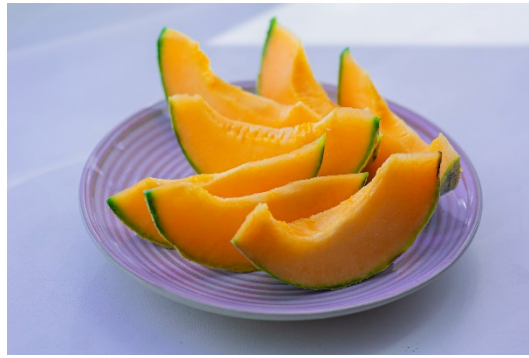




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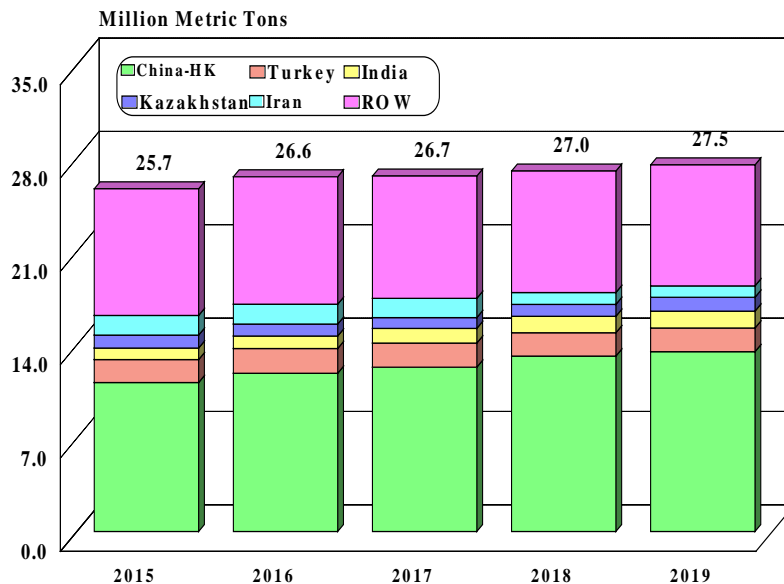


<http://cnas.tamu.edu/>

GLOBAL MARKETS FOR TEXAS MELONS¹

Global production of melons (not including watermelons²) has grown every year since 2015. During 2019, melon production totaled 27.5 million metric tons (MMT). Melon production is led by China-Hong Kong (HK), which has produced 43-49 percent of all melons since 2015 and produced 13.5 MMT of melons in 2019. Turkey has been the second largest melon producer since 2015 but was well behind China-HK during 2019 with production of 1.78 MMT of melons. India and Kazakhstan are also both major melon producers. During 2019, India grew 1.27 MMT and Kazakhstan grew 1.04 MMT of melons. Melon production in India has grown each year since 2015 while melon production in Kazakhstan fell 160 thousand metric tons (TMT) from 2015-2017 before increasing again after 2017. Iran is the fifth largest melon producer in the world totaling 854 TMT during 2019, but has had declining melon production since 2016 when production was 1.49 MMT. These top five countries produce 63-67 percent of the world's melon production.

World Melon Production, 2015-2019



Source: FAO Stat, United Nations Food and Agricultural Organization

¹ *Global Markets for Texas Melons* is a report of the project Export Market Analysis for Selected Texas Commodities, funded by the Texas Department of Agriculture. For more information, please contact the Center for North American Studies, Department of Agricultural Economics, Texas A&M AgriLife Extension Service, College Station, TX, 77843-2124. 979-845-3070.

