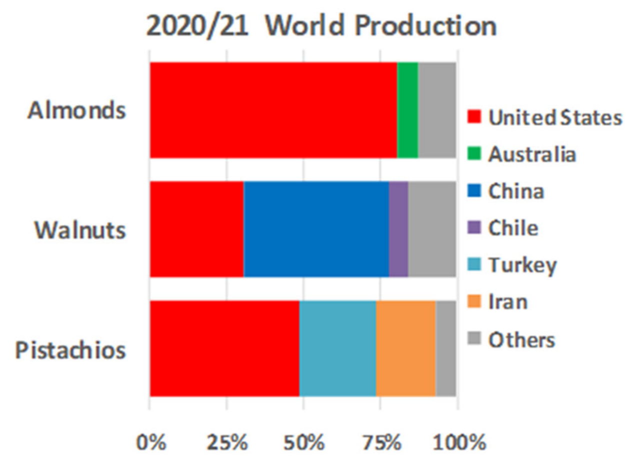
United States Department of Agriculture Foreign Agricultural Service

October 2021

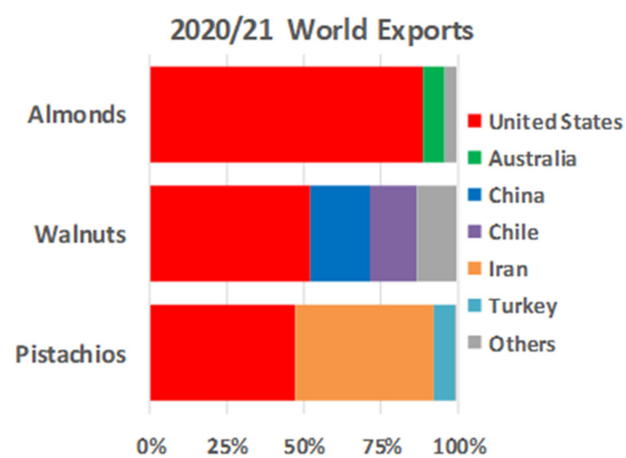
Tree Nuts: World Markets and Trade

Global Tree Nut Production and Trade Highly Concentrated

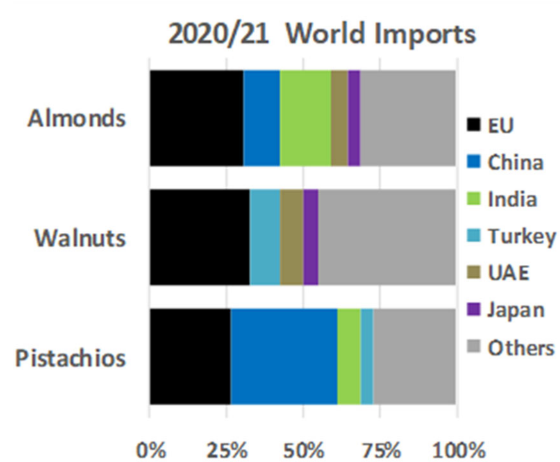
World almond, walnut, and pistachio production and trade is concentrated in a handful of countries, with the United States holding a commanding position in terms of production and exports. Marketing year 2020/21 was used as the reference year for comparisons of commodity volumes.



Almond production as well as trade was dominated by the United States, followed by a modest contribution from Australia. Walnuts were primarily produced in and exported by China, the United States, and Chile. Pistachio production was concentrated in the United States, Turkey, and Iran, while exports were dominated by the United States and Iran.



Import markets were more diverse as compared to producers and exporters, although almonds, walnuts, and pistachios relied on the European Union as a major destination. Top almond markets included the European Union, India, and China, with 30 other countries importing notable quantities. Top walnut markets included the European Union, Turkey, and the United Arab Emirates (UAE), with 28 other importing countries. Major pistachio markets included China, the European Union, and India, with 32 other importing countries.



Since supply and demand concentration has remained steady over the last decade, it seems likely this situation will continue over the next several years. The United States is unlikely to lose market share to Australia's limited almond output. Top almond importers will also likely continue to account for most trade gains, though minor markets UAE and Japan could see noteworthy improvements. Although China and the United States dominate walnut production and exports, additional output in Chile and Ukraine could translate to higher exports to secondary markets such as the UAE, South Korea, and Japan. For pistachios, the United States and Iran seem content to trade positions of top exporter, depending on which has the on-year of the alternate bearing crop cycle. Top pistachio importers should continue accounting for most trade increases, though minor markets Turkey and Saudi Arabia have the potential to see imports rise above recent levels.

