

Tree Nuts: World Markets and Trade

Varroa Mites Spread to Australia’s Honeybees

The ectoparasitic honeybee mite *Varroa destructor* is having a significant impact on Australia’s Western honeybee (*Apis mellifera Linnaeus*) population and its pollination-dependent almond orchards. In June 2022, *Varroa* mites were first detected on two properties in Newcastle, New South Wales (NSW). Until this discovery, *Varroa* mites had spread to every major Western honeybee area of the world except Australia. Quarantine measures caused a shortage of beehives and contributed to output dropping nearly 25 percent in 2022/23.

Varroa mites originated in Asia on the Eastern honeybee *Apis cerana*. They maintain a stable host-parasite relationship with Eastern honeybees because mite reproduction only occurs in drone brood which typically comprise less than 5 percent of the colony population. In the 1950’s, *Varroa* mites expanded hosts to include Western honeybees where they can reproduce on drone as well as worker brood. Without periodic intervention and treatment, infested Western honeybee colonies tend to collapse within a few years.

In response to Australia’s first *Varroa* mite detections, a biosecurity emergency was declared by the NSW Department of Primary Industries. The initial approach to the crisis was to eradicate *Varroa* mites and regulate beehive movement through quarantine measures for bee hives. However, progress was stalled by numerous detections outside quarantine zones.

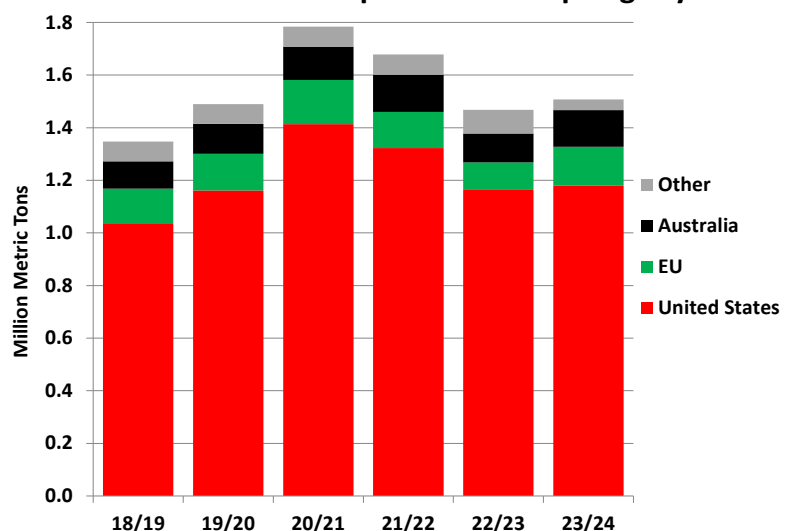
On September 19, 2023, the decision body for the National *Varroa* Mite Emergency Response announced that eradication was not feasible based on technical grounds and the response to the crisis transitioned to pest management. Pest management will focus on slowing the spread, building industry resilience, supporting pollination security, and minimizing impacts on pollination reliant industries. Industry experts are hopeful that they will be able to manage this pest with similar success as beekeepers in other countries.

Almonds

Global almond production for 2023/24 is forecast 3 percent higher to 1.5 million metric tons (tons) shelled basis on higher output in the United States, Australia, and the European Union. Global consumption is expected to expand 6 percent to 1.6 million tons. Global exports are forecast to rise 5 percent to 1.1 million tons as shipments to China and India continue to rise. Global ending stocks are forecast to drop on a sharp reduction in the United States.

U.S. production is forecast up 1 percent to 1.2 million tons as higher bearing acres and kernel weights more than offset fewer nuts per tree. The almond bloom began in the middle of February and peaked at the end of the month.

World Almond Output Forecast Up Slightly



Record level rainfall and unprecedented stormy conditions hindered bee pollination activity in orchards. Cooler-than-average temperatures continued through early summer and delayed the maturity of the crop. Exports are forecast to rise 6 percent to 900,000 tons largely on strong demand from China and India, drawing U.S. ending inventories down sharply from last year's elevated level.

