



July 2012

## 2011 Hawaii Papaya Utilization and Price Down

In cooperation with



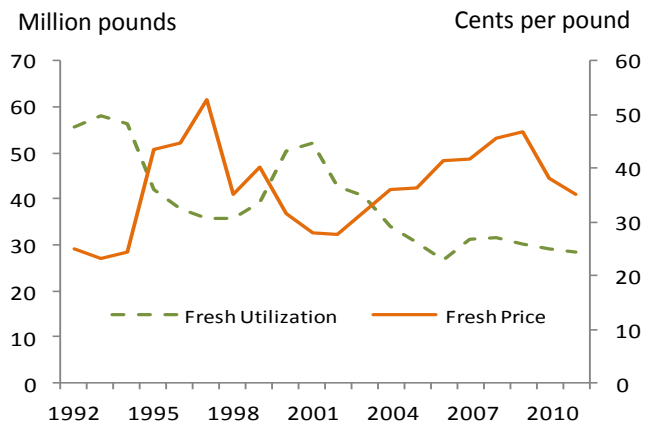
### Inside this issue:

Papayas .....	1-5
Avocados.....	6-8
Macadamia Nuts ...	9-15

Hawaii fresh papaya utilization for 2011 is estimated at 28.6 million pounds, down 5 percent from 2010. Fresh utilization accounted for 97 percent of the total or 27.7 million pounds, 5 percent below a year ago. Acreage in crop decreased 75 acres to 2,000 and harvested acreage dropped 50 acres to 1,300. The papaya value declined 13 percent to \$9.7 million mainly due to lower prices and limited sales.

Weather for 2011 was generally dry with some areas of the State under drought conditions. However, most of the crop was grown on the eastside of Hawaii County, where favorable weather conditions prevailed. Some

**PAPAYAS: Fresh Utilization and Price, State of Hawaii, 1992-2011**



periodic heavy rain fell causing disease outbreaks and affecting fruit quality. Growers were still having concerns with pest and disease problems, low prices, vandalism, and high cost of inputs. Lower prices have been a deciding factor for some growers to discontinue papaya production. On the brighter side and after a decade of waiting for clearance, commercial shipments of genetically modified papayas from Hawaii have been approved for export to Japan, providing additional marketing opportunity for growers. ■

### PAPAYAS: Number of Farms, Acreage, Utilization, Farm Price, and Value, State of Hawaii, 2007-2011

Year	Farms	Total Area	Production Area	Utilization			Farm Price			Value of Sales
				Processed	Fresh	All	Processed	Fresh Market	All	
	Number	Acres		1,000 pounds			cents/lb.			\$1,000
2007	178	2,065	1,310	2,200	31,200	33,400	3.8	41.7	39.2	13,094
2008	177	2,190	1,380	2,000	31,500	33,500	3.0	45.5	43.0	14,393
2009	177	2,025	1,325	1,200	30,300	31,500	3.0	46.7	45.0	14,186
2010	173	2,075	1,350	900	29,200	30,100	3.0	38.0	37.0	11,123
2011	172	2,000	1,300	900	27,700	28,600	3.0	35.0	34.0	9,722

# Papayas: Hawaii State Historical Data

## PAPAYAS: Acreage, Utilization, Farm Price, and Value, State of Hawaii, 1946-2011

Year	Farms	Production Area	Utilization			Farm Price			Value of Sales
			Processed	Fresh Market	All	Processed	Fresh Market	All	
	<i>Number</i>	<i>Acres</i>	<i>1,000 pounds</i>			<i>cents/lb.</i>			<i>\$1,000</i>
1946		360			7,565			3.2	241
1947		330			5,525			5.4	296
1948		400			7,100			4.3	303
1949		360			5,885			6.0	351
1950		460			6,450			4.2	270
1951		370			5,740			4.8	273
1952		320			7,005			5.7	397
1953		410			9,155			4.7	431
1954		470			10,785			5.2	556
1955		410	1,259	8,076	9,335	2.0	7.1	6.4	601
1956		430	1,746	8,989	10,735	2.1	7.0	6.2	661
1957		540	1,081	13,247	14,328	3.1	5.1	5.0	714
1958	226	610	1,300	13,682	14,982	2.3	5.6	5.3	797
1959	189	570	1,715	12,528	14,243	2.2	5.4	5.0	714
1960	176	500	1,815	10,130	11,945	2.4	6.7	6.0	719
1961	185	570	1,538	13,956	15,494	2.5	5.8	5.5	849
1962	161	540	738	13,472	14,210	2.5	6.0	5.8	826
1963	181	460	2,350	11,725	14,075	6.0	7.8	7.5	1,053
1964	197	750	4,266	17,614	21,880	5.8	4.5	4.7	1,032
1965	200	790	3,237	14,698	17,935	5.3	6.7	6.2	1,120
1966	139	600	3,455	15,225	18,680	3.7	7.9	7.1	1,334
1967	125	760	3,452	19,394	22,846	4.2	8.0	7.4	1,691
1968	120	830	3,465	20,085	23,550	3.9	10.6	9.6	2,260
1969	132	850	2,898	16,337	19,235	3.6	14.0	12.4	2,385
1970	139	1,040	1,022	23,938	24,960	3.9	10.0	9.8	2,436
1971	153	970	1,553	19,172	20,725	3.3	14.0	13.2	2,736
1972	179	985	3,776	21,959	25,735	2.9	15.1	13.3	3,423
1973	176	1,430	3,976	28,848	32,824	3.5	14.0	12.7	4,180
1974	181	1,690	2,695	34,529	37,224	3.1	13.9	13.1	4,871
1975	173	1,840	4,944	34,952	39,896	3.0	15.8	14.2	5,668
1976	178	1,930	6,449	43,588	50,037	3.8	13.5	12.3	6,134