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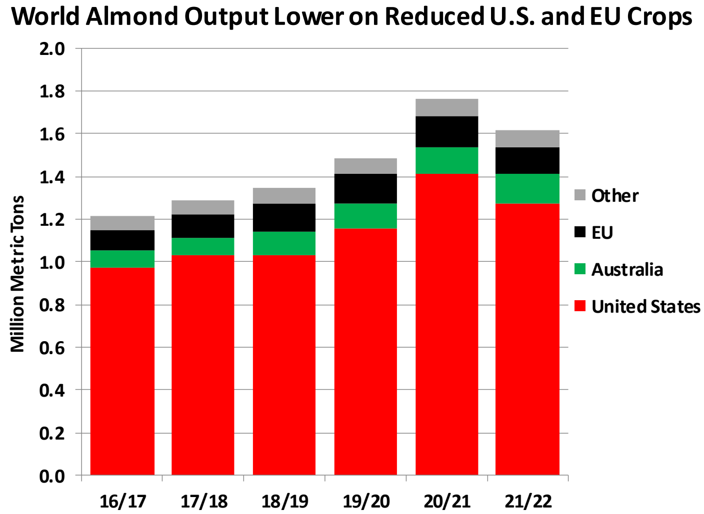
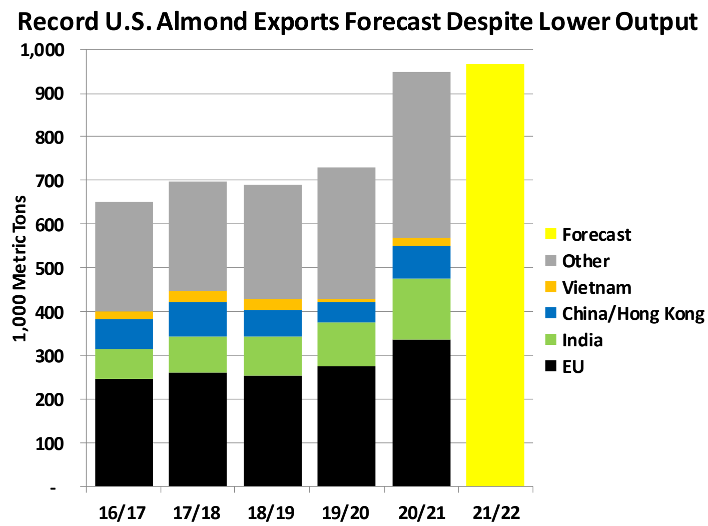
Almonds





Global almond production for 2021/22 is forecast 8 percent lower to 1.6 million metric tons (tons) shelled basis, as losses in the United States and the European Union more than offset gains in Australia and Turkey. Record consumption combined with lower output is expected to draw inventories down 20 percent from last year's record level. Global exports are expected to rise 3 percent to a record 1.1 million tons on strong shipments from the United States and Australia to the European Union and China.

U.S. production is forecast down 10 percent to 1.3 million tons as average nut set per tree decreased 18 percent and kernel weight dropped 3 percent, more than offsetting a 6-percent rise in bearing acres. The crop started off with very dry weather in February, providing excellent bloom conditions and plenty of opportunity for pollination. However, lack of rainfall continued through the spring and brought about concern for water availability. Due to low water allocations and record high temperatures in June, the crop did not develop as well as expected. Some growers decided to save their trees by stripping nuts before the harvest. Disease and pest pressure were reported to be low. Exports are forecast to rise 2 percent to a record 965,000 tons largely on additional shipments to the European Union and China, drawing U.S. ending inventories down from last year's record.

Australia production is forecast to rise 14 percent to a record 145,000 tons on higher area and yield. The Sunraysia region in Victoria accounts for over 60 percent of total production, the Riverland region in South Australia produces about 25 percent, and the Riverina region of New South Wales produces nearly 15 percent. Sunraysia and Riverland are preferred growing regions as they have well-drained sandy soil, a warm climate with low rainfall (reducing the risk of rain during harvest), an adequate cold chill period over winter, and low risk of hail. These regions rely on irrigation water supplied from the Murray River. The Riverina region, although well suited for almond production, has a higher rainfall and heavier soils that can impede harvest and reduce the quality of in-shell almonds from water stains. Exports are forecast to gain 20 percent to 90,000 tons on stronger demand from the European Union and China.

