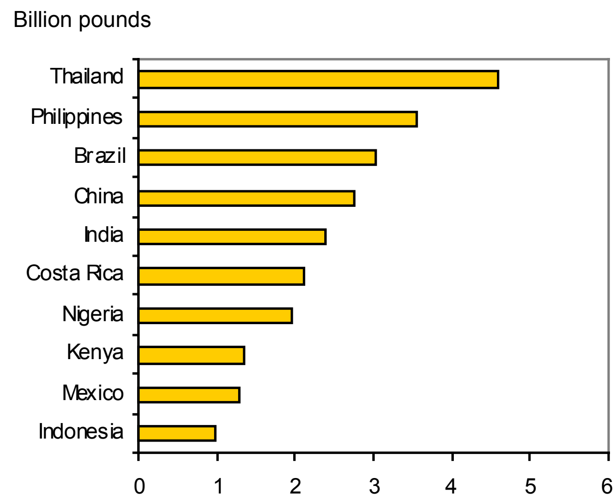
Commodity Highlight

Pineapple Production Concentrated In Tropical Regions of the World

The pineapple is believed to have originated in southern Brazil and Paraguay and was spread by the Indians to other parts of South and Central America. The Spanish and English explorers, however, were responsible for the introduction of this once rare fruit to other parts of the world. Because pineapples grow and yield best in areas with warm and relatively uniform climate year round, current production remains restricted to the tropical regions of the world.

Presently, approximately 80 countries around the world harvest a total of 32 million pounds of pineapples each year, more than double the average produced during the 1970s. Many of these producing countries have little presence in the world market as most of their production is intended for domestic consumption. Nearly three-quarters of world supplies are produced in Thailand, the Philippines, Brazil, China, India, Costa Rica, Nigeria, Kenya, Mexico, and Indonesia (fig. 3). Among these top 10 producers, Costa Rica, Indonesia, the Philippines, Thailand, and Kenya gear a significant proportion of their production towards international markets. Their combined exports of fresh, canned, and juice pineapple products comprise far more than half of world export supplies.

Figure 3
Average pineapple production in top 10 countries, 2000-2002



Source: Food and Agriculture Organization of the United Nations.

About 60 percent of the world's fresh pineapple exports come from Costa Rica, the Ivory Coast, and the Philippines. While considered a smaller producer than other leading African pineapple-producing countries such as Nigeria and Kenya, the majority of production in the Ivory Coast is exported, mostly to European Union nations. The United States is a net importer of pineapples, but even so, it is the world's fifth largest exporter of fresh pineapples, accounting for about 4 percent of world fresh volume. Meanwhile, nearly 80 percent of world canned pineapple exports come from Thailand, the Philippines, and Indonesia. Thailand and the Philippines also dominate world pineapple juice exports, accounting for more than half of total volume.

Hawaii is Home to U.S. Pineapples

Meeting the climatic requirements of the pineapple crop, virtually all commercially-produced U.S. pineapples are harvested from Hawaiian plantations. Hawaii's pineapple industry began to develop a few years following the establishment of the State's first commercial plantation in Oahu in 1885. By the turn of the century, Hawaii's pineapple industry led in world production until the 1960s. By 1975, Thailand surpassed Hawaii's production, becoming the world's largest producer to this date. With declining production since the late 1960s, the United States' average share of world output fell from 13 percent during 1970-75 to 2 percent during 2000-2002, dropping in rank as the world's 14th largest producer.

Florida had 5,000 to 10,000 acres of pineapples in commercial production at the turn of the century. However, struggles with foreign competition, particularly with Cuba, fertilizer shortages during World War I, and freezes in 1917 and 1918 have led to the demise of Florida's commercial pineapple industry.

Structure of Hawaii's Pineapple Industry Shrinking

Throughout the 1940s and the 1950s, Hawaii's pineapple industry was in an expansion path as reflected in the growing number of pineapple companies and canneries operating at that time (fig. 4). Since then, the structure of the industry has been shrinking. Fewer and fewer farms comprise Hawaii's pineapple industry. Several pineapple companies closed down due to rising production costs, competition from Hawaii-based corporations with operations in low-cost foreign-producing countries, and a tight labor situation.