continued

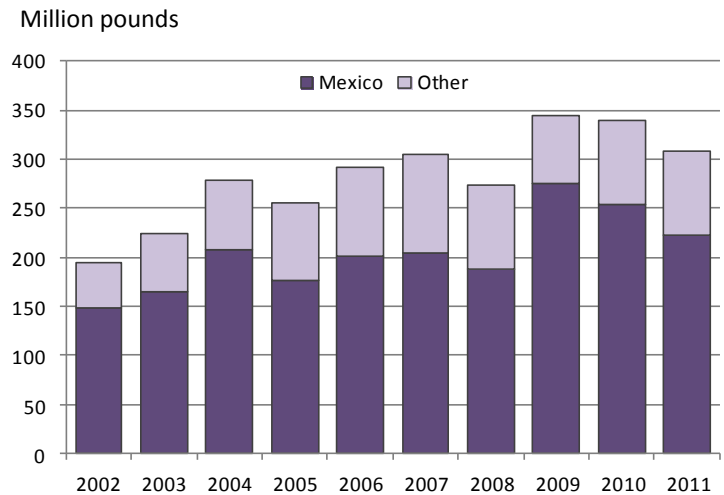
**PAPAYAS: Acreage, Utilization, Farm Price, and Value,  
State of Hawaii, 1946-2011 (continued)**

Year	Farms	Production Area	Utilization			Farm Price			Value of Sales
			Processed	Fresh Market	All	Processed	Fresh Market	All	
	<i>Number</i>	<i>Acres</i>	<i>1,000 pounds</i>			<i>cents/lb.</i>			<i>\$1,000</i>
1977	186	2,155	9,561	53,987	63,548	4.7	13.2	11.9	7,565
1978	183	2,190	9,376	54,624	64,000	4.6	14.4	13.0	8,304
1979	194	2,210	4,569	36,446	41,015	4.0	25.6	23.2	9,515
1980	197	1,950	3,556	45,360	48,916	3.4	21.7	20.4	9,964
1981	211	2,110	8,220	58,170	66,390	3.1	20.9	18.7	12,413
1982	214	2,170	7,980	44,770	52,750	3.1	25.1	21.8	11,484
1983	227	2,120	15,100	46,300	61,400	4.4	23.6	18.9	11,591
1984	306	2,590	13,500	67,000	80,500	3.1	13.1	11.4	9,196
1985	315	2,650	11,150	49,250	60,400	2.3	16.9	14.2	8,579
1986	311	2,355	10,900	50,100	61,000	2.3	21.7	18.2	11,123
1987	293	2,350	11,000	56,000	67,000	2.2	19.3	16.5	11,050
1988	305	2,300	12,000	57,000	69,000	3.2	21.0	17.9	12,354
1989	325	2,500	10,000	64,000	74,000	3.0	22.0	19.4	14,380
1990	311	2,400	10,500	58,000	68,500	2.9	25.0	21.6	14,805
1991	271	2,025	7,200	48,150	55,350	2.7	33.3	29.3	16,228
1992	259	2,415	15,500	55,800	71,300	3.0	25.0	20.2	14,415
1993	256	2,555	5,500	58,200	63,700	3.1	23.2	21.5	13,673
1994	256	2,200	5,800	56,200	62,000	3.0	24.3	22.3	13,831
1995	244	2,435	8,900	41,900	50,800	3.0	43.5	36.4	18,494
1996	281	1,835	4,000	37,800	41,800	3.0	44.8	40.8	17,054
1997	241	1,985	3,100	35,700	38,800	3.0	52.9	48.9	18,978
1998	262	2,120	4,300	35,600	39,900	3.0	35.0	31.6	12,589
1999	222	1,940	3,000	39,400	42,400	3.0	40.2	37.6	15,929
2000	236	1,650	4,250	50,250	54,500	3.0	31.6	29.4	16,007
2001	221	1,950	3,000	52,000	55,000	3.0	27.9	26.5	14,598
2002	164	1,720	3,200	42,700	45,900	3.0	27.7	26.0	11,924
2003	163	1,565	1,800	40,800	42,600	3.0	31.9	30.7	13,069
2004	207	1,265	1,700	34,100	35,800	3.0	36.1	34.5	12,361
2005	207	1,480	2,200	30,700	32,900	3.0	36.4	34.2	11,241
2006	170	1,530	2,100	26,600	28,700	3.0	41.3	38.5	11,049
2007	178	1,310	2,200	31,200	33,400	3.8	41.7	39.2	13,094
2008	177	1,380	2,000	31,500	33,500	3.0	45.5	43.0	14,393
2009	177	1,325	1,200	30,300	31,500	3.0	46.7	45.0	14,186
2010	173	1,350	900	29,200	30,100	3.0	38.0	37.0	11,123
2011	172	1,300	900	27,700	28,600	3.0	35.0	34.0	9,722

