



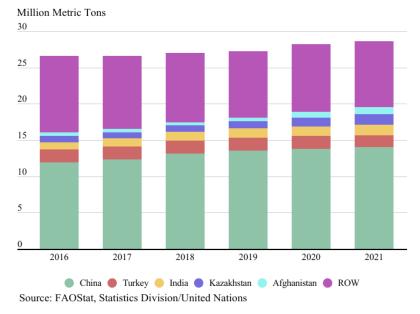


GLOBAL MARKETS FOR TEXAS ORGANIC MELONS¹

CNAS Report 2023-07

World Melon Production

During 2021, 28.6 million metric tons (MMT) of melons were grown across the globe. When melons are referred to throughout this paper it includes all melons except for watermelons. Since 2016 there has been 26.6-28.6 MMT of melons grown globally. Leading in this production is China which has been the source of 44-50 percent of melons grown across the globe since 2016 and has increased each year since 2016. In 2021, China grew 14 MMT of melons with the total increasing from 11.9 MMT in 2016. Turkey melon production has been consistently between 1.64-1.85 MMT across this time. Following these two are India, Kazakhstan, and Afghanistan all of which have seen melon production increase considerably through this period from 2016-2021. India and Kazakhstan have increased from 940 and 900 thousand metric tons (TMT) in 2016 to 1.48 and 1.4 MMT, respectively.



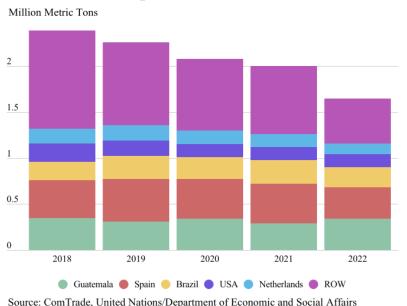
World Production of Melons, 2016-2021

¹ *Global Markets for Texas Organic Melons* is a report of the project Organic Export Market Analysis for Selected Texas Commodities, funded by the Texas Department of Agriculture and Texas International Produce Association. 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.

Global Melon Exports

World melon exports in 2022 totaled 1.65 MMT and was at the lowest reported level since 2018 where exports of melons totaled 2.39 MMT. A large amount of this decline in exports could be attributed to a lack of reported data in recent years. Some examples would be Costa Rica, China-Hong Kong (HK), and Honduras each of which annually exported a similar volume of melons as the Netherlands since 2011 but have little to no exports reported for 2020-2022.

Leading the world in melon exports is Guatemala which totaled 342 TMT of melon exports. Guatemala has only become the largest global exporter in 2022, in previous years this title was given to Spain. In 2022, Spain is reported to have exported 338 TMT of melons; before this from 2018-2021 global melon exports from Spain were between 406-456 TMT. While the exact cause is unknown, it's assumed that a large part of this decline was from unreported exports for 2022. Brazilian melon exports follow Spain with 222 TMT, similar to exports from previous years. The United States and Netherlands wrap up the top five markets for melon exports in 2022 with 136 and 123 TMT, respectively.



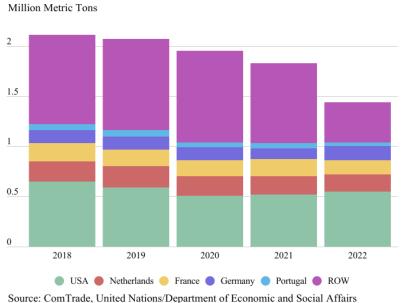
World Exports of Melons, 2018-2022

Global Melon Importers

Similar to exports, import volumes have been lower in more recent years due to lack of reported data Some major importing markets like Canada, the United Kingdom, Nicaragua, and Kuwait have no reported volume since 2020 and 2021 but imported a similar volume as Germany from 2011-2019.

The United States leads the world's imports of melons, in 2022 this totaled 553 TMT. The United States was followed by four EU countries. The Netherlands and France both have seen a decline in imports, most likely due to unreported import volume with imports totaling 165 and 138 TMT of melons, respectively. For reference, the Netherlands imported between 183-213 TMT of melons between 2018-2021, during the same timespan France imported 163-182 TMT. Germany follows with imports totaling 137 TMT right in line with previous years imports which have been between 113-134 TMT since 2018. Portugal ranks as fifth in 2022 currently with imports reportedly being 42 TMT, which have fallen each year since 2018. Portugal would most likely not be included if countries like the United Kingdom and Canada had data reported.

Four of the five largest countries importing melons are in the EU. If the EU were measured as a bloc, it would total 634 TMT of melon imports in 2022 or 44.2 percent of the world's total. Following the EU, based on reported imports in 2022, would be the United States, China-HK, Switzerland, and Kyrgyzstan.