EU production is forecast down 15 percent to 124,000 tons as frost cut yields in Spain and Italy. Despite an expected 6-percent rise in imports to 315,000 tons, consumption is forecast flat on reduced supplies.

In-shell almonds are mainly sold for fresh consumption, while shelled almonds are typically used as a raw material for confectionary and bakery food companies. The food processing and snack industries are the largest buyers of almonds, both as an ingredient (for traditional sweets and pastries) and for processing and re-export. Almonds are mainly used as an ingredient for the manufacturing of marzipan, nougat, and turron.

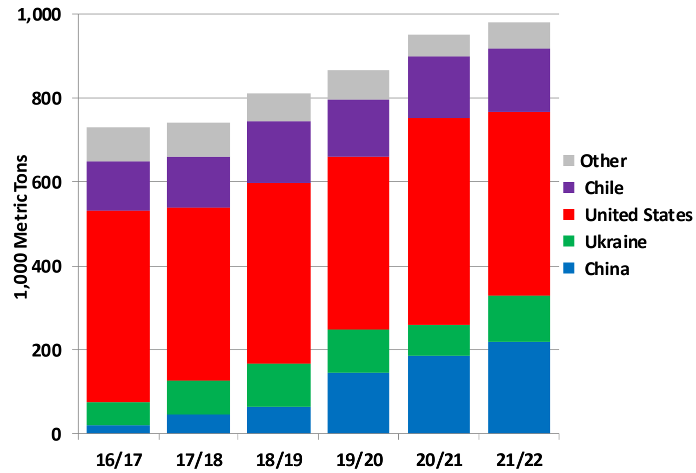
China imports are forecast nearly 10 percent higher to 120,000 tons, driven by continued demand from food manufacturers as well as the snack food sector. In March 2020, China's State Council Tariff Commission (SCTC) launched a tariff exclusion process where importers can apply for tariff exclusions on specific consignments from the United States. If an exclusion application is successfully approved, then the Section 301 tariffs imposed on U.S. products are exempt for a year from the date of approval.

India imports are forecast to retreat nearly 20 percent to 130,000 tons following last year's 54-percent spike, as consumption returns to the long-term growth trend.

Walnuts

Global walnut production for 2021/22 is forecast down 3 percent to 2.3 million tons in-shell basis as lower production in the United States more than offsets higher output in several countries, with top producer China flat. Global exports are expected to rise 3 percent to 980,000 tons on strong shipments from China and Ukraine, while top exporter United States is forecast to drop. World ending stocks are forecast nearly 20 percent lower to 132,000 tons on a sharp U.S. drawdown.

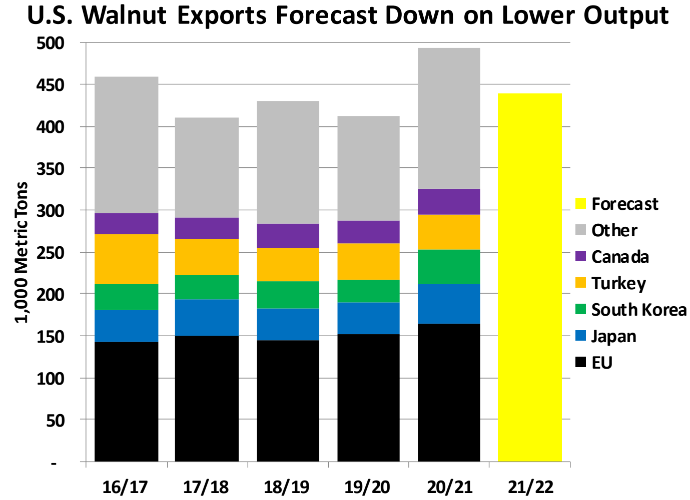
China and Ukraine Drive Record World Walnut Exports



China production is forecast flat at 1.1 million tons despite a spring frost in top producing Xinjiang Province because of offsetting gains in second-largest Yunnan Province. Although domestic consumption is expected to account for nearly 85 percent of output, exports to Kyrgyzstan and Kazakhstan have risen sharply in recent years and this trend is expected to continue. Imports are expected to remain nearly flat at just 20,000 tons as consumers continue to rely on domestic output. China's SCTC launched a tariff exclusion process in March 2020 where importers can apply for tariff exclusions on specific consignments from the United States. If an exclusion application is successfully approved, then the Section 301 tariffs imposed on U.S. products are exempt for a year from the date of approval.

