



# HAWAII MACADAMIA NUTS

## Final Season Estimates

FREQUENCY: January & July

RELEASED: July 6, 2001

### In this Issue:

Final 2000-01 Season Summary	1-2
2000-01 Crop Loss Assessment	3
U.S. Macadamia Nut Tree Report	4
Historical Data	5
U.S. Imports and Exports	6-8

### ADVERSE WEATHER, LOWER PRICES, AND LESS ACREAGE AFFECTS 2000-2001 MACADAMIA CROP

Hawaii's 2000-2001 macadamia nut crop is estimated at **50.0** million pounds net, wet-in-shell, 6.5 million pounds below last season's crop, according to the Hawaii Agricultural Statistics Service (HASS). The decline was due to adverse weather, lower prices, and less harvested acreage. Weather conditions had mixed effects on orchards depending on location. The Kona area continued to experience dry weather, while early November rains caused flooding in a major Ka'u orchard, resulting in



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### MACADAMIA NUTS: Harvested Acreage and Net Production, State of Hawaii, 1946-00 Seasons

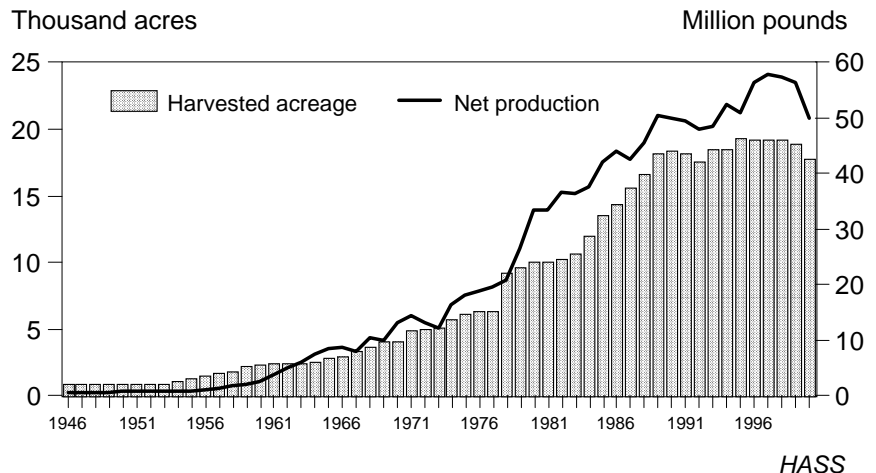


Table 1. MACADAMIA NUTS: Number of farms, acreage, yield, production, moisture, price, and value, State of Hawaii, 1996-00 crop years

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			Percent	Percent	Cents per pound	Cents per pound	1,000 dollars
1996-97	750	20,200	19,200	2.9	63,000	56,500	18.6	17.9	70.0	78.0	44,070
1997-98	800	20,200	19,200	3.0	65,000	58,000	19.5	19.6	66.9	75.0	43,500
1998-99	800	20,200	19,200	3.0	66,000	57,500	20.5	20.8	57.0	65.0	37,375
1999-00	750	19,900	18,900	3.0	64,000	56,500	19.3	19.3	59.1	67.0	37,855
<b>2000-01</b>	<b>650</b>	<b>18,400</b>	<b>17,700</b>	<b>2.8</b>	<b>56,000</b>	<b>50,000</b>	<b>21.0</b>	<b>21.0</b>	<b>52.7</b>	<b>59.0</b>	<b>29,500</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 2000-01 SEASON

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Continued from Page 1 . . .

crop and tree losses. Those same rains brought some relief to parched South Kona orchards. Lower prices also caused growers to abandon acreage and to replant with coffee or other crops. Overall yields averaged 2,820 pounds per acre (net, wet in-shell), down 170 pounds from the previous season. The average moisture content for this crop season was 21.0 percent compared with 19.3 for the 1999-2000 crop.