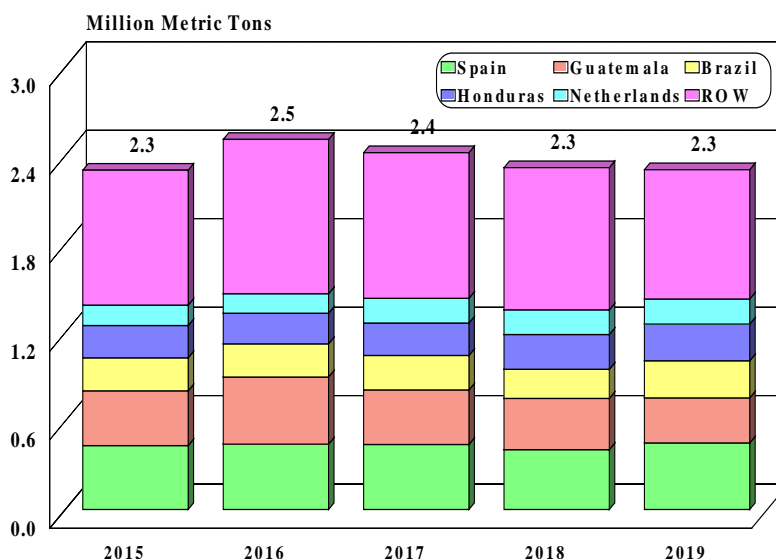
²This paper refers to all fresh, edible melons excluding watermelons when mentioning *melon*.

Global Exports of Melons

During 2019, 2.3 MMT of melons were exported. Melon exports have been fairly level since 2015 with the exception of a 200 TMT increase in 2016 before returning to nearly identical export volume as 2015. Exports of melons are led by Spain, which exported 451 TMT of melons during 2019, the highest year of melon exports since 2015. Guatemala is also a major melon exporter, totaling 306 TMT of melon exports during 2019. This was lower Guatemala's average since 2015 by 64.5 TMT, and exports from Guatemala have fallen 150 TMT since 2016. Brazil and Honduras are third and fourth in melon exports with very similar volume of exported melons since 2015, typically within 20 TMT of one another. During 2019, Brazil exported 252 TMT of melons and Honduras exported 249 TMT. The Netherlands is the fifth largest melon exporter with 170 TMT during 2019, the highest amounts of exports since 2015. These top five countries account for 58-62 percent of total melon exports.

If the 28 EU countries, including the United Kingdom, were counted as a bloc it would be the largest world exporter of melons. During 2019, 723 TMT of melons were exported from EU countries, 14 TMT above the average since 2015.

World Melon Exports, 2015-2019



Source: FAO Stat, United Nations Food and Agricultural Organization

Global Imports of Melons

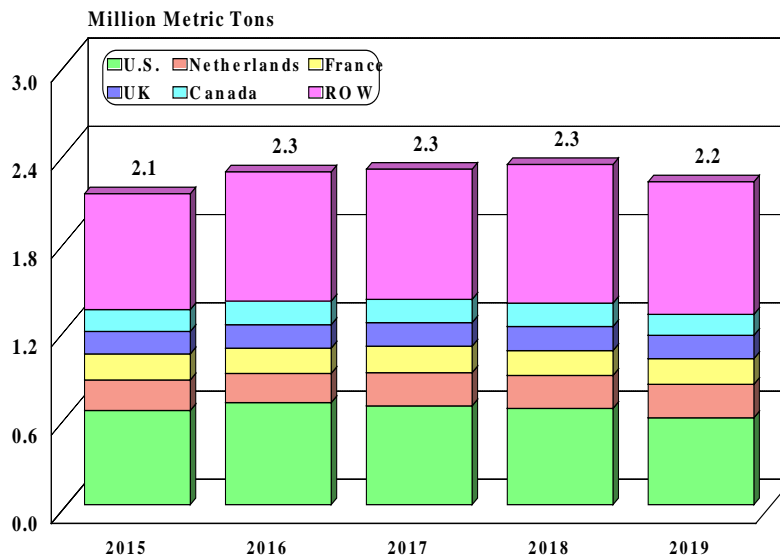
Global imports of melons during 2019 were 2.19 MMT. Melon imports were led by the United States. U.S. imports of melons have decreased every year since 2016, and during 2019 U.S. melon imports were 591 TMT. Melons imported by the United States make up 26-30 percent of the world total. Following the United States is the Netherlands, which imported 227 TMT during 2019, 11 TMT above the average since 2015. France, another EU country, is the third largest melon importer with 175 TMT of melon imports. Finally, the United Kingdom and Canada were the fourth and fifth largest melon importing markets for 2019, respectively. The United Kingdom

imported 159 TMT of melons while Canada had 142 TMT during 2019. Together these five countries are the destination for 59-63 percent of world melon imports.