The number of farms growing pineapples in the State fell from 47 in 1970 to 15 in 1993-2002 (table 12). Moreover, total planted area devoted to the crop also declined from 61,000 acres in 1970 to 19,100 acres in 2002. The number of pineapple canneries declined from nine to three during the 1970s. In more recent years, the number of canneries declined further and currently, only one cannery remains in operation.

Three Large Companies Dominate Production

Three companies—Dole Food Hawaii, Del Monte Fresh Produce, and Maui Pineapple Company—now produce majority of the pineapples in Hawaii. Both Dole Food Hawaii and Del Monte Fresh Produce grow pineapples for the fresh market. The Maui Pineapple Company, on the other hand, is dedicated to processed production, owning the only remaining pineapple cannery facility in the United States. Other small growers sell strictly to Hawaii's fresh fruit market.

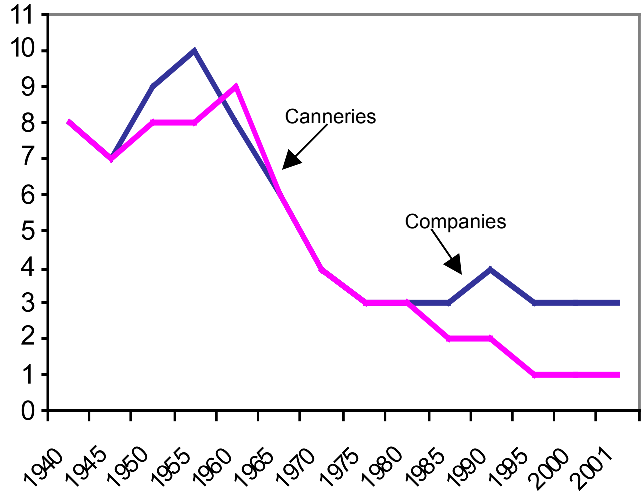
Domestic Production Continues Its Long-Run Decline, Rapid Expansion in Other Countries

Because of the shrinking structure of Hawaii's pineapple industry, production has been on a general downward trend. Based on data reported by the National Agricultural Statistics Service (NASS), Hawaii's production declined from 954,000 short tons in 1970 to 320,000 short tons in 2002, the smallest crop reported in the last 33 years. This decline mostly reflects the diminishing production used for processing, where a reported 203,000 short tons were utilized during 2002, less than half the quantity in 1990 (fig. 5).

Average fresh-market production was increasing during the 1970s and 1980s. However, growing pressure from increased imports and the continued decline in the acreage devoted to the crop has resulted in generally declining fresh-market production during the last 13 years. Production for fresh use peaked in 1989 at 145,000 short tons, but has since been on a gradual decline, falling at an average annual rate of 1 percent.

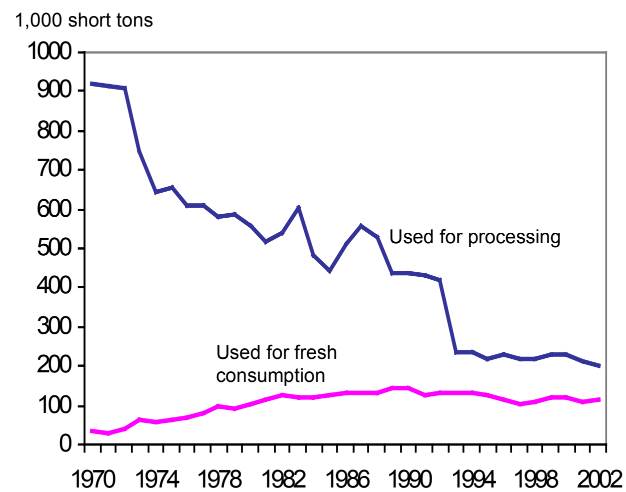
Contraction in Hawaii's pineapple industry, particularly during the 1970s and 1980s, coincided with rapid production expansion in countries like Costa Rica, the Philippines, Thailand, Kenya, and Indonesia. Production grew the most in Costa Rica during the 1990s, as a result of having the largest

Figure 4
Number of pineapple companies and canneries in Hawaii



Source: The State of Hawaii Data Book 2001, Department of Business, Economic Development, and Tourism.

