# HAWAII PAPAYAS





National Agricultural Statistics Service

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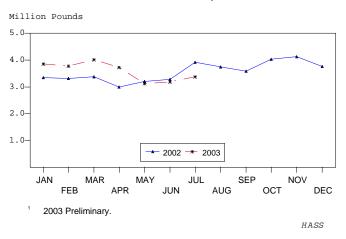
## FRESH PAPAYA UTILIZATION 6 PERCENT ABOVE LAST MONTH

Hawaii fresh papaya utilization is estimated at 3.4 million pounds for July 2003, up 6 percent from last month, but 14 percent lower than July 2002.

Weather conditions were variable during July with showers and sunshine over major papaya producing areas. Non-irrigated orchards have adequate soil moisture.

Papaya growers are expected to receive an estimated 35.0 cents per pound for fresh fruit in July, 8 percent (3.0 cents) lower than last month, but 25 percent (7.1 cents) higher than a year ago.

## FRESH PAPAYA UTILIZATION STATE OF HAWAII, 2002-2003



FRESH PAPAYA UTILIZATION, STATE OF HAWAII, MONTH OF: July 2003

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laland			Sales	Year ago	Year-to-date				
Island	Local 1	Intrastate	Out-of-State	Out-of-State Total fresh		2002	2003		
			1						
Hawaii	144	1,416	1,400	2,960	3,245	18,805	22,145		
Kauai	31	9	5	45	105	745	355		
Maui/Molokai/Oahu 2	341	9	20	370	565	3,885	2,575		
State	516	1,434	1,425	3,375	3,915	23,435	25,075		

<sup>&</sup>lt;sup>1</sup> On island of production.

DONALD A. MARTIN State Agricultural Statistician ARTHUR Y. OSAKI Research Statistician

<sup>&</sup>lt;sup>2</sup> Combined to avoid disclosure of individual operations.

PAPAYA ACREAGE, STATE OF HAWAII, 2003 WITH COMPARISONS

	Total acreage in crop									
Island	March		Ju	ne	September		December			
	2002	2003	2002	2003	2002	2003	2002	2003		
Hawaii	2,200	2,015	1,920	1,925	1,925		1,925			
Kauai	80	55	75	65	60		55			
Maui/Molokai/Oahu	210	185	210	185	185		170			
State	2,490	2,255	2,205	2,175	2,170		2,150			
				Total bear	ring acres					
Hawaii	1,700	1,600	1,490	1,440	1,385		1,465			
Kauai	60	40	60	40	40		35			
Maui/Molokai/Oahu	170	95	175	95	75		80			
State	1,930	1,735	1,725	1,575	1,500		1,580			

FRESH PAPAYA FARM PRICE, STATE OF HAWAII, 2002-2003

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Average
	Cents per pound												
2002	29.4	29.5	28.3	30.2	30.4	28.3	27.9	27.5	26.9	24.9	25.3	26.1	27.7
2003 <sup>1</sup>	28.0	32.0	35.0	36.0	38.0	38.0	35.0						

<sup>&</sup>lt;sup>1</sup> Preliminary.

### 2002 Papaya Output Declines

Papaya output in 2002 totaled 45.9 million pounds. This was 17 percent lower than 2001 but followed four straight yearly increases from 1998 to 2001. Lower harvested acres, changes in varietal distribution, and age of orchards contributed to lower yields in 2002.

The State's harvested papaya acreage was estimated at 1,720 acres for 2002, 12 percent lower than 2001. Lower output in 2002 was due to a shift in harvested acreage to the lower yielding Kapoho variety. In 2002, the biotechnology variety Rainbow made up 37 percent of bearing acres, compared to 41 percent in 2001. Rainbow is resistant to Papaya Ringspot Virus (PRV), a virus that devastated the Hawaii papaya industry from 1993 to 1999. The Kapoho variety was the standard for the papaya industry for many years, however, Kapoho is susceptible to PRV. Yields of Rainbow are high during the first year of harvest compared to the Kapoho variety. A higher percentage of Rainbow orchards were in the second year of harvest, compared to a year ago. In the second year of harvest, yields for Rainbow are comparable to the Kapoho variety. Growers have continued to produce the Kapoho variety to supply

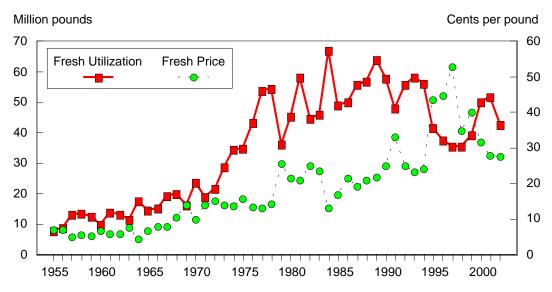
Japan, which is a major export market that does not accept the biotechnology variety Rainbow.

Routine field inspections and rogueing of PRV infected trees have kept losses to PRV light.

Number of farms declined from 206 in 2001 to 161 in 2002. Low returns have been attributed to the decline in farms.