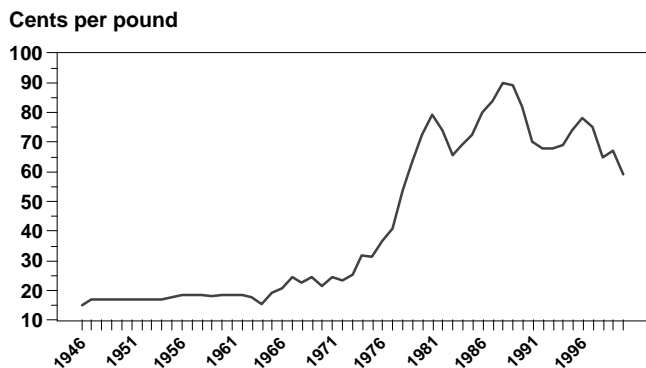
## TOTAL, HARVESTED ACREAGE DROP

Total acreage in crop dropped 1,500 acres from the previous year to 18,400 acres and the lowest total since the 1984-85 crop year. Harvested acreage also declined by 1,200 acres totaling 17,700 acres. More acreage was abandoned this season due to a large orchard on Maui discontinuing macadamia nut operations. The statewide estimate of macadamia nut trees totaled 1.4 million, of which 95 percent were 6 years and older.

## FARM PRICES AND VALUE DECLINE

The farm price for net, wet in-shell macadamia nuts averaged 59.0 cents per pound, down 8.0 cents from the 1999-2000 average. The farm value for the 2000-01 crop is estimated at \$29.5 million, down 22 percent from the previous year. Hawaii growers continued to feel the impact from increased world competition.

**MACADAMIA NUTS: Net Wet-In-Shell Farm Prices,  
State of Hawaii, 1946-00 Seasons**

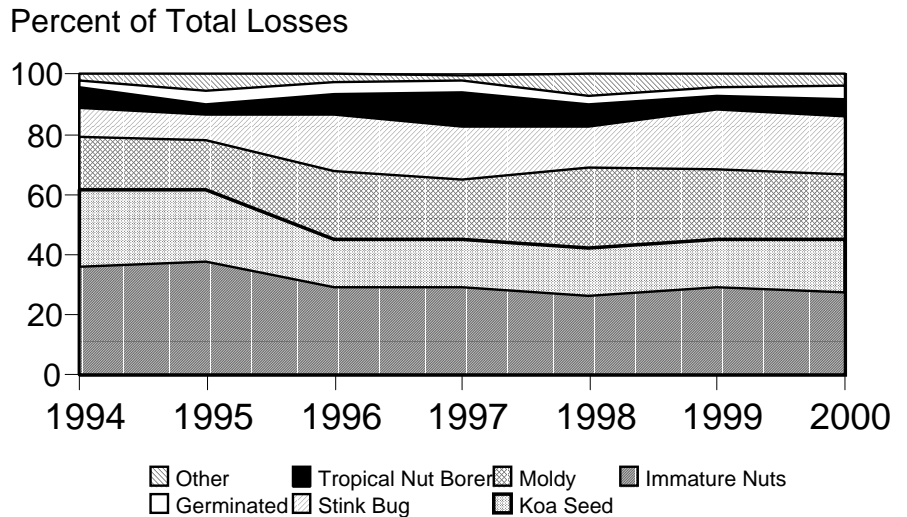


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## MACADAMIA NUT LOSSES DOWN

Growers delivered an estimated 56.0 million pounds of macadamia nuts, wet in-shell, to processors during the 2000-2001 crop season, of which processors culled 11 percent, resulting in 50.0 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 9.0 million pounds down 20 percent from the 1999-2000 crop season. The equivalent farm level value of the losses after the weight adjustments was \$5.3 million, 30 percent less than the 1999-2000 crop loss value. 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. Immature nuts continued to be the greatest contributor of crop loss. Industry experts cite the lack of moisture during the oil formation, exacerbated by the prolonged drought in some areas as a significant factor of shriveled or immature kernel.