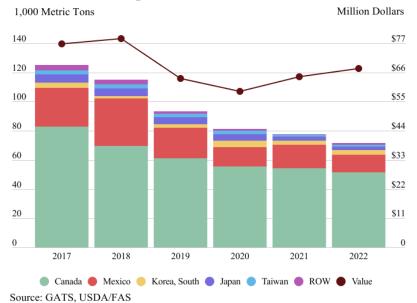


World Imports of Melons, 2018-2022

U.S. Melon Exports

During 2022, the United States exported 71 TMT of melons to countries around the world worth \$67.5 million. This is the lowest volume of exports since 2017 with export volume decreasing each year from 125 TMT. The leading destination for U.S. melon exports is Canada, which imported 51.5 TMT of melons in 2022. Canada has been a long-time leading imported of melons from the United States but has seen a large decrease since 2017 when imports of U.S. melons totaled 82.8 TMT. While multiple factors could be causing this, one thing to note is that production for U.S. melons fell by 300 TMT from 2017-2022. This paired with a lower import volume of melons for the United States could mean that a large share of the limited production is being consumed domestically rather than being exported. Mexico followed in 2022 with 12.0

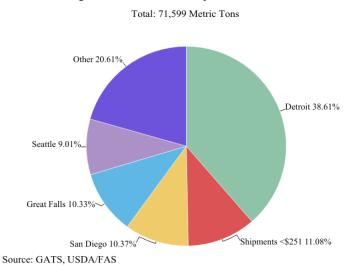
TMT of melon imports from the United States. Together Mexico and Canada have been the destination for 84-91 percent of U.S. melon exports since 2017, the two countries share has stayed around the 87 percent market through most of this time despite exports falling a combined 45.8 TMT since 2017. After Canada and Mexico rounding out the top five are three Asian countries: South Korea, Japan, and Taiwan each with relatively similar import volumes.



U.S. Exports of Melons, 2017-2022

Detroit is the largest port district for these melons exported from the United States, with 27.6 TMT of melons passing through it in 2022. The district also exports melons only to Canada. The San Diego district, which exclusively exports melons to Mexico, saw 7.4 TMT of melon exports in 2022 and in 2018 melon export volume through this district totaled 25.5 TMT. Similar to Detroit, Great Falls exports melons exclusively to Canada with 7.4 TMT. This has been fairly consistent since 2018 with export volume of melons through this district being between 6.2-7.6 TMT. Seattle, the fourth leading port district exports most of its volume to Canada, but unlike Detroit and Great Falls, also exports a small volume to some of the other major markets like Taiwan and Japan. In 2022, the Seattle port district exported 6.5 TMT of melons. San Francisco, the fifth ranked port district for melon exports and had various destinations with the three leading ones being Japan, South Korea, and Taiwan.

When aggregating small shipments, worth a total value less than \$251, this becomes the second largest district bumping San Francisco out of the top five. These exports totaled 7.9 TMT and went entirely to Canada. These are aggregated and listed together rather than being assigned to the district where they pass through, like is done with other higher value shipments. The San Francisco, Nogales, and Los Angeles port districts make up the 11.5 of the 14.7 TMT listed in the other category.



U.S. Exports of Melons by Port District, 2022

Melon production in the United States is dominated by California, which annually grows between 57-66 percent of the cantaloupe grown across the country since 2017. During 2022, California grew 355 TMT of cantaloupe, 65 percent of the 545 TMT by the entire United States. Arizona has historically followed California as the second largest state for cantaloupe production, but production values are not released because only a single grower was reported in the state. Georgia and Florida are the other two major states for cantaloupe production. Honeydew is the other major melon crop grown in the United States with California being the only state with reported production. During 2022, Honeydew production increased by 10 TMT and totaled 93 TMT after falling 112 TMT from 2018-2021.

Culturoupe						
	2017	2018	2019	2020	2021	2022
California	479	424	346	367	324	355
Georgia	32	(D)	44	30	27	25
Arizona	179	190	160	155	139	(D)
Florida	29	(D)	25	18	18	(D)
Other	62	128	-	-	-	165
U.S. Total	782	742	574	570	510	545
Honeydew	2015	2010	2010	2020	2021	2022
	2017	2018	2019	2020	2021	2022
California	171	195	132	112	83	93
Total	2017	2019	2010	2020	2021	2022
	2017	2018	2019	2020	2021	2022
U.S. Melons	953	937	706	681	593	638

