



# HAWAII MACADAMIA NUTS Final Season Estimates

In cooperation with:



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## Final Season Estimates Confirm Lower Nut Utilization for the 2007-2008 Crop Year

Hawaii's 2007-08 end-of-season macadamia nut harvest is estimated at **36.0** million pounds net, wet-in-shell, down 22.0 million pounds from last season's harvest, according to USDA, NASS-Hawaii Field Office. While not the lowest on record, this season's output was the lowest since the 1981-82 crop year.

Weather for 2007 was mixed. Some macadamia nut growers reported wet conditions caused increased spoilage while others reported dry conditions during the critical phase of maturation also lowered output.

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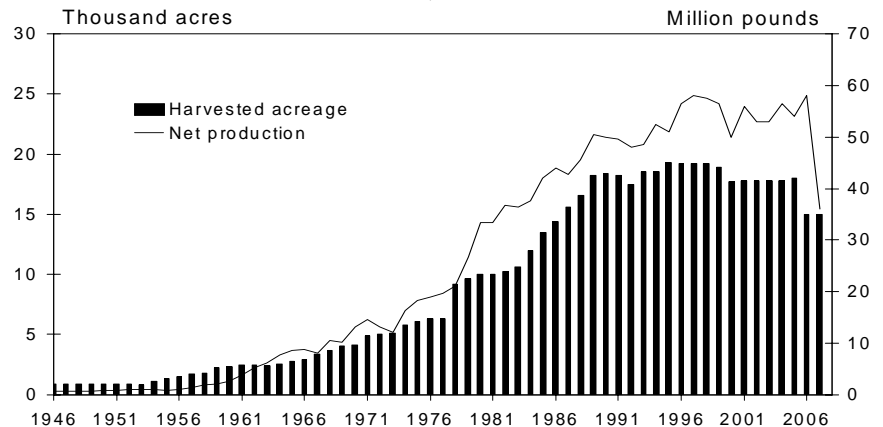
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**MACADAMIA NUTS: Harvested Acreage and Net Production, State of Hawaii, 1946-07 Seasons**



**Table 1. MACADAMIA NUTS: Number of farms, acreage, yield, production, moisture, price, and value, State of Hawaii, 2003-04 to 2007-08 crop years**

Crop year <sup>1</sup>	Farms	Acreage		Yield per acre <sup>3</sup>	Production <sup>4</sup>		Average moisture		Farm prices <sup>4</sup>		Farm value <sup>8</sup>
		In crop	Harvested <sup>2</sup>		Gross <sup>5</sup>	Net <sup>6</sup>	Entire crop	Purchases only	Gross <sup>7</sup>	Net	
	Number	Acres	Acres		1,000 pounds	1,000 pounds	Percent	Percent	Cents per pound	Cents per pound	1,000 dollars
2003-04	650	18,000	17,800	3.0	60,000	53,000	20.2	20.7	53.9	61.0	32,330
2004-05	650	18,000	17,800	3.2	63,000	56,500	20.7	21.0	65.5	73.0	41,245
2005-06	650	18,300	18,000	3.0	62,000	54,000	20.7	20.4	70.5	81.0	43,740
2006-07	570	17,000	15,000	3.9	65,000	58,000	21.2	22.1	59.8	67.0	38,860
<b>2007-08</b>	<b>525</b>	<b>17,000</b>	<b>15,000</b>	<b>2.4</b>	<b>43,000</b>	<b>36,000</b>	<b>21.8</b>	<b>21.5</b>	<b>48.6</b>	<b>58.0</b>	<b>20,880</b>

<sup>1</sup> Season begins July 1st and ends June 30th of the following year. <sup>2</sup> Called bearing acreage prior to 1993-94 crop year. <sup>3</sup> Net production per bearing acre. <sup>4</sup> Wet in-shell basis, delivered to processors. <sup>5</sup> Gross pounds delivered for processing. <sup>6</sup> Gross pounds delivered for processing less total spoilage. <sup>7</sup> Farm value divided by gross production. <sup>8</sup> Net production multiplied by net farm price.