## Papayas: U.S. Imports Lower



**PAPAYAS: U.S. Fresh Imports, 2002-2011**



**PAPAYAS: U.S. Fresh Imports, by Country, 2007-2011**

Country	2007	2008	2009	2010	2011
	<i>Kilograms</i>				
Mexico	92,628,235	84,901,295	124,741,475	115,213,677	100,893,561
Belize	33,489,309	28,169,863	23,747,012	28,568,475	26,372,156
Guatemala	1,540,272	3,721,204	2,112,096	3,882,213	6,195,149
Brazil	4,165,172	3,793,401	2,922,696	2,983,645	3,582,227
Dominican Republic	5,137,469	2,141,934	1,790,883	2,227,554	2,165,052
Jamaica	991,561	1,096,105	784,529	754,804	547,385
Other	156,553	531,044	294,970	260,592	41,491
<b>Total</b>	<b>138,108,571</b>	<b>124,354,846</b>	<b>156,393,661</b>	<b>153,890,960</b>	<b>139,797,021</b>

\* = Less than 100,000 pounds. Source: U.S. Department of Commerce, Bureau of the Census.

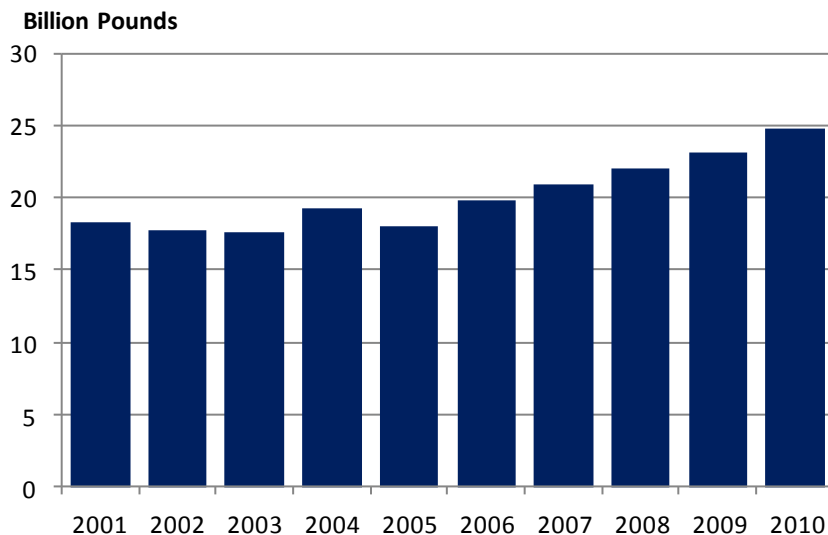
**PAPAYAS: U.S. Imports, by Type, 2007-2011**

Type	2007	2008	2009	2010	2011
	<i>Kilograms</i>				
Fresh	138,108,571	124,354,846	156,393,661	153,890,960	139,797,021
Frozen	985,056	1,667,382	2,575,001	2,178,340	4,731,700
Dried	2,166,800	1,990,801	1,772,412	2,356,967	1,769,333
Paste & Puree	175,763	368,883	169,279	126,597	51,198
Pulp	688,902	651,648	228,857	419,071	190,099
Other	3,594,334	3,791,136	2,992,315	2,920,233	3,159,445
<b>Total</b> <sup>1</sup>	<b>145,719,426</b>	<b>132,824,696</b>	<b>164,131,525</b>	<b>161,892,168</b>	<b>149,698,796</b>

<sup>1</sup> Total may not add due to rounding. Source: U.S. Department of Commerce, Bureau of the Census.

## Papayas: World Production

### PAPAYAS: World Production, 2001-2010 <sup>1</sup>



<sup>1</sup> 2011 data not available.