Figure 5
Utilization of pineapple production in Hawaii



Source: National Agricultural Statistics Service, USDA.

Table 12--Pineapples: Number of farms, acreage, production, disposition, price, and value, Hawaii, 1970 to date

Year	Farms	Acreage used for crop 1/	Utilized production 2/	Disposition		Farm price		Value of production 2/
				Processed 2/	Fresh market 3/	Processed 4/	Fresh market 5/	
	Number	1,000 acres	--1,000 short tons--			--Dollars/ton--		1,000 dollars
1970	47	61.0	954	918	36	39	100	39,500
1971	36	61.0	942	911	31	40	120	40,300
1972	36	58.0	947	906	41	43	120	43,900
1973	33	57.5	810	748	62	43	120	39,600
1974	20	55.0	700	641	59	49	150	40,259
1975	20	50.0	720	657	63	48	160	41,616
1976	17	48.0	680	611	69	63	210	52,983
1977	17	45.0	690	607	83	67	260	62,249
1978	18	43.0	675	580	95	58	310	63,090
1979	18	44.0	681	587	94	67	320	69,409
1980	18	43.0	657	556	101	76	340	76,596
1981	18	41.0	636	519	117	85	390	89,745
1982	18	36.0	670	542	128	82	390	94,364
1983	18	35.0	722	602	120	88	395	100,376
1984	18	35.0	600	481	119	88	400	89,928
1985	18	34.5	565	441	124	90	410	90,530
1986	19	36.0	646	514	132	90	405	99,720
1987	12	36.1	692	558	134	91	362	99,286
1988	12	34.6	659	526	133	99	416	107,402
1989	10	32.7	580	435	145	90	408	98,310
1990	10	30.9	575	434	141	120	385	106,365
1991	10	28.4	555	430	125	130	415	107,775
1992	21	26.2	550	420	130	110	430	102,100
1993	20	22.0	370	235	135	110	400	79,850
1994	15	22.3	365	235	130	110	408	78,890
1995	15	19.9	345	220	125	113	500	87,360
1996	15	20.0	347	232	115	117	598	95,914
1997	15	19.9	324	221	103	127	618	91,721
1998	15	21.0	332	221	111	131	575	92,776
1999	15	21.0	352	230	122	126	594	101,448
2000	15	20.7	354	232	122	130	585	101,530
2001	15	20.1	323	213	110	129	626	96,337
2002	15	19.1	320	203	117	136	624	100,616

1/ Acreage is crop acres, not harvested acreage. 2/ Fresh-weight basis. 3/ Beginning in 1983, excludes sales of fresh pineapples (without tops) included in processing utilization. 4/ Value of fresh fruit delivered to processing-plant door. 5/ Value of fresh fruit at wholesale establishments for local sales and shippers dock for mainland and foreign sales.

Source: National Agricultural Statistics Service, USDA.