# MORE ON THE 2007-2008 SEASON

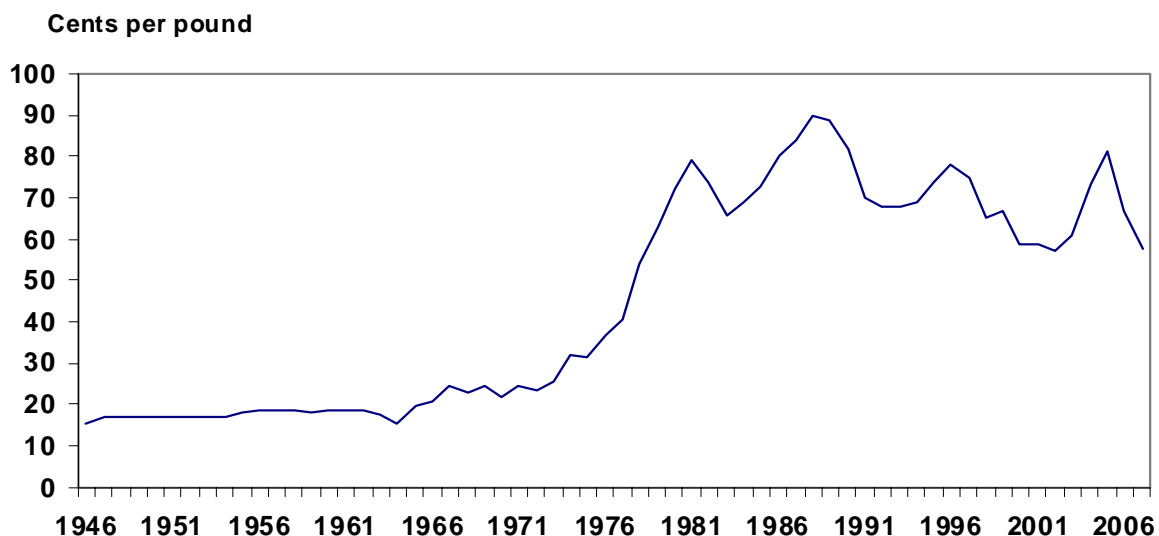
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Low prices made it uneconomical for many operators to hire pickers which caused nuts to go unharvested. Many growers reported that the lack of an outlet to sell their nuts was a problem and with lower nut prices, the crop was not harvested by some growers. Growers also related that feral pigs were a problem in some areas. This is probably related to growers leaving nuts on the ground which provided a food source for pigs; which in turn increased survival of offspring, lending itself to more pigs foraging for food.

Overall, yields averaged 2,400 pounds per acre (net, wet-in-shell), 38 percent lower than the 2006-07 crop year. Crop losses were estimated at 10.7 million pounds or 25 percent of the total crop. Immature nuts ranked as the highest cause of losses at 37 percent followed by koa seed worm damage and moldy or rotten nut losses with 19 percent and 18 percent, respectively. Macadamia nut losses shown in this report include only those culled by processors and do not include losses which were culled at the farm before delivery nor does it include nuts left in the field due to market conditions.

Total acreage and harvested acreage for 2007-08 remained unchanged at 17,000 acres and 15,000 acres, respectively. The farm price for net, wet in-shell macadamia nuts averaged 58.0 cents per pound, 9.0 cents less than the 2006-07 average.

## MACADAMIA NUTS: Net Wet-In-Shell Farm Prices, State of Hawaii, 1946-07 Seasons



Crop Losses Measured By Processors Higher

Growers delivered an estimated 43.0 million pounds of macadamia nuts, wet-in-shell, to processors during the 2007-08 season. About 16 percent of the harvest was culled, resulting in 36.0 million pounds net, wet in-shell. The equivalent gross weight of losses, after adjusting for what would be the expected weight before the damage, was 10.7 million pounds, 3 percent less than last season's estimates. Losses from nut immaturity ranked at the top representing 37 percent of the total losses.

Koa seed worm damage was the second most common type of loss at 19 percent, followed by losses from moldy or rotten nuts at 18 percent. Macadamia nut losses shown in this report include only those culled by processors and do not include losses that were culled at the farm before delivery.