Similar to exports, if melon imports by the EU were reported as a bloc it would be the largest importer of melons in the world. During 2019, the EU bloc counted for 1.08 MMT of melon imports, nearly double the size of U.S. melon imports. The primary source of melon imports for the EU is other member countries, and the bulk of the EU’s melon imports not from intra-EU trade comes from lesser developed countries.

It should be noted that exports and imports have an estimated 200 TMT difference. This is due mostly to differences in reporting between countries.

World Melon Imports, 2015-2019

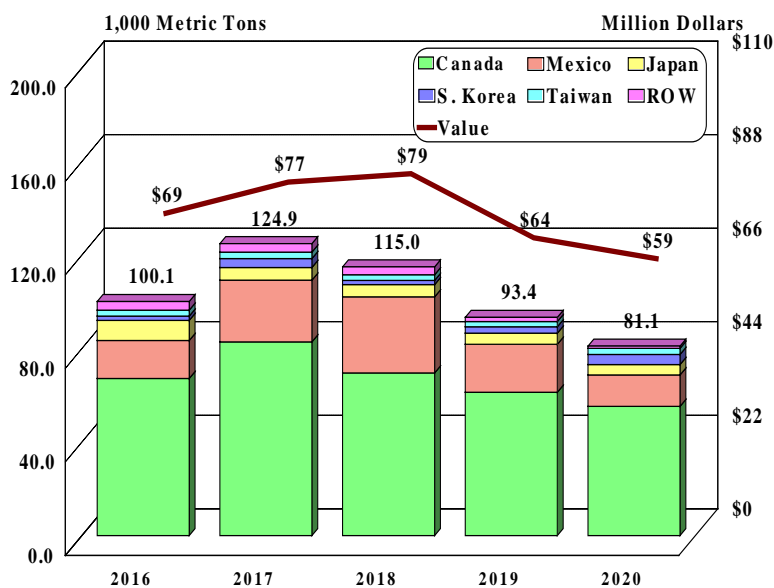


Source: FAO Stat, United Nations Food and Agricultural Organization

U.S. Melon Exports

During 2020, the United States exported 81.1 TMT of melons valued at \$58.8 million. U.S. melon exports have decreased every year since 2017 because of yearly decreases in melon production. Most U.S. melon exports are sent to Canada. During 2020, Canada received 55.3 TMT of U.S. melons. This is 12 TMT less than the average and 27.5 TMT less than 2017 when melon exports were at their highest. Melon exports to Canada make up 60-69 percent the total for the United States. Following Canada is Mexico, who received 13.4 TMT of U.S. melon exports during 2020. Mexico also has been importing fewer melons from the United States in recent years as volumes during 2020 were less than half of what it was during 2017 and 2018. In addition to these two markets, Japan, South Korea, and Taiwan round out the top five countries for U.S. melon exports. Similar to Canada and Mexico, melon exports to Japan have decreased each year since 2016 and were 4.4 TMT during 2020. South Korea received about 4.3 TMT in 2020, 1.4 TMT higher than their average. Taiwan imported 2.6 TMT of U.S. melons during 2020. Together these five countries receive between 96-99 percent of U.S. melon exports.

U.S. Melon Exports, 2016-2020



Source: Global Ag Trading System, FAS/USDA

The United States produced 696.1 TMT of melons during 2020. This is down slightly from the year before and more than 200 TMT lower than production from 2016-2018. This can be attributed to 20,000 less acres of cantaloupe planted. Also, a lack of reporting could be a cause for some of the decline.