### PAPAYAS: World Production, by Country, 2007-2011 <sup>1</sup>

Country	2007	2008	2009	2010	2011
	<i>Metric tons</i>				
India	2,909,000	3,629,000	3,911,600	4,713,800	N.A.
Brazil	1,811,540	1,890,290	1,792,590	1,871,300	N.A.
Nigeria	765,000	688,782	763,619	703,800	N.A.
Indonesia	621,524	717,899	772,844	695,214	N.A.
Mexico	919,425	638,237	707,347	616,215	N.A.
Ethiopia	223,945	207,698	189,007	263,178	N.A.
Congo, Dem Republic of	230,000	250,000	260,000	232,400	N.A.
Thailand	219,840	221,800	223,777	225,772	N.A.
Guatemala	195,377	201,099	206,762	211,594	N.A.
Colombia	184,530	190,000	196,615	200,000	N.A.
Philippines	157,771	167,387	173,941	186,806	N.A.
Peru	164,234	182,907	176,656	165,981	N.A.
Venezuela, Bolivarian Republic of	132,013	128,020	130,000	132,300	N.A.
Other	915,670	935,250	959,025	1,004,671	N.A.
<b>Total <sup>3</sup></b>	<b>9,449,869</b>	<b>10,048,369</b>	<b>10,463,783</b>	<b>11,223,031</b>	<b>N.A.</b>

N.A. = Not available. <sup>1</sup> Data quality can be official, semi-official, estimates, or calculated. <sup>2</sup> Revised. <sup>3</sup> Total may not add due to rounding.  
 Source: Food and Agriculture Organization (FAO), FAOSTAT data, <http://faostat.fao.org/site/291/default.aspx>.

## Avocados: Hawaii Production and Price Improve

Hawaii avocado production for 2011 is estimated at 700 thousand pounds, 6 percent higher than 2010. Both in crop acreage and harvested acreage were 20 acres above the previous year totaling 460 acres and 350 acres, respectively. Average yields remained unchanged from 2010 at 2,000 pounds per acre in 2011. Dry weather continued to hamper the crop in 2011 affecting progress, fruit size, and fruit quality. Growers also mentioned the volcanic haze had affected flowering and fruit set. Majority of the avocados are grown on Hawaii County. More new plantings were reported this year than the previous year.

Farm price averaged 80.0 cents per pound for the 2011 crop, up 3 cents from the previous year. The value totaled \$560 thousand for the year, increasing 10 percent from 2010. ■

### AVOCADOS: Number of Farms, Acreage, Yield, Production, Price, and Value, State of Hawaii, 2007-2011

Year	Farms	Acreage <sup>1</sup>		Yield per Acre <sup>2</sup> (Bearing)	Production	Farm Price	Value of Sales
		In Crop	Harvested				
		Acres		1,000 pounds		Cents per lb	\$1,000
2007	250	390	350	3.3	1,160	68.0	789
2008	250	400	330	3.0	1,000	73.0	730
2009	260	440	370	2.8	1,040	69.0	718
2010	280	440	330	2.0	660	77.0	508
<b>2011</b>	<b>280</b>	<b>460</b>	<b>350</b>	<b>2.0</b>	<b>700</b>	<b>80.0</b>	<b>560</b>

<sup>1</sup> At end of year. <sup>2</sup> Yield is based on total production.

### AVOCADOS: Bearing Acreage, Average Yield, Production, Price per Ton, and Value, by State and United States, 2009-10 to 2011-12

State and Season	Bearing Acreage	Yield per Acre <sup>1</sup>	Production	Price per Ton	Value
Acres		Tons		Dollars	1,000 dollars
California					
2009-10	58,500	4.70	274,800	1,510.00	414,948
2010-11	52,200	2.90	151,500	3,040.00	460,600
<b>2011-12</b>	<b>52,200</b>	<b>3.74</b>	<b>195,000</b>	<b>2,400.00</b>	<b>468,000</b>
Florida					
2009-10	7,400	3.14	23,200	600.00	13,920
2010-11	7,400	3.04	22,500	800.00	18,000
<b>2011-12</b>	<b>7,400</b>	<b>4.20</b>	<b>31,100</b>	<b>756.00</b>	<b>23,512</b>
Hawaii					
2009-10	370	1.41	500	1,380.00	718
2010-11	330	1.00	330	1,540.00	508
<b>2011-12</b>	<b>350</b>	<b>1.00</b>	<b>350</b>	<b>1,600.00</b>	<b>560</b>
U.S.					
2009-10	66,270	4.50	298,520	1,440.00	429,586
2010-11	59,930	2.91	174,330	2,750.00	479,068
<b>2011-12</b>	<b>59,950</b>	<b>3.78</b>	<b>226,450</b>	<b>2,170.00</b>	<b>492,072</b>

<sup>1</sup> Yield is based on total production. Source: Noncitrus Fruits and Nuts 2010 Summary – July 2011, National Agricultural Statistics Service, USDA.