U.S. production is forecast down 15 percent to 608,000 tons as average nut set per tree decreased 17 percent, more than offsetting a 1-percent rise in kernel weight and bearing acres. Widespread freezing temperatures in late fall of 2020 resulted in frost damage to orchards with growers reporting subsequent reduced nut set in

U.S. Walnut Exports Forecast Down on Lower Output



affected orchards. Walnut growers also struggled with drought conditions and water availability. With reduced exportable supplies, exports are forecast down 11 percent to 440,000 tons on lower shipments to top markets European Union, Japan, and South Korea.

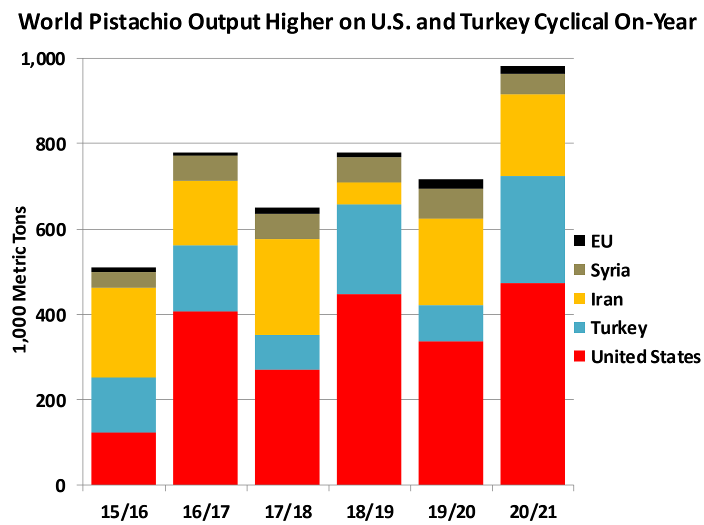
Chile production is forecast to rise 3 percent to a record 152,000 tons on favorable growing conditions and a modest rise in bearing acres. With nearly all output destined for overseas markets, exports are expected to rise in similar fashion, driven by higher shipments to the European Union.

Ukraine production is forecast up 17 percent to 133,000 tons on higher yields and continued area expansion. Exports, once dominated by shipments to Russia, have shifted to other markets such as the European Union and Turkey.

EU production is forecast up 2 percent to 127,000 tons on higher area and yield in France and Romania. Imports are expected down 2 percent to 285,000 tons as demand slips from both the retail sector (snack foods and cooking ingredients) and industrial sector (pastries).

Pistachios

Global production for 2020/21 surged nearly 40 percent to a record 982,000 metric tons (tons) as harvests in the United States and Turkey entered the on-year of the alternate bearing crop cycle. As a result of higher available supplies, world consumption spiked by one-third to a record 888,000 tons and ending stocks increased 55 percent to 174,000 tons. World trade also saw significant gains with exports rising 31 percent to 494,000 tons.



Iran production, reported by the Iranian Pistachio Association, dropped 7 percent to 190,000 tons due to the off-year of the alternate bearing crop cycle. However, exports surged 35 percent higher to 219,000 tons, fueled in part from last year's elevated inventory and strong shipments to the European Union, China, and Turkey. Domestic consumption is down from last year's revised number while ending stocks dropped to just 6,000 tons.

U.S. production gained 41 percent to a record 474,000 tons due to high yields from the on-year of the alternate bearing crop cycle as well as increased bearing acreage. Exports jumped 25 percent to 235,000 tons with increased shipments to Egypt, India, and China and continued support from top market European Union. Despite record consumption, ending stocks soared to a record 129,000 tons.