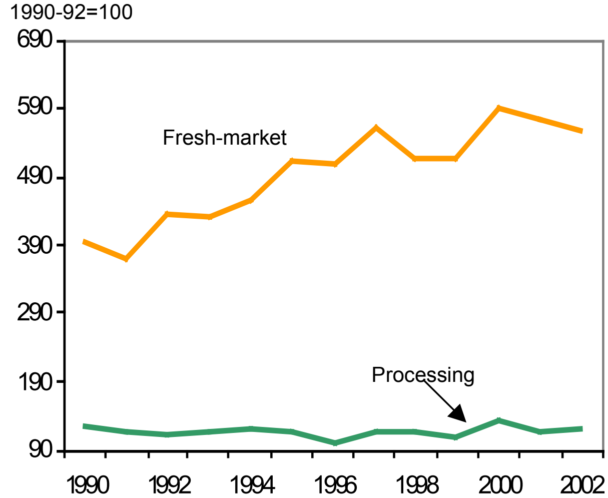
increase in harvested area and the greatest improvements in average yields. Thailand, the Philippines, and Brazil experienced smaller but significant increases in production relative to the 1970s and 1980s. In more recent years, the average annual crops in these countries increased at a slower pace than the previous decade, except in Thailand where production declined. Costa Rica still led the growth in production, producing crops more than triple the size during the 1990s, followed by Kenya (up 118 percent), and Mexico (up 69 percent).

Domestic Fresh-Market Production Increasing in Importance

A larger proportion of the Hawaiian pineapple crop is still used for processing, but there is an increasing trend toward producing for the fresh fruit market. The percentage share of utilized production intended for the fresh market has risen from 4 percent in 1970 to 37 percent in 2002, driven mainly by the higher grower returns generated in the fresh fruit market.

Over the last 13 years, declines in production have led to higher grower prices for both fresh-market pineapples and pineapples used for processing. However, grower price increases in the higher-valued fresh fruit market have been much larger, widening the price differential between the two markets. Back in the 1970s, fresh-market grower prices averaged $135 per ton higher than those for processing while in the early- to mid-1990s, the price difference averaged over $300 per ton. This price difference increased further during the most recent 5 years (1998-2002) to an average of over $460 per ton. Measured in real terms, grower prices for fresh-market pineapples were better in keeping up with inflation, increasing at an average annual rate of 3 percent during the last 13 years, whereas processing grower prices remained fairly constant (fig. 6).

Figure 6
Grower prices for Hawaiian pineapples, constant dollars



Source: National Agricultural Statistics Service, USDA.

Table 13 --Free-on-board prices for processed pineapple products, West Coast, 1996-2002

	Canned Pineapple						
Month	1996	1997	1998	1999	2000	2001	2002
	Dollars per 24/20-ounce case, Hawaiian						
January	--	24.00	--	18.90	18.90	16.60	16.60
February	--	24.00	17.80	18.90	18.90	16.60	16.60
March	--	24.00	17.80	18.90	--	16.60	16.60
April	--	24.00	16.12-16.36	18.90	16.60	16.60	--
May	--	24.00	16.12-16.36	18.90	16.60	16.60	--
June	--	24.00	16.12-16.36	17.08	16.60	--	--
July	--	23.00	18.90	17.08	16.60	--	13.75
August	--	23.00-24.00	18.90	17.08	16.60	16.60	--
September	--	23.00	18.90	17.08	16.60	16.60	14.00
October	--	23.00	18.90	17.08	16.60	16.60	14.00
November	--	24.00	18.90	17.08	16.60	16.60	13.50-14.00
December	--	24.00	18.90	17.08	16.60	16.60	13.50-14.00
	Pineapple Juice						
	1996	1997	1998	1999	2000	2001	2002
	Dollars per 65 Brix gallon						
January	9.50-10.00	9.20-9.50	--	9.50-9.75	6.50-7.00	4.75-5.00	--
February	9.80-10.00	9.20-9.50	7.25-7.50	9.50-10.00	--	4.75-5.00	--
March	9.80-10.00	8.50-9.00	7.50-8.00	9.50-10.00	6.25-6.50	5.25-5.50	--
April	10.00-10.20	8.25-8.50	--	9.50-10.00	6.25-6.50	5.75-6.25	--
May	9.50-10.00	8.25-8.50	--	9.50-10.00	5.00-6.00	5.75-6.25	--
June	9.75-9.90	8.00-8.25	--	--	5.00-5.50	5.75-6.25	--
July	9.75-9.90	8.00-8.25	--	--	5.00-5.50	5.95-6.25	--
August	9.75-9.90	8.00-8.25	--	--	5.00-5.50	5.50-6.25	--
September	9.75-9.90	8.00-8.25	--	--	4.75-5.00	5.25-6.00	--
October	9.75-9.90	7.85-7.90	9.25-9.75	6.50	4.75-5.00	5.50-6.00	--
November	9.40-9.50	7.85-7.95	9.50-9.75	6.50	5.25-5.50	--	--
December	9.40-9.50	7.85-7.95	9.50-9.75	6.50-7.00	6.00-6.50	--	--

-- = Not available.

