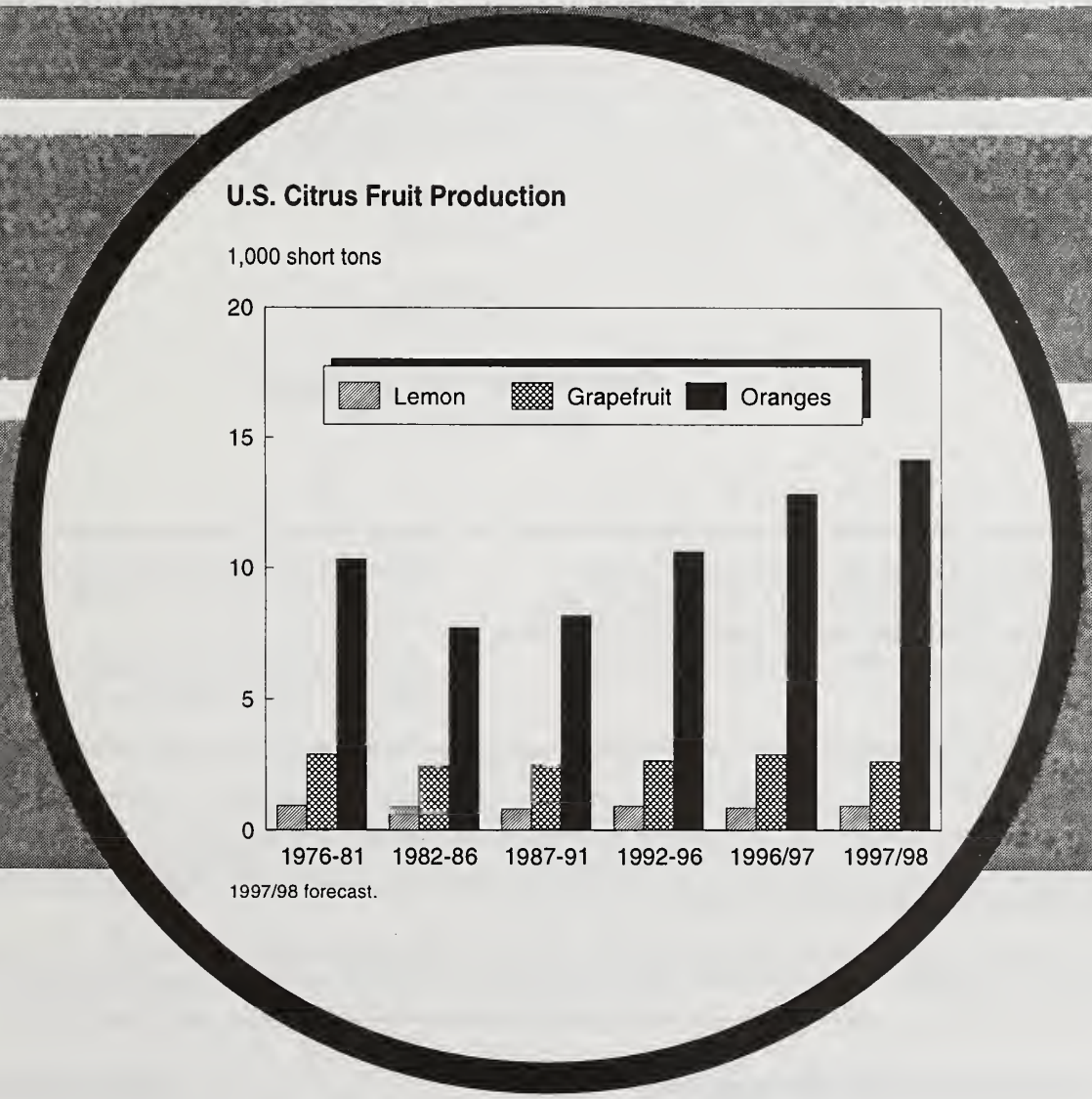
United States
Department of
Agriculture

Economic
Research
Service

FTS-282
March 1998

Fruit and Tree Nuts

Situation and Outlook Report



Fruit and Tree Nuts Situation and Outlook. Market and Trade Economics Division, Economic Research Service, U.S. Department of Agriculture, March 1998. FTS-282.

Contents

Situation Coordinator
Susan Pollack
Voice (202) 694-5251 Fax (202) 694-5256

Principal Contributors
Susan Pollack (202) 694-5251
Agnes Perez (202) 694-5255
Doyle Johnson (202) 694-5248

Statistical Support
Brenda Toland

Editor
Martha R. Evans

Graphics, Table Design, and Layout
Wynnice Pointer-Napper

Approved by the World Agricultural Outlook Board. Summary released March 25, 1998. The summary of the next *Fruit and Tree Nuts Situation and Outlook* is scheduled for release August 26, 1998. Summaries and text of Situation and Outlook reports may be accessed electronically; for details, call (202) 694-5050.

The *Fruit and Tree Nuts Situation and Outlook* is published twice a year and supplemented by a yearbook.

Summary

Prices received by growers for fruit and nuts have been lower during January and February 1998 than the same period of the last couple of years. Lower prices for oranges, grapefruit, and lemons pulled down the overall average. Retail prices for most fresh fruit in January and February were below a year ago.

The 1997/98 orange crop is expected to produce a record 14.2 million short tons, decreasing grower prices. Because of the large size of this year's crop, rainstorms caused by El Niño appear to have had little noticeable effect on the market.

California's orange production is forecast to increase 9 percent from a year ago to 2.8 million tons. With the high quality and quantity of oranges this year, shipments to domestic and export markets have been up.

Florida's orange crop is expected to produce 6.4 million tons of the early- to mid-season varieties, and 4.9 million tons of Valencia, both records. Orange juice production is also forecast to set a record at 1.6 billion single-strength equivalent gallons.

Grapefruit production is forecast at 2.6 million short tons, 9 percent below last year's crop. Grapefruit grower prices have been lower than the previous year for most of the 1997/98 marketing season.

Lemon production is estimated to be 935,000 tons, up 9 percent in 1997/98 from the previous year. Specialty citrus crops, such as tangerines, tangelos, and temples are expected to be smaller than a year ago. Tangerines, the largest crop among the specialty varieties, are expected down about 17 percent to 347,000 tons.

El Niño-related storms which brought heavy rains, flooding, and windy conditions to some regions, especially Florida and California, have hampered production and harvesting activities and damaged strawberry crops. Strawberry growers in both States have experienced variable fruit quality and delayed marketing.

The preliminary 1997 estimate of utilized production of noncitrus fruit (apples, grapes, and berries, for example) increased to about 18 million tons, up 10 percent from 1996 and the largest on record. A relatively mild winter and generally dry, mild spring in the western portion of the United States, was ideal for pollination and conducive to rapid crop development.

Production increased sharply in 1997 for all six of the major tree nuts (almonds, hazelnuts, walnuts, pistachios, pecans, and macadamias) to a record 1.16 million tons, in-shell equivalent, up 39 percent from the previous season. The value of production for these six tree nut crops also reached a record of $2.0 billion.

Fruit and Nut Prices Lower Than a Year Ago

The index of prices received by growers for fruit and nuts has been lower in January and February 1998 than for the same period during the last couple of years (table 1). Lower prices received by growers for oranges, grapefruit, and lemons have been depressing overall prices. February prices improved over January as the strong movement of fresh oranges and increasing prices for processing oranges offset lower prices for the other domestic winter fruit (figure 2). The index's annual average grower price for 1997 was about 8 percent lower than 1996. Large orange, grapefruit, grape, stone fruit, pear, and berry crops in 1997 put downward pressure on grower prices for these commodities, lowering the overall price below the previous year.

Table 1--Index of prices received by growers for fruit and nuts, 1993-98

Month	1993	1994	1995	1996	1997	1998
			1990-92=100			
January	72	79	75	96	96	77
February	72	80	74	96	92	89
March	69	85	78	104	95	95
April	73	87	82	101	90	
May	81	92	101	115	108	
June	97	96	105	133	127	
July	101	100	110	130	126	
August	113	104	125	131	123	
September	121	102	122	144	130	
October	119	95	122	140	120	
November	106	85	109	125	107	
December	86	77	97	105	89	
Annual	93	90	100	118	109	

Source: National Agricultural Statistics Service,USDA.

Retail prices for January and February 1998 were below a year ago for many fresh fruit. The large crops of navel oranges and lemons in California, and grapefruit in Florida, helped bring down retail prices for fresh citrus (table 2). The heavy rains and winds this winter had little effect on citrus production because the citrus crops had already been established before the storms began. While the storms may have hampered harvesting, delays have not been great enough to seriously affect marketing. While there have been some crop losses in both California and Florida, the very large crops this year have minimized the effects of these losses.

Strawberry production, however, has been adversely effected by winter storms. Most of the strawberries in the market during January come from central Florida and southern California. While citrus fruit is protected by its outer skin and the trees, strawberries are fragile fruit that grow close to the ground, making the fruit susceptible to water damage. Also, the strawberry plant is susceptible to diseases and root damage that can be brought on by the present weather problems. As a result, strawberry retail prices this January and February were above any month over the last several years.

Retail prices for frozen concentrated orange juice (FCOJ) began falling below year ago levels in July, after being higher than the previous year for most of the 1996/97 marketing year (beginning in December 1996). The retail price, which reflects the price of a 12-ounce can of FCOJ, remained high despite a record crop of oranges in Florida during 1996/97.

Figure 1
Indexes of Prices Received by Farmers, 1997

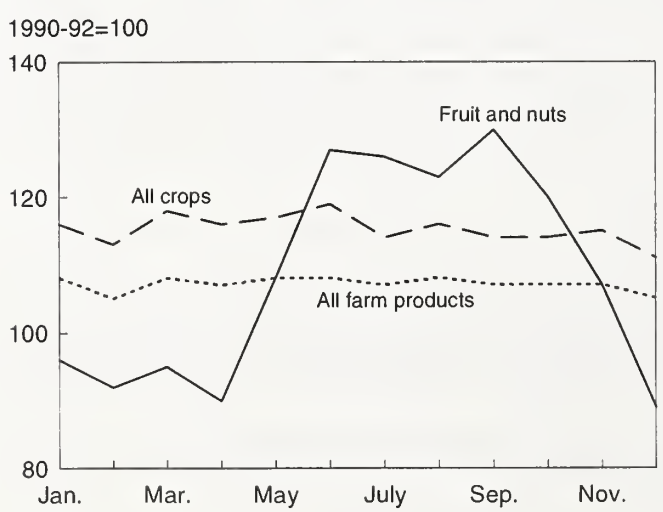


Figure 2
Fresh-Market Oranges: U.S. Grower Prices

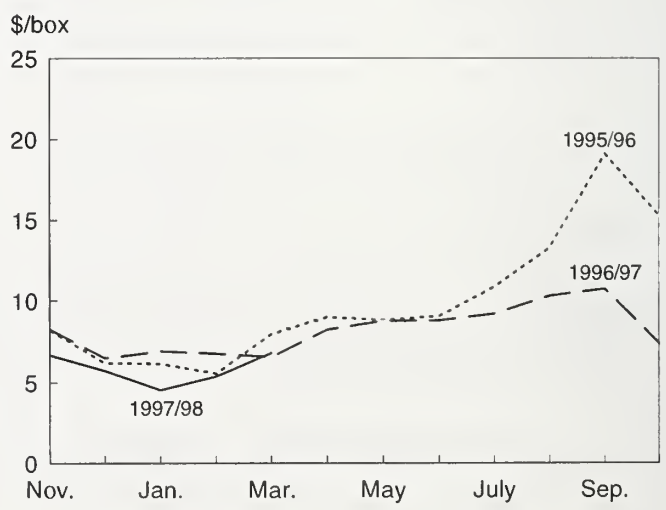


Table 2--U.S. monthly retail prices for selected fruit and juice, 1995-98

Month	Valencia oranges				Navel oranges				Orange juice, concentrate 1/				Grapefruit			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
	--Dollars per pound--				--Dollars per pound--				--Dollars per 16 fl. oz--				--Dollars per pound--			
Jan.	--	--	--	--	0.575	0.561	0.555	0.525	1.583	1.577	1.737	1.601	0.450	0.463	0.515	0.499
Feb.	--	--	--	--	.585	.559	.554	.507	1.609	1.625	1.768	1.568	.448	.460	.489	.481
Mar.	--	--	--		.571	--	.546		1.629	1.609	1.747		.443	.464	.496	
Apr.	--	--	--		.606	.620	.598		1.632	1.657	1.727		.458	.468	.512	
May	--	--	--		.650	.716	.706		1.632	1.704	1.736		.476	.493	.518	
June	0.619	0.616	0.580		--	--	--		1.620	1.743	1.752		.578	.592	.520	
July	.654	.604	.607		--	--	--		1.639	1.774	1.770		.629	.648	.592	
Aug.	.631	.717	.669		--	--	--		1.642	1.765	1.755		.677	.670	.646	
Sep.	.662	.779	.670		--	--	--		1.607	1.733	1.695		.709	.775	.681	
Oct.	.672	.799	.616		--	--	--		1.583	1.761	1.711		.654	.716	.628	
Nov.	--	--	--		.742	.707	.642		1.550	1.747	1.666		.561	.587	.543	
Dec.	--	--	--		.643	.593	.583		1.573	1.735	1.670		.490	.550	.532	

	Lemons				Red Delicious apples				Bananas				Peaches			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
	--Dollars per pound--				--Dollars per pound--				--Dollars per pound--				--Dollars per pound--			
Jan.	0.988	1.011	1.115	1.026	0.765	0.877	0.907	0.922	0.503	0.463	0.497	0.473	--	--	--	--
Feb.	.962	.902	1.084	.976	.789	.877	.912	.960	.496	.501	.518	.489	1.356	--	--	1.894
Mar.	.912	.896	1.005		.793	.894	.914		.508	.565	.532		--	--	--	
Apr.	.966	.934	.990		.784	.915	.895		.485	.505	.512		--	--	--	
May	.971	1.013	1.059		.813	.921	.912		.483	.512	.484		--	--	--	
June	1.079	1.143	1.309		.833	.954	.914		.490	.498	.488		1.098	1.142	1.122	
July	1.315	1.233	1.519		.864	.976	.918		.522	.498	.487		.892	1.218	.951	
Aug.	1.401	1.331	1.623		.901	.998	.935		.512	.478	.475		.930	1.101	.973	
Sep.	1.402	1.352	1.631		.923	1.006	.933		.490	.458	.458		1.174	1.244	1.143	
Oct.	1.343	1.274	1.477		.863	.949	.881		.471	.465	.459		--	--	--	
Nov.	1.179	1.140	1.162		.853	.907	.864		.462	.477	.468		--	--	--	
Dec.	1.117	1.144	1.057		.834	.886	.897		.454	.481	.461		--	--	--	

	Anjou pears				Strawberries 2/				Thompson seedless grapes				Wine 3/			
	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998	1995	1996	1997	1998
	--Dollars per pound--				--Dollars per 12-oz.--				--Dollars per pound--				--Dollars per liter--			
Jan.	--	--	1.017	0.863	--	1.692	--	2.135	1.747	2.072	1.981	1.815		4.962	5.266	5.302
Feb.	0.774	--	1.001	.931	1.926	1.505	1.514	2.080	1.580	1.557	1.508	1.722		4.578	4.933	4.790
Mar.	--	0.860	1.003		1.340	1.236	1.317		1.336	1.350	1.675			5.031	5.337	
Apr.	--	.895	1.011		1.001	1.082	1.179		1.622	1.824	1.876			4.661	4.933	
May	--	.878	1.026		1.140	.957	1.073		1.972	1.893	2.136			5.096	5.320	
June	--	.886	--		1.180	1.226	1.213		1.549	1.934	1.606			4.703	4.992	
July	--	--	--		1.209	1.247	1.383		1.460	1.532	1.372		4.675	5.118	5.406	
Aug.	--	--	--		1.398	1.164	1.375		1.300	1.167	1.240		4.449	4.775	5.022	
Sep.	--	--	--		1.355	1.420	1.488		1.160	1.269	1.275		4.468	5.188	5.414	
Oct.	--	--	--		1.316	1.409	--		1.351	1.690	1.646		4.564	4.870	5.132	
Nov.	--	--	--		--	--	1.654		1.668	2.252	2.035		4.780	5.226	5.275	
Dec.	--	1.059	.854		--	--	--		1.863	--	2.188		4.471	4.902	5.001	

-- = Insufficient marketing to establish price.
1/ Data converted from 12 fluid ounce containers.
2/ Dry pint.
3/ Data series began August 1995.

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Another Record Orange Crop Expected for 1997/98

The 1997/98 orange crop is expected to provide a record 14.2 million short tons (table 3). Larger crops in most producing areas, but particularly in Florida and California, are responsible for production increasing 11 percent over last year. California's orange production is expected to increase 9 percent from a year ago to 2.8 million tons; Florida's production is expected to increase 11 percent to 11.3 million tons. Texas' crop is up to 66,000 tons as production has continued to increase over the last few years. Arizona's crop is projected to remain stable, at 38,000 tons.

The record-size orange crop has put downward pressure on grower prices so far in 1997/98 (table 4). California grower prices have declined as much as 12 percent from November through February over the same period last year. Price declines have been even greater in Arizona and Texas. With California dominating the fresh market, its large crop lowered demand for oranges from these other States. Florida grower prices are about 34 percent lower than last year, however, the monthly variation in price between this year and last appears to be lessening since December.

California Production Up, Fresh Orange Prices Lower in 1997/98

The California orange crop accounts for about 20 percent of U.S. orange production. Almost all the oranges go to the fresh market. California's navel oranges are marketed from November through mid-June, while Valencia oranges are marketed from mid-March to December. In this way, there are fresh oranges in the market throughout the entire year. About 59 percent of California oranges are the navel variety. Production of both varieties has been growing steadily over the last several years. Because of the large crop this year, the effects of El Niño on California's production have been minimal, according to industry sources. While there has been some fruit losses, especially in the southern San Joaquin Valley, due to wind damage scarring the fruit, overall production is high. In most cases, the incidences of wind scarring are said to be less than for last year's crop. Due to the large quantity of fruit and its good quality, movement in the domestic market has been strong.

Exports have also been up this marketing year. The lower price of this year's orange crop somewhat offset higher prices due to exchange rate difficulties in Japan and Hong Kong. Because U.S. oranges are generally higher priced in these markets than their domestic oranges, the U.S. product is marketed to the upper income classes in these countries. The slightly higher price this year did not seem to deter these consumers. Orange shipments to Canada, the largest export market, however, were down less than 1 percent for November through January.

Table 3--Oranges: Utilized production, 1994/95-1996/97 and forecast for 1997/98 1/

Crop and State	Utilized			Forecast	Utilized			Forecast
	1994/95	1995/96	1996/97	1997/98 as of 3-98	1994/95	1995/96	1996/97	1997/98 as of 3-98
	--1,000 boxes 3/--				--1,000 short tons--			
Oranges:								
Early/mid season and navel 2/:								
Arizona	400	700	400	450	15	27	15	17
California	35,000	38,000	40,000	44,000	1,313	1,426	1,500	1,650
Florida	119,700	121,200	134,200	143,000	5,387	5,454	6,039	6,435
Texas	950	830	1,300	1,400	40	35	55	60
Total	156,050	160,730	175,900	188,850	6,755	6,942	7,609	8,162
Valencia:								
Arizona	650	950	600	550	24	36	23	21
California	21,000	20,000	28,000	30,000	788	750	1,050	1,125
Florida	85,800	82,100	92,000	108,000	3,861	3,695	4,140	4,860
Texas	105	110	120	150	4	4	5	6
Total	107,555	103,160	120,720	138,700	4,677	4,485	5,218	6,012
Total	263,605	263,890	296,620	327,550	11,432	11,427	12,827	14,174

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.

2/ Navel and miscellaneous varieties in California and Arizona, and early- and mid-season (including Navel) varieties in Florida and Texas. Small quantity of tangerines also included in Texas.

3/ Net pound per box: Arizona and California--75 lb, Florida--90 lb, and Texas--85 lb.

Source: National Agricultural Statistics Service, USDA.