The papaya marketing order, which had its start

FRESH PAPAYA UTILIZATION & PRICE, STATE OF HAWAII, 1955-2002



in May 1971, ended in the summer of 2002. Many functions of the Papaya Administrative Committee were transferred to the local Hawaii Papaya Industry Association in August 2002. However, funding is now voluntary. Previous funding was via mandatory assessment.

Fresh output from the Island of Hawaii represented 84 percent of the State's total in 2002, up from 77 percent the previous year. In comparison, the Island of Hawaii accounted for over 90 percent of the State's fresh papaya production from 1986 through 1996.

Value of utilization (fresh and processed) was pegged at \$11.9 million, 18 percent lower than 2002. Papaya price of 26.0 cents per pound declined 2 percent from 2001.

Papayas: Acreage, utilization, farm price and value, State of Hawaii, 1946-2002

	apaya	Production		Utilization	oc ana va	Fa	Value of		
Year	Farms	area	Processed	Fresh Mkt	All	Processed	Fresh Mkt	All	sales
		Acres		1,000 pounds		Cent	s per pound		\$1,000
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	12,525	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
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

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Papayas: Acreage, utilization, farm price and value, State of Hawaii, 1946-2002 - Continued

\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		Production	Utilization			Fa	Value of		
Year	Farms	area	Processed	Fresh Mkt	All	Processed	Fresh Mkt	All	sales
		Acres		1,000 pounds		Cents per pound			\$1,000
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

NA = Not available.

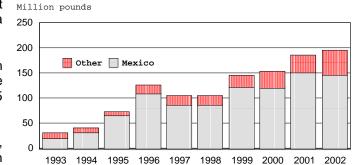
#### **U.S. Papaya Imports**

U.S. imports of papaya totaled 207.9 million pounds in 2002, according to Department of Commerce data. Fresh fruit imports of 195.2 million pounds made up the bulk of papaya imports and accounted for 94 percent of the total.

After steadily climbing to 126.1 million pounds in 1996, fresh papaya imports took a dip the following two years before resuming its upward trend. Fresh imports in 2002 were 5 percent more than 2001.

The top three sources of fresh papaya imports were Mexico, Belize, and Brazil. Mexico accounted for 76 percent of fresh papaya imports in 2002, with 147.6 million pounds. While Mexico maintained the lions share of fresh papaya imports, its position remained off its high of 92 percent in 1995. Imports of fresh papaya from Belize and Brazil increased 88 percent and 14 percent, respectively.

U.S. FRESH PAPAYA IMPORTS, 1993-2002



U.S. Imports of fresh papaya, by country, 1998-2002

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Country	1998	1999	2000	2001	2002
			Million pounds		
Mexico	87.4	123.3	121.5	151.9	147.6
Belize	9.4	8.5	12.3	12.9	24.3
Brazil	1.1	6.2	10.3	11.2	12.8
Jamaica	4.6	4.2	3.4	3.5	4.2
Dominican Republic	1.1	2.6	5.6	6.3	5.3
Other	2.0	1.8	1.0	.4	1.0
Total	105.6	146.6	154.1	186.2	195.2

<sup>\* =</sup> Less than 100,000 pounds.

### U.S. Imports of papaya, by type, 1998-2002

Product	1998	1999	2000	2001	2002			
			Million pounds					
Fresh	105.6	146.6	154.1	186.2	195.2			
Frozen	1.0	1.0	1.5	1.2	1.5			
Dried	1.8	2.2	2.1	3.2	3.5			
Paste & Puree	.3	.9	.6	.8	.1			
Pulp	.6	.2	.4	.5	.6			
Other	6.6	6.2	5.8	6.4	7.0			
Total 1	115.9	157.0	164.4	198.3	207.9			

<sup>&</sup>lt;sup>1</sup> Sum of products may not add to total due to rounding.

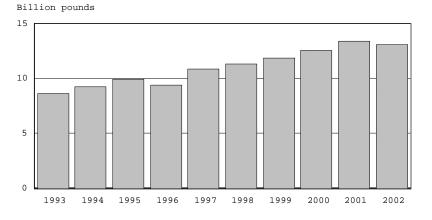
Source: U.S. Department of Commerce, Bureau of the Census.

#### **World Papaya Production**

#### WORLD PAPAYA PRODUCTION, 1993-2002

World papaya production for 2002 is estimated at 13.1 billion pounds, according to the Food and Agriculture Organization.

Brazil continues as the largest producer and its estimated 2002 production of 3.3 billion pounds accounted for 25 percent of the world's output. Nigeria was the second largest producer with an estimated 1.6 billion pounds followed by India and Mexico with 1.5 billion pounds each.



## World papaya production, by country, 1998-2002

	•				
Country	1998	1999	2000	2001	2002
			Million pounds		
Brazil	3,038	3,091	3,174	3,283	3,307
India	1,283	1,455	1,543	1,543	1,543
Indonesia	1,080	992	946	1,127	1,127
Mexico	1,269	1,255	1,482	1,926	1,518
Nigeria	1,656	1,649	1,649	1,649	1,649
Thailand	260	262	262	265	265
USA	40	42	55	55	46
Other	2,712	3,104	3,446	3,580	3,664
Total 1	11,338	11,850	12,557	13,428	13,119

Source: Food and Agriculture Organization (FAO).