



# HAWAII MACADAMIA NUTS

## Final Season Estimates

In cooperation with:



Agricultural Development Division

FREQUENCY: January & July

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### Final Season Estimates Higher For 2006-2007 Crop Year

Hawaii's 2006-07 end-of-season macadamia nut harvest is estimated at **58.0** million pounds net, wet-in-shell, up 4.0 million pounds from last season's harvest, according to USDA, NASS-Hawaii Field Office. While not the highest on record, this season's output matches the previous high set back during the 1997-98 crop year.

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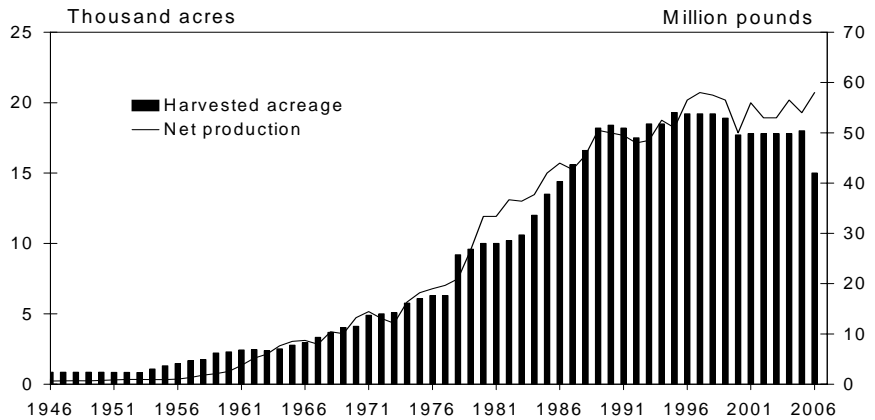
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**MACADAMIA NUTS: Harvested Acreage and Net Production, State of Hawaii, 1946-06 Seasons**



**Table 1. MACADAMIA NUTS: Number of farms, acreage, yield, production, moisture, price, and value, State of Hawaii, 2002-03 to 2006-07 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			1,000 pounds		Percent		Cents per pound		1,000 dollars
2002-03	650	18,000	17,800	3.0	60,000	53,000	20.4	20.7	50.4	57.0	30,210
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
<b>2006-07</b>	<b>570</b>	<b>17,000</b>	<b>15,000</b>	<b>3.9</b>	<b>65,000</b>	<b>58,000</b>	<b>21.2</b>	<b>22.1</b>	<b>59.8</b>	<b>67.0</b>	<b>38,860</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 2006-2007 SEASON

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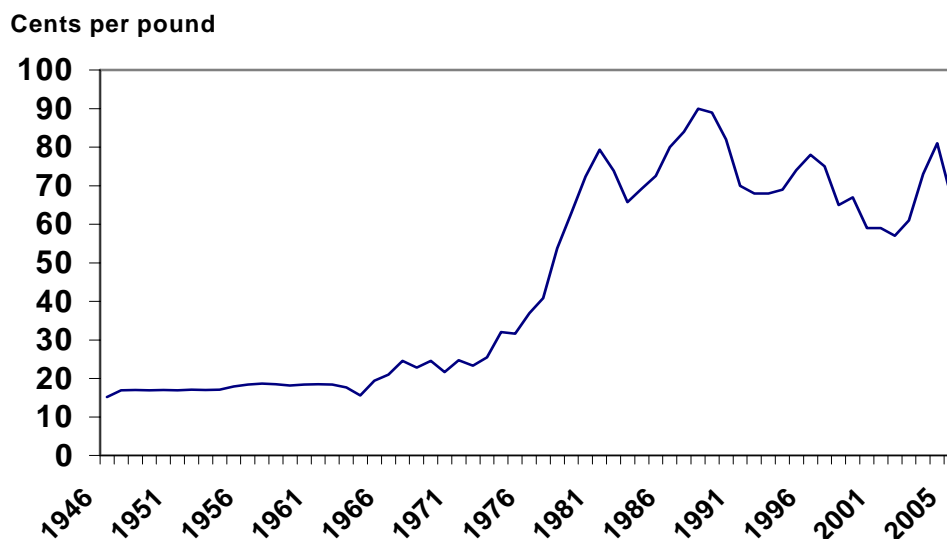
Weather for 2006 was mixed. Approximately six weeks of rainfall from late February thru March occurred statewide. For some macadamia nut orchards located in normally drier areas, the rainfall was welcome. However, macadamia nut orchards located in normally wet areas suffered lower output due to disease problems.

Early in the season, one large processor announced it would limit nut purchases from independent growers. Many growers have reported that the lack of an outlet to sell their nuts has been a problem and with lower nut prices, the crop has not been harvested by some growers. Some farmers have reportedly gone into other commodities due to the low prices being paid and the lack of an outlet to sell their nuts. Growers have also related that feral pigs were a problem in some areas. The feral pig problem has increased in some areas; probably due to growers leaving nuts on the ground and providing a food source for pigs which increased survival of offspring, lending itself to more pigs foraging for food.