Table 4--All oranges: State average equivalent on-tree prices received by growers, 1994-98

Month	Arizona					California				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
	--Dollars/75-lb box--					--Dollars/75-lb box--				
January	3.59	7.27	4.76	6.35	3.23	4.85	6.75	4.94	7.17	5.45
February	5.63	1.23	2.89	3.33	2.21	4.69	5.03	3.61	5.95	5.65
March	6.11	3.07	3.68	2.39	2.04	5.88	4.35	5.30	5.71	5.38
April	2.44	3.61	2.50	3.60		5.97	6.04	6.08	7.30	
May	2.51	3.70	1.09	3.29		6.70	7.56	7.65	8.07	
June	-.21	1.95	.51	.12		5.61	7.46	6.13	6.43	
July	-.14	1.80	.68			4.09	7.46	7.18	6.64	
August	--	--	--	--		4.24	7.30	8.91	7.03	
September	--	--	--	--		3.44	7.26	13.70	6.95	
October	--	17.50	--	--		1.81	7.58	11.33	5.71	
November	9.79	9.22	9.49	4.05		6.50	10.33	8.88	6.94	
December	9.13	5.32	6.74	4.92		6.67	6.06	7.33	7.63	

	Florida					Texas				
	1994	1995	1996	1997	1998	1994	1995	1996	1997	1998
	--Dollars/90-lb box--					--Dollars/85-lb box--				
January	3.61	3.28	4.02	3.60	2.46	7.03	2.57	4.16	2.12	1.22
February	3.72	3.41	4.24	3.60	3.33	6.86	2.99	5.18	3.93	1.90
March	3.99	4.35	5.42	3.77	4.61	5.89	4.90	6.85	4.74	5.31
April	4.57	4.50	5.73	4.42		5.76	5.53	7.80	4.95	
May	4.72	4.59	6.03	4.44		--	5.07	7.47	4.66	
June	4.82	4.55	6.60	4.66		--	--	--	--	
July	--	--	--	--		--	--	--	--	
August	--	--	--	--		--	--	--	--	
September	--	--	--	--		--	--	--	--	
October	3.76	--	3.54	2.59		6.16	11.21	8.41	7.23	
November	3.10	3.79	3.56	1.52		3.43	6.85	4.19	3.28	
December	3.24	3.79	3.60	2.05		3.25	5.75	2.00	2.11	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Florida Production Expected To Set Another Record

Florida's orange crop is expected to produce 6.4 million tons of the early- to mid-season varieties, and 4.9 million tons of Valencia, both records. Almost all of the oranges will be used for processing. On average, about 5 percent of Florida's oranges go to fresh use (figure 3).

Florida marketed fewer oranges for fresh use through mid-February compared with the same period last year. California oranges entered the market earlier this year than last, reducing Florida's window of opportunity for fresh sales. As a result, Florida's fresh marketings completed during this period were down 7 percent from the previous year.

Orange juice production is forecast to set a record at 1.6 billion single-strength equivalent (sse) gallons (table 5). Coupled with very high beginning stocks, orange juice supplies for 1997/98 are projected to reach 2.2 billion sse gallons. With this year's crop, there will be 2 consecutive years of record production, making it difficult for processors to drawdown their stocks. Orange juice demand is also said to be inelastic. Therefore, lower juice prices in response to the

Table 5--United States: Orange juice supply and utilization, 1986/87-1997/98

Season 1/	Beginning stocks 2/	Production	Imports	Exports	Domestic consumption	Ending stocks 2/
	-- Million SSE gallons 3/--					
1986/87	204	781	557	73	1,267	201
1987/88	201	907	416	90	1,223	212
1988/89	212	970	383	73	1,258	233
1989/90	233	652	492	90	1,062	225
1990/91	225	876	327	96	1,174	158
1991/92	158	930	286	108	1,097	170
1992/93	170	1,207	326	114	1,339	249
1993/94	249	1,133	403	106	1,319	360
1994/95	360	1,257	198	117	1,415	283
1995/96	283	1,245	261	129	1,362	298
1996/97	298	1,458	257	147	1,476	390
1997/98 f	390	1,566	225	169	1,547	465

f = Forecast.

1/ Season begins in December of the first year shown.

2/ Data may not add due to rounding. Beginning with 1994/95 stocks, include chilled as well as canned and frozen concentrate juice.

3/ SSE = single-strength equivalent.

Sources: Economic Research Service and Foreign Agricultural Service, USDA.

expected large supply would have little impact on increasing demand. As a result, ending stocks for this year are estimated to be a record 465 million sse gallons, equal to over a quarter of this year's production.

About 64.5 percent of the crop is expected to go to frozen concentrated orange juice, down fractionally from last year (table 6). While a slightly larger proportion of the crop is expected to go towards making chilled juice, the overall quantity expected to be used for chilled could be more than 14 percent over last year due to the larger crop and increasing demand. The increasing popularity of chilled orange juice could help boost overall orange juice sales. The industry has reported that retail sales of chilled juice have been strong during the first few months of this marketing season.

Brazil, the world's largest orange juice producer, also had record juice production in 1997 (table 7). Brazil mostly markets its juice outside the United States, and Florida has the largest share of the U.S. market. The large world juice supplies, however, helped depress Florida grower prices for processing oranges below the already low prices during this same period in 1996/97. Reports over the last several months that Brazil's orange crop may be down in 1998, however, have boosted Florida grower prices in January and February. While prices for these 2 months are still below the last several years, continued increases over the next several months should continue to improve grower returns (table 8).

Orange juice exports, at 147 million sse gallons, rose 14 percent in 1996/97 over the year before. Exports were higher to Canada, the Netherlands, and Belgium, but fell to Japan, the United Kingdom, and France.

Table 6--Oranges used for frozen concentrate, Florida, 1989/90-1997/98

Season	Orange and Temple production	Used for frozen concentrate		Yield per box
	--Million boxes 2/--		Percent	Gallons 3/
1989/90	111.6	70.1	62.8	1.23
1990/91	154.1	100.4	65.2	1.45
1991/92	142.2	90.6	63.7	1.55
1992/93	189.1	128.3	67.8	1.58
1993/94	176.7	111.7	63.2	1.57
1994/95	208.1	140.8	67.7	1.50
1995/96	205.5	129.3	62.9	1.52
1996/97	228.6	147.8	64.7	1.57
1997/98 1/	253.3	163.5	64.5	1.56

1/ Forecast, March 1998.
2/ Picking boxes weigh approximately 90 pounds.
3/ Gallons per box at 42-degrees-Brix equivalent.
Sources: National Agricultural Statistics Service, USDA, and the Florida Department of Citrus.

Table 7--Brazilian FCOJ production and utilization, 1990/91-1996/97

Season 1/	Beginning stocks	Production	Domestic consumption	Exports	Ending stocks 2/
	--Million SSE gallons 3/--				
1990/91	177	1,334	25	1,390	96
1991/92	96	1,610	25	1,532	148
1992/93	148	1,572	25	1,546	148
1993/94	148	1,583	31	1,482	218
1994/95	218	1,525	25	1,476	242
1995/96	242	1,620	24	1,660	177
1996/97	177	1,912	25	1,708	356

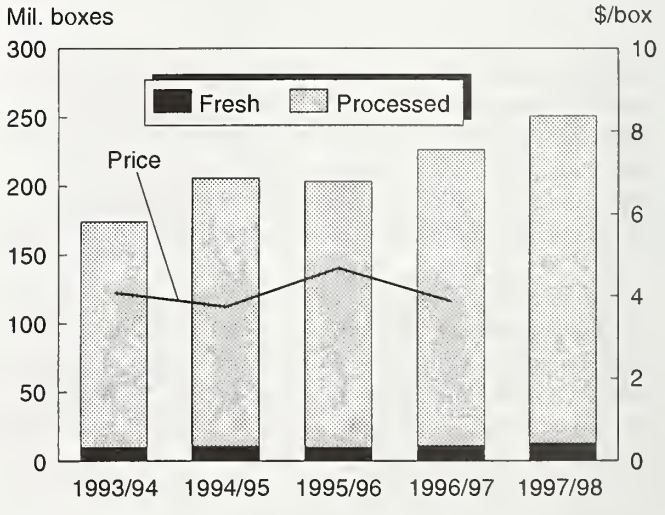
1/ Season begins in July. 2/ Data may not add due to rounding.
3/ SSE = single-strength equivalent. To convert to metric tons at 65 degree Brix, divide by 1.40588.
Source: Foreign Agricultural Service, USDA.

Table 8--Processing oranges: Average equivalent on-tree prices received by growers, Florida, 1994-98

Month	1994	1995	1996	1997	1998
	--Dollars/90-lb box--				
January	3.61	3.29	4.00	3.63	2.45
February	3.74	3.38	4.19	3.58	3.34
March	4.00	4.36	5.43	3.75	4.65
April	4.59	4.52	5.72	4.45	
May	4.75	4.60	6.02	4.45	
June	4.77	4.53	6.32	4.45	
July	--	--	--	--	
August	--	--	--	--	
September	--	--	--	--	
October	2.83		--	.45	
November	3.06	3.57	3.04	1.50	
December	3.19	3.73	3.56	1.95	

-- = Not available.
Source: National Agricultural Statistics Service, USDA.

Figure 3
Florida Orange Production, Use, and On-Tree Price



1997/98 forecast.

Grapefruit Production Expected Lower in 1997/98

Grapefruit production is projected at 2.6 million short tons, 9 percent below last year's record crop (table 9). Production in Florida, which accounts for just over 80 percent of the U.S. grapefruit crop, is expected to be 10 percent below last year. Smaller crops are also forecast for Arizona and Texas. Only California is expected to produce more grapefruit this year, up 10 percent over last year.

The smaller crop is a welcome relief to Florida growers after the difficulties marketing last year's crop. By the end of 1996/97, growers had to abandon about 255,000 tons (6 million 85-lb. boxes) of grapefruit due to lack of demand. Consumption of both fresh grapefruit and grapefruit juice has been stagnant over the last several years, and demand from the fresh market and processors was not sufficient to utilize such a large crop. High retail prices throughout Florida's marketing season running September 1996 through July 1997 did not help matters. The smaller crop this year was a result of growers abandoning groves or removing trees, as well as lower yields. If realized, Florida's 1997/98 crop of 2.1 million tons of grapefruit would be the lowest since 1991/92. Fresh shipments as of mid-February have been about 6 percent below the same time last year, according to industry statistics. Red-seedless grapefruit are being harvested faster than white seedless because of the popularity of red varieties. As of mid-February, less than half the red seedless but about three-quarters of the white-seedless grapefruit remained to be harvested. About the same quantity of grapefruit has gone to processing during this period compared with a year ago, even though stocks are high. More of this year's fruit, however, was being made into chilled juice.

Grapefruit grower prices have been lower than the previous year for most of the 1997/98 marketing season (table 10). Prices began to pick up, however, beginning in December, when the Florida fresh market price was 16 percent above December 1996. Grower prices for all fresh grapefruit from September until about June strongly reflect prices received by Florida growers because they are doing the bulk of the harvesting and marketing at this time. Texas growers, unlike those in Florida, California, and Arizona, have received higher prices through most of the early part of 1997/98 because they produce mostly ruby-red grapefruit and market their fruit mostly to niche markets.

Grapefruit exports were down 4 percent from September to January 1997/98 from a year ago. Exports were down to the two major markets, Canada and Japan, but increased to

Figure 4
F.O.B. Grapefruit Prices

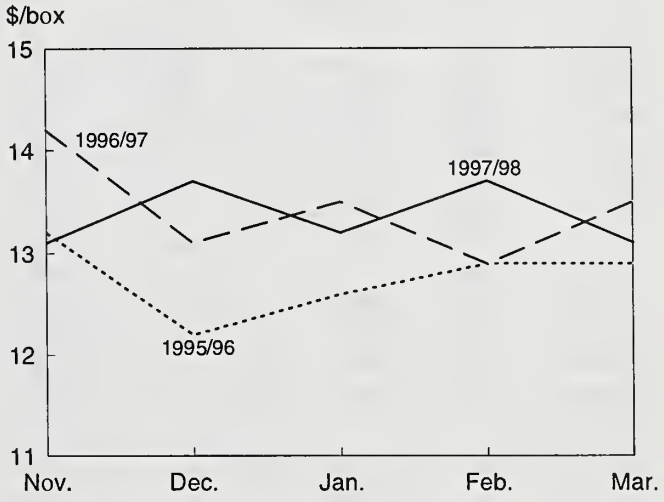


Table 9--Grapefruit: Utilized production, 1994/95-1996/97 and forecast for 1997/98 1/

Crop and State	Utilized 1994/95	Utilized 1995/96	Utilized 1996/97	Forecast 1997/98 as of 3-98	Utilized 1994/95	Utilized 1995/96	Utilized 1996/97	Forecast 1997/98 as of 3-98
	--1,000 boxes 2/--				--1,000 short tons--			
Florida, all	55,700	52,350	55,800	50,000	2,367	2,225	2,371	2,125
Seedless	54,400	51,300	54,900	49,500	2,312	2,180	2,333	2,104
Colored	28,700	28,100	31,400	28,500	1,220	1,194	1,334	1,211
Other	1,300	1,050	900	500	55	45	38	21
Arizona	1,400	1,200	900	800	47	40	30	27
California	9,300	8,100	8,200	9,000	312	271	275	302
Texas	4,650	4,550	5,300	4,600	186	182	212	184
Total	71,050	66,200	70,200	64,400	2,912	2,718	2,888	2,638

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year. 2/ Net pounds per box: California and Arizona-67, Florida-85, and Texas-80.

Source: National Agricultural Statistics Service, USDA.

Table 10--Grapefruit: Monthly equivalent on-tree prices received by growers, 1995-98

Month	Florida All 1995	Florida All 1996	Florida All 1997	Florida All 1998	Florida Fresh market 1995	Florida Fresh market 1996	Florida Fresh market 1997	Florida Fresh market 1998	Florida Processing 1995	Florida Processing 1996	Florida Processing 1997	Florida Processing 1998
	--Dollars/85-lb box--											
January	2.12	1.91	1.72	1.39	3.85	3.35	4.13	3.77	0.85	0.62	-1.09	-1.77
February	2.02	1.89	1.24	.82	4.10	3.72	3.69	3.76	1.12	.82	-.74	-1.13
March	1.77	1.76	.83	.34	3.67	3.75	4.30	3.16	1.08	.88	-.37	-.90
April	1.32	2.27	.49		2.90	4.98	3.61		.53	.78	-.73	
May	1.05	2.43	-.17		2.35	4.48	2.25		.03	.39	-1.18	
June	--	--	.60		--	--	2.46		--	--	-1.75	
July	--	--	--		--	--	--		--	--	--	
August	--	--	--		--	--	--		--	--	--	
September	--	--	--		--	--	--		--	--	--	
October	5.04	5.13	4.39		6.54	7.06	5.15		-.20	-2.15	-2.34	
November	2.41	2.58	2.16		3.70	4.57	3.58		-.32	-1.81	-1.83	
December	1.71	1.55	2.26		2.72	3.72	4.33		.44	-1.63	-1.86	

	Fresh-Arizona 1995	Fresh-Arizona 1996	Fresh-Arizona 1997	Fresh-Arizona 1998	Fresh-California 1995	Fresh-California 1996	Fresh-California 1997	Fresh-California 1998	Fresh-Texas 1995	Fresh-Texas 1996	Fresh-Texas 1997	Fresh-Texas 1998
	--Dollars/67-lb box--				--Dollars/67-lb box--				--Dollars/80-lb box--			
January	2.10	3.42	2.92	0.86	5.64	3.92	4.62	1.26	2.71	5.02	3.75	3.85
February	3.52	3.82	3.72	2.82	3.72	3.72	3.82	3.82	2.68	3.82	2.95	4.85
March	3.82	3.82	2.50	3.52	3.89	4.12	3.52	3.82	3.04	3.62	3.25	4.25
April	2.62	3.82	3.92		4.16	4.92	4.62		2.45	3.32	3.35	
May	4.32	4.52	4.12		5.29	7.82	5.62		1.81	3.32	3.35	
June	4.92	7.02	3.82		7.82	6.02	7.32		--	--	--	
July	-4.00	-3.20	2.42		8.96	4.72	8.92		--	--	--	
August	--	--	--		9.02	9.32	10.52		--	--	--	
September	13.62	13.42	--		7.62	12.12	7.32		--	--	--	
October	6.42	8.42	--		10.02	15.02	3.02		11.32	6.75	6.45	
November	4.02	7.82	.18		7.12	7.82	0.88		7.02	5.05	5.55	
December	4.32	5.12	1.81		3.32	5.62	2.02		5.12	4.25	4.65	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

France and the United Kingdom. The lower shipments to Japan also partially explain the slower movement of white grapefruit this year. Japan is a big market for white grapefruit.

Larger Lemon Crop Lowers California Grower Prices

Lemon production is estimated to be 935,000 tons in 1997/98, up 9 percent from the previous year (table 11). California's larger crop is responsible for all the increase, Arizona's crop size remains unchanged from 1996/97. The crop was reported to be of good quality. Industry sources estimate about half the lemon crop had been harvested by the end of February.

Lemon grower prices in California for 1997/98 have averaged about 15 percent below a year ago (table 12). After starting out strong earlier in the year, when supplies were low, prices have been seasonally declining as the large crop is being harvested. Arizona's grower prices were generally above last year's monthly prices, except in February when Arizona's harvest was nearly completed.

Specialty Citrus Crop Lower in 1997/98

Specialty citrus crops, such as tangerines, tangelos, and temples are expected to be lower this year than last. Tangerines, the largest crop among the specialty varieties, is expected down about 17 percent to 347,000 tons. Florida, which produces about 69 percent of the U.S. tangerine crop, is expected to have a 20-percent smaller crop this year. The smaller crop is due to fewer trees and lower yields. The winter rainstorms hitting Florida this year affected tangerines more than any other citrus crop. The thinner skin on tangerines is probably the major reason for increased droppage during January. The rain, however, has also resulted in near-record fruit size. California and Arizona each expect crop size to decline by 8 and 9 percent, respectively. Harvesting of Florida early tangerine varieties was completed by January. The smaller Florida crop has allowed for increased marketing of California tangerines.

Table 11--Lemons: Utilized production, 1994/95-1996/97 and forecast for 1997/98 1/

Crop and State	Utilized			Forecast	Utilized			Forecast
	1994/95	1995/96	1996/97	1997/98 as of 3-98	1994/95	1995/96	1996/97	1997/98 as of 3-98
	--1,000 (76 lb) boxes --				--1,000 short tons--			
Arizona	3,600	5,100	2,600	2,600	137	194	99	99
California	20,000	21,000	20,000	22,000	760	798	760	836
Total	23,600	26,100	22,600	24,600	897	992	859	935

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.

Source: National Agricultural Statistics Service, USDA.

Table 12--Lemons: State average equivalent on-tree prices received by growers, 1995-98

Month	Arizona				California			
	1995	1996	1997	1998	1995	1996	1997	1998
	--Dollars/76-lb box--							
January	3.48	1.05	4.16	4.35	4.23	1.64	4.91	2.00
February	1.59	.15	2.46	.26	2.05	1.42	2.13	1.39
March	2.59	-.38	1.43	1.16	2.65	2.27	2.19	.67
April	--	-.50	--		3.60	4.49	5.57	
May	--	--	--		9.24	6.69	15.71	
June	--	--	--		18.89	11.02	26.33	
July	--	--	--		20.23	13.13	30.88	
August	25.26	--	--		18.83	15.80	24.31	
September	23.48	15.80	--		15.33	14.49	20.16	
October	11.87	12.91	16.94		9.68	9.91	9.47	
November	5.24	7.99	8.70		5.62	8.71	4.21	
December	2.78	5.78	6.05		3.18	7.16	3.52	

-- = Not available.

Source: National Agricultural Statistics Service, USDA.

Table13--Other citrus: Utilized production, 1994/95-1996/97 and forecast for 1997/98 1/

Crop and State	Utilized			Forecast	Utilized			Forecast
	1994/95	1995/96	1996/97	1997/98 as of 3-98	1994/95	1995/96	1996/97	1997/98 as of 3-98
	--1,000 boxes 2/--				--1,000 short tons--			
Tangelos:								
Florida	3,150	2,450	3,950	2,850	142	110	178	128
Tangerines:								
Arizona	650	1,000	550	500	24	37	21	19
California	2,500	2,600	2,600	2,400	94	98	98	90
Florida	3,550	4,500	6,300	5,000	169	214	299	238
Total	6,700	8,100	9,450	7,900	287	349	418	347
Temples:								
Florida	2,550	2,150	2,400	2,300	115	97	108	104

1/ The crop year begins with bloom of the first year shown and ends with completion of harvest the following year.

