cotton imports reached 690 MT, with 310 MT imported from Pakistan. In total, U.S. organic imports of organic chapter 52 products reached 3,000 MT over 2020, up 94% from 2016.

U.S. Organic Cotton Imports Country of Origin (2016-2020)



Source: Mercaris 2021, PIERS®, USDA FAS GATS

Strengthening of Organic Enforcement Rule, Organic Import Certificate Review, and Industry Feedback

In August of 2020, the USDA Agricultural Marketing Service (AMS) released its proposed Strengthening of Organic Enforcement (SOE) rule framework, aimed at reducing the opportunity for fraud within the organic industry by expanding transparency to the entirety of the organic supply chain. The proposed SOE rule included several regulatory changes, including an increase in U.S. domestic certification requirements, as well as a substantial increase in the certification requirements of organic products imported into the U.S.

One major component of the increase in organic import transparency is the requirement that all organic products imported into the U.S. be accompanied by a unique organic import certificate issued by a National Organics Program (NOP) or equivalent accredited organic certifier. This element of the SOE is critically relevant to the trade research conducted in this report, as it will be a driving factor of future organic trade volumes and global trade partners. The following portions of this section outline the proposed operational structure of the import organic certificate requirement, as well as accredited organic certifier and industry stakeholder feedback. It is important to note that at the time of this report's product rules regarding the organic import certificate requirement's final implementation had not been determined. The analysis provided here reflects the organic import certificate requirement as proposed between May and July of 2020.

SOE Organic Import Certificate Proposed Structure

As outlined in the NOP's August 2020 proposed rule, the SOE will require all organic products imported into the U.S. be accompanied by a unique organic import certificate issued by an NOP or equivalent accredited organic certifier (Strengthening Organic Enforcement, 2020). In conversations with the USDA NOP on May 26, 2020, the NOP suggested the structure of the organic import certificate requirement would consist of the following steps:

- The process of issuing an organic import certificate would originate with the exporting company, whereby the exporter would submit a request for the certificate to their accredited organic certifier, who would verify the organic authenticity of the products being shipped.
- Once the organic import certifier has verified the product's organic authenticity, it issues an organic import certificate to the exporter to accompany the shipment of organic products destined for the U.S.
- The certifier also submits a copy of the issued certificate to the USDA NOP for future verification of the shipment.
- Once the shipment of organic products arrives at a U.S. port, USCBP takes possession of the organic import certificate and submits the information to an electronic database accessible by the USDA NOP. Additionally, it has been proposed that the organic exporter will be able to

submit the organic import certificate through USCBP's Automated Commercial Environment (ACE), which would serve as the repository for all organic import certificates.
- Finally, the USDA NOP compares the organic import certificate submitted by the accredited certifier to the certificate collected by USCBP. This final comparison verifies that the certified organic products arriving at U.S. ports are unaltered from the products certified as organic at the port of origin.

Ultimately, the goal of this system is to bring a higher level of transparency to the import portion of the U.S. organic market while providing the NOP with the means to subject exporting countries to higher levels of scrutiny with regard to organic authenticity. By collecting the organic import certificates at both the beginning and the end of the transaction, the opportunity for irregularities or fraud would be reduced significantly.

Industry Response to SOE Organic Import Certificate Program

This portion of the SOE analysis relies on two surveys conducted by Mercaris on behalf of the OTA. This first survey was conducted across a large section of U.S. organic raw input purchasers, packaged food producers, and organic industry brokers and traders. In total, 136 individuals responded to the survey. Of the 136 respondents, overall knowledge and engagement with organic import certificates and the ACE system was reported as low. The responses to the survey questions are as follows:

- Does your organization submit NOP Import Certificates to the USCBP ACE system?
  - Two responded "Yes"
  - 134 responded "No" or did not provide a response
- Are you aware of the NOP's proposed Strengthening of Organic Enforcement rule requiring all organizations importing organic products into the U.S. submit NOP Import Certificates to the USCBP ACE system?
  - Five responded "Yes"
  - 129 responded "No" or did not provide a response
- When asked "Do you have additional thoughts about either the NOP Import Certificates or the USCBP ACE system that you would like to share with the OTA?", six provided a response.
  - An excuse to tax
  - Don't like it
  - I don't handle ACE system in our organization. Others are more familiar with all of this.
  - I disagree with this policy approach of working to identify new HS codes. Inevitably, those wanting to commit fraud will simply find a new category that does not have an organic HS code. I strongly suggest a policy advocacy approach that requires all products imported into the U.S. that will be marketed as organic must be identified as such at the port of entry. Further, penalties for failing to do so should exceed the potential financial benefit of marketing fraudulent organic products.
  - Usually the ACE interface is from our customs broker directly. As an importer of record, we are not that comfortable with the platform that would be better navigated through experts like our customs broker
  - It can sometimes take more time for a foreign vendor's organic accrediting agency to

issue NOP Import Certificates than expected.