Crop losses were estimated at 11.0 million pounds or 17 percent of the total crop. Immature nuts ranked as the highest cause of losses at nearly 38 percent followed by koa seed worm damage and moldy or rotten nut losses with 19 percent and 17 percent, respectively. Overall yields averaged 3,867 pounds per acre (net, wet-in-shell), 29 percent higher than the 2005-06 crop year.

Total acreage for 2006-07 decreased 1,300 acres to 17,000 acres while harvested area totaled 15,000 acres, a 3,000 acre decline from last season. The farm price for net, wet in-shell macadamia nuts averaged 67.0 cents per pound, 14.0 cents less than the 2005-06 average.

### MACADAMIA NUTS: Net Wet-In-Shell Farm Prices, State of Hawaii, 1946-06 Seasons



Crop Losses Measured By Processors Lower

Growers delivered an estimated 65.0 million pounds of macadamia nuts, wet-in-shell, to processors during the 2006-07 season. About 11 percent of the harvest was culled, resulting in 58.0 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 11.0 million pounds, 11 percent less than last season's revised estimates. Losses from nut immaturity ranked at the top with just under 38 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 17 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, 2006-07 Season

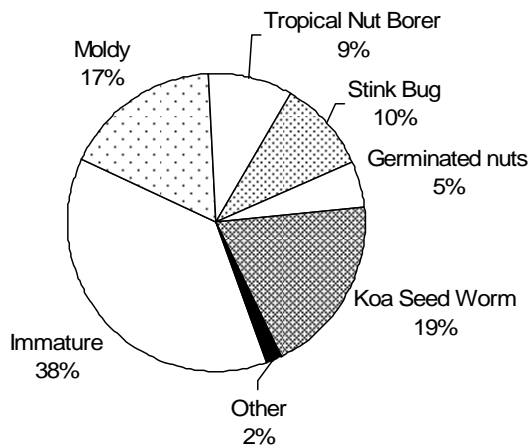


Table 2. MACADAMIA NUTS: Loss by cause, State of Hawaii, 2005-06 and 2006-07

Type of loss	Estimated Loss <sup>1</sup>		Percent of losses		Percent of delivered crop	
	2005-06	2006-07	2005-06	2006-07	2005-06	2006-07
	1,000 pounds		Percent			
Immature nuts <sup>2</sup>	3,395	4,135	27.5	37.6	5.5	6.4
Germinating nuts	415	550	3.4	5.0	0.7	.8
Moldy, rotten	2,475	1,875	20.1	17.1	4.0	2.9
Stink bug	2,435	1,075	19.7	9.8	3.9	1.6
Koa seed worm	1,770	2,135	14.4	19.4	2.9	3.3
Tropical nut borer	1,685	1,020	13.7	9.3	2.7	1.6
Other causes	150	200	1.2	1.8	0.2	.3
<b>Total</b>	<b>12,325</b>	<b>10,990</b>	<b>100.0</b>	<b>100.0</b>	<b>19.9</b>	<b>16.9</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, 1946-06**

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

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# 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

<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 Nut Production Up 9 Percent, Value Down 17 Percent

The 2006 U.S nut production is estimated at 1.59 million tons (in-shell basis), 9 percent greater than a year earlier. The almond crop is 953,000 tons, up 23 percent from 2005. Walnut production in 2006, at 346,000 tons, is down 3 percent from the previous year. The pistachio crop is 119,000 tons, 16 percent smaller than 2005. Pecan production in 2006 totals 103,150 tons, a 26 percent drop from 2005. The hazelnut crop, at 43,000 tons, is 56 percent larger than the previous year. Macadamia production is 29,000 tons, up 7 percent.

The 2006 U.S. value of utilized nut production is estimated at 3.45 billion dollars, down 17 percent from the 2005 value. The almond crop is valued at 2.04 billion dollars, 19 percent less than 2005. Walnuts are valued at 554 million dollars, 1 percent less than 2005. Pistachio value for 2006, at 455 million dollars, is 22 percent less than last year. The value of the pecan crop decreased 21 percent to 321 million dollars. Hazelnut value, at 46.4 million dollars, is 25 percent below last year. The macadamia crop is valued at 38.9 million dollars, down 11 percent.