2/ Net pounds per box: tangerines--California and Arizona--75; Florida--95; tangelos--95; Temples--90.

Source: National Agricultural Statistics Service, USDA.

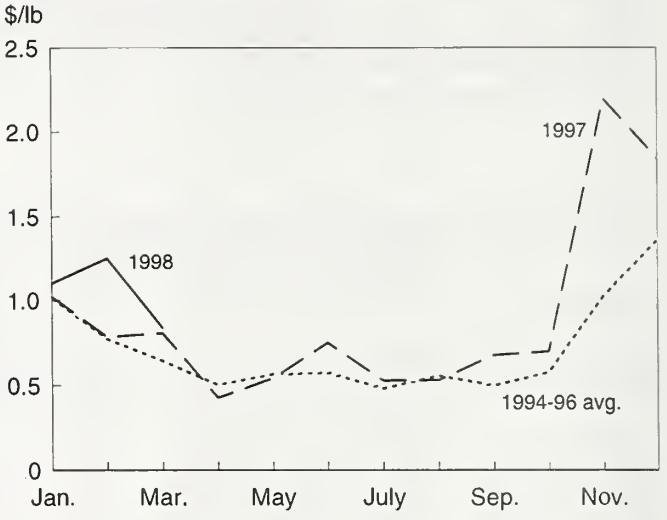
Effect of Winter 1998 Conditions On Noncitrus Crops Mixed

Winter conditions in many parts of the United States have been generally mild this year, with relatively warm temperatures and no major snowstorms. However, for much of the winter, El Niño-related storms brought heavy rains, flooding, and windy conditions to some States, especially Florida and California. Additionally, the storms have hampered production and harvesting activities of certain noncitrus crops and also resulted in some crop damage, particularly to strawberries.

Florida's winter strawberry crop has consistently received above-normal rainfall since September 1997. According to the Florida Strawberry Growers Association, about 5 percent of Florida's strawberry acreage was washed out by heavy rains in September. Fortunately, growers only had to rebed the fields and not replant, because there were no strawberry plants in the fields at that time. This, however, caused disruptions to the crop's production schedule. Heavy rains in late December, around Christmas, resulted in a lower than expected volume for the first set of strawberries that were ready for harvest, pushing prices higher. Florida strawberry fields generally receive an average of 2 inches of rain during the month of December, but in December 1997 strawberry fields received close to 16 inches of rainfall. More rainstorms again in February reduced expected harvest 20 to 25 percent. Florida ships most of its strawberries from December through May or even June, with the largest shipments in March. As of March, about 40 percent of the crop remained to be harvested which is about the average expected for the State's strawberry marketing season.

Strawberry shipments from California, the largest producer for fresh and processing markets, are heaviest from April to June. California's 1998 strawberry crop is behind schedule, interrupted mainly by heavy rains during the planting period. This delay will likely provide a market window for the remainder of Florida's winter crop. Despite a 7-percent increase in planted acreage in California, there is an upward movement in strawberry grower prices during the first 2 months of 1998, and prices have remained stronger than a year ago thus far because overall supplies have been down from last year (figure 5). Strawberry production in California's Oxnard area in Ventura County have been damaged by persistent rains. In February, a large proportion of berries intended for the fresh market have been diverted to processors. Growers were also busy stripping moldy and decayed strawberries off the plants. With favorable weather conditions in April, fresh-market supplies could pressure prices, as all strawberry-growing areas in the State will be harvesting at the same time, along with the remainder of Florida's winter crop. A seasonal strengthening of demand during the Easter season, however, could moderate any price declines.

Figure 5
U.S. Strawberry Grower Prices Average Higher



The heavy rains in California have had very little impact on its peach, nectarine, and plum crops thus far. While some of the early stone fruit varieties had bloomed by mid-February, the critical pollination period came around early March when most of the varieties bloomed. According to the California Tree Fruit Agreement, the blooms were coming in strong. Rains hampered pollination of some of the early varieties, but dry weather around the second week of March allowed bees to pollinate most of the varieties. By the end of the third week of March, fruit were expected to begin to emerge. Even though below average, the tree fruit received more than the minimum required chill hours this winter, which raises the likelihood of achieving a stronger fruit which is less susceptible to pest and disease problems, and a fruit with longer shelf life. If favorable weather conditions prevail through much of April, then it is likely that California stone fruit will be in abundant supply and available at average prices this summer.

Meanwhile, three consecutive days of freezing temperatures during the second week of March are having an impact on this year's Southeast peach crop, particularly in South Carolina, Georgia, and North Carolina. Earlier than normal blooms for early-variety peaches in the region, induced primarily by this year's relatively mild winter, were most heavily affected by the frigid temperatures. The full extent of the region's crop damage is unknown at this point, but early indications point to significant damage to the early-variety peach crop. There is still potential for the mid-and late-varieties to have a full crop. However, if another freeze hits the region by the end of March or early April, crop losses for peaches could be similar to 1996 when the region's peach production was completely devastated.

Early Estimates Indicate Reduced Avocado Production in 1997/98

While the National Agricultural Statistics Service (NASS) releases the official avocado crop estimate for the 1997/98 season May 12 and July 7, 1998, Florida and California have preliminary estimates for their crops. According to the California Avocado Commission, the 1997/98 California avocado crop is estimated to be 4 percent smaller than last season. While the rains this winter have helped the fruit to size well, winter harvest schedules were interrupted by rainy weather. Windy conditions also caused some fruit to fall off the trees. Over 85 percent of avocado production in the United States is grown in California, where harvest usually begins in November and continues into the following November. More than 50 percent of California's shipments, however, usually occur between March and August.

The Florida Agricultural Statistics Service estimates certified shipments from the Florida 1997/98 crop to be 23,750 tons, up 3 percent from the previous season. The summer varieties matured well ahead of schedule and because of good market demand in the summer and fall of 1997, winter variety shipments were nearly depleted. Commercial avocado varieties in Florida typically mature from June through March, but about 80 percent of the shipments take place from August to December. As of the second week of February, only about 1 percent of estimated certified supplies remained to be shipped, compared with the same period in 1996/97 when about 3 percent was left to be shipped.

The first season for the import of Mexican avocados to a larger portion of the U.S. market has come to a close. Shipments of Mexican fresh avocados had been banned from entering into the United States since 1914 and were only allowed into Alaska since July 1993. USDA's Animal and Plant Health Inspection Service (APHIS) approved, on January 31, 1997, imports of fresh Mexican Hass avocados from the Mexican State of Michoacan into the District of Columbia and 19 northeastern States (Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, Virginia, Ohio, Michigan, Wisconsin, Illinois, Indiana, and Kentucky). The current ruling requires that Mexican shipments of fresh avocados entering the approved States must meet stringent pest control requirements and will only be allowed into these States from November through February. Harvesting of Mexican avocado groves started in early November with shipments to the United States arriving after November 10. About 10 to 15 million fresh avocados were expected to be shipped to the approved zone this season and through January 1998, U.S. imports of Mexican avocados totaled 9.4 million pounds (4,285.6 metric tons).

New Agreement Reached On U.S. Fresh Apple Exports to Mexico

On March 19, 1998, the U.S. apple industry and Mexican commerce officials agreed to suspend an anti-dumping investigation on U.S. apples launched on March 6, 1997. This investigation had led to the Mexican Government imposing a 101.1 percent compensatory import duty, since September 1, 1997, on Red Delicious and Golden Delicious varieties, effectively curtailing U.S. apple exports to that market. Under the terms of a new agreement, the high import duty was removed but U.S. shipments of Red and Golden Delicious varieties should comply with a price floor based on Washington Growers Clearing House Association's 3-year average f.o.b. price for those two varieties starting with crop year 1995/96 through March 16 of the current crop year. Effective March 20 through October 31, 1999, the minimum f.o.b. price is $13.72 per standard 42-pound carton and 32.67 cents per pound for bagged or bulk apples. Beginning next year, the minimum price will be adjusted every November 1, using the average of the preceding three crop years.

Mexico is the third largest market for U.S. fresh apples, after to Taiwan and Canada. Red and Golden Delicious varieties predominate U.S. shipments to Mexico. Cumulative apple exports (in volume terms) from September to December 1997 declined 73 percent from the same period in 1996 and the 1990-96 average. Although this new agreement with Mexico could still prevent smaller and lower grade U.S. apples from being exported there, the absence of the high import duty will likely return export volume to more normal levels in 1998.

Record Noncitrus Production in 1997 Yielded the Highest Output Value

The preliminary estimate of utilized production of noncitrus fruit (including berries) increased in 1997 to about 18 million short tons, up 10 percent from 1996 and the largest on record. A relatively mild winter and generally dry, mild spring in 1997, particularly in the western portion of the United States, was ideal for pollination and conducive to rapid crop development. Utilized production increased for apricots, bananas, berries, sweet and tart cherries, cranberries, figs, grapes, kiwifruit, nectarines, peaches, pears, plums and prunes (produced in Idaho, Michigan, Oregon, and Washington), and strawberries. Utilized production declined for apples, dates, olives, papayas, pineapples, and prunes (produced in California).

The preliminary estimate of the value of noncitrus fruit production in 1997 is a record $7.8 billion, up 8 percent from the previous year. Increases in production more than offset declines in prices for some of the noncitrus fruit crops such as apricots, Hawaiian bananas, berries, sweet cherries, grapes, and peaches. The season-average grower price for strawberries was also up despite a larger crop. In addition, increased prices offset output declines for crops such as apples, dates, and papayas.

Acreage, Production, And Value Reach Records

Acreage of five major tree nut crops (almonds, hazelnuts, walnuts, pistachios, and macadamias) reached a record 703,000 bearing acres in 1997, 3 percent higher than 1996. (Estimates are not available for bearing acreage of pecans.) Production increased sharply in 1997 for all six of the major tree nuts to a record 1.16 million tons, in-shell equivalent, up 39 percent from the previous season. The value of production for these six tree nut crops also reached a record of $2.0 billion, up 23 percent over the 1996 combination of all tree nut values. Since the value of the 1997 walnut crop is not currently available, the total tree nut value estimate includes a carry-forward estimate from the 1996 walnut crop.

Almond Acreage, Production, And Value Hit Records

Bearing acres of California almonds continue to rise and hit a record of 420,000 acres. Yield per bearing acre in 1997 increased sharply to 1,790 pounds, which boosted production to a record 750 million pounds, shelled basis. The 1997 crop was 47 percent higher than the 1996 output and twice as large as the small crop harvested in 1995. Beginning stocks on August 1, 1997, were at a very low 48.3 million pounds, partially offsetting the higher new crop supply for the 1997/98 season.

Due to the record high production, grower prices fell to $1.50 per pound compared with $2.08 during the 1996/97 season and $2.48 in 1995/96. Even though grower prices were down substantially, the higher production pushed total almond cash receipts for growers to $1.08 billion, up 6 percent from 1996 and 23 percent more than in 1995.

The February 1998 almond industry report, by the Almond Board of California, showed domestic shipments from August 1, 1997, to February 28, 1998, totaled 106 million pounds, up 21 percent from the same period last year, while export shipments totaled 307 million pounds to date, up 3 percent. The computed inventory as of February 1, 1998, stood at 387 million pounds, of which 157 million pounds were commitments (sold, but not delivered). If almond demand continues to be good in domestic and international markets, then ending stocks could be about 111 million pounds. The stocks would be higher than the two previous seasons, but less than one-half of ending stock levels in the late 1980's and very reasonable for this large supply situation.

So far this season, shipments have been higher to North American markets (Canada and Mexico), South America, Eastern Europe, Asia, the Middle East, and Africa. However, shipments to most major markets in Western Europe have been lower because of the plentiful almond supply in this region. U.S. almonds should continue to be very price competitive in major markets due to much lower prices this season and higher quality. However, early season forecasts for the 1997 harvest indicated better than average crops in Spain, Greece, Italy, and Morocco. This large world supply will greatly affect demand, price, and competition for U.S. almonds in Europe and other major markets.

The 1998 almond harvest in California is likely to be significantly lower due to less than favorable weather this spring during the bloom period, reducing pollination, as well as to the alternate-bearing nature of the almond tree. The first forecast for the 1998 California almond crop will be issued in USDA's May 12, 1998, *Crop Production* report.

Pistachio Acreage, Production, And Value Set Records

California pistachio-bearing acreage in 1997 increased to a new high of 65,400 acres, while yields reached 2,750 pounds per acre. The result was a record crop of 180 million pounds, in-shell basis. Together with the grower price decreasing only slightly to $1.13 per pound, a record crop value of $203 million was realized. In 1998, the pistachio harvest is likely to be substantially lower since the trees will be in the "off-year" of the production cycle. The pistachio tree is very "alternate-bearing" in its physiological nature, producing heavy yields one year and then "resting" or building reserves and producing a light crop the following year.

According to the California Pistachio Commission (CPC), in-shell domestic shipments through February 28 are higher this season than the two previous seasons, but are lower than 1994/95. Domestic in-shell shipments to date are nearly 45 million pounds, 58 percent of the total, and export in-shell shipments to date are more than 40 million pounds, 42 percent of the total. Export in-shell shipments have been strong and are well ahead of previous seasons. Shipments of loose kernels and shelling stock to export markets are generally higher, but sluggish to domestic markets.

The CPC reports an in-shell inventory of 70 million pounds on hand as of February 28, 1998, about twice the quantity on hand the previous year, but 43 million pounds of the inventory is reportedly committed at this time. The projected carryover stocks of 27 million pounds would help to moderate a smaller expected crop in 1998.

In 1997, production of pistachios in foreign countries was expected to be above average in Greece, Italy, and Syria. Iran, the world's largest producer, suffered a freeze in April 1997, which cut production sharply by as much as 50-70 percent. Turkey also expected a decrease due to cold weather. There is no further information available at this time on the final outcomes of harvested production in these countries.

Pecan Production and Price Up

The preliminary estimate for pecan production in 1997 is 272 million pounds, in-shell basis, substantially higher than the small crop of 222 million in 1996, and slightly above the 1995 crop of 268 million pounds. Production of improved pecans increased 15 percent to nearly 199 million pounds, while production of seedling and native pecans jumped 50 percent to about 73 million pounds. Production was higher in all 14 commercial pecan producing States, except Alabama, Georgia, and Louisiana.

Grower prices also increased for improved pecans to a preliminary estimate of $1.08 per pound in 1997/98, in-shell basis, compared with $0.69 in 1996/97 and $1.12 during the 1995/96 marketing season. The preliminary grower price estimate for the native and seedling pecans is $0.56 per pound for the 1997/98 season, in-shell basis, compared with $0.46 the prior season and $0.73 in 1995/96. These prices resulted in a total crop value in 1997 of $257 million compared with $141 million in 1996 and $272 million in 1995. These preliminary production, price, and value estimates will be updated and published in the USDA's *Noncitrus Fruit and Tree Nuts Summary* report to be issued on July 7, 1998.

The beginning stocks for all pecans on July 1, 1997, were 60 million pounds, shelled-equivalent basis. Combined with a new crop supply of about 122 million shelled pounds and 25-30 million pounds of imported pecans, supply will total 210 million pounds, nearly unchanged from the previous two seasons. Cold storage stocks of pecans in all warehouses on January 31, 1998, were 27 million pounds shelled, moderately lower than the previous year, but in-shell pecan stocks were much higher at 170 million pounds. The net result is that the shelled equivalent of all pecans in storage was 104 million pounds, 23 percent higher this January compared with January 31, 1997. This result may indicate that domestic and export markets are slow to absorb the larger new crop supply at higher prices, even though the 1997 crop is of higher quality than the 1996 crop. Also, it may indicate increased competition with walnuts in domestic markets due to the large walnut supply.

Walnut Acreage and Production Increases

Bearing acreage of California English walnuts increased slightly in 1997 to 170,000 acres. Yield per bearing acre was the second highest on record at 1.58 tons per acre, well above crop yields in recent years. Harvested production was 269,000 tons, in-shell basis, the highest on record.

In-shell shipments from August 1, 1997, to January 31, 1998, totaled 110 million pounds, down 21 percent from the same period a year ago. Both domestic and export shipments of in-shell walnuts are lower. Shelled shipments during this period totaled 88 million pounds compared with about 86 million the previous year. Domestic shelled demand has been a little better this marketing season, while exported shelled demand has been off slightly. The net result of all shipments shows 162,079 tons, in-shell equivalent, has been shipped to all markets compared with 173,035 tons last season. Domestic demand has been 94,303 tons, up 3 percent, while export demand has been 67,776 tons, down 17 percent. The lower export demand is the result of large world supplies. Demand should improve as the season progresses and the supply decreases. The available supply from other countries, like China, is a "short-lived" situation in the fall-winter that can create a temporary glut. Generally, most countries do not have the same storage and shipping capabilities as the United States, nor is the walnut quality as high as U.S. product.

The 1997 walnut production in China was expected to be up slightly to a record of 240,000 metric tons, in-shell basis. Other walnut producing countries such as Turkey, India, Italy, France, and Chile were expecting normal production. No updates are yet available on foreign production.

Hazelnut Acreage, Production, And Value Reach Records

U.S. hazelnut production reached a record 44,100 tons, in-shell basis, as the result of record bearing acreage of 28,475 acres and an all-time high yield of 1.55 tons per acre. Grower prices were also strong, estimated at $894 per ton for the 1997/98 marketing season compared with $859 in 1996/97, and $913 for 1995/96.

Somewhat surprising, in lieu of the large available supply, is that domestic in-shell shipments to date (July 1, 1997-January 31, 1998) have been lower. However, export in-shell shipments have been substantially stronger this season. Likewise, exports of kernels have been much stronger, but domestic shipments of kernels have been slightly lower to date.

Turkey, the world's largest producer of hazelnuts, was expecting a large crop of about 524,000 short tons. Large crops were also forecast in Italy at about 110,000 tons, and Spain at about 20,800 tons. No data are currently available on actual harvested tonnage.

Macadamia Nut Yield and Production Higher

The Hawaiian macadamia nut production hit a record 58 million pounds, in-shell wet basis, due to an improved yield of 3,020 pounds per acre. Bearing acreage in 1997 held steady at 19,200 acres. The yield was not a record, but was the highest since 1986. The estimated grower price fell to $0.74 per pound compared with $0.78 in 1996 and $0.74 in 1995.

Economic Trends in the U.S. Pecan Market with an Overview of The U.S. and World Tree Nut Complex

Doyle C. Johnson[1]

Abstract: The United States is the world leader in production and exports of tree nuts. Pecans are a major tree nut commodity in U.S. markets, accounting for one-fourth of the U.S. tree nut diet. Total use, domestic consumption, and exports increased 8 percent from the 1980's to the 1990's. Acreage and production are expected to trend upward in the coming years. Imports from Mexico have continued to climb and have boosted total supply and stock levels. Imports are about one-fourth the size of the U.S. crop. Unlike other tree nuts, pecan exports have experienced slow growth and are a minor share of supply. The value of the U.S. pecan crop and grower prices have risen moderately.

Keywords: Tree nuts, pecans, production, supply, imports, demand, prices.

The Nature and Importance of Pecans in American Agriculture

The pecan is the only tree nut native to North America. It is produced commercially in 14 southern States from the West Coast to the East Coast. The United States is the world's largest producer of pecans, with an estimated 75 percent of the total, followed by Mexico, with about 20 percent, and the remaining 5 percent are from small commercial plantings in several countries such as South Africa, Australia, and Israel. Pecans account for about one-fourth of U.S. total tree nut consumption. About 21,000 farms grow pecans worth $250 million annually. Most pecan growers are part-time and many grow other crops, such as cotton, peaches, and peanuts, or raise livestock for income diversification.