## Avocados: Hawaii State Historical Data

**AVOCADOS: Number of Farms, Acreage, Yield, Production, Price, and Value.**  
**State of Hawaii, 1946-2010**

Year	Farms	Acreage <sup>1</sup>		Yield per Acre (Bearing) <sup>2</sup>	Production	Farm Price	Value of Sales
		In Crop	Harvested				
	<i>Number</i>	<i>Acres</i>		<i>1,000 pounds</i>		<i>Cents per pound</i>	<i>\$1,000</i>
1946			270	5.0	1,360	9.4	128
1947			270	4.0	1,075	9.2	99
1948			220	4.8	1,055	10.0	106
1949			210	4.7	980	9.7	95
1950			160	6.6	1,048	9.3	97
1951			160	6.7	1,070	9.7	104
1952			150	7.1	1,060	9.1	96
1953			160	6.0	960	9.4	90
1954		200	170	5.7	955	9.1	87
1955		200	170	6.6	1,115	8.8	98
1956		200	170	6.2	1,055	8.2	86
1957		200	175	6.1	1,000	7.4	74
1958		200	175	7.2	1,040	7.2	75
1959		200	180	6.2	1,085	6.1	66
1960		200	180	5.3	940	7.0	66
1961		200	180	5.5	990	7.2	71
1962		200	180	5.9	1,000	6.8	68
1963	190	240	170	6.6	1,030	6.9	71
1964	190	240	170	5.9	995	6.6	66
1965	190	240	170	6.8	1,125	7.0	79
1966	190	290	160	7.5	1,205	7.3	88
1967	170	410	170	7.1	1,200	7.4	89
1968	150	410	170	7.1	1,205	8.0	96
1969	140	400	160	6.3	1,015	9.0	91
1970	130	370	140	6.2	870	10.4	90
1971	130	300	110	7.1	780	11.6	90
1972	130	200	90	11.3	1,015	11.8	120
1973	135	170	100	7.6	757	14.9	113
1974	135	170	100	11.4	1,135	16.5	187
1975	125	150	90	11.3	1,014	18.2	184
1976	121	205	125	9.2	1,150	22.2	255

See footnotes at end of table.

continued

**AVOCADOS: Number of Farms, Acreage, Yield, Production, Price, and Value.**  
**State of Hawaii, 1946-2011 (continued)**

Year	Farms	Acreage <sup>1</sup>		Yield per Acre (Bearing) <sup>2</sup>	Production	Farm Price	Value of Sales
		In Crop	Bearing				
	<i>Number</i>	<i>Acres</i>		<i>1,000 pounds</i>		<i>Cents per pound</i>	<i>\$1,000</i>
1977	124	305	145	6.5	940	25.8	243
1978	127	330	160	5.8	920	28.6	263
1979	142	340	165	7.7	1,270	26.6	338
1980	145	350	200	7.6	1,510	24.5	370
1981	155	370	200	6.0	1,200	26.4	317
1982	160	440	240	6.7	1,600	22.5	360
1983	160	450	250	4.7	1,170	26.1	305
1984	165	505	270	4.3	1,150	25.9	298
1985	160	525	320	3.8	1,220	24.5	299
1986	160	540	330	3.9	1,300	25.6	333
1987	145	500	300	3.0	900	31.5	284
1988	145	580	290	4.1	1,200	36.5	438
1989	140	550	250	4.4	1,100	38.0	418
1990	120	500	250	3.6	900	45.0	405
1991	110	550	280	3.0	840	47.0	395
1992	100	500	220	3.2	700	46.0	322
1993	90	460	250	2.0	500	44.0	220
1994	80	440	220	2.3	500	50.0	250
1995	80	350	210	2.4	500	54.5	273
1996	110	330	200	2.0	400	53.5	214
1997	95	340	250	2.0	500	53.0	265
1998	95	330	240	2.1	500	52.0	260
1999	120	360	230	2.6	600	60.0	360
2000	130	360	220	2.9	640	58.0	371
2001	140	360	230	2.6	600	57.0	342
2002	140	370	250	2.8	700	56.0	392
2003	150	390	300	2.5	760	62.0	471
2004	150	380	270	2.7	740	63.0	466
2005	175	390	300	2.7	800	66.0	528
2006	225	380	330	3.1	1,020	68.0	694
2007	250	390	350	3.3	1,160	68.0	789
2008	250	400	330	3.0	1,000	73.0	730
2009	260	440	370	2.8	1,040	69.0	718
2010	280	440	330	2.0	660	77.0	508
<b>2011</b>	<b>280</b>	<b>460</b>	<b>350</b>	<b>2.0</b>	<b>700</b>	<b>80.0</b>	<b>560</b>

<sup>1</sup> At end of year. <sup>2</sup> Yield is based on total production.