# U.S IMPORTS

**Table 4. U.S. Macadamia nut imports, by type, 2006**

Port of entry	Type							
	Shelled or blanched <sup>1</sup> Harmonized number: 0802.90.9810		Pickled or otherwise prepared or preserved Harmonized number: 2008.19.9010		Not shelled Harmonized number: 0802.90.8010		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	80	738,823					80	738,823
Buffalo	20	168,348	1	12,793			21	181,141
Charleston	49	362,085					49	362,085
Chicago	131	951,965					131	951,965
Columbia-Snake	259	2,518,122					259	2,518,122
Detroit	27	190,194					27	190,194
Honolulu	236	2,572,649					236	2,572,649
Houston	1,144	9,674,311					1,144	9,674,311
Laredo	2	14,617					2	14,617
Los Angeles	1,968	20,658,237					1,968	20,658,237
Miami	18	120,000					18	120,000
Mobile	8	103,588					8	103,588
New York City	623	5,445,207	11	27,656	36	225,105	670	5,697,968
Norfolk	668	5,505,393	15	135,000	91	169,679	774	5,810,072
Pembina	14	144,740	25	233,438			39	378,178
Philadelphia	130	1,166,377					130	1,166,377
San Francisco	570	4,729,626	1	11,051			571	4,740,677
Savannah	324	3,687,815					324	3,687,815
Seattle	60	610,822	229	2,412,069	*	5,430	289	3,028,321
Tampa	14	103,157					14	103,157
<b>Total</b>	<b>6,345</b>	<b>59,466,076</b>	<b>282</b>	<b>2,832,007</b>	<b>127</b>	<b>400,214</b>	<b>6,754</b>	<b>62,698,297</b>

The conversion for 1 metric ton = 2,204.6 pounds

\* = less than 1 metric ton

<sup>1</sup> Since June 1997, 0802.90.9010 was changed to 0802.90.9810

Source: U.S. Department of Commerce

**Table 5. International macadamia nut imports by type, 2006**

Country of origin	Type							
	Shelled or blanched <sup>1</sup>		Pickled or otherwise prepared or preserved		Not shelled		Total	
	Harmonized number: 0802.90.9810		Harmonized number: 2008.19.9010		Harmonized number: 0802.90.8010			
	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	1,573	14,677,224	5	21,251			1,578	14,698,475
Bolivia	24	187,902					24	187,902
Brazil	357	2,905,632	15	135,000	86	131,918	458	3,172,550
Canada	23	231,500	254	2,645,507			277	2,877,007
China	869	9,660,888	2	3,742			871	9,664,630
Colombia	23	143,738					23	143,738
Costa Rica	99	809,242					99	809,242
Guatemala	1,017	10,512,191			16	125,365	1,033	10,637,556
India	5	26,180	1	12,793	25	137,501	31	176,474
Kenya	660	5,639,617					660	5,639,617
Malawi	212	1,629,383					212	1,629,383
Mexico	7	58,822					7	58,822
Mozambique	16	124,003					16	124,003
South Africa	1,444	12,717,590			*	5,430	1,444	12,723,020
South Korea			5	13,714			5	13,714
United Kingdom	16	142,164					16	142,164
<b>Total</b>	<b>6,345</b>	<b>59,466,076</b>	<b>282</b>	<b>2,832,007</b>	<b>127</b>	<b>400,214</b>	<b>6,754</b>	<b>62,698,297</b>

The conversion for 1 metric ton = 2,204.6 pounds

\* = less than 1 metric ton

<sup>1</sup> Since June 1997, 0802.90.9010 was changed to 0802.90.9810

Source: U.S. Department of Commerce

**Table 6. U.S Macadamia nut imports, by type, 1997-2006**

Year	Type		
	Shelled or blanched	Pickled or otherwise prepared or preserved	Not shelled
	<i>Metric tons</i>		
1997	2,325	63	266
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
<b>2006</b>	<b>6,345</b>	<b>282</b>	<b>127</b>

Source: U.S. Department of Commerce

# U.S. EXPORTS

**Table 7. U.S Macadamia nut exports, by country of destination, 2005-2006**  
**Harmonized number: 2008.19.9010**

Country of destination	2005		2006	
	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>
Canada	246	1,608,120	403	3,143,127
China	40	464,211	22	283,303
Colombia	2	18,854	1	8,628
Costa Rica	1	4,104	0	0
Ecuador	2	24,705	0	0
Fed Rep of Germany	6	26,455	6	25,870
France	43	415,458	47	456,296
Greece	2	12,770	0	0
Hong Kong	58	681,821	92	911,039
Japan	183	2,362,231	99	1,393,656
Kenya	11	157,080	0	0
Lebanon	11	207,900	0	0
Malaysia	0	0	1	6,825
Mexico	23	117,479	22	163,807
Netherlands	10	30,000	39	414,870
New Zealand	3	34,878	0	0
Niger	33	481,399	0	0
Republic of Philippines	*	7,450	6	78,258
Saudi Arabia	8	21,460	0	0
Singapore	7	106,034	13	159,362
South Africa	12	134,105	0	0
South Korea	40	456,483	72	704,102
Switzerland	0	0	5	20,700
Taiwan	39	650,250	53	786,546
Thailand	3	53,053	8	83,426
United Arab Emirates	1	12,650	1	11,709
<b>Total</b>	<b>784</b>	<b>8,088,950</b>	<b>890</b>	<b>8,651,524</b>

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