Australia production is forecast to rebound 28 percent from last year's poor crop to total 140,000 tons. A shortage of beehives in key producing regions due to quarantine measures related to *Varroa* mites was the primary factor for last year's reduced yields, though flooding in the southern Murray Darling Basin and unfavorable weather throughout the growing season were also contributing factors. While last year's exports were supplemented by nearly depleting carryover stocks from the previous harvest, additional output is expected to boost exports 5 percent to 100,000 tons.

EU production is forecast to rebound 40 percent to 148,000 tons as orchards in Spain recover from last year's drought. With higher domestic supplies expected, imports are forecast to slip 1 percent to 280,000 tons on stable demand from the food ingredient, snack food, and confectionary industries.

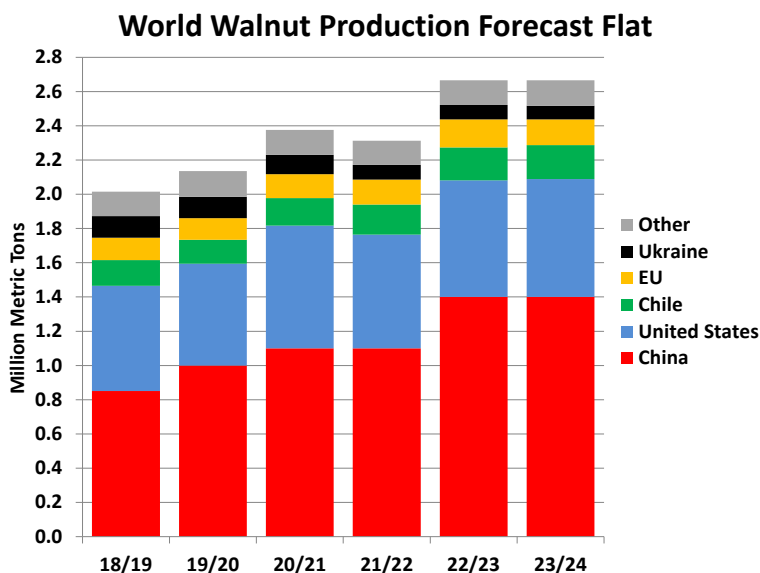
China production is forecast to drop from 50,000 tons to just 5,000 due to frost damage suffered in Xinjiang where the industry is concentrated. As a result, imports are forecast nearly 25 percent higher to a record 160,000 tons on continued demand from food manufacturers as well as the snack food sector.

India imports are forecast to gain 11 percent to 170,000 tons in part due to the removal of retaliatory tariffs for U.S. almonds on September 6, 2023. India imposed these tariffs in June 2019 in response to the United States invoking Section 232 national security measures against India's steel and aluminum industries and terminating India's Generalized System of Preferences status.

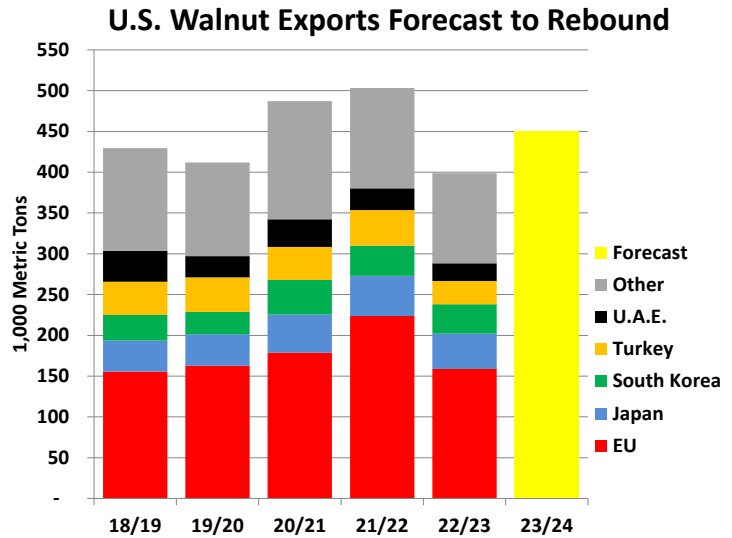
Walnuts

Global walnut production for 2023/24 is forecast unchanged at 2.7 million tons in-shell basis largely due to flat output from top producer China, while gains in the United States and Chile offset losses in the European Union. World consumption is expected nearly flat at 2.7 million tons. Global exports are forecast to rise 6 percent to 1.0 million tons largely due to rebounding shipments from the United States. World ending stocks are expected 4 percent lower on a slight U.S. drawdown.