**MACADAMIA NUTS: Loss By Cause (1)**  
State of Hawaii, 1994-00 Season



HASS

**Table 2. MACADAMIA NUTS: Loss by cause, State of Hawaii, 2000-01**

Type of loss	Estimated loss <sup>1</sup>		Percent of losses		Percent of delivered crop		Dollar value of grower loss	
	1999-00	2000-01	1999-00	2000-01	1999-00	2000-01	1999-00	2001-01
	<i>1000 pounds</i>		<i>Percent</i>				<i>1,000 dollars</i>	
Immature nuts <sup>2</sup>	3,303	2,513	29.3	27.8	5.2	4.5	2,213	1,483
Germinating nuts	307	433	2.7	4.8	.5	.8	206	255
Moldy, rotten	2,607	1,936	23.1	21.5	4.1	3.5	1,746	1,142
Stink bug	2,271	1,707	20.1	18.9	3.5	3.0	1,522	1,007
Koa seed worm	1,800	1,585	15.9	17.6	2.8	2.8	1,206	935
Tropical nut borer <sup>3</sup>	537	530	4.8	5.9	.8	.9	360	313
Other causes <sup>4</sup>	465	318	4.1	3.5	.7	.6	312	188
<b>Total</b>	<b>11,290</b>	<b>9,022</b>	<b>100.0</b>	<b>100.0</b>	<b>17.6</b>	<b>16.1</b>	<b>7,565</b>	<b>5,323</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.

<sup>3</sup> Formerly called Shothole borer.

<sup>4</sup> Includes bacterial nuts, hollow center, etc. Excludes rodent damage.



# U.S. TREE NUT REPORT

## U.S. Nut Production Down, Value Increases

The 2000 U.S. nut production (in-shell basis) dropped to 1.09 million tons, a 16 percent decrease from a year earlier. A record high pistachio crop of 121,500 tons was realized in 2000, up 98 percent from 1999. All other tree nuts showed the effects of alternate bearing with lower production than in the previous year. Almond production totaled 573,400 tons, down 15 percent. Hazelnut tonnage for the 2000 crop totaled 24,000 tons, down 40 percent from the previous year. Walnut production totaled 239,000 tons, a 16 percent decrease. Macadamia production, at 25,000 tons, was off 12 percent. Pecan production totaled 104,900 tons, a 48 percent decrease.

The 2000 U.S. value of utilized nut production decreased less than 1 percent to 1.50 billion dollars. Pistachios, with a record high crop, recorded a 46 percent increase in value despite a lower price per pound. The almond value decreased 1 percent and accounted for 45 percent of the total nut value. Hazelnut value fell 40 percent, to 21.4 million dollars. The smaller pecan crop translated into a 28 percent decrease in value even though average prices for improved and native seedling nuts were higher than 1999 prices. Walnut value increased 15 percent to 289 million dollars. The macadamia value decreased 22 percent, to 29.5 million dollars.

**Table 3. U.S. NUT CROPS: Production, price, value, and utilization, 1999-2000**

Crop State	Production		Price per unit		Value of utilized production		Utilization				Meat production of nuts sold shelled	
	1999	2000	1999	2000	1999	2000	Sold in-shell		Sold shelled <sup>1</sup>		1999	2000
	<i>Tons (in-shell basis)</i>		<i>Dollars per ton</i>		<i>1,000 dollars</i>		<i>----- Tons (in-shell basis) -----</i>					
<b>HAZELNUTS (FILBERTS)</b>												
Oregon	39,700	23,800	890.00	890.00	35,333	21,182	24,500	15,300	15,200	8,500	6,000	3,410
Washington	300	200	900.00	960.00	270	192	100	125	200	75	80	30
Total	40,000	24,000	890.00	891.00	35,603	21,374	24,600	15,425	15,400	8,575	6,080	3,440
<b>WALNUTS (ENGLISH)</b>												
California	283,000	239,000	886.00	1,210.00	250,738	289,190	76,000	64,000	207,000	175,000	87,000	75,000
	<i>1,000 pounds (In-shell basis)</i>		<i>Dollars per pound</i>									
<b>PISTACHIOS</b>												
California	123,000	243,000	1.33	.98	163,590	238,140	105,000	190,000	18,000	53,000	8,500	24,900
<b>MACADAMIA NUTS</b>												
Hawaii	56,500	50,000	.67	.59	37,855	29,500						
	<i>1,000 pounds (Shelled basis)</i>											
<b>ALMONDS<sup>2</sup></b>												
California	833,000	703,000	.86	1.01	687,742	681,649						
<b>PECANS</b>												
U.S.							40,500	21,850	365,600	188,000	144,400	83,000

<sup>1</sup> In-shell basis.