MACADAMIA NUTS: Loss By Cause State of Hawaii, 2007-08 Season

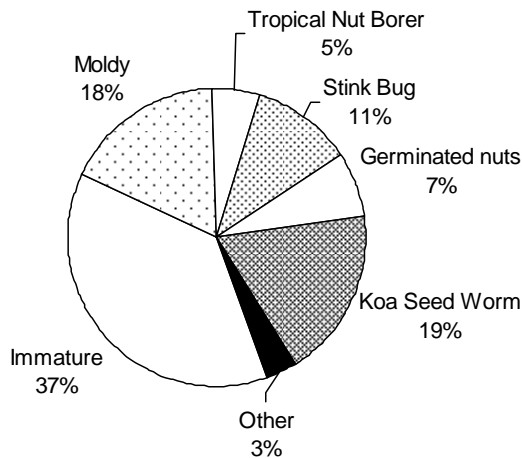


Table 2. MACADAMIA NUTS: Loss by cause, State of Hawaii, 2006-07 and 2007-08

Type of loss	Estimated Loss <sup>1</sup>		Percent of losses		Percent of delivered crop	
	2006-07	2007-08	2006-07	2007-08	2006-07	2007-08
	1,000 pounds		Percent			
Immature nuts <sup>2</sup>	4,135	4,000	37.6	37.4	6.4	9.3
Germinating nuts	550	755	5.0	7.1	.8	1.8
Moldy, rotten	1,875	1,880	17.1	17.6	2.9	4.4
Stink bug	1,075	1,140	9.8	10.7	1.6	2.6
Koa seed worm	2,135	1,975	19.4	18.5	3.3	4.6
Tropical nut borer	1,020	580	9.3	5.4	1.6	1.3
Other causes	200	350	1.8	3.3	.3	.8
<b>Total</b>	<b>10,990</b>	<b>10,680</b>	<b>100.0</b>	<b>100.0</b>	<b>16.9</b>	<b>24.8</b>

<sup>1</sup> Includes only losses for nuts completely rejected for processing. Does not include nuts with some damage but still utilized. Adjustments were made to reported weights to account for damage that would lower kernel weights and have the effect of underestimating the actual amount of loss. The adjustment factors were provided by Dr. H. C. Bittenbender and Dr. Vince Jones, CTAHR, University of Hawaii and were applied to both crop years. Excludes losses in the field or culled before delivery.

<sup>2</sup> Includes naturally occurring premature drop.