Recent World Production and Export Trends For Tree Nuts

World tree nut production for the 1997/98 marketing year is estimated at 5.32 million metric tons, about 5 percent higher than the previous marketing season.[2] World production and exports of tree nuts have trended up since 1989, but exports are still only 16 percent of production (figure A-1). In many countries, the majority of tree nut production is consumed within the country where it is produced. In the case of the United States, about two-thirds of its total tree nut production is exported. Although pecan exports are growing, the quantity exported is still less than 20 percent of U.S. production.

The United States is the world's leading producer of tree nuts and commands about 18 percent of the total, followed by Turkey (14 percent), China and Iran (each 8 percent), and Spain and Italy (each 5 percent), all other countries account for about 41 percent (figures A-2 and A-3). The U.S. share of world tree nut supply grew in 1997, with large crops of almonds, pistachios, hazelnuts, and walnuts. Likewise, moderate increases were noted for U.S. production of macadamias and pecans last season. The largest crop in world tree nut supply is almonds, with about 23 percent of the total, followed by walnuts (20 percent), cashews (16 percent), hazelnuts (13 percent), chestnuts (10 percent), pistachios (8 percent), and all others about 10 percent (figure A-4). Pecans account for 4-to-5 percent of the total. Most of the world's almonds and pecans come from the United States, and the United States also produces a substantial share of the world's walnuts, pistachios, and macadamias.

The Major Tree Nut Markets in the World And Which Tree Nuts Dominate

Although India leads as the world's largest importer of tree nuts with nearly 15 percent of the total, Europe remains as the more traditional market for U.S. tree nuts (figure A-5). Germany is the most important European market, with 12 percent of the world's total imports of tree nuts. Other important markets in Europe include Spain, France, the United Kingdom, Belgium, and the Netherlands. Major markets in Asia include Japan with 10 percent of the world total and Hong Kong with 6 percent. Other significant markets include Singapore, Taiwan, and Korea. China has increased its market share and could rapidly become a substantial consumer market. The United States itself is a major importer of tree nuts, with 7 percent of the world total.

[1]Agricultural economist, Specialty Crops Branch, Marketing and Trade Economics Division, Economic Research Service, USDA.

[2] Food and Agriculture Organization, United Nations.

Other important world markets include United Arab Emirates, Syria, Canada, and Russia—the latter is quickly becoming a major buyer.

In 1995, hazelnuts were the most important tree nut commodity, in terms of quantity, traded in world markets with 30 percent of the total (figure A-6). This was followed by almonds (23 percent), cashews (16 percent), walnuts (12 percent), chestnuts (5 percent), pistachios (4 percent), and Brazil nuts (1 percent), and the remaining 9 percent were "all other" tree nuts. The all other tree nut category includes pecans, pignolias or pine nuts, macadamias, kola nuts, and areca nuts. Pecans comprise about 5 percent of total world tree nut imports.

The United States exports pecans primarily to Canada, Mexico, and Europe; however, some of the exports to Mexico are shipments to *maquiladoras* which shell-out pecans and re-export to the United States. Mexico exports its pecan production principally to the United States and Canada, but it is also expanding exports to Europe and South America.

Trends in U.S. Pecan Production, Supply, Consumption, and Imports

U.S. pecan production climbed moderately during the late 1970's and early 1980's, peaking in the mid-80's, then declined during the late 1980's and early 1990's. Pecan production is now experiencing somewhat of a resurgence since the mid-90's due to plantings in the 1980's. New bearing acreage partly explains this phenomenon as yields increase. Total pecan acreage expanded about 4 percent between 1987 and 1992, with the number of bearing-age trees increasing 11 percent. Nearly all of this increase occurred in the Southwest and for improved pecan varieties. There have been steady declines in the population of native pecan trees and a slight decline in acreage in the Southeast. It is expected that these trends have continued since 1992, but more recent data on farm numbers, acreage, and tree numbers are unavailable until publication of the 1997 *Census of Agriculture.*

U.S. pecan imports were mostly insignificant during the 1970's, rose moderately during the 1980's, and then rose substantially during the 1990's (figure A-7). Imports are now about one-fourth of U.S. pecan production. Generally, pecan supply and consumption have tracked very similar curvilinear trends over the past 20 years; however, during the mid-1990's there appears to be a departure from the normal consumption/supply relationship (figure A-8). Perhaps one explanation for this phenomenon is the substitution of pecans by cereal manufacturers and other industry users for lower priced tree nuts whenever pecan quality is low and/or prices are high.

Economic Implications of Pecan Supply and Demand on Grower Prices

Total U.S. pecan *supply* (production+imports+beginning stocks) has had a strong upward trend over the past 20 years, and this has been especially true in the most recent 5 years (figure A-9). Pecan supply has outpaced pecan *use or demand* (domestic consumption+exports) which has gradually resulted in higher stock levels. This change has occurred in spite of a general downward trend in production. Pecan use in the 1990's has averaged 135 million pounds, shelled basis, or about 8 percent higher than the 1980's. In comparison during the same time period, walnut use has jumped 20 percent, mostly due to higher exports.

It is notable that pecan grower *prices* (season average of all sales) have trended upward modestly while pecan use has made stronger gains (figure A-10). Prices are nearly flat for the period prior to 1990 and also for the period after 1990. However, prior to 1990 prices were significantly lower, but also more stable. This fact may indicate that a more uncertain supply/price situation has occurred since 1990, perhaps shellers bidding up prices, more open market sales, and direct marketing, or other economic factors influencing market conditions.

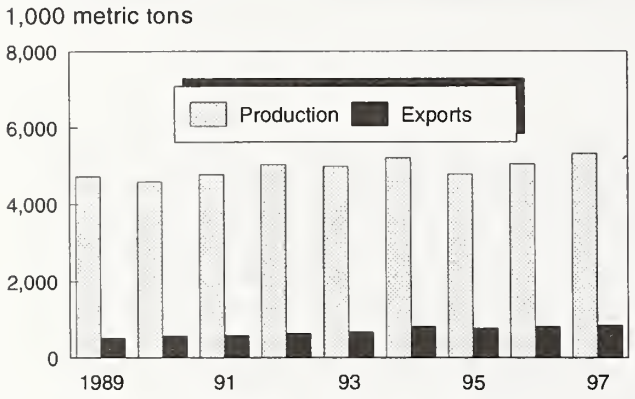
Statistically, pecan prices regressed on pecan supply have a low correlation coefficient or, in other words, supply explains only a part of the year-to-year variation in prices. Pecan growers must sell their crops in a short time period (September-December) in an "oligopsonistic" market where there are relatively few buyers involved. If shellers invested heavily in the previous crop or "cost of goods inventory," they will have less propensity to invest heavily in the current crop, even though it may be smaller in size and of higher quality. However, other economic factors will impact price determinations such as size of the Mexican pecan crop, current availability of improved vs. native pecans, stocks, and supplies and prices of competing tree nuts, especially California almonds and walnuts.

Trends in pecan and walnut grower prices have been very similar with the recent exceptions of 1993 and 1996, when shelled walnut prices were significantly higher than pecans (figure A-11). This shift was primarily the result of low quality pecans that reduced grower prices. The 1991 crop was a record high combined with below-average quality, but the low prices in 1996 occurred when a small crop was produced, also with quality problems.

The 1994 walnut crop quality was poor due to extensive sunburn damage which caused prices to fall substantially; however, prices were high for the relatively small available supply of light halves, the highest quality product-type demanded by the trade. Since 1995, walnut prices have improved and been more stable. The short supply of quality walnuts bolstered pecan prices in 1994 and helped to stabilize prices again in 1995. Similar quality problems occurred with pecans in 1993 when a significant portion of the crop, especially in the Southwest, was heat damaged, causing shriveled kernels. The lower quality pecans not only adversely impacted prices, but yielded much lower kernel

World Tree Nuts

Figure A-1
World Tree Nut Production and Exports 1/



1/ 1996 and 1997 exports estimated.

Figure A-2
World Tree Nut Production by Country, 1997

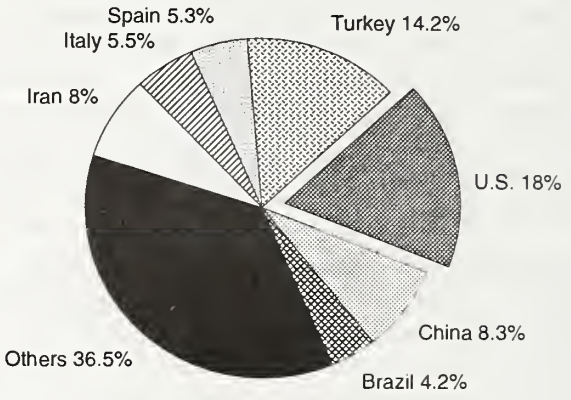


Figure A-3
World Tree Nut Production by Country, 1996

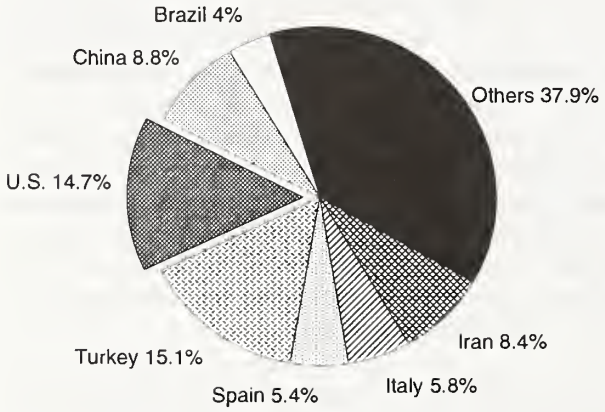


Figure A-4
World Tree Nut Production, 1996

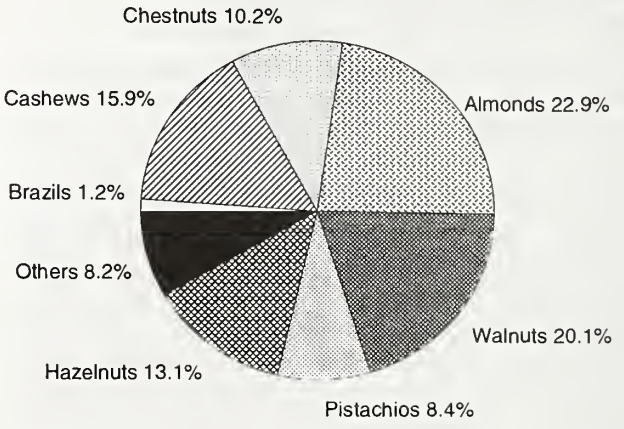
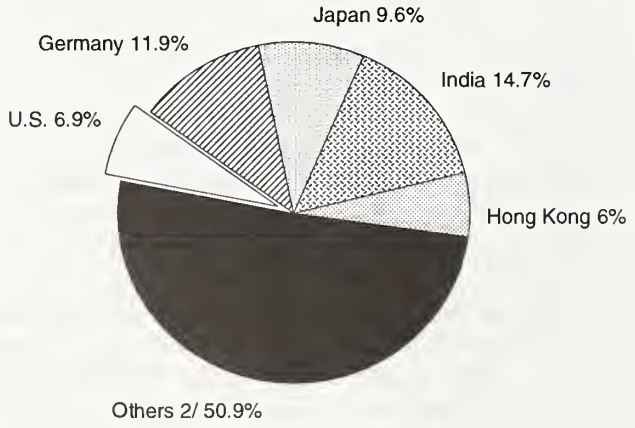
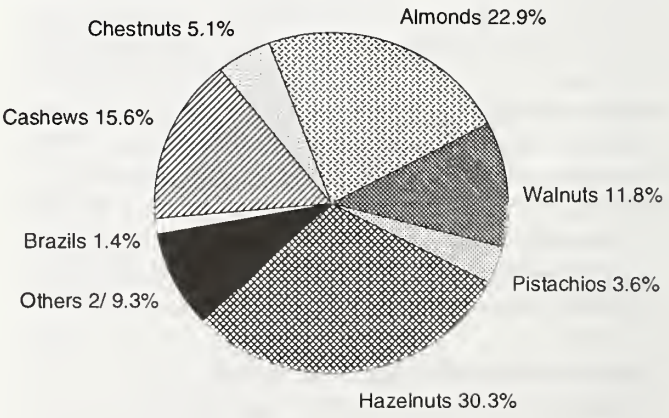


Figure A-5
World Tree Nut Imports by Country, 1995 1/



1/ Based upon import value. 2/ Majors are Western Europe, Canada, Singapore, Russia, United Arab Emirates.

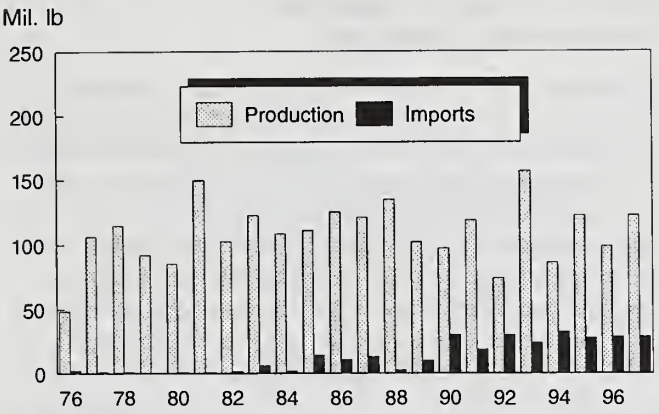
Figure A-6
World Tree Nut Imports, 1995 1/



1/ Based upon quantity.
2/ Pecans, pignolias, Macadamias, kola nuts, areca nuts.

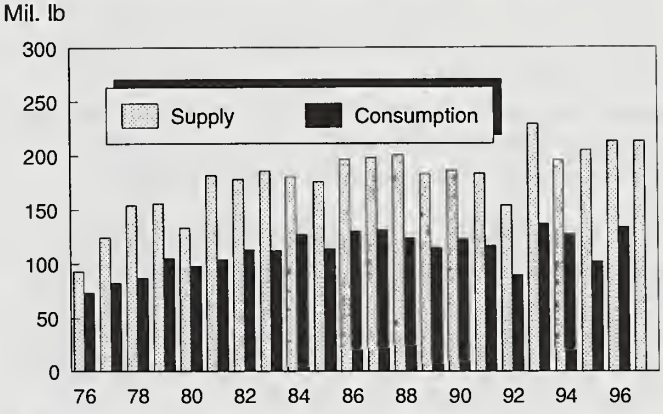
U.S. Pecans

Figure A-7
U.S. Pecan Production vs Imports



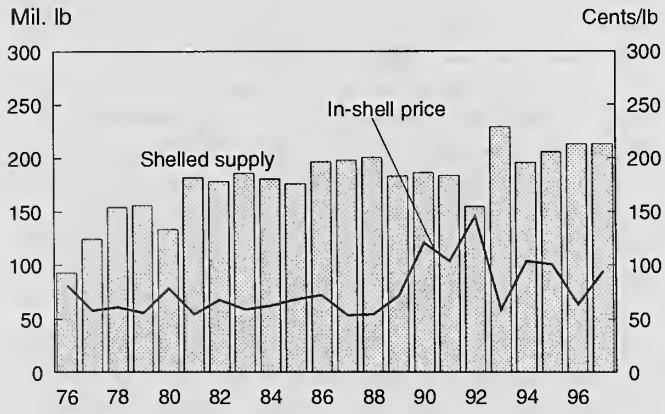
Shelled basis.

Figure A-8
U.S. All Pecan Supply and Consumption



Shelled basis.

Figure A-9
U.S. All Pecan Supply and Grower Price



1/ 1996 and 1997 exports estimated.

Figure A-10
U.S. Pecan Use and Grower Price

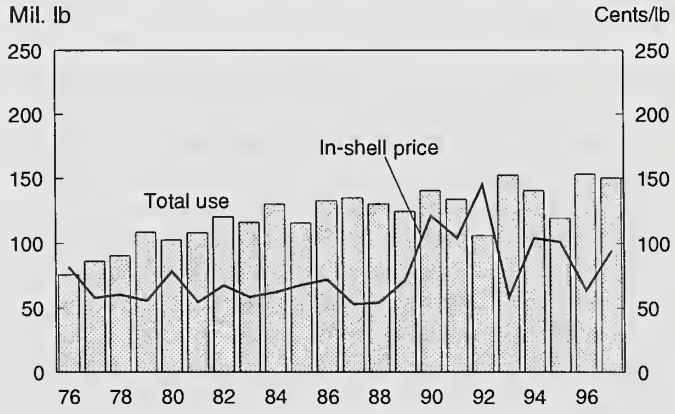


Figure A-11
U.S. Pecan and Walnut Grower Shelled Prices

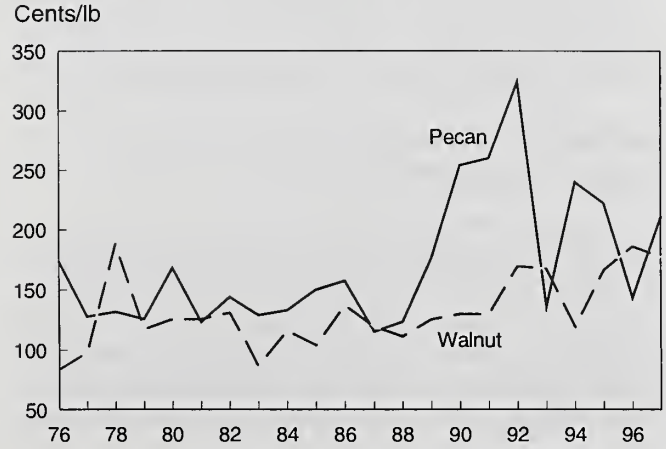
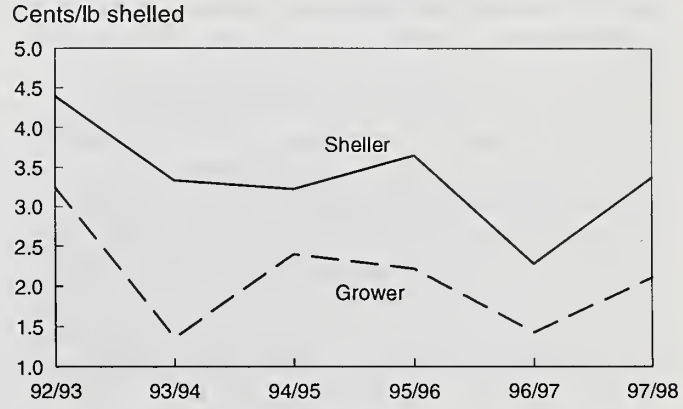


Figure A-12
U.S. Pecan Sheller Wholesale vs. Grower Prices



Sheller quotes (Oct.-Dec.) fancy f.o.b. Southwest.

shell-out and pounds harvested, reducing grower revenue even further. However, prices were excellent for good quality, fancy-grade pecans, when and where available.

Again in 1996, crop production, quality, and prices were adversely impacted. Lower demand resulted because users did not want the low-quality product nor did they want to pay high prices for a limited supply of the high-quality product. Imports increased because there was not sufficient quantity of high-quality domestic product. Pecan use or demand then can be dampened whenever there is disparity in domestic product quality, availability, and price, and imports are likely to increase to fill the void in supply.

Figure A-12 compares some sheller wholesale and grower prices for the past 6 years. The sheller prices are mid-points of price range quotes, f.o.b. fancy-grade pecans, Southwest, during October, November, and December when most of the crop is sold. The grower prices are season average prices for all sales; however, again most of the crop is sold during the fall months. It is apparent that sheller/grower price margins can increase or decrease year-to-year depending on supply, crop quality, and other economic factors. A further review of sheller wholesale prices over the past three seasons, reveals that prices vary considerably within a season as well as year-to-year (figure A-13).

Pecan production has actually trended lower and has been more than offset with higher imports, but is now resurging to levels experienced in the mid-1980's. Also, since total use or "apparent disappearance" has not kept pace with an upward trend in supply spurred by imports, ever higher stock levels can be a continuing problem for growers and shellers. Industry experts indicate that a major cause for this long-term production decline is due to lower yields rather than tree numbers. Average yield levels for mature improved groves have in many cases reportedly dropped from historical or typical levels of 1,000-1,200 pounds per acre to 800-900 pounds. A reason for the general yield decline could be a shift in the age structure of the trees. Trees planted in the 1980's are just now beginning to bear significant commercial quantities, and yields will continue to increase with maturity.