During 2020, the United States produced 576.4 TMT of cantaloupes. This was led by California where 367.2 TMT of cantaloupes were grown. This is 21 TMT higher than the year prior, but still down 57 TMT from 2018. California saw a decline in cantaloupe production during 2019 due to poor weather conditions in addition to yearly decrease in planted acres. Arizona is the second largest cantaloupe producer, totaling 155.2 TMT during 2020. Cantaloupe production in Arizona is down 35 TMT from peak production in 2018. Georgia's cantaloupe production also fell, to 30.9 TMT in 2020, but production was only slightly lower than during 2016 and 2017. Texas cantaloupe production during 2016 was reported as 12 TMT then during 2017 and 2018 production was 11.2 TMT of cantaloupes. There is no reported cantaloupe production for Texas after 2018, and prior year production is included in the "Other" category. It should be noted that no production was reported for Indiana and other states after 2019. This lack of reporting may due to the previously mentioned large decline in melon production.

Production of honeydew in the United States was only reported by one state, California. California produced 119.7 TMT of honeydew during 2020; 75.6 TMT lower than production in 2018 and was the lowest year of honeydew production in the United States since 1976. Since 2016, planted acres of honeydew has decreased by 4,500 acres, from 12,100 to 7,600 planted acres.

It should be noted that (D) for Georgia and Florida during 2018 are listed because they were not reported by the National Agricultural Statistics Services to keep from disclosing information for individual producers.

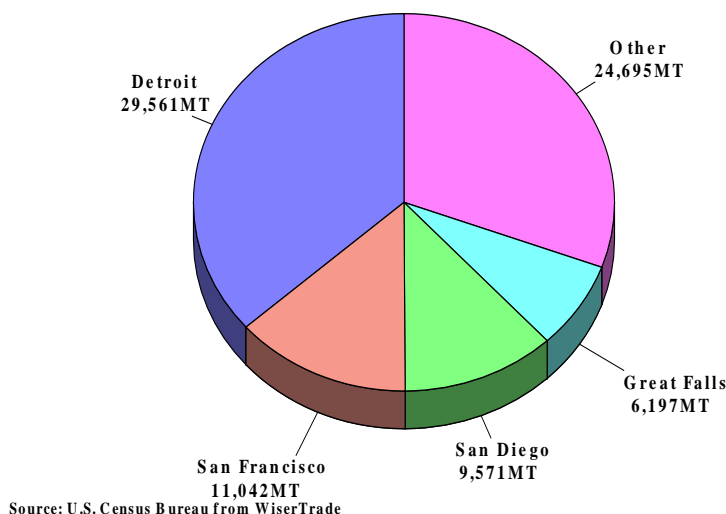
United States Melon Production, TMT, 2016 – 2020					
	2016	2017	2018	2019	2020
Cantaloupe					
California	449.6	479.2	424.1	346.0	367.2
Arizona	189.8	179.5	190.5	160.0	155.2
Georgia	34.5	32.0	(D)	43.6	30.9
Florida	31.5	29.1	(D)	24.5	23.2
Indiana	16.0	17.5	19.4	-	-
Other	46.9	44.8	108.1	-	-
Honeydew					
California	199.8	170.9	195.3	132.1	119.7
Total Melons	968.2	953.0	937.4	706.3	696.1

Source: National Agricultural Statistics Services, NASS/USDA; excl. watermelon

The United States exported 81.1 TMT of melons in 2020. More than one-third of these, 29.6 TMT, departed through the Detroit port district destined for Canada. The second largest port district for melon exports was San Francisco, where 11 TMT of melons were exported to South Korea, Japan, and Taiwan. San Diego is another major port district in California which exported 9.6 TMT of U.S. melons to Mexico. The Great Falls port district was the final major port district with exports of 6.2 TMT of melons to Canada. If included, the aggregate of shipments valued at less than \$251 would rank as the second largest district with 12.5 TMT of melon exports, all of which was sent to Canada also.