Turkey production nearly tripled to 250,000 tons due to high yields from the on-year of the alternate bearing crop cycle. Large swings in output are typical, but last year's off-year output was especially low due to adverse rainfall during pollination. Approximately 80 percent of output is concentrated in the southeastern part of Turkey in Gaziantep and Sanliurfa provinces, and trees in this area benefited from favorable growing conditions this year. Higher production had a limited effect on trade as most of the additional harvest was either consumed or inventoried.

China imports gained 54 percent to 159,000 tons on rising shipments from Iran, and to a lesser extent, the United States. In March 2020, China's SCTC launched a tariff exclusion process where importers can apply relief on specific consignments from the United States. If an exclusion application is successfully approved, then the Section 301 tariffs imposed on U.S. products are exempt for a year from the date of approval.

EU production is down 15 percent to 18,000 on slight losses in Spain and Italy. Imports increased 17 percent to 122,000 tons, with the United States supplying most of the market.

NOTES TO USERS:
European Union definition: includes 27 countries in the customs union (Austria, Belgium/Luxembourg, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden).

Effective January 1, 2021, the separation of the United Kingdom (UK) from the European Union (EU) was complete, including trade between both entities. Starting in October 2021 with the release of 2021/22 data, PSD's for almonds and walnuts reflect EU27 (shown in the PSD system as "European Union") and UK separately. Historical data for both EU27 and the UK is provided for 5 years (2016/17 through 2020/21). Starting in February 2022 with the release of 2021/22 data, PSD's for pistachios will reflect EU27 and UK separately.

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Almond Summary

Metric Tons, Shelled Basis

	2016/17	2017/18	2018/19	2019/20	2020/21	Oct 2021/22
Production						
United States	970,690	1,029,650	1,034,190	1,156,660	1,412,940	1,270,060
Australia	79,500	80,000	104,000	114,400	127,000	145,000
European Union	98,700	109,500	134,200	139,100	145,191	123,645
China	40,000	43,000	43,000	45,000	45,000	45,000
Turkey	14,000	15,000	16,000	15,000	16,500	18,000
Other	12,100	13,500	15,500	14,500	14,500	14,200
Total	1,214,990	1,290,650	1,346,890	1,484,660	1,761,131	1,615,905
Domestic Consumption						
European Union	342,640	354,462	364,100	390,800	420,091	418,645
United States	337,276	366,193	375,664	377,986	401,892	390,907
China	107,200	121,800	138,400	111,800	155,000	165,000
India	90,000	92,100	111,600	112,350	156,780	140,200
United Arab Emirates	36,500	38,200	36,300	40,800	56,200	60,000
Australia	31,300	27,000	33,750	37,000	42,000	46,000
Japan	31,500	36,400	37,800	38,600	38,800	40,000
Korea, South	25,600	23,700	25,600	24,700	35,900	38,000
Canada	35,500	35,600	29,600	29,700	31,100	33,000
Turkey	30,200	29,300	28,400	36,000	32,100	30,800
Other	147,800	151,300	147,900	165,650	192,050	217,800
Total	1,215,516	1,276,055	1,329,114	1,365,386	1,561,913	1,580,352
Ending Stocks						
United States	180,837	162,846	144,387	204,172	275,847	200,000
Australia	5,450	5,250	7,300	16,500	28,600	39,600
India	23,500	36,000	35,000	30,650	37,470	31,770
European Union	18,000	18,000	18,000	18,000	18,000	18,000
Chile	500	500	500	450	1,200	600
Other	500	400	400	300	300	500
Total	228,787	222,996	205,587	270,072	361,417	290,470
Exports						
United States	651,517	696,200	691,629	730,828	949,182	965,000
Australia	53,200	56,900	71,300	70,700	75,000	90,000
European Union	26,700	31,800	37,000	29,300	23,000	20,000
Turkey	12,400	11,900	10,100	12,100	17,000	17,000
Chile	5,500	7,700	10,200	6,500	6,500	6,000
Other	0	0	0	0	0	0
Total	749,317	804,500	820,229	849,428	1,070,682	1,098,000
Imports						
European Union	270,640	276,762	266,900	281,000	297,900	315,000
India	88,300	100,600	106,100	103,500	159,100	130,000
China	67,200	78,800	95,400	66,800	110,000	120,000
United Arab Emirates	36,500	38,200	36,300	40,800	56,200	60,000
Japan	31,500	36,400	37,800	38,600	38,800	40,000
Korea, South	25,600	23,700	25,600	24,700	35,900	38,000
Canada	35,500	35,600	29,600	29,700	31,100	33,000
Morocco	600	1,700	4,100	11,800	25,300	30,000
Turkey	28,600	26,100	22,500	33,000	32,600	30,000
United Kingdom	22,200	23,800	22,400	24,000	23,100	24,000
Kazakhstan	7,700	9,200	8,300	9,400	16,700	18,000
Saudi Arabia	12,000	9,800	9,700	10,900	11,300	13,000
Mexico	9,800	11,500	11,400	12,000	12,000	12,500
Switzerland	9,200	11,000	10,300	10,800	10,600	11,000
United States	12,059	14,752	14,644	11,939	9,809	10,000
Other	87,300	86,200	84,000	85,700	92,400	107,000
Total	744,699	784,114	785,044	794,639	962,809	991,500