# HISTORICAL DATA

**Table 3. MACADAMIA NUTS: Acreage, yield, production, price, and value, State of Hawaii, 1946-07**

Year <sup>1</sup>	Acreage		Yield per acre <sup>2</sup>	Production <sup>3</sup>		Farm Price <sup>3</sup>		Farm Value <sup>7</sup>
	In crop	Harvested		Gross <sup>4</sup>	Net <sup>5</sup>	Gross <sup>6</sup>	Net	
	----- Acres -----		-----1,000 pounds -----		-----Cents per pound -----		1,000	
1946-47	950	860	.7	NA	630	NA	15.2	96
1947-48	1,340	860	.8	NA	680	NA	16.9	115
1948-49	1,530	860	.8	NA	700	NA	17.0	119
1949-50	1,710	860	.8	NA	680	NA	16.9	115
1950-51	2,150	860	.9	NA	755	NA	17.0	128
1951-52	2,300	840	1.0	NA	850	NA	16.9	144
1952-53	2,770	840	1.1	NA	965	NA	17.1	165
1953-54	2,900	830	1.2	NA	970	NA	17.0	165
1954-55	3,030	1,080	.9	NA	930	NA	17.1	159
1955-56	3,030	1,300	.7	NA	903	NA	17.9	162
1956-57	3,200	1,470	.7	NA	1,027	NA	18.4	189
1957-58	3,120	1,680	.8	NA	1,329	NA	18.7	248
1958-59	3,290	1,750	1.0	NA	1,832	NA	18.5	339
1959-60	3,840	2,220	1.0	NA	2,102	NA	18.2	382
1960-61	3,820	2,300	1.1	NA	2,569	NA	18.4	472
1961-62	3,880	2,430	1.6	NA	3,751	NA	18.5	693
1962-63	4,100	2,460	2.1	NA	5,182	NA	18.4	954
1963-64	4,110	2,390	2.5	NA	6,003	NA	17.7	1,061
1964-65	4,510	2,520	3.1	NA	7,639	NA	15.6	1,192
1965-66	5,410	2,780	3.1	NA	8,522	NA	19.4	1,651
1966-67	6,700	2,950	3.0	NA	8,715	NA	21.0	1,830
1967-68	7,980	3,340	2.4	NA	7,966	NA	24.6	1,960
1968-69	8,520	3,680	2.8	NA	10,436	NA	22.8	2,379
1969-70	8,690	4,030	2.5	NA	10,049	NA	24.6	2,472
1970-71	8,735	4,115	3.2	NA	13,216	NA	21.7	2,868
1971-72	9,170	4,900	2.9	NA	14,448	NA	24.7	3,569
1972-73	9,250	5,000	2.6	NA	13,110	NA	23.3	3,055
1973-74	10,450	5,080	2.4	NA	12,124	NA	25.5	3,092
1974-75	9,890	5,760	2.8	NA	16,370	NA	32.0	5,238
1975-76	10,400	6,080	3.0	NA	18,210	NA	31.6	5,754
1976-77	10,250	6,300	3.0	NA	18,990	NA	36.9	7,007
1977-78	9,895	6,300	3.1	NA	19,680	NA	40.8	8,030
1978-79	10,200	9,200	2.3	NA	20,980	NA	53.8	11,287
1979-80	11,400	9,600	2.8	NA	26,660	NA	62.9	16,769
1980-81	13,300	10,000	3.3	NA	33,390	NA	72.4	24,174
1981-82	14,000	10,000	3.3	NA	33,360	NA	79.3	26,454
1982-83	15,600	10,200	3.6	NA	36,720	NA	73.9	27,136
1983-84	16,400	10,600	3.4	38,500	36,420	62.2	65.7	23,928
1984-85	17,500	12,000	3.1	40,500	37,700	64.4	69.2	26,088
1985-86	20,900	13,500	3.1	44,700	42,000	68.1	72.5	30,450
1986-87	21,200	14,400	3.1	46,600	44,000	75.5	80.0	35,200
1987-88	21,500	15,600	2.7	45,600	42,700	78.7	84.0	35,868
1988-89	21,900	16,600	2.7	49,000	45,500	83.6	90.0	40,950
1989-90	22,300	18,200	2.8	54,000	50,500	83.2	89.0	44,945

See footnotes at end of table

Continued

# HISTORICAL DATA CONTINUED

**Table 3. MACADAMIA NUTS: Acreage yield, production, price, and value, State of Hawaii, continued**

Year <sup>1</sup>	Acreage		Yield per acre <sup>2</sup>	Production <sup>3</sup>		Farm Price <sup>3</sup>		Farm Value <sup>7</sup>
	In crop	Harvested		Gross <sup>4</sup>	Net <sup>5</sup>	Gross <sup>6</sup>	Net	
	----- Acres -----			-----1,000 pounds -----		-----Cents per pound -----		1,000
1990-91	22,600	18,400	2.7	54,300	50,000	75.5	82.0	41,000
1991-92	22,500	18,200	2.7	53,900	49,500	64.3	70.0	34,650
1992-93	20,500	17,500	2.7	53,000	48,000	61.6	68.0	32,640
1993-94	20,100	18,500	2.6	53,000	48,500	62.2	68.0	32,980
1994-95	20,200	18,500	2.8	58,000	52,500	62.5	69.0	36,225
1995-96	20,300	19,300	2.6	57,000	51,000	66.2	74.0	37,740
1996-97	20,200	19,200	2.9	63,000	56,500	70.0	78.0	44,070
1997-98	20,200	19,200	3.0	65,000	58,000	66.9	75.0	43,500
1998-99	20,200	19,200	3.0	66,000	57,500	57.0	65.0	37,375
1999-00	19,900	18,900	3.0	64,000	56,500	59.1	67.0	37,855
2000-01	18,400	17,700	2.8	56,000	50,000	52.7	59.0	29,500
2001-02	18,000	17,800	3.1	62,000	56,000	53.3	59.0	33,040
2002-03	18,000	17,800	3.0	60,000	53,000	50.4	57.0	30,210
2003-04	18,000	17,800	3.0	60,000	53,000	53.9	61.0	32,330
2004-05	18,000	17,800	3.2	63,000	56,500	65.5	73.0	41,245
2005-06	18,300	18,000	3.0	62,000	54,000	70.5	81.0	43,740
2006-07	17,000	15,000	3.9	65,000	58,000	59.8	67.0	38,860
2007-08	17,000	15,000	2.4	43,000	36,000	48.6	58.0	20,880