## Macadamia Nuts: Production, Price Higher

Hawaii's 2011-2012 utilized production of macadamia nuts is estimated at 49.0 million pounds net, wet-in-shell according to the USDA, National Agricultural Statistics Service, Hawaii Field Office. This season's estimate is 23 percent more than the 2010-2011 season and rebounding after a two year decline.

### Season Overview

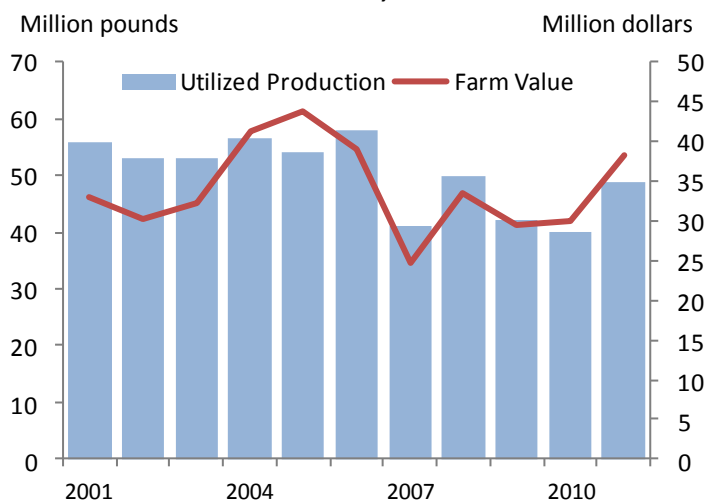
More rainfall, and at timely intervals, improved production for the 2011-2012 season compared to 2010-2011 season which was affected by drought conditions. Early flowering and better pollination helped increase yields. Low rainfall during the kernel development period had some affect on nut quality. The volcanic emissions are still affecting the crop.

### Acresage Unchanged, Yields Higher

For the 2011-2012 season, growers harvested an estimated 15,000 acres, unchanged for the past five seasons. Statewide, there were 17,000 acres in crop and an estimated 1.2 million macadamia nut trees.

Yields averaged 3,270 pounds per acre (net, wet-in-shell basis) for the 2011-2012 season, or 600 pounds more per acre than the 2010-2011 season. Average moisture content for this

**MACADAMIA NUTS: Utilized Production and Farm Value, (net, wet-in-shell basis) State of Hawaii, 2001-2011**



season's entire crop was 19.5 percent compared with 20.3 percent for the 2010-2011 crop.

### Farm Price Higher

The farm price for macadamia nuts averaged 78.0 cents per pound on a net, wet-in-shell basis for the 2011-2012 crop season, 3.0 cents more than the 2010-2011 average and increasing for the fourth consecutive year. Higher price and more production contributed to the 27 percent rise in farm value from last season to \$38.2 million this season. ■

## MACADAMIA NUTS: Number of Farms, Acresage, Yield, Production, Moisture, Price, and Value, State of Hawaii, 2007-08 to 2011-12 Crop Years

Crop year <sup>1</sup>	Farms	Acresage		Yield per Acre <sup>2</sup>	Utilized Production <sup>3</sup>		Average Moisture		Farm Prices <sup>3</sup>		Farm Value <sup>6</sup>
		In Crop	Harvested		Gross	Net <sup>4</sup>	Entire Crop	Purchases Only	Gross <sup>5</sup>	Net	
	Number	Acres			1,000 pounds		Percent		Cents per pound		\$1,000
2007-08	570	17,000	15,000	2.7	48,000	41,000	21.3	21.5	51.3	60.0	24,600
2008-09	570	17,000	15,000	3.3	60,000	50,000	20.5	21.4	55.8	67.0	33,500
2009-10	570	17,000	15,000	2.8	50,000	42,000	20.1	20.8	58.8	70.0	29,400
2010-11	570	17,000	15,000	2.7	47,000	40,000	20.3	20.6	63.8	75.0	30,000
<b>2011-12</b>	570	17,000	15,000	<b>3.3</b>	58,000	49,000	<b>19.5</b>	<b>20.1</b>	<b>65.9</b>	<b>78.0</b>	<b>38,220</b>

<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 divided by acresage harvested. <sup>3</sup> Wet-in-shell basis. <sup>4</sup> Gross pounds less total spoilage. <sup>5</sup> Farm value divided by gross production. <sup>6</sup> Net production multiplied by net farm price.