Marketing year begins in August of the first year of the split year for the United States and other Northern Hemisphere countries.
Southern hemisphere countries are on a calendar year basis indicated as the second year of the split year.

Walnut Summary

Metric Tons, In-shell Basis

	2016/17	2017/18	2018/19	2019/20	2020/21	Oct 2021/22
Production						
China	1,060,000	1,000,000	850,000	1,000,000	1,100,000	1,100,000
United States	625,050	571,527	615,979	594,206	712,140	607,814
Chile	119,000	126,000	150,000	140,400	148,000	152,000
Ukraine	108,000	108,660	127,190	125,900	113,320	132,745
European Union	116,670	121,000	130,000	125,411	123,651	126,601
Turkey	63,000	58,000	63,000	65,000	67,000	68,000
India	32,000	32,500	34,000	35,000	35,000	36,000
Other	52,500	55,300	45,200	50,000	43,200	44,000
Total	2,176,220	2,072,987	2,015,369	2,135,917	2,342,311	2,267,160
Domestic Consumption						
China	1,088,400	980,000	809,900	875,700	938,100	900,000
European Union	328,255	365,818	368,169	392,425	398,651	394,601
United States	194,392	171,700	187,427	187,411	187,147	193,842
Turkey	119,400	127,100	139,800	141,000	148,000	150,000
United Arab Emirates	32,900	28,700	59,100	45,300	62,400	65,000
India	45,500	45,100	44,900	61,800	63,600	63,000
Kazakhstan	300	800	1,600	13,600	44,700	60,000
Japan	43,100	46,800	43,400	41,900	45,000	45,000
Korea, South	33,100	28,800	30,800	27,000	40,500	40,000
Canada	21,000	26,500	28,800	28,700	32,000	33,900
Other	218,929	220,249	268,714	267,900	277,500	289,500
Total	2,125,276	2,041,567	1,982,610	2,082,736	2,237,598	2,234,843
Ending Stocks						
United States	50,721	57,493	59,915	57,930	91,028	68,000
European Union	40,000	40,000	40,000	40,000	40,000	40,000
India	17,800	13,600	14,400	14,400	14,000	14,000
Moldova	0	0	0	0	6,000	4,000
Chile	400	400	300	3,200	4,100	3,800
Other	22,223	10,800	2,300	3,340	7,210	2,280
Total	131,144	122,293	116,915	118,870	162,338	132,080
Exports						
United States	459,165	409,564	429,442	412,067	494,394	440,000
China	18,400	45,200	62,100	144,100	183,500	220,000
Chile	116,800	123,700	147,900	135,400	145,000	150,000
Ukraine	55,100	82,000	106,100	105,000	75,000	107,700
Moldova	34,000	37,200	26,300	29,800	18,200	25,000
European Union	21,015	21,182	21,531	20,286	16,000	17,000
Turkey	7,800	6,400	6,900	8,000	10,000	12,000
Other	18,900	14,600	10,000	10,000	9,700	7,900
Total	731,180	739,846	810,273	864,653	951,794	979,600
Imports						
European Union	232,600	266,000	259,700	287,300	291,000	285,000
Turkey	65,500	72,500	81,700	85,000	89,500	94,000
United Arab Emirates	32,900	28,700	59,100	45,300	62,400	65,000
Kazakhstan	300	800	1,600	13,600	44,700	60,000
Japan	43,100	46,800	43,400	41,900	45,000	45,000
Korea, South	33,100	28,800	30,800	27,000	40,500	40,000
Canada	26,000	27,200	28,900	28,800	32,200	34,000
India	23,200	16,100	15,900	29,800	31,000	30,000
United Kingdom	25,900	24,200	25,700	25,500	25,700	27,000
Kyrgyzstan	1,800	7,600	35,200	55,000	23,000	25,000
Russia	2,600	6,700	11,500	16,300	21,100	25,000
China	46,800	25,200	22,000	19,800	21,600	20,000
Morocco	5,500	8,900	10,100	10,900	18,800	20,000
Pakistan	2,700	7,100	18,400	10,500	17,300	20,000
Israel	13,300	11,200	18,000	10,400	17,500	15,000
Other	136,919	121,775	110,136	106,327	109,249	112,025
Total	692,219	699,575	772,136	813,427	890,549	917,025