Source: Food Institute Report, January 1998-2003.

Declining prices for processed pineapple products (canned and juice) have limited the price increases growers receive for pineapples used for processing. For as much as a consistent price series would allow, monthly f.o.b. prices for 24/20-ounce Hawaiian canned pineapples in the West Coast have weakened over the period 1997-2002 (table 13). The latest available pineapple juice prices also show a similar trend, with 2001 monthly f.o.b. prices down significantly from prices reported in 1996.

Pineapples Rank 5th in U.S. Per Capita Fruit Consumption

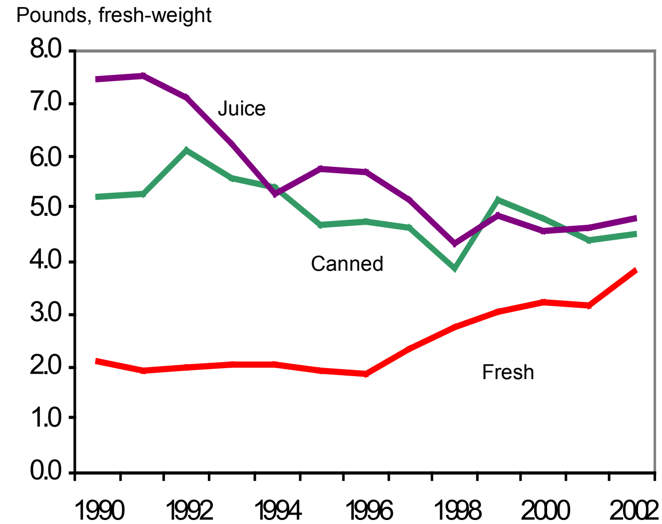
The pineapple is the 5th most consumed fruit in the United States, next to oranges, grapes, apples, and bananas. On a per capita fresh-weight equivalent basis, U.S. pineapple consumption (combined fresh and processed) averaged 12.4 pounds annually over the last 5 years, about 4 percent of total U.S. per capita fruit consumption. With the aid of imports, pineapples out ranks per capita consumption of other popular domestic fruit such as peaches, pears, and strawberries.

More Processed Pineapples Consumed On A Per Capita Basis

Americans continue to consume more processed pineapples than fresh, mostly due to the fact that more processed supplies (mostly canned and juice products) are available at the retail market. During 2002, U.S. consumption for processed pineapples amounted to 9.3 pounds per person, fresh-weight equivalent, compared with fresh-market consumption of 3.9 pounds per person. However, since the 1990s, there has been a decreasing trend in per capita consumption of processed pineapples while fresh use continued to grow, narrowing the disparity between the two, particularly in recent years (fig. 7).

While pineapples are not new to American consumers, most of what has been consumed in the past were in the form of canned fruit or juice. Hence, still many of today's consumers are not as familiar with handling pineapples in its fresh form. The increasing demand for fresh pineapples over the years may be attributed to consumer education, to better quality control, and to improved packing techniques and product movement.

Figure 7
U.S. pineapple per capita consumption



Source: Economic Research Service, USDA.

More rapid increases in fresh per capita use in recent years may be influenced by new product innovations that cater to changing tastes and preferences of today's consumers and promotional activities that aid in increasing consumer familiarity with the fresh-market product. New product introductions include new sweet varieties such as the Extra Sweet Gold pineapple that Del Monte Fresh Produce, Inc. launched in the mid-1990s, and fresh-cut products that offer convenience to final consumers. Another important factor that has likely contributed to increased per capita consumption of fresh pineapples in recent years is the growing immigrant population in the United States, specifically those from Latin American and Southeast Asian countries where pineapples are widely consumed as a fresh product.