<sup>1</sup> Season begins July 1<sup>st</sup> and ends June 30<sup>th</sup> of the following year. <sup>2</sup> Net production per bearing acre. <sup>3</sup> Wet in-shell basis, delivered to processors. <sup>4</sup> Gross pounds delivered for processing. <sup>5</sup> Gross pounds delivered for processing less total spoilage. <sup>6</sup> Farm value divided by gross production. <sup>7</sup> Net production multiplied by net farm price.

## U.S. TREE NUT REPORT

### U.S. Tree Nut Production Up 25 Percent, Value Up 8 Percent

U.S. tree nut production for crop year 2007 is revised to 1.99 million tons (in-shell basis), 25 percent greater than a year earlier. The almond crop is 1.21 million tons, up 27 percent from 2006. Walnut production in 2007, at 325,000 tons, is down 6 percent from the previous year. The pistachio crop is 208,000 tons, 75 percent larger than 2006. Pecan production in 2007 totals 192,700 tons, an 86 percent increase from 2006. The hazelnut crop, at 35,500 tons, is 17 percent smaller than the previous year. Macadamia nut production is 18,000 tons, down 38 percent.

Value of U.S. utilized nut production in 2007 is revised to 3.97 billion dollars, up 8 percent from the 2006 value. The almond crop is valued at 2.13 billion dollars, 6 percent less than last year. Walnuts are valued at 754 million dollars, 34 more than 2006. Pistachio value for 2007, at 562 million dollars, is 25 percent more than last year. The value of the pecan crop increased 35 percent to 435 million dollars. Hazelnut value, at 72.4 million dollars, is 56 percent above last year. The macadamia nut crop is valued at 20.9 million dollars, down 46 percent.

# U.S IMPORTS

**Table 4. U.S. Macadamia nut imports, by type, 2007**

Port of entry	Type							
	Shelled or blanched <sup>1</sup> Harmonized number: 0802.60.8000		Pickled or otherwise prepared or preserved Harmonized number: 2008.19.9010		Not shelled <sup>2</sup> Harmonized number: 0802.60.4000		Total	
	Quantity	Custom value	Quantity	Custom value	Quantity	Custom value	Quantity	Custom value
	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. Dollars</i>
Baltimore	173	823,899					173	823,899
Buffalo	15	94,523			9	51,800	24	146,323
Chicago	168	717,570					168	717,570
Columbia-Snake	194	1,550,175					194	1,550,175
Detroit	4	25,000	7	48,900			11	73,900
Great Falls	0	0	1	4,080			1	4,080
Honolulu	51	386,202					51	386,202
Houston	1,404	7,170,951			17	101,888	1,421	7,272,839
Laredo	5	45,327					5	45,327
Los Angeles	1,543	13,873,402	134	1,167,949			1,677	15,041,351
Miami	31	196,073					31	196,073
New Orleans	34	216,525					34	216,525
New York City	1,064	6,190,049	38	180,316	23	116,878	1,125	6,487,243
Norfolk	434	3,042,999					434	3,042,999
Pembina	0	0	26	279,180			26	279,180
Philadelphia	143	971,042					143	971,042
San Francisco	732	4,151,124					732	4,151,124
Savannah	500	3,385,328					500	3,385,328
Seattle	161	1,268,888	105	884,252			266	2,153,140
<b>Total</b>	<b>6,656</b>	<b>44,109,077</b>	<b>311</b>	<b>2,564,677</b>	<b>49</b>	<b>270,566</b>	<b>7,016</b>	<b>46,944,320</b>

The conversion for 1 metric ton = 2,204.6 pounds

<sup>1</sup> Beginning 2007, harmonized number 0802.90.9810 was changed to 0802.60.8000.