Marketing year begins in September of the first year of the split year for the United States and other Northern Hemisphere countries.
Southern hemisphere countries are on a calendar year basis indicated as the second year of the split year.

Pistachio Summary

Metric Tons, In-shell Basis

	2016/17	2017/18	2018/19	2019/20	Feb 2020/21	Oct 2020/21
Production						
United States	406,646	272,292	447,696	336,112	476,332	474,004
Turkey	155,000	80,000	210,000	85,000	250,000	250,000
Iran	153,000	225,000	52,000	205,000	190,000	190,000
Syria	58,000	56,500	60,000	70,000	50,000	50,000
European Union	8,400	15,000	10,610	21,600	18,330	18,330
Other	0	0	0	0	0	0
Total	781,046	648,792	780,306	717,712	984,662	982,334
Domestic Consumption						
Turkey	148,000	93,800	176,800	105,300	211,000	199,600
United States	127,965	127,238	157,869	144,280	180,000	179,378
China	115,100	115,900	106,500	103,200	150,000	159,000
European Union	93,700	106,000	114,535	124,900	137,730	139,030
Syria	52,700	55,300	56,500	65,700	45,500	45,500
India	17,400	20,500	23,700	20,900	25,000	35,300
Egypt	800	100	400	3,200	3,100	22,300
Iraq	8,400	10,100	6,700	11,100	13,000	17,000
United Arab Emirates	15,100	16,275	10,900	13,600	12,000	16,600
Saudi Arabia	11,700	10,100	9,800	11,900	15,000	14,700
Other	105,006	107,128	67,005	64,300	87,800	59,900
Total	695,871	662,441	730,709	668,380	880,130	888,308
Ending Stocks						
United States	115,507	47,456	59,926	65,349	139,281	128,827
Turkey	10,000	500	22,500	500	38,500	38,500
Iran	3,000	35,000	22,000	45,016	10,000	5,542
European Union	1,500	1,500	1,500	1,900	1,500	1,500
Afghanistan	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	130,007	84,456	105,926	112,765	189,281	174,369
Exports						
United States	211,247	214,902	278,810	188,228	225,000	234,659
Iran	135,494	156,872	53,895	161,984	185,000	219,474
Turkey	16,000	19,700	28,200	21,400	24,000	32,800
Syria	6,000	2,300	4,600	5,300	5,000	5,000
European Union	1,700	2,100	1,475	1,100	1,000	1,900
Other	0	0	0	0	0	0
Total	370,441	395,874	366,980	378,012	440,000	493,833
Imports						
China	115,100	115,900	106,500	103,200	150,000	159,000
European Union	87,000	93,100	105,400	104,800	120,000	122,200
India	17,400	20,500	23,700	20,900	25,000	35,300
Egypt	800	100	400	3,200	3,100	22,300
Turkey	10,500	24,000	17,000	19,700	23,000	20,400
Iraq	8,400	10,100	6,700	11,100	13,000	17,000
United Arab Emirates	15,100	16,275	10,900	13,600	12,000	16,600
Saudi Arabia	11,700	10,100	9,800	11,900	15,000	14,700
Israel	6,500	4,300	5,800	5,500	5,500	7,500
Kazakhstan	8,900	7,700	4,700	5,200	5,700	7,200
Other	60,345	61,897	47,953	36,419	49,700	39,211
Total	341,745	363,972	338,853	335,519	422,000	461,411

The marketing year begins in September of the first year of the split year.