<sup>2</sup> Price and value are based on the edible portion of the crop only. Production includes inedible quantities of no value as follows: 1999 - 33.3 million pounds, 2000 - 28.1 million pounds.

# HISTORICAL DATA

**Table 4. MACADAMIA NUTS: Acreage, yield, production, price, and value, State of Hawaii, 1946-00**

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 dollars	
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
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
<b>2000-01</b>	<b>18,400</b>	<b>17,700</b>	<b>2.8</b>	<b>56,000</b>	<b>50,000</b>	<b>52.7</b>	<b>59.0</b>	<b>29,500</b>

<sup>1</sup> Season begins July 1st and ends June 30th 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. IMPORTS

**Table 5. U.S. Macadamia nut imports, by type, January - December 1999-2000**

Name of city	2000					1999	
	Port of entry		Country of origin			Quantity	Custom value
	Quantity	Custom value	Name of country	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>
<b>SHELLED OR BLANCHED <sup>1</sup></b>							
<b>Harmonized number: 0802.90.9810</b>							
Detroit	3	9,346	Colombia	40	214,118	<b>4,730</b>	<b>31,076,960</b>
Los Angeles	2,037	13,621,222	Guatemala	432	2,959,339		
Miami	349	2,602,826	Costa Rica	266	1,833,751		
New York City	892	5,145,263	Brazil	334	1,535,397		
Tampa	7	49,346	Spain	11	61,273		
San Francisco	1,151	7,281,594	Mainland China	15	110,771		
Houston	534	2,635,154	Australia	2,927	19,628,422		
Honolulu	33	272,844	Kenya	15	71,392		
Baltimore	58	230,367	Rep. of S.A.F.	1,409	7,710,230		
Chicago	308	1,760,965	Malawi	55	253,076		
Seattle	58	388,950	Mozambique	15	66,531		
Dallas	15	110,771	Zimbabwe	25	130,860		
Charleston	79	316,570	Saudi Arabia	2	24,570		
Norfolk	9	51,815					
Philadelphia	12	122,697					
<b>Total <sup>2</sup></b>	<b>5,546</b>	<b>34,599,730</b>		<b>5,546</b>	<b>34,599,730</b>	<b>4,730</b>	<b>31,076,960</b>
<b>NOT SHELLED</b>							
<b>Harmonized number: 0802.90.8010</b>							
San Francisco	*	6,840	Guatemala	19	131,750	<b>109</b>	<b>650,660</b>
Miami	61	355,858	Costa Rica	72	421,806		
New York City	16	111,246	Brazil	6	32,574		
Los Angeles	6	32,574	Australia	17	118,086		
Tampa	30	197,698	Rep. of S.A.F.	1	9,570		
Seattle	1	9,570					
<b>Total <sup>2</sup></b>	<b>114</b>	<b>713,786</b>		<b>114</b>	<b>713,786</b>	<b>109</b>	<b>650,660</b>
<b>PICKLED OR OTHERWISE PREPARED OR PRESERVED</b>							
<b>Harmonized number: 2008.19.9010</b>							
Houston	81	365,821	Guatemala	6	76,708	<b>109</b>	<b>718,984</b>
New York City	37	212,534	El Salvador	6	36,218		
San Francisco	27	239,756	Costa Rica	54	345,612		
Los Angeles	1	4,659	Zimbabwe	12	52,200		
Seattle	13	97,597	Malawi	25	133,981		
Charleston	16	67,234	Canada	5	44,890		
Buffalo	17	26,772	Brazil	15	17,412		
Miami	*	2,500	Rep. of S.A.F.	73	332,395		
San Juan	3	22,543					
<b>Total <sup>2</sup></b>	<b>195</b>	<b>1,039,416</b>		<b>195</b>	<b>1,039,416</b>	<b>109</b>	<b>718,984</b>

The conversion for 1 metric ton = 2,204.6 pounds.

\* = less than 1,000 pounds.

<sup>1</sup> Since June 1997, 0802.90.9010 was changed to 0802.90.9810. <sup>2</sup> Totals may not add due to rounding. Source: U.S. Department of Commerce.