Anecdotal data and interpretation of information about pecan growers, many of whom are part-time, indicate that many growers may not be expending the necessary inputs (chemicals, fertilizers, water, etc.) to maintain yields at higher levels, rather, they are perhaps opting to attempt to cut costs to maintain profit margins. These cost-cutting decisions can result in short-term and long-term effects. Not only does it appear that this general cutback in production inputs may be affecting current crop yield and production levels in terms of pounds per acre and meat yields, but the long term viability and vigor of the trees may be affected. Also, implied is that if prices and returns are not sufficient to maintain adequate input levels then they are also not sufficient to replace lost trees and plant new acreage.

Another reason for the long-term production decline is the removal or loss of older trees to urban development, wind damage, drought, disease, abandonment, or other causes. Some of the trees have been replaced or replanted with newer, higher yielding cultivars, but these trees have not yet matured to their peak yield potential.

Effects of Pecan Production On Pecan Grower Prices

Increases or decreases in pecan production can inversely affect prices; however, supply is altered not only by changes in production, but also stocks and imports. Pecan crop quality is also an over-riding price factor. In 1996, pecan production was down for mostly weather-related causes and there were significant quality problems. Record high stocks carried over from the previous season and imports more than offset the smaller new crop. Like pecans in 1996, most tree nut commodities experienced an "off-year" in the production cycle. The California walnut crop was down substantially and the reduced total supply pushed grower prices there to record highs. Pecan prices should have strengthened, but, conversely, pecan prices fell sharply.

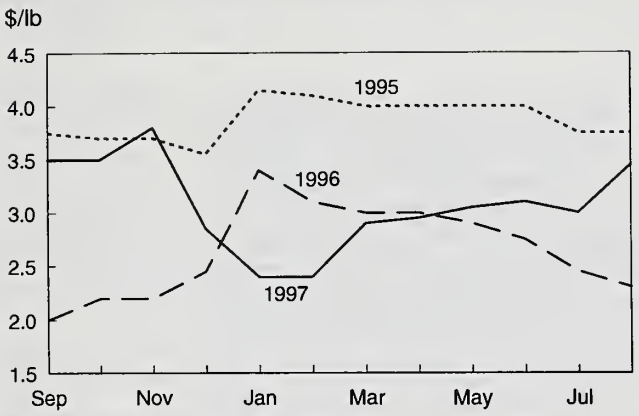
Since we know there is some *complementarity* as well as some *substitutability* among pecans, walnuts, and almonds, it appears that competing nut supplies/prices may be only a limited factor in pecan prices as prices for the different crops moved in opposite directions. Manufacturers in many instances base their purchase decisions on quality more so than price and are willing to pay higher prices for commodity x (say walnuts) for excellent quality, even if commodity y (say pecans) prices are much lower and quality problems exist. Therefore, both supply and crop quality appear to be significant price-determining factors.

The pecan supply and price situation for the 1997/98 season is very similar to the situation in 1995/96. However, prices this season are reportedly a little lower, owing to several factors including the record U.S. walnut crop and lower prices. The large walnut crop will likely boost walnut exports, but only modestly since world supplies are very high due primarily to another record harvest in China. This situation will likely cause a build-up in U.S. walnut stocks since domestic use is not expected to absorb the additional supply. Likewise, there could be a rise in ending pecan stocks if domestic use does not increase from last season.

Interaction Between Improved vs. Native Pecan Supplies/Prices

Production of native and seedling pecans is more erratic than improved pecans, mostly due to a more accentuated cyclical nature, but also partly due to geographic concentration, less irrigation, and lower management intensity, and the inherent, inferior biological characteristics of native and seedling trees (figure A-14). Often native pecan prices are fairly inelastic to changes in supply, but close examination

Figure A-13
U.S. Sheller Wholesale Seasonal Prices



F.o.b. fancy Southwest.

Figure A-14
U.S. Native Pecan Production and Price

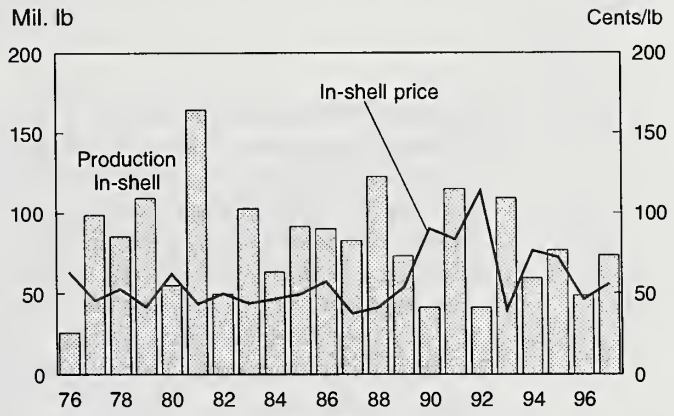


Figure A-15
U.S. Improved Pecan Production and Price

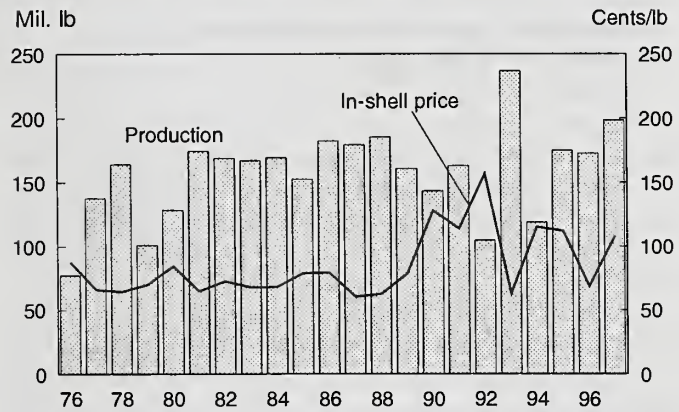
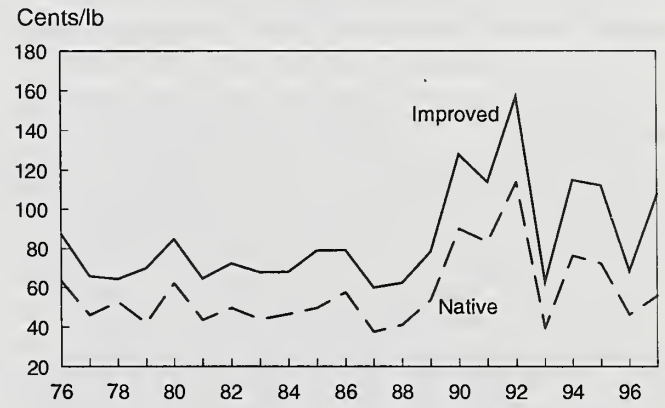


Figure A-16
U.S. Pecan Grower In-shell Prices



of the data reveals that native prices are highly correlated to improved pecan prices and are much less dependent on the native pecan supply (figure A-15). In fact, the trend in native prices is nearly in perfect parallel to the trend in improved pecan prices. Native and seedling prices are typically established at a basis 25-30 percent below improved pecan prices to reflect the difference in processing costs. Shelling ratios are much lower for native and seedling pecans; thus, a "higher count" of pecans is required to yield a pound of nut meats, which results in higher shelling costs.

Since the native price is a direct function of the improved price, almost 1:1, where an increase or decrease in the price for improved pecans result in a proportional increase or decrease in the price for native pecans; i.e., the native price is virtually always within a fixed-range or margin below the improved price (figure A-16). Therefore, the native pecan price can be predicted from the improved pecan price with a high degree of statistical reliability. Since the price for natives is a function of the improved price and not the supply of natives, one should attempt to forecast initially the improved price, then the native price, and then the combined overall price. Grower gross crop cash receipts are the sum of the improved pecan receipts plus the native pecan receipts.

Future Perspectives for the U.S. Pecan Industry

Pecan prices are likely to remain weak unless domestic and international demand rises significantly to boost pecan use to much higher levels. With the development of new products and markets, the pecan industry could enhance sheller and grower price and profit positions and greater total returns that can be used to re-invest in improving production capabilities, efficiencies, and better long-run industry viability.

The Role of Trade in U.S. Horticulture

Agnes Perez[1]

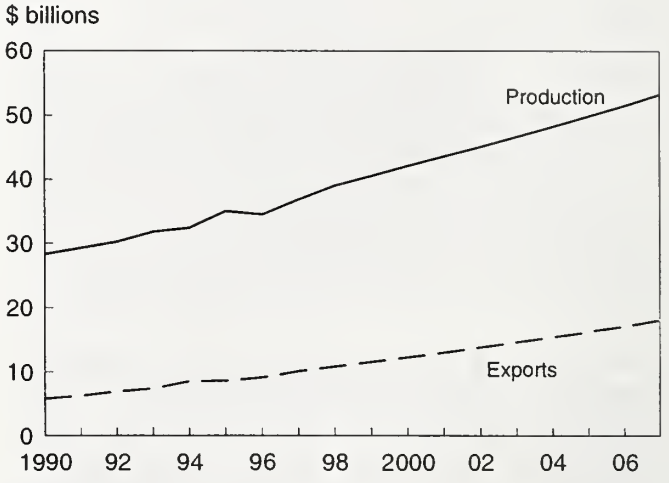
Abstract: The long-term prospects for U.S. horticultural trade appear good. Exports will continue to be a primary source of growth for the industry, driven mainly by world economic growth, particularly in developing regions, and by international trade agreements to liberalize global trade. The Asian financial crisis will likely result in diminished demand for a number of U.S. fruit and vegetable products in that region in the short run. But because of the strong export growth to Asia during most of the 1990's and projections of higher than world average economic growth there, Asia will likely remain an important market for U.S. fruit and vegetables, especially with the emergence of new markets, like China. Similarly, increased economic growth in other developing regions, such as in South America, will help expand market opportunities for U.S. fruit and vegetable exports. Imports, particularly of fresh-market produce, will likely continue to be a growing share of domestic consumption.

Keywords: Horticulture, exports, imports, fruit, vegetables, long-term, short-term.

International trade has become increasingly critical to the success of the U.S. horticulture sector. In calendar year 1998, U.S.exports of horticultural products[2] are forecast to reach a record $10.8 billion, up 7 percent from the previous year and nearly double the level of 1990 (figure B-1). The share of U.S. horticultural production that is exported has grown from 20 percent in 1990 to 27 percent in 1997, and is forecast to reach 28 percent in 1998. Even with the large growth in exports over the last 8 years, the United States remains a net importer of horticultural products, with imports rising from $8.2 billion in 1990 to a forecast of $12.8 billion in 1998. Exports expand markets for domestically produced products, and imports generally fill seasonal voids in domestic production. Fresh and processed fruit and vegetable imports, including nuts and wine, account for more than 80 percent of the value of U.S. horticultural imports (the remainder attributed to purchases of greenhouse and nursery products). Nearly one-sixth of all fruit and vegetable consumption in the United States comes from imports.

U.S. horticultural producers are projected to post 3 to 4 percent annual gains in production value after 1998, based on slight increases in domestic consumption and 1 to 2 percent increases in output and price. Income growth of trading customers and increased market access are some factors affecting the long-term outlook for horticultural trade. Horticultural exports are projected to increase 5 to 7 percent annually, with fruit and vegetable exports accounting for 98 percent of total export value, while import value is projected to grow at a steady rate of 4 percent per year. With these anticipated long-term projections, net horticultural trade could favor exports by the end of the next decade.

Figure B-1
Horticultural Production and Exports To Continue To Grow



Factors Affecting U.S. Horticultural Trade Prospects

The outlook for U.S. horticultural trade is shaped by long-term and short-term factors. Some of the underlying long-term factors are the income growth of trading customers and increased market access stemming from trade liberalization.

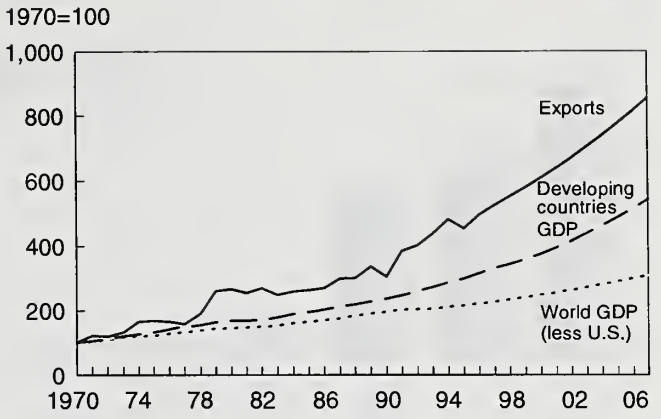
[1] Agricultural economist, Specialty Crops Branch, Marketing and Trade Economics Division, Economic Research Service, USDA.
[2] Horticultural products include fruit and nuts (including juice and wine), vegetables (including potatoes, pulses, and mushrooms), and greenhouse and nursery products.

Any deviations from the long-term trend are a result of short-term factors that can intermittently hinder or help trade prospects of U.S. producers. Examples of these short-term factors are changes in the U.S. dollar exchange rates in foreign markets and fluctuations in world supplies. Other factors, such as trade barriers and productivity changes from technological innovations may have a long-term or short-term effect.

There is significant evidence to show that global economic growth will fuel export demand for U.S. fruit and vegetables through the turn of the century (figure B-2). As a country's income grows, their demand for most commodities are expected to increase. Table B-1 further demonstrates the strong relationship between income and U.S. export volume. The first row in this table reports a measure of this correlation (the correlation coefficient) for the period 1970 to 1982, while the second row reports the same measure for 1984 to 1996. In the latter period, all regions represented in the table are wealthier, and almost uniformly show a slightly diminished (but still strong) correlation between income and imports of U.S. fruit and vegetable products. This result helps explain why long-run forecasts for U.S. export growth are higher than for U.S. import growth in fruit and vegetable products. Wealthier countries, such as the United States, are likely to spend diminished shares of increasing incomes on food items, while developing countries (increasingly important customers for U.S. exports) are expected to continue to spend larger shares of new income on food items. This result, combined with projections that most developing countries are going to experience higher than average economic growth through the next decade, will be good for U.S. export prospects.

Global economic growth is projected to average over 3 percent annually over the next decade, well above the growth during 1990 to 1996. Average real gross domestic product (GDP) growth for the U.S. fruit and vegetable industry's top export markets—Canada, the European Union, and Japan—are projected higher during 1997 and beyond. Despite current financial problems, smaller markets in East Asia such as Hong Kong, Taiwan, South Korea, Indonesia, Thailand, and the Philippines will continue to remain important markets. They have shown promise with stronger growth during the 1990's (figure B-3). As soon as financial conditions turn around in these countries, U.S. fruit and vegetable exports

Figure B-2
Real World GDP Drives Export Growth of Selected Major U.S. Fruit and Vegetables



Included are exports of almonds, fresh apples, fresh oranges, fresh grapes, frozen potatoes, fresh lettuce, and fresh tomatoes.

there will likely continue strong. Real GDP growth in East and Southeast Asia is projected to average 6.8 percent for 1997-2001, down slightly from 8.6 percent during 1990-1996. South America is another developing region where growth in fruit and vegetable exports has been strong in the 1990's, and economic growth there is projected to double in 1997 and beyond.

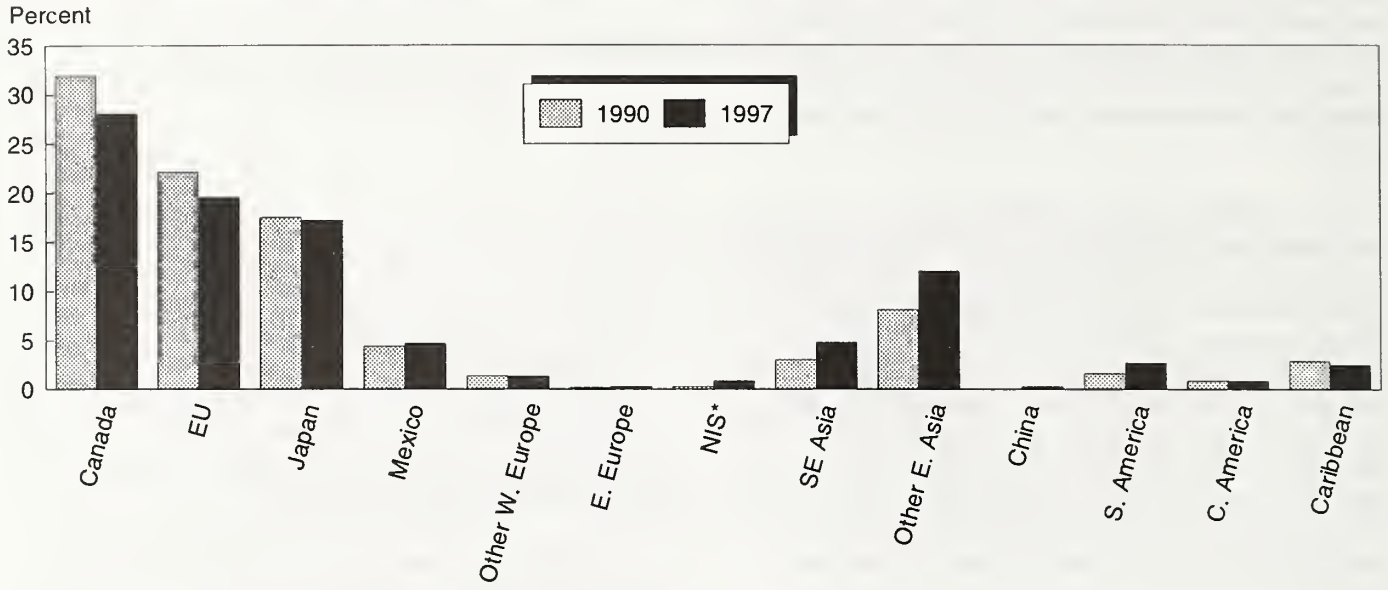
As global trade agreements are reached, increased market access for specific horticultural products will stimulate future export growth in the U.S. fruit and vegetable industry. Examples of these new markets are the opening up of mainland China last year to California fresh table grapes and Washington cherries and the opening up of Japan to most major varieties of U.S. fresh tomatoes. China continues to ban the importation of most U.S. fruit due to phytosanitary concerns. The exceptions are Pacific Northwest apples, Washington cherries, and California table grapes. A positive development, however, is that China has already taken steps to reduce import duties for a wide range of horticultural products, including most fresh vegetable items, tree nuts and fresh fruit, processed fruit and vegetables, and juices, effective October 1, 1997. Similarly, Japan prohibited fresh tomato shipments from almost all countries since 1951 due to phytosanitary concerns over the disease *tobacco blue mold*. Since June 1997, about 302 metric tons of U.S. fresh

Table B-1-- Correlation coefficient on income and U.S. fruit and vegetable exports, selected countries/regions

	World-US	Canada	Japan	EU	Mexico	H. Kong	S. Korea	China	S. America
Period 1970-82:									
Total of selected products	0.96	0.95	0.96	0.96	0.97	0.96	0.95	0.97	0.95
Period 1984-96:									
Total of selected products	0.95	0.89	0.92	0.94	0.93	0.96	0.96	0.97	0.95

Export products included in total are almonds, fresh apples, fresh oranges, fresh grapes, frozen potatoes, fresh lettuce, and fresh tomatoes.

Figure B-3
Export Shares Rising Only in Developing Countries 1/



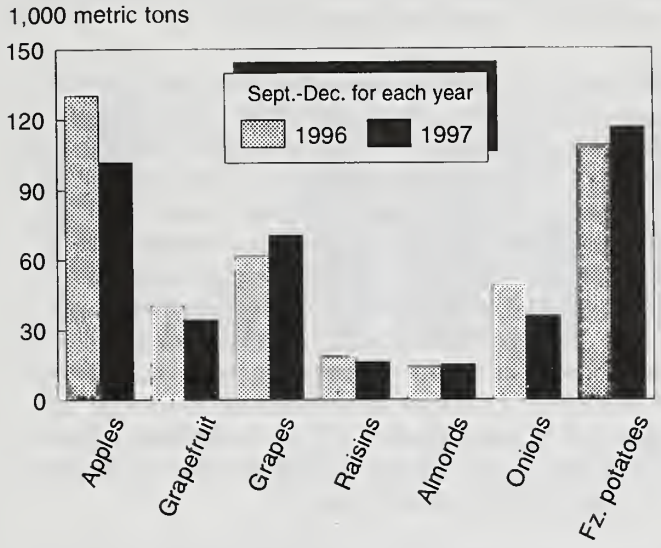
1/ Percent of U.S. fruit and vegetable export value. * New Independent States.

tomatoes were exported to Japan. While tariffs for these commodities still remain high and these new markets still need to be developed, China's projected per capita GDP growth of over 8 percent annually and its large population base and Japan's rapidly growing "western style" food service industry are indicators of their market potential.