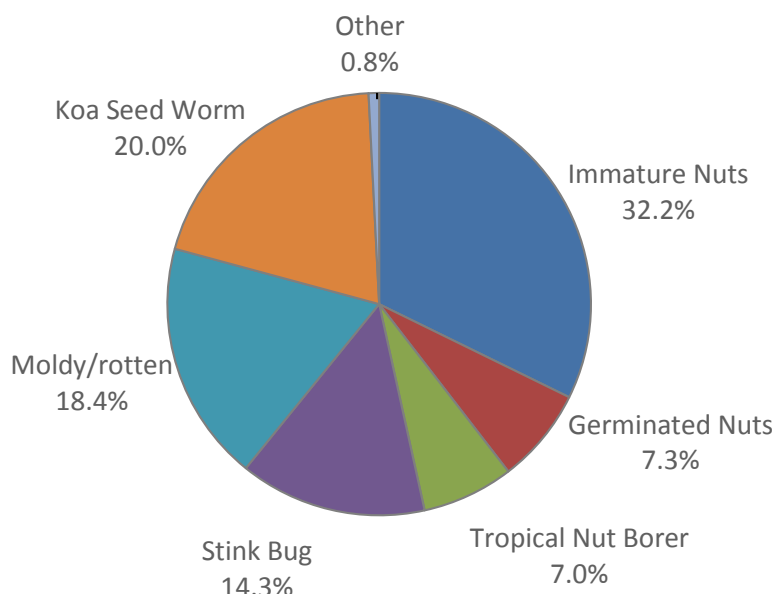
# Macadamia Nuts: 2011-12 Crop Loss Assessment

## Crop Losses Higher

Growers delivered an estimated 58.0 million pounds of macadamia nuts, wet-in-shell, to processors during the 2011-2012 season. About 16 percent of the harvest was culled, resulting in 49.0 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 13.8 million pounds.

Immature nuts, Koa Seed Worm, moldy/rotten nuts, and Stink Bug accounted for 85 percent of the crop losses. The remaining causes of losses were attributed to germinated nuts, Tropical Nut Borer, and other causes. Macadamia nut losses shown in this report include only those culled by processors and do not include losses that occurred at the farm before delivery. ■

**MACADAMIA NUTS: Loss by Cause, State of Hawaii, 2011-12**



**MACADAMIA NUTS: Loss by Cause, State of Hawaii, 2010-11 and 2011-12**

Type of Loss	Estimated Loss <sup>1</sup>		Percent of Losses		Percent of Delivered Crop	
	2010-11	2011-12	2010-11	2011-12	2010-11	2011-12
	————— 1,000 pounds —————		————— Percent —————			
Immature nuts <sup>2</sup>	3,440	4,440	32.3	32.2	7.3	7.6
Koa seed worm	1,640	2,765	15.4	20.0	3.5	4.8
Moldy, rotten	2,950	2,540	27.7	18.4	6.3	4.4
Stink bug	1,255	1,975	11.8	14.3	2.7	3.4
Germinated nuts	785	1,015	7.4	7.3	1.7	1.7
Tropical nut borer	395	965	3.7	7.0	.8	1.7
Other causes	180	110	1.7	.8	.4	.2
<b>Total</b>	<b>10,645</b>	<b>13,810</b>	<b>100.0</b>	<b>100.0</b>	<b>22.7</b>	<b>23.8</b>

\* = less than .1 percent. <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.

# Macadamia Nuts: Hawaii State Historical Data

## MACADAMIA NUTS: Acreage, Yield, Production, Price, and Value State of Hawaii, 1946-2011

Year	Acreage		Yield per Acre	Production		Farm Price		Farm Value
	Total	Bearing		Gross	Net	Gross	Net	
	— Acres —		1,000 pounds	— 1,000 pounds —		— Cents per pound —		\$1,000
1946-47	950	860	0.7	NA	630	NA	15.2	96
1947-48	1,340	860	0.8	NA	680	NA	16.9	115
1948-49	1,530	860	0.8	NA	700	NA	17.0	119
1949-50	1,710	860	0.8	NA	680	NA	16.9	115
1950-51	2,150	860	0.9	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	0.9	NA	930	NA	17.1	159
1955-56	3,030	1,300	0.7	NA	903	NA	17.9	162
1956-57	3,200	1,470	0.7	NA	1,027	NA	18.4	189
1957-58	3,120	1,680	0.8	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

See footnotes at end of table.

continued

**MACADAMIA NUTS: Acreage, Yield, Production, Price, and Value**  
**State of Hawaii, 1946-2011**

Year	Acreage		Yield per Acre	Production		Farm Price		Farm Value
	Total	Bearing		Gross	Net	Gross	Net	
	— Acres —		1,000 pounds	— 1,000 pounds —		— Cents per pound —		\$1,000
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
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	2.7	48,000	41,000	51.3	60.0	24,600
2008-09	17,000	16,000	3.3	60,000	50,000	55.8	67.0	33,500
2009-10	17,000	15,000	2.8	50,000	42,000	58.8	70.0	29,400
2010-11	17,000	15,000	2.7	47,000	40,000	63.8	75.0	30,000
2011-12	17,000	15,000	3.3	58,000	49,000	65.9	78.0	38,220

<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 divided by acreage harvested. <sup>3</sup> Wet in-shell basis. <sup>4</sup> Gross pounds less total spoilage. <sup>5</sup> Farm value divided by gross production. <sup>6</sup> Net production multiplied by net farm price.