U.S. Melon Exports by Port District, 2020

Total Melon Exports: 81,064 Metric Tons



Barriers to Trade and Tariffs

U.S. melon exports face a tariff rate of zero in both Canada and Mexico, the two biggest markets for melons. South Korea has a trade agreement with the United States and is lowering tariffs on many U.S. products, melons included, each year. During 2021, the tariff on U.S. melons is set at 7.5 percent and will fall to 3.2 percent in 2022, then to zero afterwards. Japan has tariffs set at 6 percent for melons from countries which are a part of the WTO, but competitors in the Japanese market have no tariffs present on melon exports. The largest global market for melons, the EU, has a tariff on U.S. melon exports set at 8.8 percent.

In addition to these tariffs, a Phytosanitary Certification (PC) is expected for melon exports from the United States to most countries. Each of the countries examined have pest certification requirements with exception to the EU. Canada does not require a PC, but it does require melons to have a certificate of origin, and if melons are grown in California and exported to British Columbia the shipment must be certified free of Light Brown Apple Moth (LBAM). Mexico has requirements that melon exports from the United States are free of Pink Hibiscus Mealybug and do not come from quarantine areas of California. If products originate in fruit fly regulated areas of the United States, South Korea requires that an Import Permit (IP) be included. Japan also has an IP requirement for any shipment of melons from Hawaii.

An IP is obtained by the foreign importer. A PC may be obtained by contacting the USDA Animal and Plant Health Inspection Service (APHIS). Contact information for the Texas APHIS is found at: https://www.aphis.usda.gov/aphis/ourfocus/planthealth/sa_export/sa_ecs/texas/.

U.S. Melon Exports to Canada

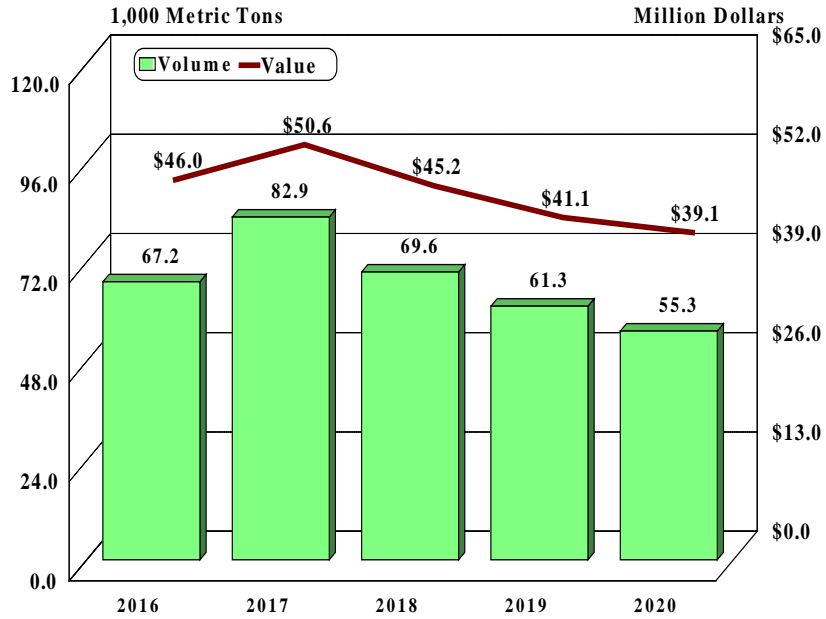
The largest market for U.S. melon exports is Canada. During 2020, the United States exported 55.3 TMT of melons valued at \$39.1 million. U.S. melon exports to Canada have gradually declined each year since 2017, when exports grew to 82.9 TMT. The reason exports of melons from the United States have been decreasing is lower production of U.S. melons.

The United States is the primary exporter of melons to Canada but receives some competition from Guatemala, Honduras, and Mexico.