U.S. Production of Melons (TMT), 2017-2022

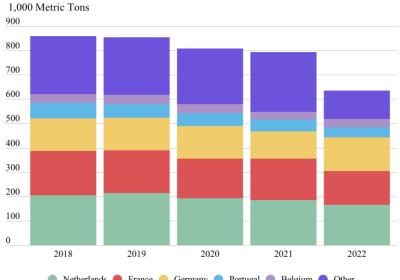
Source: NASS Quick Stats, USDA/NASS

Cantaloupe

*(D) is noted to protect individual operations from production values

European Market for U.S. Melons

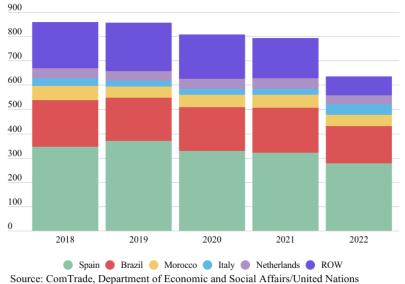
Together, the entire EU imported 634 TMT of melons in 2022, this is down 120 TMT from 2018 and it is assumed that this also is an issue of recent years import volumes not being fully reported. Leading the EU historically has been the Netherlands which has been the destination for 165-213 TMT annually. France follows with 138 TMT of imported melons in 2022 and imports ranging from 138-182 TMT since 2018. Germany has consistently imported between 113-138 TMT of melons and saw the volume reach its highest point in 2022. Portugal and Belgium follow to round out the top 5 EU importers, together these two imported the highest combined volume in 2018 with 99.7 TMT of melon imports.



EU Countries Melon Imports, 2018-2022

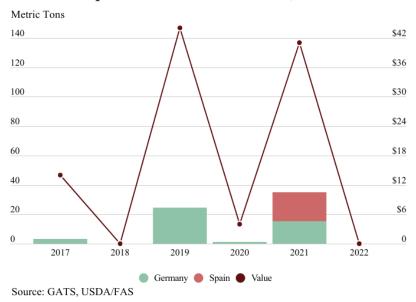
Netherlands France Germany Portugal Belgium Other Source: ComTrade, Department of Economic and Social Affairs/United Nations

Spain leads the countries that are supplying these EU imports. In 2022, Spain exported 277 TMT of melons to other EU countries and from 2018-2021 exported between 322-369 TMT. Brazilian melon exports to the EU totaled 154 TMT in 2022. Spain and Brazil are the source of 62-68 percent of the melons imported by the EU every year since 2018. Following these two are Morocco, Italy, and the Netherlands, which taken together these three account for 12-20 percent of the melon exports to the EU countries.



EU Melon Imports by Export Market, 2018-2022 1,000 Metric Tons

The United States has exported melons to the EU four of the last six years but has not exceeded 40 metric tons (MT) in any of these years and had a max value of \$44,000 in 2019. Melon exports from the United States have only gone to two of the twenty-seven EU countries, which are Germany and Spain.



U.S. Exports of Melons to the EU, 2017-2022

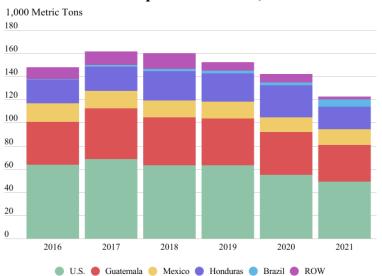
The EU, when measured together, would be the leading world market for melons globally. Despite this, there has only been 64.2 MT exported to the region from the United States since 2017. The large volume imported by the EU could allow producers in the United States to grow melon exports without having to take over a major share of the markets imports from a competitor. While organic exports of melons are not available, it is known that multiple EU countries are large importers of other organic crops. The Netherlands and Belgium rank as the leaders in the EU for organic imports followed closely by Germany and Spain.

Multiple barriers are present when looking to expand melon exports to the EU. The first is tariff rates on all U.S. melon exports, again excluding watermelons, are set at 8.8 percent. Second, melon exports also require a phytosanitary certificate (PC). But perhaps the largest hurdle that U.S. exporters must face is the intense competition in the market.

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/.

Canadian Market for U.S. Melons

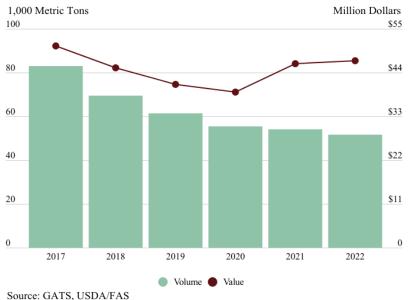
During 2021, Canada reported 122 TMT of melon imports. The United States is the largest source of this volume making up between 38-44 percent of the total since 2016. Following the United States is Guatemala which exports a marginally lower volume than the United States, but still around a quarter of the total melons imported by Canada annually. Mexico and Honduras follow in the third and fourth position, respectively, for melon exports to Canada. Mexico recently overtook Honduras for the third position, but Honduras exports could be limited by unreported exports as it fell almost 10 TMT in 2021 to 19.6 TMT. Meanwhile Mexican melon exports totaled 13.7 TMT, a similar volume to previous years.