**Table 6. U.S. Macadamia nut imports, by type, 1984-2000**

Year	Type		
	Shelled or blanché	Pickled or otherwise prepared or preserved	Not shelled
<i>Metric tons</i>			
1984	455	5	0
1985	687	31	0
1986	748	32	0
1987	948	107	0
1988	1,088	105	95
1989	1,927	307	86
1990	2,159	126	49
1991	1,427	96	39
1992	1,775	49	28
1993	2,047	84	131
1994	1,726	95	56
1995	2,597	76	34
1996	2,481	70	14
1997	2,898	63	266
1998	3,459	40	60
1999	<sup>1</sup> 4,730	109	109
<b>2000</b>	<b>5,546</b>	<b>195</b>	<b>114</b>

Source: U.S. Department of Commerce. <sup>1</sup>Revised.

**Table 7. U.S. Macadamia nut imports, by country of origin, 2000**

Country of origin	Type			Total
	Shelled or blanché	Pickled or otherwise prepared or preserved	Not shelled	
<i>Metric tons</i>				
Australia	2,927	0	17	2,944
Brazil	334	15	6	355
Canada	0	5	0	5
Colombia	40	0	0	40
Costa Rica	266	54	72	392
El Salvador	0	6	0	6
Guatemala	432	6	19	457
Kenya	15	0	0	15
Mainland China	15	0	0	15
Malawi	55	25	0	80
Mozambique	15	0	0	15
Rep. of S. Africa	1,409	73	1	1,483
Saudi Arabia	2	0	0	2
Spain	11	0	0	11
Zimbabwe	25	12	0	37
<b>Total</b>	<b>5,546</b>	<b>195</b>	<b>114</b>	<b>5,855</b>

Source: U.S. Department of Commerce.

# U.S. EXPORTS

**Table 8. U.S. Macadamia nut exports, by country of destination, 1999-2000**  
**Harmonized number: 2008.19.9010**

Country of destination	1999		2000	
	Quantity	F.A.S. value	Quantity	F.A.S. value
	<i>Pounds</i>	<i>U.S. dollars</i>	<i>Pounds</i>	<i>U.S. dollars</i>
Bahrain	0	0	428	3,433
Barbados	0	0	538	2,520
Canada	227,603	652,989	328,699	872,906
Mainland China	13,018	102,148	167,847	665,394
Congo	0	0	9,661	70,166
Costa Rica	0	0	20,053	49,056
Denmark	0	0	9,819	62,273
Egypt	4,306	26,812	0	0
El Salvador	0	0	1,133	2,773
Fed Rep of Germany	0	0	9,632	36,600
France	25,201	65,041	33,598	75,466
Guatemala	611	2,939	14,493	42,456
Honduras	0	0	1,133	2,752
Hong Kong	186,112	849,142	183,163	895,209
India	0	0	20,249	100,238
Indonesia	16,310	66,314	0	0
Ireland	0	0	7,595	50,119
Israel	0	0	18,501	85,000
Japan	1,047,516	5,200,502	1,573,895	7,099,331
Liberia	0	0	20,249	100,238
Malaysia	6,197	26,970	0	0
Mexico	589	3,241	0	0
Netherlands	63,334	284,432	51,158	228,906
New Zealand	0	0	4,486	37,029
Niger	0	0	20,249	100,238
Norway	3,757	26,377	3,018	11,466
Panama	0	0	3,175	8,302
Republic of Korea	91,030	458,223	94,934	483,243
Republic of Philippines	8,935	61,861	24,101	166,638
Singapore	7,412	74,527	31,696	243,804
Taiwan	26,585	152,783	164,049	843,449
Thailand	5,633	21,396	51,345	242,491
Trinidad & Tobago	0	0	2,482	11,423
Turkey	0	0	840	7,361
United Arab Emirates	0	0	132	3,072
United Kingdom	0	0	38,100	168,744
<b>Total<sup>1</sup></b>	<b>1,734,147</b>	<b>8,075,697</b>	<b>2,910,451</b>	<b>12,772,096</b>

<sup>1</sup> Totals may not add due to rounding.

F.A.S. = Free Along Side.

Source: U.S. Department of Commerce.