<sup>2</sup> Beginning 2007, harmonized number 0802.90.8010 was changed to 0802.60.4000.

Source: U.S. Department of Commerce

**Table 5. International macadamia nut imports by type, 2007**

Country of origin	Type							
	Shelled or blanched <sup>1</sup>		Pickled or otherwise prepared or preserved		Not shelled <sup>2</sup>		Total	
	Harmonized number: 0802.60.8000		Harmonized number: 2008.19.9010		Harmonized number: 0802.60.4000			
	Quantity	Custom value	Quantity	Custom value	Quantity	Custom value	Quantity	Custom value
	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. dollars</i>
Australia	1,761	11,883,847	140	1,196,233	16	101,888	1,917	13,181,968
Bolivia	29	132,269					29	132,269
Brazil	383	1,747,571					383	1,747,571
Canada	5	59,400	131	1,163,432			136	1,222,832
China	633	5,331,002	2	9,006			635	5,340,008
Colombia	15	103,714					15	103,714
Costa Rica	129	819,106					129	819,106
Guatemala	989	8,479,704	7	48,900	6	41,984	1,002	8,570,588
Hong Kong	82	850,717					82	850,717
Kenya	581	3,217,375					581	3,217,375
Malawi	143	793,007	15	87,751			158	880,758
Mexico	5	45,327					5	45,327
Mozambique	114	612,481					114	612,481
South Africa	1,710	9,704,613	16	59,355	27	126,694	1,753	9,890,662
Vietnam	77	328,944					77	328,944
<b>Total</b>	<b>6,656</b>	<b>44,109,077</b>	<b>311</b>	<b>2,564,677</b>	<b>49</b>	<b>270,566</b>	<b>7,016</b>	<b>46,944,320</b>

The conversion for 1 metric ton = 2,204.6 pounds

<sup>1</sup> Beginning 2007, harmonized number 0802.90.9810 was changed to 0802.60.8000.

<sup>2</sup> Beginning 2007, harmonized number 0802.90.8010 was changed to 0802.60.4000.

Source: U.S. Department of Commerce

**Table 6. U.S Macadamia nut imports, by type, 1998-2007**

Year	Type		
	Shelled or blanched	Pickled or otherwise prepared or preserved	Not shelled
	<i>Metric tons</i>		
1998	3,459	40	60
1999	4,730	109	109
2000	5,546	195	114
2001	5,048	126	90
2002	4,256	59	162
2003	6,212	53	204
2004	8,108	163	338
2005	7,575	124	406
2006	6,345	282	127
<b>2007</b>	<b>6,656</b>	<b>311</b>	<b>49</b>

Source: U.S. Department of Commerce

# U.S. EXPORTS

**Table 7. U.S. Macadamia nut exports, by country of destination, 2006-2007**  
**Harmonized number: 2008.19.9010**

Country of destination	2006		2007	
	Quantity	F.A.S. value	Quantity	F.A.S. value
	<i>Metric tons</i>	<i>U.S. dollars</i>	<i>Metric tons</i>	<i>U.S. dollars</i>
Belgium	0	0	2	20,180
Canada	403	3,143,127	135	983,252
China	22	283,303	44	561,187
Colombia	1	8,628	0	0
Costa Rica	0	0	1	6,995
Fed Rep of Germany	6	25,870	2	20,496
France	47	456,296	49	473,635
Hong Kong	92	911,039	44	437,671
Japan	99	1,393,656	207	2,298,521
Malaysia	1	6,825	0	0
Mexico	22	163,807	24	243,881
Netherlands	39	414,870	0	0
Panama	0	0	1	6,529
Republic of Philippines	6	78,258	10	158,475
Singapore	13	159,362	8	106,306
South Korea	72	704,102	63	780,880
Switzerland	5	20,700	3	29,765
Taiwan	53	786,546	74	1,073,930
Thailand	8	83,426	12	132,837
United Arab Emirates	1	11,709	0	0
United Kingdom	0	0	3	30,933
Zimbabwe	0	0	1	7,419
<b>Total</b>	<b>890</b>	<b>8,651,524</b>	<b>683</b>	<b>7,372,892</b>

\* = less than 1 metric ton. F.A.S. = Free Along Side. Source: U.S. Department of Commerce