China production is forecast flat at 1.4 million tons on favorable growing conditions and unchanged area. Exports are expected up 3 percent to a record 245,000 tons on strong shipments to top markets Turkey and the United Arab Emirates. Imports are expected to remain modest at just 15,000 tons as consumers continue to rely on domestic output.



U.S. production is forecast up just 1 percent to 689,000 tons as higher yields more than offset reduced bearing acres, which had been expanding since 2000/01. Cold winter temperatures ensured sufficient chill hours, and a wet winter and spring helped restore soil moisture in walnut orchards across California. Exports are forecast nearly 15 percent higher to 450,000 tons on higher shipments to the European Union, Turkey, and the United Arab Emirates. With consumption expected to remain elevated at 250,000 tons, ending stocks are forecast lower for a second consecutive year after peaking in 2021/22.



Chile production is forecast to rise 3 percent to a record 198,000 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 steady demand from the European Union and Turkey.

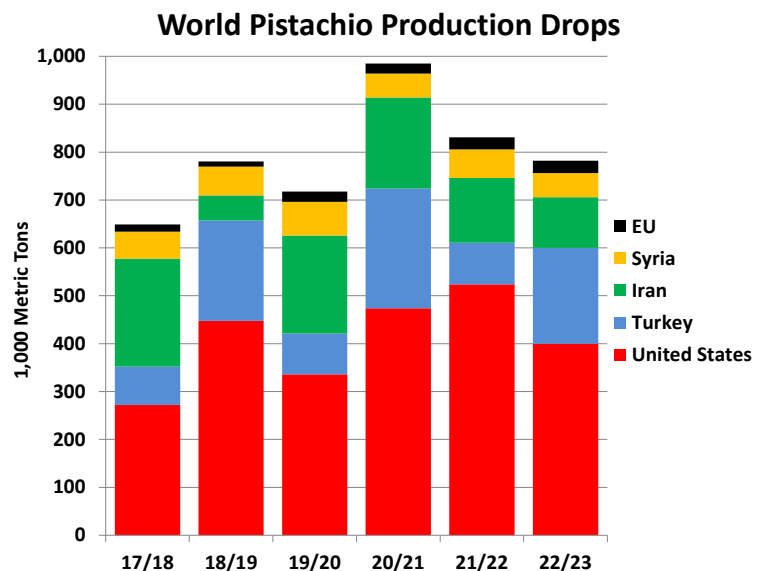
EU production is forecast down 8 percent to 150,000 tons on declines in France due to drought conditions, while output in Romania, Spain, and Italy is nearly unchanged. Imports are expected 11 percent higher to 300,000 tons primarily due to rebounding demand from the snack foods and cooking ingredients sector.

Pistachios

Note: This publication only includes updated 2022/23 data because U.S. production data for 2023/24 is not available.

Global production for 2022/23 was down 6 percent to 782,000 metric tons as declines in top producing countries the United States and Iran more than offset gains in Turkey. With lower output from top exporters, global shipments were down 16 percent to 415,000 tons, while consumption rebounded 7 percent to 808,000 tons.

Iran production, reported by the Iranian Pistachio Association, dropped 21 percent to 106,000 tons as yields fell for a third consecutive year due to a combination of factors including frost and drought. As a result of the smaller harvest, exports were 40 percent lower to 70,000 tons.



U.S. production declined 24 percent to 400,000 tons due to lower yields from the off-year of the alternate bearing crop cycle. Exports dropped 11 percent from last year's record to 294,000 tons on weak shipments to China and the EU. Ending stocks were over 50 percent lower than last year's record due to reduced output and rebounding consumption.