In general, the results of the survey indicated a very low understanding of the program, and engagement with its current components. Of the 136 respondents, only two indicated having used it in the past, and only five indicated being aware of the pending SOE rule requiring it in the future. Of the six comments submitted, none indicated a positive perspective of the requirement.

Although the feedback received through the industry survey was generally negative towards the SOE organic import certificate rule, the response rates and general lack of industry knowledge of the program suggest that the results may not be indicative of the broader industry's sentiment. As a supplement to the industry survey, Mercaris conducted one-on-one telephone interviews with NOP accredited organic certifiers. For this survey, Mercaris targeted five organic certifiers currently involved in certifying organic operations outside of the U.S. of which three provided feedback. The feedback was as follows:

- Are you aware of the NOP's proposed Strengthening Organic Enforcement rule that will require all organic good imported into the U.S. be accompanied by an organic import certificate?
  - All three responded "Yes"
- Are you familiar with the process of creating and submitting organic import certificates to the NOP?
  - Two responded "Yes"
  - One responded "No"
- How would you gauge the current overall process of generating and submitting organic impot certificates?
  - One responded the process as "Clunky" and not time efficient
  - One responded the process as "Easy"
- Do you feel that a broader expansion of the organic import certificate requirement will be beneficial to U.S. organic integrity?
  - Two responded "Yes"
  - One responded "it depends on how the data is used"
- When asked if they had specific concerns or suggestions they would like to offer, the following responses were provided:
  - "It requires time that will raise the cost of certification and organic goods. Other concerns include making scalable and meaningful systems without compromising quality."
  - "What is missing is how to create the import certificate/document. How is a certifier supposed to generate this data and how and can we use the resulting data?"
  - "Make sure that any changes to the process don't result in duplicate data entries; there is time sensitivity to the documents; human error of data entries… how can we get these certificates/data out quickly and be useful for fraud capturing purposes? There is a lot of room for interpretation in the current rule."
  - "The time to evaluate, approve, and issue an import certificate is a big concern, given the volume of trade (particularly fresh market) coming from Mexico."

- "The volume of trade that ___ sees is concerning, as the amount of time that is required to generate a certificate could overwhelm them if they are required to issue a large amount of them. To generate these import certificates on the scale suggested by the NOP will likely require a large increase in certifier resources, which will come at a cost. Who bears this cost is important, as certifiers will be hesitant to pass this cost on to organic farmers in the form of increased fees."
- "Also, it currently takes a minimum of five days to produce and return an import certificate. For some shipments of fresh goods, the five-day window could be damaging to the goods. Currently the USDA is considering a time bound certificate to address this concern, but the USDA's proposal is still a bit unclear."
- "Other concerns around making the system complex, or making changes to it over time. Currently, any time ___ makes a change to a document template, it typically takes months to get everyone to adopt it, and to fill it out correctly. Also, if a document has an error due to a last-minute change, or miss-understanding of the process, then a shipment could be held up leading to large holding fees, or damage/destruction of the goods being shipped."
- "Having a system that works well, is easy to access with clearly defined field criteria is critical as errors can bring huge costs and industry disruptions."
- "Would prefer a system that allows shippers to access an electronic import certificate generate platform, administered by the USDA or another govt agency, that removes certifiers as the originators. This would help reduce the time costs that certifiers will bare if this program moves forward as is. Also, the USDA would need to make this system very easy to use, with as many pre-determined drop-down options as possible to minimize errors.
- "If the USDA could create a platform that all shippers interact with that creates homogenous certificates shippers can provide to certifiers to use for auditing purposes, a lot of potential problems could be avoided. There are many examples of similar platforms developed by agencies such as GOTS that could work as examples."
- "For HS/Schedule B codes, the preference is to not make them mandatory for import certificates. Doing so would create a lot of work for both shippers to document, and certifiers to verify. Also, not all countries use same codes. Code expansion is fine so long as it does not lead to them being a required part of import certificates."
- "Require the adoption of production tracing recordkeeping across the industry."

In general, the feedback provided by organic certifiers indicated a positive view of the SOE rule requiring organic import certificates. However, there were several concerns expressed around a few reoccurring points:

- The amount of time required to process organic import certificates, and its potential impact on imported fresh produce.
- Additional resources needed to process requests and generate import certificates on the scale suggested by the SOE, as well as who would bear the cost of those additional resources.
- Liability regarding errors in the issuing of organic import certificates, and which parties will be liable for those errors and any potential costs incurred.

- Developing a system that is intuitive, and without frequent change. Complicated systems, and systems prone to changes would lead to increased errors and resource costs.

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