In the short-run, the outlook for U.S. horticultural trade is clouded by currency devaluations in Asia since late summer 1997, particularly in Southeast Asian countries such as Thailand, Indonesia, Malaysia, and the Philippines, and to South Korea and Japan as well. Generally, exports of U.S. goods to markets with declining currencies result in U.S. products priced relatively higher than their domestic goods, diminishing the demand for U.S. products in those countries. Meanwhile, exporters from these same countries will be in a more price competitive position in the U.S. market and third country markets. Since many U.S. horticultural product exports are not staple items in the diets of most developing Asian countries, Asian consumers are more likely to substitute U.S. products with local goods or possibly do without, particularly for commodities such as fresh fruit, wine, and nuts. For example, U.S. exports of fresh apples, fresh grapefruit, raisins, and fresh onions to Asia during September to December 1997 have declined from the same period a year earlier (figure B-4). Exports of fresh grapes, almonds, and frozen potatoes, however, increased. To a certain extent, record U.S. production of grapes and almonds in 1997 pulled down prices for these commodities and, along with good fruit quality, helped the United States maintain competitiveness in the Asian market. The Japanese yen had depreciated even before the financial crisis began in Southeast Asia and has largely contributed to reduced U.S. exports to that country. In 1996, U.S. fruit and vegetable exports to Japan fell 6 percent in value from the previous year and in 1997, exports have gone down 3 percent. Despite the weaker yen, Japanese demand for french fries remains strong. Imports of U.S. frozen potatoes, the top export item of the U.S. fruit and vegetable industry to this foreign market, are still up 6 percent in value terms from 1996 and are also up 8 percent in volume terms. While Southeast Asia is a relatively small market for U.S. fruit and vegetables, the region's share of U.S. fruit and vegetable exports (in value terms) has increased from 3 percent in 1990 to about 5 percent in 1997. South Korea is also a relatively small market, making up 2 to 3 percent of total export value. Japan, on the other hand, is a large market, accounting for approximately 17 percent of total export value.

Fluctuations in world supplies also affect the demand for U.S. exports and U.S. demand for imports in the short-run. The U.S. share of the global market increases when domestic supplies are large and/or traditional suppliers in the world market experience a decline in production. In contrast, U.S. demand for imports rises when domestic production is low and/or traditional suppliers experience a bountiful harvest. These supply factors are generally unpredictable, caused in most cases by unusual weather (either favorable or unfavorable), such as the effects of the El Niño phenomenon. The overall impact of El Niño on 1998 fruit and vegetable production could generate some downward adjustment in the export forecast.

Figure B-4
U.S. Exports of Selected Fruit and Vegetables To Asian Countries



A number of barriers, both natural and artificial, diminish export opportunities for U.S. producers. Depending on the nature of the barrier, the impacts to U.S. exports could either be long term or short term. Examples of these barriers include costly transportation of products to far off markets and legal trade barriers such as government protectionist policies. Liberalization of trade through multilateral, bilateral, and/or regional trade agreements are important in relaxing many of these existing legal trade barriers either by tariff reductions or harmonizing technical barriers to trade (TBT).

Technical barriers to trade, such as phytosanitary requirements and labeling issues, are an example of a legal trade barrier. TBTs are not necessarily associated with developed or developing countries, but rather involve importing countries setting standards of quality or requirements which potential trade partners must meet. For example, Japanese imports of U.S. apples, banned until 1994, are limited to Red and Golden Delicious apples from Washington and Oregon. Because the Japanese are very concerned about the spread of fire blight, codling moths, and apple maggots, their government imposed rigorous and costly import requirements for U.S. apple shipments. As a result, none of the growers in Washington and Oregon have registered for the 1997/98 export program, resulting in no U.S. apple shipments to Japan for this season. Another example is Brazil's mandatory fumigation at origin requirement for all U.S. fruit entering their market, effective June 1997. This requirement was imposed following the detection of Pacific spider mite and thrips in recent earlier shipments. By the end of July, Brazil agreed to void this fumigation requirement except for U.S. shipments of peaches, nectarines, and apricots. Fresh fruit exports to Brazil increased sharply in the 1990's, attributed mainly to increased exports of key items such as apples, pears, peaches, and plums. Prospects for future stone fruit exports to this foreign market could be dampened if this mandatory fumigation- at-origin requirement remains in effect for peaches, nectarines, and apricots.

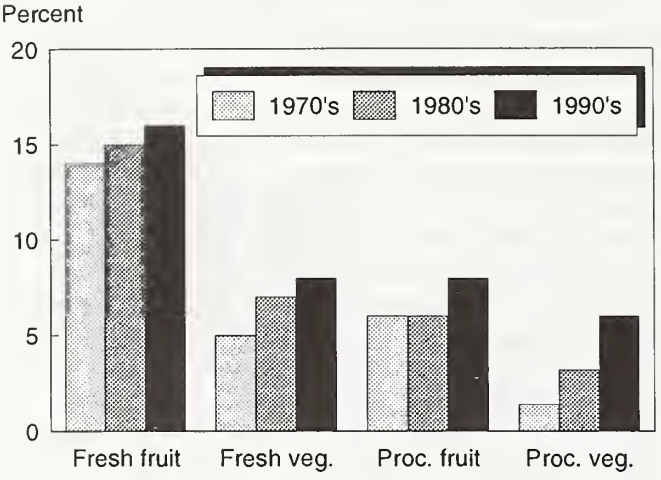
Technological innovations can lead to achieving a larger share of the world market through a competitive advantage—either a higher quality product for the same price, or a lower price for a product of comparable quality. However, these technologies can be exported as well, and so any gains in export market shares may be short lived. The benefits of technology adoption for an exporting country are usually larger with proximity to major export markets. For example, Mexico's tomato export sector, concentrated primarily in the Sinaloa and Baja California regions, have successfully adopted technologies such as drip irrigation, fertigation, plastic mulch, and most importantly, extended shelf-life varieties (ESL), which have boosted yields, decreased area planted, and lowered cost of production in the last few years. Florida had used the same technology package for the last 20 years, but ESL varieties seem to adapt well in Mexico and not in Florida. As a result, Mexican export capacity rose significantly, and the United States had since seen increased imports from these two regions. In addition, the peso devaluation in Mexico beginning in December 1994 provided these two regions additional incentives in the short run to export to the United States.

The Increasing Importance of U.S. Fruit And Vegetable Exports

Export markets for U.S. fruit and vegetables continue to be an important source of growth in the U.S. horticulture sector. Total fruit and vegetable exports doubled in value in the past 9 years, from $4.3 billion in 1989 to over $9 billion in 1997, and is forecast to reach $10.5 billion in 1998. Fruit and vegetable export share also has risen from 11 percent of U.S. agricultural export value in 1989 to 17 percent in 1997. Over the last 12 years, sales to foreign markets have also accounted for a growing proportion of U.S. fruit and vegetable supplies. This increasing share is most significant in the U.S. tree nut industry, where the export share of domestic supplies grew from an average of 24 percent in the 1970's to 29 percent in the 1980's and to 40 percent in the 1990's. Almonds are the leading horticultural product export for the United States. Almond exports, which account for 70 percent of all tree nut exports, have increased from 48 percent of supplies in 1975 to 66 percent in 1996.

In the fresh produce industry, export gains were much more gradual (figure B-5). Fresh vegetable and melon exports as a share of domestic supplies averaged about 5 percent in the 1970's, 7 percent in the 1980's, and 8 percent in the 1990's. Fresh fruit exports, on the other hand, averaged 14 percent in the 1970s, 15 percent in the 1980's, and 16 percent in the 1990's. In the fruit and vegetable processing sector, the share of processed fruit exports (including wine) rose from

Figure B-5
Fresh and Processed Products: Average Export Shares of Domestic Supplies



an average of 6 percent of domestic supplies in the mid-1970's to 8 percent during the 1990's, while exports of processed vegetables, including potatoes and mushrooms, increased from an average of around 1 percent in the 1970's, 3 percent in the 1980's, and 6 percent in the 1990's.

Export markets will likely continue to expand through the turn of the century, particularly as international trade agreements are reached and barriers to trade are slowly relaxed around the world. Projections of slight increases in domestic fruit and vegetable consumption point to the continued importance of export demand in realizing higher prices and revenues. For domestic fruit producers especially, domestic consumption (fresh and processed fruit) is projected to be relatively flat over the next decade. Bananas and other tropical fruit, particularly mangoes, are projected to be the leading source of increased domestic fruit consumption during 1998-2007. However, supplies of these fruit come mostly from imports. Per capita consumption of other fresh noncitrus fruit, such as apples, grapes, pears, and peaches, is projected to increase less than 1 percent annually, while fresh citrus consumption is projected to remain flat through 2007. Per capita consumption of processed citrus products, mostly juice, as well as other noncitrus fruit products are projected to increase only by a fraction through 2007.

The Role of Fruit and Vegetable Imports in Domestic Consumption

While growth in exports has been strong, the United States has remained, for most years, a net importer of fruit and vegetables. During 1997, U.S. imports of fruit and vegetables reached $10.1 billion (up 6 percent from 1996), down from the nearly 16-percent increase in 1996, but consistent with the 1990 to 1996 average increase. Increased production from U.S. farms and Mexico's strengthening peso were some factors that have led to the slower growth in 1997. Imports are projected to grow at an annual rate of 4 percent, increasing to about $10.4 billion in 1998. Part of the slowdown in growth may be attributed to Mexico's economic recovery and their expected lower production of winter vegetables due to a freeze in December 1997.

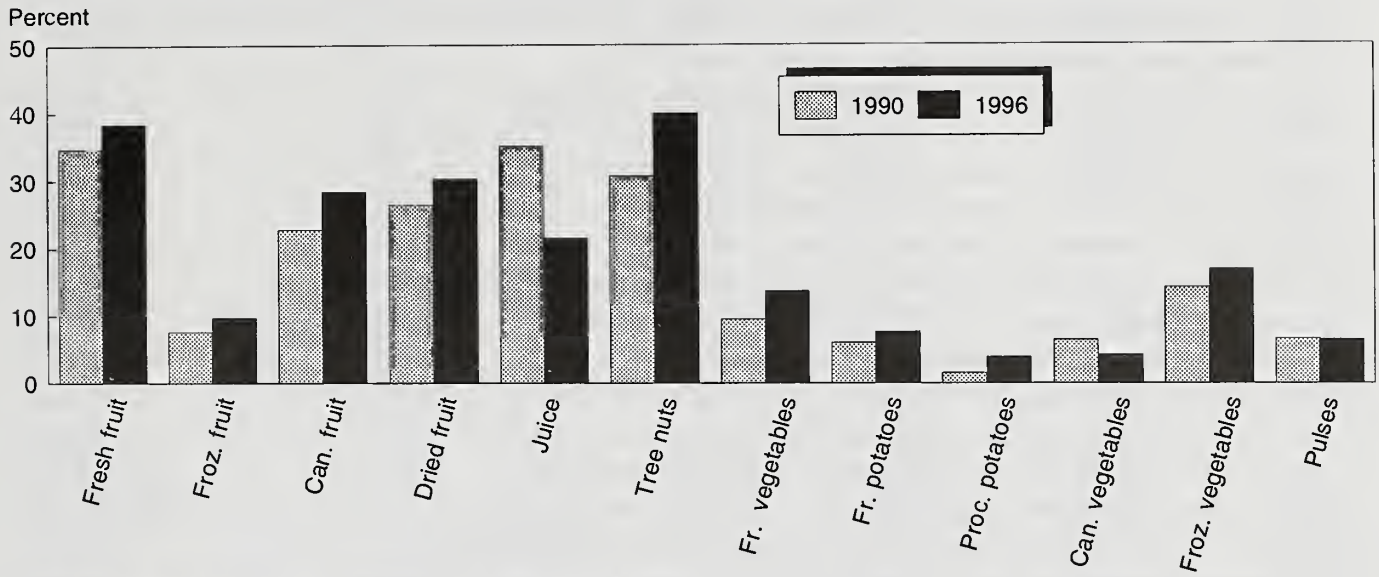
U.S. imports of fruits and vegetables have become increasingly important to domestic consumption. Taking into account import categories that are most significant in volume (at least 1.0 billion pounds), imports as a share of domestic consumption has risen most significantly during the 1990's for fresh-market fruits and vegetables and canned fruit (figure B-6). The share of fresh-market vegetable and melon imports to total vegetable import volume rose from 46 percent in 1990 to 54 percent in 1996. At the same time, the share of fresh-market fruit imports also rose from 35 percent to 46 percent of total fruit and nut imports. Excluding imports of bananas, the share of fresh-market fruits increased from 9 percent to 13 percent. Canned fruit imports are mostly tropical fruit like canned pineapples.

Increased efficiency in the vegetable processing sector has provided the domestic industry a competitive advantage with foreign competitors, and this could explain why canned vegetable imports are showing declining importance in domestic consumption. Juice imports make up a large portion of fruit imports, but in the last few years, juice imports have declined due mostly to lower orange juice imports. This trend will likely continue in 1998 as orange juice production in the United States is forecast to reach another record.

Latin America is the largest supplier of fruit and vegetables to the United States—about 50 percent of the total value in 1997. Mexico is the United States' largest supplier of fresh produce (fruits and vegetables), accounting for over 60 percent of the value of all fresh vegetable imports and 35 percent of the total value of fresh fruit imports. Other major suppliers of fresh produce are Canada for fresh vegetables and Chile for fresh fruits. Key examples of fresh produce imports are tomatoes, sweet peppers, onions, cucumbers, melons, limes (citrus), mangoes, and pineapples from Mexico; grapes, stone fruit, avocados, kiwifruit, and apples from Chile; and potatoes from Canada. For bananas, the major suppliers to the United States, accounting for over 90 percent of import value, are Costa Rica, Honduras, Guatemala, and Panama in Central America; and Ecuador, Colombia, and Venezuela in South America. Western Europe supplies close to a quarter of the value of U.S. fruit and vegetable imports, with processed products such as wine and fruit juices making up over 90 percent of the total value.

Open trade with Mexico, in line with the implementation of the North American Free Trade Agreement in 1994, and the transportation cost advantage associated with the proximity of the two markets, help Mexico remain as a major source of fresh vegetables for the United States. Meanwhile, the counter seasonality in fruit production between the United

Figure B-6
Imports as a Share of Domestic Consumption



Excluding bananas, fresh fruit import share rose from 12 percent to 15 percent.

States and Chile has encouraged the presence of Chilean fruit in the U.S. market. Most Chilean fruit enter the U.S. market without much domestic competition during November through March, after the U.S. noncitrus harvest is completed, and extends choices to U.S. consumers beyond the domestic winter fruit of citrus, apples, and pears. During the 1990's, Chilean fresh fruit averaged over 25 percent of U.S. fresh fruit imports.

Unlike in the fresh fruit sector, imports of Mexican fresh vegetables directly compete with domestic production, particularly from Florida, and to a much lesser extent, California, Texas, and Arizona. During the peso devaluation in Mexico in 1994, U.S. imports of Mexican fresh vegetables rose 20 percent and 15 percent in value for the following 2 years, respectively, with increases in volume as well. U.S. fresh vegetable exports, meanwhile, declined over 60 percent in value in 1995 but rose in 1996. Since its recovery from the peso crisis, U.S. imports of Mexican fresh vegetables had dropped 6 percent in 1997, while U.S. fresh vegetable exports to Mexico continued to increase.

List of Tables

Special Article:

Table 14--Utilized production and value of noncitrus fruit, United States, 1995-97

Crop	Utilized production			Value of utilized production		
	1995	1996	1997	1995	1996	1997
	--1,000 short tons--			--1,000 dollars--		
Apples	5,195.0	5,170.0	5,084.3	1,765,582	1,644,226	1,687,974
Apricots	60.5	79.3	128.4	27,572	35,171	42,622
Avocados	190.3	188.7	3/182.0	244,733	264,238	3/
Bananas	6.5	6.5	6.8	5,200	5,200	5,265
Berries 1/	146.1	116.9	160.8	202,134	218,173	233,782
Cherries, sweet	153.1	151.9	220.4	193,315	223,425	274,795
Cherries, tart	155.6	130.1	140.2	18,456	41,747	3/
Cranberries	209.7	233.6	274.5	223,938	307,827	4/
Dates	22.7	26.0	25.5	17,706	18,460	21,930
Figs, California	52.4	45.5	48.5	16,429	12,850	12,103
Grapes	5,912.8	5,538.0	6,832.9	2,047,220	2,371,375	2,691,265
Guavas	8.2	8.2	3/ 8.2	2,378	2,249	3/
Kiwifruit, California	31.9	28.0	35.8	15,089	13,368	3/
Nectarines, California	176.0	247.0	264.0	93,990	116,977	98,895
Olives, California	77.5	166.0	104.0	50,069	102,529	68,560
Papayas	25.4	20.9	20.5	18,494	17,054	19,030
Peaches	1,095.5	1,027.7	1,259.5	404,990	394,308	451,202
Pears	947.6	820.3	1,043.4	257,964	308,367	299,621
Pineapples	345.0	347.0	324.0	87,360	95,914	91,721
Plums, California	124.0	228.0	243.0	117,849	95,831	75,886
Prunes, California	597.3	704.0	612.0	188,240	187,097	3/
Plums & prunes 2/	21.5	19.1	27.1	6,718	8,525	7,860
Strawberries	801.6	813.8	816.1	812,668	770,391	907,523
Total	16,356.2	16,116.5	5/ 17,861.9	6,818,094	7,255,302	7,847,832

1/ Berries include cultivated blueberries, cultivated blackberries, boysenberries, loganberries, black and red raspberries, and all California raspberries.
2/ Idaho, Michigan, Oregon, and Washington. 3/ NASS data available May 12 and July 7, 1998 for avocados and July 7 for all other noncitrus fruit.
The avocado production for 1997 is based on estimates from the California Avocado Commission, Florida Agricultural Statistics Service, and ERS.
The guava production estimate is an average of 1995-96 production. 4/ Data available August 18, 1998. 5/ Total estimate based on estimates for avocado and guava production.

Table 15--Peaches: Total production and season-average prices received by growers, 1995-97

State	Production			Price per short ton		
	1995	1996	1997	1995	1996	1997
	--1,000 short tons--			--Dollars--		
Alabama	11.0	0.3	14.5	570	1,012	604
Arkansas	10.0	0.6	7.2	354	310	580
California						
Clingstone	432.5	546.5	574.0	214	220	260
Freestone	251.0	337.0	369.5	372	434	244
Colorado	8.5	8.5	3.5	992	992	1,322
Connecticut	1.1	1.4	1.5	1,200	1,100	1,400
Delaware	1.0	1.1	1/	772	850	1/
Georgia	80.0	5.0	80.0	406	676	486
Idaho	2.0	4.3	2.8	690	940	1,148
Illinois	6.5	1.0	6.3	678	1,280	812
Indiana	2.5	1.2	1.9	722	946	1,090
Kansas	0.5	0.2	0.1	820	900	840
Kentucky	3.0	0.4	0.7	644	1,246	598
Louisiana	2.5	0.1	2.0	1,092	1,560	906
Maryland	6.0	4.7	4.9	616	800	860
Massachusetts	0.7	0.8	0.9	1,400	1,100	1,400
Michigan	30.0	20.0	30.5	420	544	530
Missouri	4.5	1.7	5.3	630	920	700
New Jersey	35.0	39.0	32.5	770	874	898
New York	5.8	6.0	6.0	414	696	922
North Carolina	17.5	1.0	5.0	440	804	700
Ohio	2.9	3.6	3.0	842	924	800
Oklahoma	15.0	2/	1.0	740	2/	448
Oregon	4.5	5.5	6.5	594	822	1,064
Pennsylvania	45.0	37.5	37.5	548	662	676
South Carolina	107.5	4.0	80.0	360	1,182	414
Tennessee	5.2	0.2	1.8	708	1,350	760
Texas	12.0	3.0	10.0	720	1,480	700
Utah	3.2	3.5	3.5	500	640	540
Virginia	13.0	7.0	4.5	460	680	560
Washington	22.0	5.5	22.5	636	928	858
West Virginia	9.0	8.0	6.5	448	738	590
United States	1,150.8	1,058.2	1,325.6	370	384	358

1/ Estimate discontinued in 1997. 2/ No significant commercial production due to freeze damage.