Turkey production jumped 130 percent to 200,000 tons due to high yields from the on-year of the alternate bearing crop cycle. Large swings in output are typical. Approximately 80 percent of output is concentrated in the southeastern part of Turkey, and trees in this area benefited from favorable growing conditions this year. Higher production has a limited effect on trade as most of the additional harvest is consumed domestically or inventoried.

China imports cratered over 50 percent to 68,000 tons primarily due to reduced output in Iran, the major supplier since China implemented retaliatory tariffs against the United States in 2018. Importers can apply for exclusion from the Section 301 tariffs applied to shipments from the United States. However, U.S. pistachios are still subject to China's Section 232 retaliatory tariffs which stand at 15 percent in addition to MFN duties.

EU production was up 4 percent to 26,000 tons on slight gains in Spain and Italy. Imports decreased 8 percent to 112,000 tons, with the United States supplying most of the market.

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Almond Summary
Metric Tons, Shelled Basis

	2018/19	2019/20	2020/21	2021/22	2022/23	Oct 2023/24
Production						
United States	1,034,190	1,161,160	1,412,940	1,322,220	1,163,460	1,179,340
European Union	134,200	139,100	168,000	137,500	105,000	147,700
Australia	104,000	114,400	127,000	141,000	109,000	140,000
Turkey	16,000	15,000	16,500	20,000	22,500	20,000
Chile	11,000	10,000	10,700	11,000	11,400	11,500
Other	47,500	49,500	48,500	46,500	56,275	9,200
Total	1,346,890	1,489,160	1,783,640	1,678,220	1,467,635	1,507,740
Domestic Consumption						
European Union	364,100	389,600	442,800	408,000	369,500	407,700
United States	375,664	382,470	403,113	348,194	342,268	375,000
India	111,600	112,350	156,780	153,680	159,775	178,290
China	148,200	113,800	170,900	147,800	181,300	165,000
United Arab Emirates	36,300	40,800	56,200	61,200	57,500	60,000
Turkey	28,400	36,000	32,500	39,400	46,400	50,000
Australia	33,750	37,000	42,000	43,000	40,000	42,000
Japan	37,800	38,600	38,800	45,800	38,500	40,000
Morocco	4,100	11,800	25,300	18,300	32,300	30,000
Canada	29,600	29,700	31,100	29,200	25,300	26,000
Other	168,700	177,850	206,750	185,600	199,700	205,300
Total	1,338,214	1,369,970	1,606,243	1,480,174	1,492,543	1,579,290
Ending Stocks						
United States	144,387	204,172	275,847	379,569	359,198	272,538
India	35,000	30,650	37,470	37,090	34,090	30,000
European Union	18,000	18,000	18,000	18,000	18,000	18,000
Australia	7,300	16,500	22,200	26,900	2,000	1,000
Chile	500	450	800	500	400	500
Other	400	300	300	500	500	500
Total	205,587	270,072	354,617	462,559	414,188	322,538
Exports						
United States	691,629	730,844	947,958	880,386	850,756	900,000
Australia	71,300	70,700	81,400	95,000	95,000	100,000
Turkey	10,100	12,100	16,600	17,300	27,600	25,000
European Union	37,000	29,300	22,900	21,100	19,700	20,000
Chile	10,200	6,500	7,700	7,600	8,300	8,300
Other	0	0	0	0	0	0
Total	820,229	849,444	1,076,558	1,021,386	1,001,356	1,053,300
Imports						
European Union	266,900	279,800	297,700	291,600	284,200	280,000
India	106,100	103,500	159,100	148,800	152,500	170,000
China	105,200	68,800	126,900	105,800	129,300	160,000
United Arab Emirates	36,300	40,800	56,200	61,200	57,500	60,000
Turkey	22,500	33,000	32,600	36,900	51,500	55,000
Japan	37,800	38,600	38,800	45,800	38,500	40,000
Morocco	4,100	11,800	25,300	18,300	32,300	30,000
Canada	29,600	29,700	31,100	29,200	25,300	26,000
Korea, South	25,600	24,700	35,900	30,500	24,700	20,000
Saudi Arabia	9,700	10,900	12,900	12,500	18,000	20,000
United Kingdom	22,000	23,500	23,300	19,100	18,400	20,000
Kazakhstan	8,300	9,400	16,700	10,100	16,300	17,000
Mexico	11,400	11,900	14,400	14,500	14,400	15,000
Switzerland	10,300	10,800	10,300	11,100	10,100	11,000
Algeria	3,900	5,100	4,800	5,000	9,300	10,000
Other	94,444	92,439	97,706	90,882	95,593	99,200
Total	794,144	794,739	983,706	931,282	977,893	1,033,200