U.S. Melon Exports to Mexico

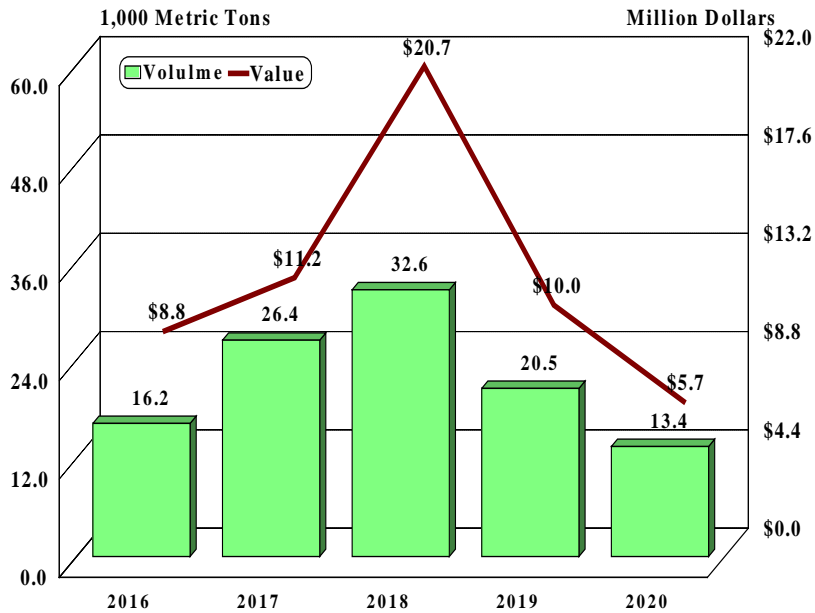
During 2020, melon exports to Mexico from the United States were 13.4 TMT with a value of \$5.7 million. This is 7.1 TMT lower than the year before and 19.2 TMT lower than the volume of melons exported to Mexico from the United States during 2018. During 2018, Mexico and southern areas of California suffered from poor weather conditions that impacted melon production which allowed exports of U.S. melons to Mexico to increase. The United States supplies the majority of Mexico's melon imports. Small amounts of melons are also exported from Guatemala to Mexico.

U.S. Melon Exports to Canada, 2016-2020



Source: Global Ag Trading System, FAS/USDA

U.S. Melon Exports to Mexico, 2016-2020



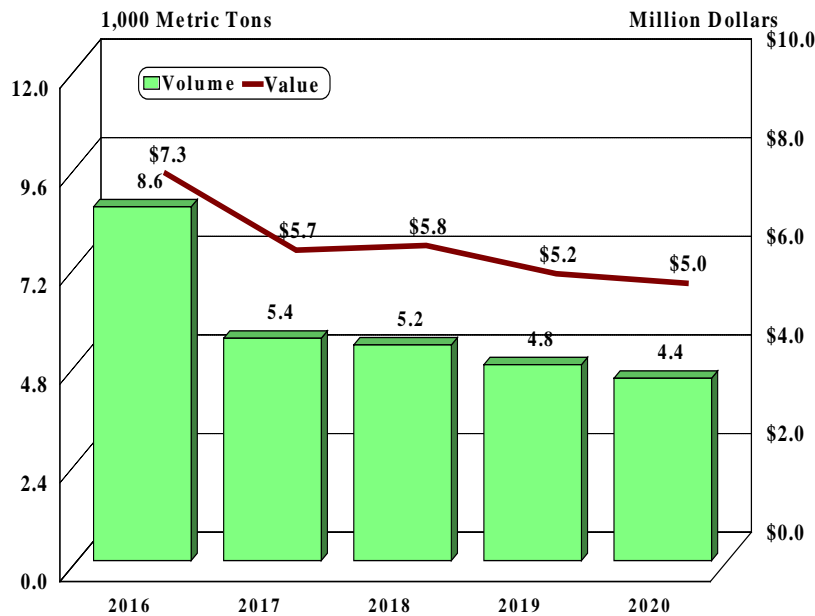
Source: Global Ag Trading System, FAS/USDA

U.S. Melon Exports to Japan

During 2020, the United States exported 4.4 TMT of melons to Japan valued at \$5 million. Total melon exports from the United States to Japan has be decreasing since 2016. The largest decrease was 3.4 TMT in 2017, and since there has been a decrease of 200-400 metric tons (MT) each year. Part of the cause of this slow decline in imports is less production of U.S. melons. An additional factor that might be the cause of the decrease in exports to Japan is stricter maximum residue levels (MRLs) that were put into place on melons to Japan during 2017. Also, during that time a trade deal was negotiated between Japan and the EU which eliminated tariffs on melons exported from the EU to Japan.