Source: National Agricultural Statistics Service, converted to short tons by the Economic Research Service, USDA.

Table 16--U.S. avocado production, by State, 1980/81-1997/98

Crop year 1/	Florida	California	Hawaii	Total
		--1,000 short tons--		
1980/81	30.8	238.0	0.76	269.6
1981/82	25.8	157.0	.60	183.4
1982/83	34.7	202.0	.80	237.5
1983/84	27.0	247.0	.59	274.6
1984/85	29.5	200.0	.58	230.1
1985/86	28.5	160.0	.61	189.1
1986/87	24.7	278.0	.65	303.4
1987/88	29.0	180.0	.45	209.5
1988/89	27.0	165.0	.60	192.6
1989/90	33.5	105.0	.55	139.1
1990/91	19.6	136.0	.45	156.1
1991/92	28.3	156.0	.42	184.7
1992/93	7.2	284.0	.35	291.6
1993/94	4.4	139.0	.25	143.7
1994/95	20.0	155.0	.25	175.3
1995/96	19.0	171.0	.25	190.3
1996/97	23.5	165.0	.20	188.7
1997/98 2/	23.8	158.0	.23	182.0

1/ Crop years begin: California, November; Florida, June; and Hawaii, January of first year shown. 2/ Estimates from the California Avocado Commission, California Avocado Commission, Florida Agricultural Statistics, and ERS for Hawaii.

Sources: National Agricultural Statistics Service, USDA and Hawaii Agricultural Statistics Service.

Table 17--Strawberries: Acreage, yield per acre, and production for major States, 1995-97

Crop and State	Acreage			Yield per acre			Production		
	1995	1996	1997	1995	1996	1997	1995	1996	1997
	-- Acres harvested --			-- Short tons --			-- 1,000 short tons --		
Early:									
Florida	6,000	6,000	6,100	14.0	13.0	14.5	84.0	78.0	88.5
Late:									
Arkansas	180	170	190	3.3	1.2	3.4	.6	.2	.7
California	23,600	25,200	22,600	27.5	27.0	29.5	649.0	680.4	666.7
Louisiana	1,000	850	650	4.8	3.8	5.5	4.8	3.2	3.6
Michigan	1,700	1,500	1,500	3.0	2.0	3.3	5.1	3.0	4.9
New Jersey	450	450	400	1.7	1.8	2.3	.8	.8	.9
New York	2,400	2,100	2,100	1.8	2.0	2.3	4.2	4.1	4.8
North Carolina	2,400	1,800	1,500	4.0	4.5	6.0	9.6	8.1	9.0
Ohio	1,100	1,000	950	2.3	1.8	1.8	2.5	1.8	1.7
Oregon	5,700	5,200	5,000	5.3	4.6	5.0	30.0	23.9	25.0
Pennsylvania	1,400	1,300	1,200	2.3	2.2	2.3	3.2	2.8	2.8
Washington	1,300	1,300	1,400	4.1	4.0	3.5	5.2	5.3	4.9
Wisconsin	1,100	1,100	1,100	2.5	2.0	2.6	2.8	2.2	2.8
Total 1/	48,330	47,970	44,690	16.6	17.0	18.3	801.6	813.8	816.1

1/ Totals may not add due to rounding.

Sources: National Agricultural Statistics Service and Economic Research Service, USDA.

Table 18--Blueberry area and production, by State, 1996-97

State	Area harvested		Utilized production	
	1996	1997	1996	1997
	Acres		Short tons	
Cultivated:				
Alabama	300	470	195	400
Arkansas	600	500	500	600
Florida	1,300	1,300	1,150	1,200
Georgia	3,500	4,200	2,750	7,000
Indiana	800	800	1,400	1,750
Michigan	16,500	17,000	21,000	38,000
New Jersey	7,700	7,800	17,000	16,000
New York	550	550	500	700
North Carolina	3,100	3,000	5,500	4,300
Oregon	2,100	2,200	8,500	10,500
Washington	1,300	1,300	4,095	4,355
Total	37,750	39,120	62,590	84,805
Wild:				
Maine 1/	--	--	29,599	38,932
United States	37,750	39,120	92,189	123,737

-- = Not available. 1/ Preliminary.

Sources: National Agricultural Statistics Service, USDA, and New England Agricultural Statistics Service, USDA.

Table 19--Stocks of frozen fruits and berries: January 31, 1995-98

Frozen fruit	1995	1996	1997	1998 1/
			-- 1,000 short tons --	
Frozen fruits:				
Apples	46.1	51.9	40.1	34.5
Apricots	5.9	2.7	3.4	5.7
Cherries, tart 2/	57.5	58.8	57.4	67.4
Cherries, sweet	5.6	6.4	5.4	7.1
Grapes	2.2	2.8	2.8	1.3
Peaches	29.6	22.1	21.2	30.2
Frozen berries:				
Blackberries	9.1	7.4	9.0	11.6
Blueberries	35.5	30.3	27.9	41.7
Boysenberries	1.3	1.1	1.5	2.4
Raspberries 3/	16.8	19.3	17.3	21.7
Strawberries	109.8	108.2	92.4	91.2
Other	240.4	217.7	212.4	245.8
Total	559.8	528.8	490.8	560.6

1/ Preliminary.

2/ Includes juice cherries.

3/ Includes black raspberries.

Source: National Agricultural Statistics Service, USDA.

Table 20--Tree nuts: Acreage, yield per acre, production, and price, 1995/96-1997/98

Commodity and year	Bearing acreage	Yield per acre	Production	Grower price
	Acres	Pounds	1,000 lbs	$/pound
Almonds 1/				
1995/96	400,000	925	370,000	2.48
1996/97	405,000	1,260	510,000	2.08
1997/98	420,000	1,790	750,000	1.50
Macadamia nuts				
1995/96	19,300	2,640	51,000	.74
1996/97	19,200	2,940	56,500	.78
1997/98	19,200	3,020	58,000	.74
Pistachios				
1995/96	60,300	2,450	148,000	1.09
1996/97	64,300	1,630	105,000	1.16
1997/98	65,400	2,750	180,000	1.13
Hazelnuts				
1995/96	27,800	2,800	78,000	.46
1996/97	28,350	1,300	37,000	.43
1997/98	28,475	3,100	88,200	.45
Walnuts				
1995/96	169,000	2,760	468,000	.70
1996/97	169,000	2,460	416,000	.79
1997/98	170,000	3,160	538,000	2/
Pecans				
1995/96	--	--	268,000	1.01
1996/97			221,500	.64
1997/98	--	--	272,100	.95

-- = Not available.

1/ Shelled basis. 2/ Available July 7, 1998.

Source: National Agricultural Statistics Service; converted by the Economic Research Service, USDA.

Table 21--Free-on-board tree nut prices, 1996-97

Month	Almonds Nonpareil supreme		Pecans Fancy halves		Hazelnuts Large	
	1996	1997	1996	1997	1996	1997
	--Dollars per pound--					
January	2.85-2.95	3.00-3.05	3.35-3.45	2.40	1.85	1.90
February	2.85-2.95	3.00-3.10	3.00-3.15	2.40	1.75-1.85	1.97
March	2.95-3.00	3.00-3.10	3.00	2.90-3.00	1.65-1.68	2.39
April	2.85-3.05	3.00-3.10	3.00	2.95	1.70	2.39
May	2.85-3.00	3.05-3.15	2.85-2.95	3.00-3.15	1.80	2.39
June	2.85-3.00	3.00-3.05	2.75-2.79	3.00-3.15	1.60-1.75	2.39
July	2.95-3.05	3.00-3.10	2.45-2.50	2.95-3.00	1.60-1.75	2.88
August	2.60-2.65	2.00-2.10	2.30	3.45-3.50	1.60-1.75	2.88
September	2.55-2.65	2.05	1.90-2.00	3.45-3.50	1.70	2.85
October	2.45-2.55	1.95-2.00	2.15-2.20	3.45-3.50	1.82	2.00-2.05
November	2.60-2.70	2.02-2.15	2.20-2.25	3.75-3.90	1.82	2.48
December	2.85-2.90	2.05-2.15	2.40	2.85	1.82	2.48

	Macadamia nuts Style 2		Walnuts Light halves and pieces		Pistachios U.S. No. 1 21/25 Ct.	
	1996	1997	1996	1997	1996	1997
	--Dollars per pound--					
January	5.15-5.25	5.10-5.15	2.70-2.90	2.85-3.10	2.15-2.35	2.35-2.40
February	5.15-5.25	5.10-5.15	2.75-2.85	2.95-3.00	2.15-2.35	2.35-2.45
March	5.15-5.25	5.10-5.15	2.75	3.00-3.10	2.25	2.35-2.30
April	5.15-5.25	5.00	2.75	3.00-3.10	2.25-2.35	2.30-2.35
May	5.15-5.25	5.00	2.75	3.00-3.10	2.15-2.35	2.20-2.25
June	5.15-5.25	5.00-5.05	2.75	2.90	2.25	2.20-2.25
July	5.15-5.25	5.00-5.05	2.75	2.90-3.00	2.20	2.10-2.15
August	--	5.00-5.05	2.75	2.70-2.90	2.35-2.40	2.00-2.05
September	--	5.00-5.05	2.70-2.75	2.60-2.70	2.20	1.95-2.05
October	--	5.00-5.05	2.55-2.60	2.35-2.40	2.35-2.40	1.95-2.05
November	5.00	5.00	2.55-2.60	2.35-2.40	2.45	1.95-2.05
December	5.00	5.00-5.25	2.55-2.60	2.15-2.30	2.45-2.50	1.95-2.05

-- = Not available.

Source: Food Institute Report, January 1998.

Table 22--Selected citrus, packinghouse-door returns, by month, 1995-98

Item	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
						--Dollars per box 1/--						
Oranges:												
Arizona												
1995	9.32	3.28	5.15	5.69	5.78	4.03	3.88	--	--	19.48	11.20	7.30
1996	6.74	4.87	5.72	4.57	3.17	2.58	2.76	--	--	--	11.47	8.72
1997	8.33	5.31	4.43	5.68	5.37	2.20	--	--	--	--	6.03	6.90
1998	5.21	4.19	4.10									
Florida												
1995	5.05	5.20	6.21	6.35	6.44	6.40	--	--	--	--	5.55	5.55
1996	5.77	6.01	7.28	7.59	7.88	8.46	--	--	--	--	5.32	5.32
1997	5.35	5.37	5.63	6.27	6.30	6.52	--	--	--	4.40	3.28	3.81
1998	4.21	5.09	6.46									
California												
1995	8.80	7.08	6.40	8.10	9.64	9.54	9.54	9.38	9.34	9.66	12.31	8.04
1996	6.92	5.59	7.29	8.08	9.72	8.21	9.26	10.99	15.78	13.39	10.86	9.31
1997	9.15	7.93	7.70	9.31	10.13	8.51	8.72	9.11	9.03	7.79	8.92	9.61
1998	7.43	7.63	7.39									
Texas												
1995	3.70	4.13	6.05	6.68	6.22	--	--	--	--	12.36	7.99	6.89
1996	5.30	6.32	8.00	8.95	8.61	--	--	--	--	9.70	5.47	3.26
1997	3.39	5.22	6.04	6.24	5.94	--	--	--	--	8.52	4.58	3.40
1998	2.51	3.18	6.60									
Grapefruit:												
Arizona												
1995	4.04	5.46	5.14	3.01	5.85	6.72	-2.06	--	15.36	8.36	5.66	5.79
1996	5.08	5.30	3.33	3.46	3.26	4.85	-1.19	--	15.56	9.48	8.50	7.06
1997	4.48	5.36	4.25	3.36	2.50	2.22	3.32	--	--	--	2.12	2.72
1998	2.42	4.12	3.51									
Florida												
1995	4.18	4.07	3.84	3.50	3.33	--	--	--	--	7.02	4.45	3.79
1996	4.00	3.99	3.87	4.40	4.61	--	--	--	--	7.17	4.66	3.69
1997	3.86	3.40	3.06	2.74	2.12	2.82	--	--	--	6.32	4.20	4.35
1998	3.52	3.03	2.40									
California												
1995	6.88	3.76	3.44	4.09	3.74	5.69	5.18	7.66	6.50	10.15	5.50	4.43
1996	4.66	4.50	2.81	6.40	7.47	5.66	3.11	7.75	9.91	14.52	7.35	5.15
1997	4.07	3.13	2.02	4.48	4.26	5.20	10.64	8.95	6.12	1.73	2.12	2.88
1998	2.65	3.72	4.28									
Texas												
1995	3.33	3.13	3.00	2.30	1.83	--	--	--	--	10.78	6.60	4.81
1996	4.73	3.63	3.30	3.12	3.04	--	--	--	--	6.99	5.06	4.66
1997	3.99	3.29	3.29	3.30	2.89	--	--	--	--	7.60	6.19	5.07
1998	4.32	5.08	4.43									
Lemons:												
Arizona												
1995	7.12	5.23	6.23	--	--	--	--	28.90	27.12	15.51	8.88	6.42
1996	4.69	3.79	3.26	3.14	--	--	--	--	19.44	16.55	11.63	9.42
1997	7.80	6.10	5.07	--	--	--	--	--	--	20.58	12.34	9.69
1998	7.99	3.90	4.80									
California												
1995	7.87	5.69	6.29	7.24	12.88	22.53	23.87	22.47	18.97	13.32	9.26	6.82
1996	5.28	5.06	5.91	8.13	10.33	14.66	16.77	19.44	18.13	13.55	12.35	10.80
1997	8.55	5.77	5.83	9.21	19.35	29.97	34.52	27.95	23.80	13.11	7.85	7.16
1998	5.64	5.03	4.31									
Tangerines:												
Arizona												
1995	18.93	14.70	11.96	7.20	--	--	--	--	--	--	16.42	15.56
1996	13.69	9.20	8.16	8.05	4.44	--	--	--	--	--	16.93	17.18
1997	16.72	11.89	12.20	-1.08	-1.10	--	--	--	--	--	15.70	15.50
1998	15.64	11.20	10.88									
Florida												
1995	23.09	23.02	23.41	26.17	--	--	--	--	--	13.06	15.91	14.62
1996	17.19	17.19	18.13	22.26	--	--	--	--	--	11.62	10.50	9.80
1997	11.13	12.49	14.57	17.49	15.50	--	--	--	--	10.33	10.89	10.23
1998	14.16	11.69	12.46									
California												
1995	10.56	14.23	14.86	13.00	13.00	21.10	--	--	--	28.90	17.32	12.39
1996	7.44	6.38	6.22	6.69	8.09	--	--	--	--	25.46	16.89	13.3
1997	15.54	12.77	11.32	13.66	13.80	--	--	--	--	30.08	14.77	12.5
1998	10.01	9.63	7.94									

-- = Insufficient marketing to establish price. 1/ Net contents per box: oranges: Arizona and California--75 lb, Florida--90 lb, and Texas--85 lb; grapefruits: Arizona and California 67 lb, Florida--85 lb, and Texas--80 lb; tangerines: Arizona and California--75 lb and Florida--95 lb; and lemons: 76 lb.

Source: National Agricultural Statistics Service, USDA.

Table 23--Fruit and edible tree nuts: Season-average price per unit received by growers, 1996-97

Commodity	1996			1997 1/		
	Fresh	Processed	All	Fresh	Processed	All
			--Dollars/short ton--			
Noncitrus: 2/						
Apples, commercial	416	171	318	6/	6/	332
Apricots, three States	1,170	285	444	554	276	332
Avocados 3/	1,410	298	1,400	7/	7/	7/
Avocados, California 3/	1,540	298	1,520	6/	6/	6/
Bananas, Hawaii	800	--	800	780		780
Berries	--	--	1,866	--	--	1,454
Cherries, sweet	2,120	730	1,470	1,680	771	1,250
Cherries, tart	962	314	322	6/	6/	6/
Cranberries	--	--	1,318	--	--	8/
Dates, California	710	--	710	860		860
Figs, California	--	--	282	--	--	250
Grapes	725	380	428	604	360	394
Grapes, California	715	389	438	595	361	395
Guavas, Hawaii	--	276	276	--	6/	6/
Kiwifruit, California	502	140	477	6/	6/	6/
Nectarines, California	--	--	474	--	--	375
Olives, California	500	618	618	500	660	659
Papayas, Hawaii	896	60	816	1,060	60	928
Peaches	664	212	384	494	246	358
Pears	496	9/ 223	376	343	217	287
Pineapples, Hawaii	598	117	276	618	127	283
Plums, California	--	--	420	--	--	312
Prunes, California	--	839	839	--	6/	6/
Prunes and plums, other States	577	267	446	464	150	290
Strawberries	1,130	408	946	1,314	542	1,112
			--Dollars/box--			
Citrus: 4/						
Oranges	8.31	4.23	5.01	8.25	3.61	4.57
Tangerines	15.89	-0.02	11.18	14.17	-0.24	9.28
Grapefruit	4.55	0.48	2.43	4.72	-0.86	1.74
Lemons	13.88	-2.56	5.99	18.27	0.62	9.37
Limes	10.60	-2.17	8.05	7.10	-3.19	5.01
Tangelos	6.00	2.60	4.01	4.70	1.78	2.54
Temples	5.70	3.81	4.42	6.80	1.93	3.06
			--Dollars/pound--			
Tree Nuts:						
Almonds, California 5/	--	--	2.08	--	--	1.50
Hazelnuts, Oregon, Washington	--	--	0.43	--	--	0.45
Macadamia nuts, Hawaii	--	--	0.78	--	--	0.74
Pistachios, California	--	--	1.16	--	--	1.13
Pecans, all	--	--	0.64	--	--	0.95
Improved	--	--	0.69	--	--	1.08
Native and seedling	--	--	0.46	--	--	0.56
Walnuts, California	--	--	0.79	--	--	6/

-- = Not available.

1/ Preliminary. 2/ Fresh fruit prices are equivalent returns at packinghouse-door for Washington and Oregon, equivalent first delivery-point returns for California, and prices as sold for other States. Processing fruit prices for all States are equivalent returns at processing plant door. 3/ Column headed 1996 refers to 1996/97 crop. 4/ Equivalent on-tree returns; column headed 1996 refers to 1995/96 crop. 5/ Shelled basis. 6/ Data available July 7, 1997. 7/ Data available May 12, and July 7, 1998. 8/ Data available August 18, 1998. 9/ Processed mostly canned, but includes small quantities of dried and other uses.

Source: National Agricultural Statistics Service; converted to dollars per short ton by the Economic Research Service, USDA.