Canadian Imports of Melons, 2016-2021

Source: ComTrade, Department of Economic and Social Affairs/United Nations

Melons exported from the United States have decreased from 82.9 TMT in 2017 to 51.5 TMT in 2022 and the value for melon exports decreased from \$50.6 million to \$46.9 million. This decline could be caused by a larger share of U.S. melons being consumed domestically while U.S. production was also greatly decreasing during the same period



U.S. Exports of Melons to Canada, 2017-2022

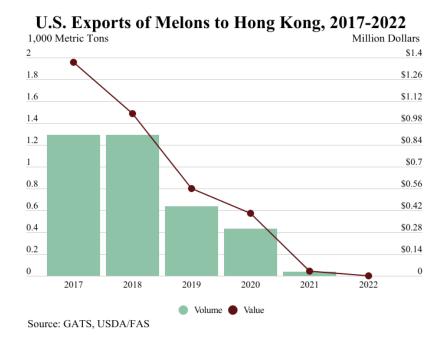
The tariff rate on melons from the United States is set at zero with no PC or import permit (IP) requirements unless the melons are exported to British Columbia and grown in a quarantined area of California. To learn more about these specific treatment requirements contact Texas APHIS at: https://www.aphis.usda.gov/aphis/ourfocus/planthealth/sa_export/sa_ecs/texas/.

Some of the benefits of targeting Canada to grow exports is the free-trade agreement in place through USMCA, previously NAFTA. This limits the barriers to trade and opens the market for exporters. With the United States already being the source of 38-44 percent of Canada's melon imports, the United States already has an established role. Increasing exports to Canada could be as simple as returning export volumes to previous levels. Canada also ranks as the largest global importer of U.S. organic products which should be a considerable benefit to organic melon exporters.

China-Hong Kong Market for U.S. Melons

In 2021, China and Hong Kong together imported 50.6 TMT of melons from the rest of the world putting them as the eighth largest world importer. Chinese melon imports are lacking significant amounts of data between 2014-2020 about the particular countries exporting melons. The values for 2021 show that Myanmar, Brazil, Kyrgyzstan, and other unspecified Asian countries account for the bulk of the total volume. As for the export volume from the United

States, there has been no melon exports to China, but there have been multiple years with exports to Hong Kong. During 2022, the U.S. exported no melons to Hong Kong and have fallen each year since 2018 when exports totaled 1.29 TMT.



Hong Kong and China rank as the third and fourth largest world importers of melons in 2022, after the EU bloc and the United States. If organic melon exporters from the United States can tap into the Hong Kong market to grow exports, it would provide them with a market that has a high disposable income and was a notable importer of organic products in the past.

Unlike previously discussed markets with lower tariff rates, China has a tariff rate set at 42-57 percent based on the type of melon that is being exported. There is also a requirement for a PC on any shipment of fruits entering China, but no PC requirement for fruits entering Hong Kong from the United States. The challenge with becoming a large player in these markets partly is diplomatic paired with competition from multiple sources that share a border with China.

Conclusion

The United States ranked 4th in the world for melon exports during 2022 and exports have decreased each year since 2017. The largest market for U.S. melon exports is Canada, with 51.5 TMT of melons imported during 2022. Mexico, the second largest market for U.S. melons has fallen from 26.4 TMT of melon imports to 12.0 TMT. Some of this drop in imports is assumed to be more domestic consumption of in-country production.

Exporters that wish to bring the volume of melon exports back could look to target the EU, Canada, and China-Hong Kong. The EU countries together are the largest market for melon imports, while a large amount is done through intra-EU trading, there is also a very large volume

that is exported from countries which are not in the EU bloc. Canada has been the leading importer of melons quite some time and still leads the world in melon imports but has seen a decrease of these imports by 30.3 TMT since 2017. China-Hong Kong are both in the top five world importers of melons when EU imports are aggregated, and Hong Kong was an importer of melons in the past but saw that volume fall until finally reaching zero in 2022. Each of these markets also import a high volume of other organic products already.

In addition to these three markets, Mexico and Kuwait could be examined for potential places that exporters in the melon industry to target. Similar to Canada, Mexican melon imports are still high enough to place it as the second largest market, but these have fallen quite a bit since 2017. Kuwait was not a major global importer but imported 1.17 TMT of melons from the United States in 2017 and 1.12 in 2018. These imports fell to 324 MT in 2019 and have been less than 25 MT total since. Reviving exports of melons to Kuwait is an avenue to increasing U.S. melon exports in a market that is not at the top of the list of global importers already.

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