## Macadamia Nuts: U.S. Imports

### MACADAMIA NUTS: International Imports by Type, 2011

Country of Origin	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>
Australia	396	5,008,359	748	4,304,623			1,144	9,312,982
Brazil	370	3,714,430					370	3,714,430
Canada			27	157,651			27	157,651
Central African Republic	79	268,250					79	268,250
China	54	571,563			6	13,000	60	584,563
Costa Rica	63	431,860					63	431,860
Germany			*	2,249			*	2,249
Guatemala	984	9,831,993					984	9,831,993
Italy			*	3,373			*	3,373
Kenya	2,578	25,602,741	110	1,369,269	151	232,875	2,839	27,204,885
Malawi	454	4,898,263	15	192,314			469	5,090,577
Mexico	3	28,744					3	28,744
South Africa	2,437	26,606,291	16	208,800	19	29,960	2,472	26,845,051
Swaziland	20	179,450					20	179,450
Thailand			164	439,898			164	439,898
<b>Total <sup>3</sup></b>	<b>7,437</b>	<b>77,141,944</b>	<b>1,080</b>	<b>6,678,177</b>	<b>177</b>	<b>275,835</b>	<b>8,694</b>	<b>84,095,956</b>

\* = Less than 1 metric ton. 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. <sup>3</sup> Total may not add due to rounding. Source:

### MACADAMIA NUTS: U.S Imports, by Type, 2002-2011

Year	Type		
	Shelled or Blanched	Pickled or Otherwise Prepared or preserved	Not Shelled
	<i>Metric tons</i>		
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
2007	6,656	311	49
2008	6,789	503	45
2009	6,871	425	183
2010	7,231	1,015	269
<b>2011</b>	<b>7,437</b>	<b>1,080</b>	<b>177</b>

Source: U.S. Department of Commerce.

## Macadamia Nuts: U.S. Imports

### MACADAMIA NUTS: U.S. Imports, by Type, 2011

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	213	2,647,353	*	2,249			213	2,649,602
Buffalo	34	330,184	7	24,292			40	354,476
Charleston	266	3,291,404					266	3,291,404
Chicago	75	861,543	164	439,898			239	1,301,441
Detroit	25	132,256			19	29,960	44	162,216
Honolulu			*	3,373			*	3,373
Houston	1,324	13,197,674					1,324	13,197,674
Laredo	3	28,744					3	28,744
Los Angeles	1,611	14,711,553	359	4,444,722			1,970	19,156,275
Miami	17	256,000					17	256,000
New York City	1,953	18,692,164	29	218,662	151	232,875	2,133	19,143,701
Norfolk	888	10,010,093					888	10,010,093
Philadelphia	119	1,704,426	270	813,744			390	2,518,170
San Francisco	553	6,088,313	68	176,488	6	13,000	627	6,277,801
Savannah	59	719,261	162	421,390			221	1,140,651
Seattle	297	4,470,976	21	133,359			318	4,604,335
<b>Total <sup>3</sup></b>	<b>7,437</b>	<b>77,141,944</b>	<b>1,080</b>	<b>6,678,177</b>	<b>177</b>	<b>275,835</b>	<b>8,694</b>	<b>84,095,956</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. <sup>3</sup> Total may not add due to rounding. Source: U.S. Department of Com-

## Macadamia Nuts: U.S. Exports

### MACADAMIA NUTS: U.S Exports, by Country of Destination, 2010-2011 Harmonized Number: 2008.19.9010

Country of Destination	2010		2011	
	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>
Australia	*	6,670	3	53,117
Canada	158	1,190,875	170	1,289,854
China	5	72,447	22	307,008
Colombia			1	9,900
Costa Rica	1	11,800	2	24,094
Ecuador			3	58,875
France	62	958,830	22	350,346
French Polynesia	1	5,296		
Guatemala			9	112,743
Hong Kong	72	904,943	79	913,877
India			*	4,080
Israel	12	146,400		
Japan	250	3,380,097	188	2,320,752
Korea, South	40	565,754	27	327,395
Mexico	44	476,160	27	244,140
Netherlands	7	89,678		
Paraguay	1	3,597		
Republic of Philippines	6	107,499	7	112,937
Singapore	*	4,099	1	28,979
Switzerland	2	9,713		
Taiwan	67	1,090,322	34	580,852
Thailand	7	99,347	6	63,682
United Kingdom			2	28,673
<b>Total</b>	<b>735</b>	<b>9,123,527</b>	<b>603</b>	<b>6,831,304</b>

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