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

	2018/19	2019/20	2020/21	2021/22	2022/23	Oct 2023/24
Production						
China	850,000	1,000,000	1,100,000	1,100,000	1,400,000	1,400,000
United States	615,979	594,206	716,676	664,967	682,203	689,461
Chile	150,000	140,400	161,000	175,000	192,000	198,000
European Union	130,000	125,411	139,500	146,000	163,000	150,000
Ukraine	127,190	125,900	113,320	85,000	85,000	80,000
Turkey	63,000	65,000	67,000	68,000	67,000	70,000
India	34,000	35,000	35,000	36,000	34,000	33,450
Other	45,200	50,000	43,200	38,600	43,000	45,000
Total	2,015,369	2,135,917	2,375,696	2,313,567	2,666,203	2,665,911
Domestic Consumption						
China	810,800	876,200	939,400	903,700	1,172,100	1,170,000
European Union	368,169	392,425	414,700	454,400	414,000	430,000
United States	187,427	187,368	200,730	129,083	292,904	250,000
Turkey	137,900	145,400	138,900	128,000	126,300	140,000
United Arab Emirates	59,100	46,300	61,100	72,400	92,000	95,000
India	44,900	61,800	76,700	66,900	84,200	91,250
Kyrgyzstan	37,700	56,100	23,500	26,400	75,000	75,000
Japan	43,400	41,900	46,900	49,500	41,600	40,000
Korea, South	30,800	27,000	40,500	34,600	33,800	35,000
Ukraine	27,614	20,900	33,000	33,018	33,000	35,000
Other	252,200	255,200	320,800	312,900	281,900	291,200
Total	2,000,010	2,110,593	2,296,230	2,210,901	2,646,804	2,652,450
Ending Stocks						
United States	59,915	57,930	89,087	125,202	117,263	108,224
European Union	40,000	40,000	40,000	40,000	40,000	40,000
India	14,400	14,400	14,000	14,000	18,000	19,250
Chile	300	3,200	3,300	4,000	3,700	4,000
Ukraine	500	540	11,168	3,100	3,125	3,225
Other	1,800	2,800	1,300	1,300	1,300	1,300
Total	116,915	118,870	158,855	187,602	183,388	175,999
Exports						
United States	429,442	412,110	487,237	503,278	398,798	450,000
China	62,100	144,100	183,500	212,800	239,000	245,000
Chile	147,900	135,400	158,800	172,100	190,000	195,000
Turkey	28,900	32,700	30,400	34,000	40,700	45,000
Ukraine	106,100	105,000	69,800	60,100	52,000	45,000
European Union	21,531	20,286	17,600	16,000	19,000	20,000
Moldova	26,300	29,800	18,200	11,800	15,500	15,000
Other	9,900	10,000	10,500	12,300	4,000	5,550
Total	832,173	889,396	976,037	1,022,378	958,998	1,020,550
Imports						
European Union	259,700	287,300	292,800	324,400	270,000	300,000
Turkey	101,800	114,100	100,800	94,000	100,000	115,000
United Arab Emirates	59,100	46,300	61,100	72,400	92,000	95,000
Kyrgyzstan	37,700	56,100	23,500	26,400	75,000	75,000
India	15,900	29,800	44,200	35,300	55,000	60,000
Japan	43,400	41,900	46,900	49,500	41,600	40,000
Korea, South	30,800	27,000	40,500	34,600	33,800	35,000
Canada	28,900	28,800	31,300	27,900	24,200	27,000
Russia	11,500	16,300	21,100	20,400	23,500	25,000
United Kingdom	25,500	25,400	26,100	25,600	23,000	25,000
Iraq	24,000	21,900	18,700	23,300	23,000	24,000
Morocco	10,100	10,900	18,800	14,700	20,000	22,000
Mexico	10,500	9,900	10,100	18,400	19,000	20,000
Azerbaijan	10,000	22,100	23,700	15,400	11,500	15,000
China	22,900	20,300	22,900	16,500	11,100	15,000
Other	119,636	107,927	154,056	149,659	112,685	106,700
Total	811,436	866,027	936,556	948,459	935,385	999,700