Year-to-year changes in per capita fresh pineapple consumption grew at an average annual rate of nearly 9 percent since 1995, compared with an average annual growth rate of 4 percent during 1985-1992. On average, U.S. per capita fresh pineapple consumption increased at a faster rate than fresh consumption of any citrus and noncitrus fruit, with the exception of papayas and mangos, during 1995-2002.

Imports Constitute the Bulk of Domestic Consumption

In the face of declining domestic production, imports have played a growing role in meeting U.S. demand for pineapples. U.S. pineapple imports (all products) as a share of domestic pineapple consumption rose from 38 percent during the 1970s to 82 percent since the mid-1990s. Canned and juice imports each account for approximately 40 percent of total import volume. The remaining 20 percent represent imports of fresh pineapples. While both canned and juice imports represent a larger share of domestic consumption, the gain in share of fresh imports has been stronger in recent years.

In the early 1980s, Mexico was the major supplier of U.S. fresh pineapple imports. However, since the 1983 Caribbean Basin Initiative established duty-free status, imports from Central America have increased. Throughout the 1990s and in more recent years, imports from Mexico have been dwarfed by imports from Costa Rica and Honduras. Costa Rican shipments of fresh pineapples to the U.S. market increased 473 percent during the period 1993-2002, reaching 765.1 million pounds. With rapid production growth, particularly of the now popular sweet variety, Costa Rica has strengthened its role in the U.S. fresh pineapple market, supplying about 85 percent of total fresh import volume during 2002, up from 57 percent in 1993.

A major portion of the remaining share of fresh imports is sourced from Honduras, Ecuador, and Mexico. Declining production, particularly in the last 5 years, has reduced the competitive position of Honduras in the U.S. fresh pineapple market. Its share of total fresh imports fell by more than half to 5 percent in the 5-year period 1998-2002, not far from the shares held by Ecuador and Mexico.

The Philippines, Thailand, and Indonesia continue to be the major suppliers of both juice and canned pineapple to the U.S. market. These countries contributed 92 percent of juice imports and 89 percent of canned imports in 2002. The Philippines alone accounted for 42 percent of canned pineapple imports and 51 percent of pineapple juice imports in 2002. Although still far behind in terms of volume shipped to the United States relative to the top three suppliers, the quantity of canned pineapples imported from China and the Republic of South Africa has grown significantly in the last 5 years. China's share of U.S. canned imports has risen from less than 1 percent early into the 1990s to around 4 percent over the last 5 years. Similarly, the Republic of South Africa's share rose from less than 1 percent to 3 percent.

Exports Continue To Decline

As with production, U.S. pineapple exports have been on a downward trend since the 1970s. U.S. shipments to international destinations have declined from an annual average of 133.4 million pounds, fresh-weight equivalent, during the 1970s to an average of 56.5 million pounds during 2000-2002. Presently, fresh exports make up more than half of U.S. pineapple shipments to international markets. During the 1970s, however, only 7 percent of total exports were fresh. Canned exports dominated U.S. pineapple exports during the 1970s, accounting for over 60 percent of total export volume. Now, it makes up for the smallest proportion of all pineapple exports, at about 15 percent. Meanwhile, juice exports account for about one-third of total export volume.

Canada is by far the largest export market for U.S. pineapples, accounting for more than half of total export volume, all products on a fresh-weight equivalent. Fresh pineapples comprise the bulk of U.S. shipments to this major export market. Canada is the destination for over 90 percent of U.S. fresh pineapple exports, more than one-third of canned exports, and less than 10 percent of juice exports in the most recent 3 years. Other leading markets are Japan, South Korea, and Mexico. Shipments to Japan come in the form of fresh and juice and those to South Korea are only juice.

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