Despite the trade deal the primary exporter of melons to Japan is Mexico. The United States is the second largest exporter of melons to the Japanese market, and a small portion of Japanese melon imports come from other countries as well.

U.S. Melon Exports to Japan, 2016-2020

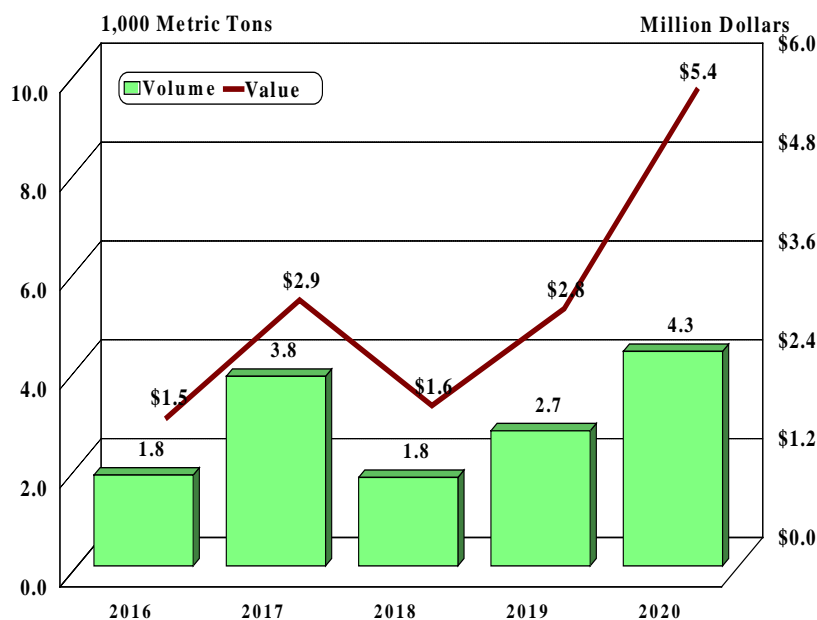


Source: Global Ag Trading System, FAS/USDA

U.S. Melon Exports to South Korea

During 2020, 4.3 TMT of melons were exported to South Korea valued at \$5.4 million. This was the highest year of melon exports from the United States to South Korea since 2016. The United States is the source of the majority of South Korea's melon imports with the remainder coming primarily from New Zealand.

U.S. Melon Exports to South Korea, 2016-2020



Source: Global Ag Trading System, FAS/USDA

The European Market for Melon Exports

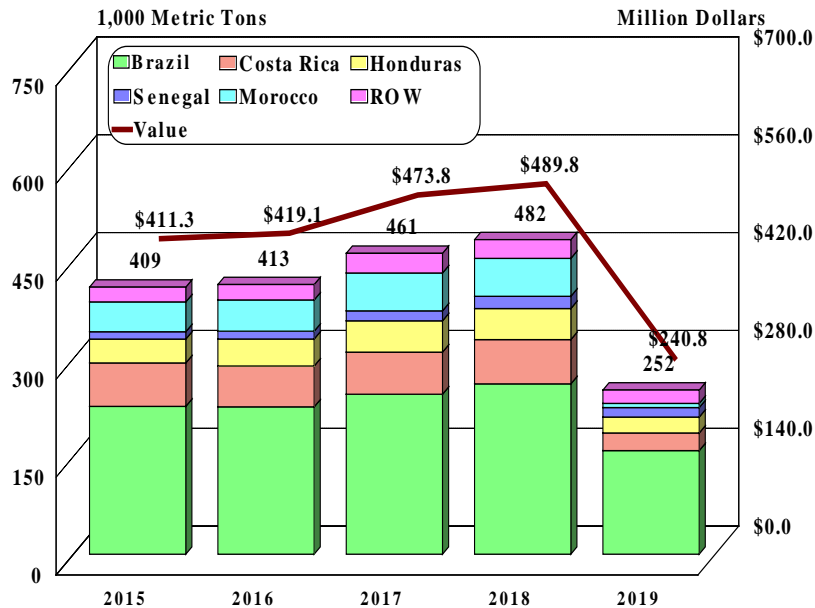
During 2019, the EU imported 252 TMT of melons from outside the EU valued at \$240.8 million. This was a 230 TMT decrease from the year prior, which is assumed to be caused by a combination of weather impacting demand for melons as well as lockdowns implemented in the EU. The EU's melon imports were led by Brazil which sent 158.9 TMT of melons to the EU. This is a 103 TMT decrease from 2018. Costa Rica had a similar decrease in exports to the EU - from 67.9 TMT to 27 TMT, as well as Honduras falling to 24.3 TMT from 47.6 TMT in 2018. Senegal, meanwhile, had exports of 14.6 TMT which is on track with average annual melon exports to the EU. Morocco, which was previously the third largest melon exporter to the EU, decreased exports to the EU by 42 TMT to only 6.4 TMT in 2020, or 12.3 percent of the average melon exports from Morocco to the EU.