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

	2018/19	2019/20	2020/21	2021/22	Feb 2022/23	Oct 2022/23
Production						
United States	447,696	336,112	474,004	523,899	401,039	400,069
Turkey	210,000	85,000	250,000	87,000	210,000	200,000
Iran	52,000	205,000	190,000	135,000	106,000	106,000
Syria	60,000	70,000	50,000	60,000	50,000	50,000
European Union	10,610	21,600	20,747	24,815	23,940	25,800
Other	0	0	0	0	0	0
Total	780,306	717,712	984,751	830,714	790,979	781,869
Domestic Consumption						
United States	157,869	144,256	179,735	146,679	170,000	201,001
Turkey	176,800	105,300	170,000	111,600	168,600	178,400
European Union	108,110	119,200	138,313	142,215	155,940	133,200
China	104,800	98,400	155,000	143,600	80,000	68,000
Syria	56,500	67,400	43,100	56,500	46,100	46,500
Iran	9,100	18,184	11,016	17,300	20,000	36,000
India	23,700	20,900	36,700	25,700	30,000	35,900
United Arab Emirates	12,800	15,700	16,800	17,900	15,000	20,000
Saudi Arabia	9,800	11,900	15,900	12,100	14,000	18,600
Russia	6,000	8,900	12,500	12,000	5,500	11,900
Other	65,400	63,000	99,800	72,100	58,300	58,800
Total	730,879	673,140	878,864	757,694	763,440	808,301
Ending Stocks						
United States	59,926	65,349	128,827	180,362	143,990	86,915
Turkey	22,500	500	68,100	30,000	65,000	65,000
Iran	22,000	55,016	1,000	3,000	9,000	3,100
European Union	1,500	1,900	1,500	1,500	1,500	1,500
Australia	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	105,926	122,765	199,427	214,862	219,490	156,515
Exports						
United States	278,810	188,252	234,302	328,447	270,000	293,618
Iran	55,900	153,800	233,000	115,700	80,000	69,900
Turkey	28,200	21,400	32,800	40,200	45,000	42,600
European Union	3,600	4,100	4,700	3,700	3,000	4,600
Syria	4,600	3,600	7,400	4,500	4,700	4,300
Other	0	0	0	0	0	0
Total	371,110	371,152	512,202	492,547	402,700	415,018
Imports						
European Union	101,100	102,100	121,866	121,100	135,000	112,000
China	104,800	98,400	155,000	143,600	80,000	68,000
Turkey	17,000	19,700	20,400	26,700	38,600	56,000
India	23,700	20,900	36,700	25,700	30,000	35,900
United Arab Emirates	12,800	15,700	16,800	17,900	15,000	20,000
Saudi Arabia	9,800	11,900	15,900	12,100	14,000	18,600
Russia	6,000	8,900	12,500	12,000	5,500	11,900
Iraq	7,500	13,100	17,100	12,500	12,000	11,200
United Kingdom	6,700	4,800	7,000	7,800	8,400	8,300
Israel	5,800	5,500	7,600	7,000	4,500	6,000
Other	47,953	42,419	72,111	48,562	36,700	35,203
Total	343,153	343,419	482,977	434,962	379,700	383,103

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