There is a significant amount of competition in the EU market for melons. In addition to the melon exporters mentioned, intra-EU trade is a challenge that U.S. melon exports would face trying to increase export volume to the region. If intra-EU trade were included, exports from Spain and the Netherlands accounts for roughly two-thirds of the total melon imports for the EU.

The United States has exported small amounts of melons to the EU. During 2020, there was 29.2 MT of U.S. melons, with a value of \$69,000, exported to the EU. This is down from the year prior, 82 MT of melons from the United States were imported by the EU. The EU is the largest global importer of melons and represents one of the biggest opportunities to grow U.S. melon exports. One additional challenge that U.S. melon exporters face is high tariffs compared to free trade amongst other EU countries and many of the partners already trading with the region.

Worth noting is the vast majority of U.S. melon exports to the EU are shipped to the United Kingdom, which is no longer technically part of the EU. It remains to be seen what type of trading relationship the United States forms with the United Kingdom apart from the EU structure.

EU Imports of Melons, 2015-2019



Source: Global Ag Trading System, FAS/USDA

Impact of Covid-19 on Melon Consumption

One of the primary locations where melons like cantaloupe and honeydew are consumed is at buffets and hotels. Many countries across the globe implemented lockdowns which impacted the ability for people to travel and go to restaurants. With these added restrictions put in place to mitigate the spread of the virus, including closing buffets and stopping travel, a large decrease was seen in many of the world’s largest melon consuming markets. Others believe that weather conditions during 2020 were more impactful to annual melon consumption.

“The coronavirus situation is making the sale of second-class fruit more difficult. However, in the melon and watermelon market, the climate has a much bigger impact than COVID-19. The good weather in the countries of central and northern Europe is greatly stimulating the demand in supermarkets, which account for the majority of sales at the moment.

It is likely that the decline in consumption of melons during 2020 was driven by both poor growing conditions and by measures to control the Covid-19. However, cantaloupe exports for 2021 are expected to increase.

Conclusion

During 2019, the United States ranked as the sixth largest melon exporter in the world, whereas U.S. melon exports ranked fifth largest from 2015-2018. Most of the melons exported from the United States are destined for Canada and Mexico, and both of these markets' melon imports mostly come from the United States. The United States is also the source of most of the melon imports by South Korea.

While most Japanese melon imports originate in Mexico, the United States and Mexico have similar costs of exporting products to Japan so there may be an opportunity for growth of U.S. melon exports. Already being a large source of Japan's melon imports provides a foot in the door for melon exporters from the United States to increase export volume. There is also significant opportunity for U.S. melon exports in the EU. Two issues that U.S. melon exporters face in the EU are higher tariffs on melons and competition from Brazil. The EU being such a large market for melons could allow for a larger increase in exports, especially if U.S. melons can find ways to increase their presence in mainland Europe as they have in the United Kingdom.

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