Table 24--Apples, commercial crop 1/: Total production and season-average prices received by growers, 1995-97

State and area	Production 2/			Price per short ton		
	1995	1996	1997	1995	1996	1997
	--1,000 short tons--			--Dollars--		
Eastern States:						
Connecticut	10.3	10.0	11.8	552	648	674
Delaware	7.5	7.5	3/	250	370	3/
Georgia	15.0	11.0	13.0	328	340	284
Maine	32.5	33.5	32.0	358	404	388
Maryland	17.5	14.5	17.5	262	312	336
Massachusetts	32.5	29.0	31.8	416	524	428
New Hampshire	22.0	19.0	20.0	406	458	440
New Jersey	37.5	30.0	32.5	318	302	256
New York	555.0	515.0	560.0	242	270	258
North Carolina	135.0	100.0	76.0	168	240	224
Pennsylvania	250.0	195.5	237.5	190	258	224
Rhode Island	2.3	3.0	3.3	602	518	546
South Carolina	30.0	15.0	27.5	252	276	230
Vermont	22.5	18.8	20.0	362	374	384
Virginia	200.0	137.5	125.0	198	232	240
West Virginia	82.5	52.5	52.5	220	222	202
Total	1,452.0	1,191.8	1,260.3			
Central States:						
Arkansas	5.0	3.5	4.5	286	360	556
Illinois	40.0	26.5	39.0	420	580	350
Indiana	37.5	24.0	25.0	394	536	508
Iowa	5.0	4.8	5.6	606	626	588
Kansas	3.3	1.0	5.0	610	516	386
Kentucky	8.5	7.5	7.0	510	632	520
Michigan	610.0	350.0	525.0	198	252	222
Minnesota	11.0	10.5	11.0	806	920	886
Missouri	19.0	16.0	21.0	320	466	344
Ohio	60.0	45.0	32.5	400	532	490
Tennessee	8.0	5.5	5.0	430	482	494
Wisconsin	28.8	23.0	28.0	482	648	588
Total	836.0	517.3	708.6			
Western States:						
Arizona	5.5	50.0	22.5	142	248	214
California	425.0	475.0	487.5	366	332	362
Colorado	27.5	12.5	17.5	290	404	506
Idaho	40.0	95.0	65.0	348	272	358
New Mexico	1.5	2.5	4.5	596	624	612
Oregon	70.0	78.0	77.5	232	182	326
Utah	10.0	24.0	20.0	376	272	220
Washington	2,425.0	2,750.0	2,450.0	430	332	374
Total	3,004.5	3,487.0	3,144.5			
United States	5,292.5	5,196.0	5,113.3	340	318	332

1/ In orchards of 100-or-more bearing-age trees.
2/ Includes unharvested production and harvested not sold.
3/ Estimates discontinued in 1997.

Source: National Agricultural Statistics Service; converted to short tons by the Economic Research Service, USDA.

Table 25--U.S. average monthly prices received by apple and pear growers, 1995/96-1997/98

Month	Fresh-market apples			Fresh-market pears		
	1995/96	1996/97	1997/98	1995/96	1996/97	1997/98
	--Cents per pound--					
July	34.9	23.3	14.1	17.9	22.5	15.5
August	30.4	25.2	19.2	16.6	19.2	16.5
September	26.2	30.5	24.2	18.7	23.6	18.0
October	25.3	24.7	24.0	17.7	25.3	16.7
November	23.8	23.2	22.1	17.6	29.9	16.5
December	24.4	22.7	23.7	16.2	28.1	14.4
January	25.4	22.5	22.3	14.9	27.9	12.7
February	24.2	20.3	21.6	15.1	26.0	13.0
March	25.1	17.6	21.3	15.8	23.1	12.2
April	22.6	15.6		15.7	22.7	
May	21.9	14.3		18.4	25.2	
June	21.9	13.7		29.2	28.4	
July	23.3	14.1		22.5	15.5	

Source: National Agricultural Statistics Service, USDA.

Table 26--Fruit for processing: Season-average prices received by growers, by use and principal State, 1995-97 1/

Fruit, use, & States	1995	1996	1997	Fruit, use, & States	1995	1996	1997
	--Dollars/short ton--				--Dollars/short ton--		
Apricots:				Grapes--California (cont'd):			
Canning				Dried 2/	196	255	184
California	310	320	320	Wine	428	540	540
Freezing							
California	300	310	300	Peaches, clingstone:			
Drying				Canning			
California 2/	321	325	262	California	220	220	264
				Peaches, freestone:			
Cherries, tart:				Canning			
Processing, all				California	190	204	246
New York	100	270	3/	Freezing			
Michigan	104	316	3/	California	186	186	190
Wisconsin	100	340	3/	Drying			
				California 2/	86	78	68
Cherries, sweet:							
Processing, all				Pears, Bartlett:			
Oregon	605	832	886	Canning			
Michigan	550	691	724	Washington	166	262	214
Washington	537	755	661	Califomia	200	233	250
Canning				Drying			
Washington	890	1,130	1,120	California 2/	150	184	151
Oregon	444	706	858				
Michigan	840	960	1,000	Prunes and plums:			
Brining							
Washington	386	524	600	Canning			
Michigan	480	610	650	Michigan	125	300	305
Oregon	617	896	892				
				Prunes:			
Grapes--California				Drying 2/			
All processing	309	389	361	Califomia	320	262	3/

1/ California fruits are priced at first delivery point, except prunes, pears for drying, and grapes. Prices of those California fruits and other States' fruit are equivalent processing-plant-door returns. 2/ Fresh basis. 3/ Data available July 7, 1998.

Source: National Agricultural Statistics Service, USDA.

Table 27--Fruit and edible tree nuts: Utilized production, 1996-97

Commodity	1996			1997 1/		
	Fresh	Processed	All	Fresh	Processed	All
			--Short tons--			
Noncitrus:						
Apples, commercial	3,107,700	2,062,300	5,170,000	6/	6/	5,084,300
Apricots, three States	13,490	65,800	79,290	26,400	102,000	128,400
Avocados 2/	186,700	2,000	188,700	6/	6/	6/
Avocados, California 2/	163,000	2,000	165,000	6/	6/	6/
Bananas, Hawaii	6,500	--	6,500	6,750		6,750
Berries	32,958	75,283	7/ 116,890	37,425	112,495	7/ 160,849
Cherries, sweet	80,850	71,030	151,880	115,320	105,050	220,370
Cherries, tart	1,250	128,800	130,050	1,100	139,100	140,200
Cranberries	8/	8/	233,550	8/	8/	274,450
Dates, California	26,000	--	26,000	25,500	--	25,500
Figs, California	2,000	43,500	45,500	2,000	46,500	48,500
Grapes	767,525	4,770,500	5,538,025	939,665	5,893,200	6,832,865
Grapes, California	740,000	4,269,000	5,009,000	910,000	5,286,000	6,196,000
Guavas, Hawaii	--	8,150	8,150	--	6/	6/
Kiwifruit, California	26,100	1,900	28,000	33,400	2,400	35,800
Nectarines, California	239,800	7,200	247,000	258,500	5,500	264,000
Olives, California	500	165,500	166,000	500	103,500	104,000
Papayas, Hawaii	18,900	2,000	20,900	17,800	2,700	20,500
Peaches	390,650	637,000	1,027,650	569,700	689,800	1,259,500
Pears	459,550	9/ 360,700	820,250	583,720	9/ 459,720	1,043,440
Pineapples, Hawaii	115,000	232,000	347,000	103,000	221,000	324,000
Plums, California	10/	10/	228,000	10/	10/	243,000
Prunes, California (dried basis)	--	223,000	223,000	--	200,000	200,000
Prunes and plums, other States	11,050	8,050	19,100	12,100	15,000	27,100
Strawberries	607,100	206,650	813,750	602,850	213,250	816,100
			--1,000 short tons--			
Citrus: 3/						
Oranges	2,199	9,228	11,427	2,661	10,166	12,827
Tangerines	246	103	349	276	142	418
Grapefruit	1,305	1,413	2,718	1,349	1,539	2,888
Lemons	515	477	992	454	405	859
Limes	11	3	14	11	3	14
Tangelos	46	64	110	46	131	177
Temples	31	66	97	25	83	108
			--Million pounds--			
Tree Nuts:						
Almonds, California 4/	--	--	510	--	--	750
Hazelnuts, Oregon, Washington	--	--	37	--	--	88
Macadamia nuts, Hawaii	--	--	57	--	--	58
Pistachios, California	--	--	105	--	--	180
Pecans, all 5/	--	--	222	--	--	272
Improved	--	--	173	--	--	199
Native and seedling	--	--	49	--	--	74
Walnuts, California	--	--	416	--	--	538

-- = Not available.

1/ Preliminary. 2/ Column headed 1996 refers to 1996/97 crop. 3/ Column headed 1996 refers to 1995/96 crop. 4/ Shelled basis. 5/ All pecans estimates discontinued for MO and TN in 1996. 6/ Data available July 7, 1998. Avocado data available May 12 and July 7, 1998. 7/ Fresh and processed do not add to total because there is no breakdown of utilization available for boysenberries and all raspberries in California. 8/ Data available August 18 ,1998. 9/ Processed mostly canned, but includes small quantities of dried and other uses. 10/ Missing data are not published to avoid disclosure of individual operations.

Source: National Agricultural Statistics Service; converted to short tons by the Economic Research Service, USDA.

Table 28--Fruit and edible tree nuts: Value of utilized production, 1996-97

Commodity	1996			1997 1/		
	Fresh	Processed	All	Fresh	Processed	All
	--1,000 dollars--					
Noncitrus:						
Apples, commercial	1,291,420	352,806	1,644,226	6/	6/	1,687,974
Apricots, 3 States	15,801	19,370	35,171	14,633	27,989	42,622
Avocados 2/	263,642	596	264,238	6/	6/	6/
Avocados, California 2/	251,020	596	251,616	6/	6/	6/
Bananas, Hawaii	5,200	--	5,200	5,265	--	5,265
Berries	71,077	119,328	7/ 218,173	84,128	120,685	7/ 233,782
Cherries, sweet	171,554	51,871	223,425	193,808	80,987	274,795
Cherries, tart	1,203	40,544	41,747	6/	6/	6/
Cranberries	--	--	307,827	--	--	8/
Dates, California	18,460	--	18,460	21,930	--	21,930
Figs, California	--	--	12,850	--	--	12,103
Grapes	556,633	1,814,742	2,371,375	567,369	2,123,896	2,691,265
Grapes, California	529,230	1,662,400	2,191,630	541,710	1,905,660	2,447,370
Guavas, Hawaii	--	2,249	2,249	--	6/	6/
Kiwifruit, California	13,102	266	13,368	6/	6/	6/
Nectarines, California	--	--	116,977	--	--	98,895
Olives, California	250	102,279	102,529	250	68,310	68,560
Papayas, Hawaii	16,934	120	17,054	18,868	162	19,030
Peaches	259,423	134,885	394,308	281,666	169,536	451,202
Pears	227,933	9/ 80,434	308,367	200,215	9/ 99,406	299,621
Pineapples, Hawaii	68,770	27,144	95,914	63,654	28,067	91,721
Plums, California	--	--	95,831	--	--	75,886
Prunes, California (dried basis)	--	187,097	187,097	--	6/	6/
Prunes and plums, other States	6,379	2,146	8,525	5,614	2,246	7,860
Strawberries	686,109	84,282	770,391	791,977	115,546	907,523
Citrus: 3/						
Oranges	587,462	1,235,114	1,822,576	711,671	1,224,745	1,936,416
Tangerines	104,083	7,276	111,359	107,675	10,856	118,531
Grapefruit	207,553	88,581	296,134	221,269	53,245	274,514
Lemons	237,719	13,536	251,255	261,981	32,139	294,120
Limes	3,744	170	3,914	3,086	118	3,204
Tangelos	8,144	7,160	15,304	6,914	12,197	19,111
Temples	5,336	8,757	14,093	4,910	7,607	12,517
Tree Nuts:						
Almonds, California 4/	--	--	1,018,368	--	--	1,080,000
Hazelnuts, Oregon, Washington	--	--	15,900	--	--	39,433
Macadamia nuts, Hawaii	--	--	44,070	--	--	42,920
Pistachios, California	--	--	121,800	--	--	203,400
Pecans, all 5/	--	--	141,119	--	--	257,043
Improved	--	--	118,465	--	--	215,326
Native and seedling	--	--	22,654	--	--	41,717
Walnuts, California	--	--	326,560	--	--	6/

-- = Not available.

1/ Preliminary. 2/ Column headed 1996 refers to 1996/97 crop. 3/ Column headed 1996 refers to 1995/96 crop. 4/ Shelled basis.

5/ All pecans estimates discontinued for MO and TN in 1996. 6/ Data available July 7, 1998. Avocado data available May 12 and July 7, 1998.

7/ Fresh and processed do not add to total because there is no breakdown of utilization available for boysenberries and all raspberries in California.

8/ Data available August18, 1998. 9/ Processed mostly canned, but includes small quantities of dried and other uses.

Source: National Agricultural Statistics Service, USDA.

Table 29--Production and utilization of specified noncitrus fruit, United States, 1995-97

Commodity and year	Production		Utilization 1/									
	Total	Utilized 2/	Fresh	Processed (fresh equivalent)								
				Canned	Frozen	Brined	Crushed for			Dried	Other 3/	Total 2/
							Wine	Juice	Oil			
	--1,000 short tons--											
Apricots:												
1995 4/	60.5	60.5	16.8	19.2	5.7	--	--	8.5	--	9.6	--	43.7
1996 4/	79.3	79.3	13.5	20.0	9.0	--	--	21.5	--	15.0	--	65.8
1997 4/	138.0	128.4	26.4	46.7	15.1	--	--	27.7	--	12.0	--	102.0
Cherries, sweet:												
1995	165.5	153.1	64.4	12.8	--	59.4	--	--	--	--	5/ 16.5	88.7
1996	154.3	151.9	80.9	9.2	--	49.0	--	--	--	--	5/ 12.9	71.0
1997	222.8	220.4	115.3	10.8	--	77.7	--	--	--	--	5/ 16.6	105.1
Cherries, tart:												
1995	197.8	155.6	1.4	46.8	96.2	--	--	--	--	--	11.3	154.3
1996	135.9	130.1	1.3	33.7	91.1	--	--	--	--	--	4.0	128.8
1997	144.5	140.2	1.1	40.7	89.3	--	--	--	--	--	9.2	139.1
Figs:												
1995	52.4	52.4	2.0	--	--	--	--	--	--	50.4	--	50.4
1996	45.5	45.5	2.0	--	--	--	--	--	--	43.5	--	43.5
1997	48.5	48.5	2.0	--	--	--	--	--	--	46.5	--	46.5
Grapes:				--								
1995	5,922.3	5,912.8	852.9	35.0	--	--	2,973.7	498.6	--	1,552.5	--	5,059.9
1996	5,554.3	5,538.0	767.5	36.0	--	--	3,043.1	362.5	--	1,329.0	--	4,770.5
1997	6,836.4	6,832.9	939.7	44.0	--	--	3,667.4	462.5	--	1,719.4	--	5,893.2
Kiwifruit:												
1995	38.0	31.9	31.9	--	--	--	--	--	--	--	--	--
1996	31.5	28.0	26.1	--	--	--	--	--	--	--	--	1.9
1997	39.4	35.8	33.4	--	--	--	--	--	--	--	--	2.4
Nectarines:												
1995	176.0	176.0	170.0	--	--	--	--	--	--	--	--	6.0
1996	247.0	247.0	239.8	--	--	--	--	--	--	--	--	7.2
1997	264.0	264.0	258.5	--	--	--	--	--	--	--	--	5.5
Olives:												
1995	77.5	77.5	0.5	6/ 58.5	--	--	--	--	4.0	--	7/ 14.5	77.0
1996	166.0	166.0	0.5	6/ 123.0	--	--	--	--	7.0	--	7/ 35.5	165.5
1997	104.0	104.0	0.5	6/ 82.2	--	--	--	--	3.6	--	7/ 17.7	103.5
Papayas:												
1995	--	25.4	21.0	--	--	--	--	--	--	--	--	4.5
1996	--	20.9	18.9	--	--	--	--	--	--	--	--	2.0
1997	--	20.5	17.8	--	--	--	--	--	--	--	--	2.7
Peaches:												
1995	1,150.8	1,095.5	568.5	406.8	75.5	--	--	--	--	14.0	30.9	527.1
1996	1,058.2	1,027.7	390.7	497.2	91.6	--	--	--	--	16.4	31.9	637.0
1997	1,325.6	1,259.5	569.7	555.9	100.5	--	--	--	--	17.1	16.4	689.8
Pears:												
1995	948.3	947.6	544.5	8/ 403.0	--	--	--	--	--	4.9	--	403.0
1996	820.8	820.3	459.6	8/ 360.7	--	--	--	--	--	4.9	--	360.7
1997	1,044.0	1,043.4	583.7	8/ 459.7	--	--	--	--	--	5.4	--	459.7
Pineapples:												
1995	--	345.0	125.0	--	--	--	--	--	--	--	--	220.0
1996	--	347.0	115.0	--	--	--	--	--	--	--	--	232.0
1997	--	324.0	103.0	--	--	--	--	--	--	--	--	221.0
Plums, CA:	--											
1995	124.0	124.0	--	--	--	--	--	--	--	--	--	--
1996	228.0	228.0	--	--	--	--	--	--	--	--	--	--
1997	243.0	243.0	--	--	--	--	--	--	--	--	--	--
Prunes, CA 9/:												
1995	181.0	181.0	--	--	--	--	--	--	--	181.0	--	181.0
1996	223.0	223.0	--	--	--	--	--	--	--	223.0	--	223.0
1997	212.0	200.0	--	--	--	--	--	--	--	200.0	--	200.0
Other prunes & plums 10/:												
1995	22.5	21.5	12.2	5.7	0.9	--	--	--	--	2.7	--	9.3
1996	20.0	19.1	11.1	5.7	0.5	--	--	--	--	1.9	--	8.1
1997	29.0	27.1	12.1	10.0	1.9	--	--	--	--	3.1	--	15.0
Strawberries:												
1995	804.1	801.6	573.4	--	--	--	--	--	--	--	--	228.2
1996	813.8	813.8	607.1	--	--	--	--	--	--	--	--	206.7
1997	816.6	816.1	602.9	--	--	--	--	--	--	--	--	213.3

-- = Not available.

1/ For all items except bananas and California apricots, dates, plums, and prunes, some quantities canned, frozen, or otherwise processed are included in other utilization categories to avoid disclosure of individual operations. 2/ Some totals do not add due to rounding. 3/ Tart cherries, juice, wine, and brined; sweet cherries, frozen, juice, etc.; and olives, chopped, minced, brined, and other cured. 4/ Missing data are not published to avoid disclosure of individual operations, but are included in total. 5/ Frozen, juices, and etc. 6/ Canning size fruit only, mostly whole and pitted but also includes some chopped and sliced. 7/ Limited (canned, sliced, chopped, wedged, and undersize). 8/ Mostly canned, includes small quantities dried; other, excluding California dried pears, uses not published by State to avoid disclosure of individual operations. 9/ Dried basis. 10/ Michigan, Idaho, Oregon, and Washington.

Source: National Agricultural Statistics Service, USDA.

Table 30--Value of fruit and tree nut crops, by State, 1995-97 1/

State	Crop value			Share of U.S.		
	1995	1996	1997	1995	1996	1997
	--1,000 dollars--			--Percent--		
Alabama	14,894	8,038	14,381	0.1	0.1	0.1
Arizona	107,548	107,758	92,329	1.0	0.9	0.7
Arkansas	13,444	9,234	15,799	0.1	0.1	0.1
California	5,853,169	6,434,121	7,183,644	53.9	56.2	57.2
Colorado	16,721	13,677	14,188	0.2	0.1	0.1
Connecticut	7,445	8,781	10,663	0.1	0.1	0.1
Delaware	2,641	3,663	2/	3/	3/	3/
Florida	1,594,389	1,776,454	1,746,866	14.7	15.5	13.9
Georgia	124,947	76,766	132,366	1.2	0.7	1.1
Hawaii	151,445	164,701	161,399	1.4	1.4	1.3
Idaho	18,289	35,451	29,982	0.2	0.3	0.2
Illinois	18,974	15,415	16,480	0.2	0.1	0.1
Indiana	17,971	15,834	17,213	0.2	0.1	0.1
Iowa	2,727	2,693	1,854	3/	3/	3/
Kansas	2,315	795	4,929	3/	3/	3/
Kentucky	4,899	4,677	3,527	3/	3/	3/
Louisiana	16,636	11,460	13,901	0.2	0.1	0.1
Maine	11,070	13,108	12,385	0.1	0.1	0.1
Maryland	7,996	7,743	9,510	0.1	0.1	0.1
Massachusetts	99,886	137,755	163,410	0.9	1.2	1.3
Michigan	220,893	202,599	266,420	2.0	1.8	2.1
Minnesota	7,580	8,644	7,757	0.1	0.1	0.1
Mississippi	1,960	1,755	3,100	3/	3/	3/
Missouri	9,940	9,917	11,375	0.1	0.1	0.1
Montana	916	893	936	3/	3/	3/
New Hampshire	8,530	8,460	8,580	0.1	0.1	0.1
New Jersey	87,761	105,402	106,397	0.8	0.9	0.8
New Mexico	56,694	17,840	48,352	0.5	0.2	0.4
New York	191,548	206,158	204,402	1.8	1.8	1.6
North Carolina	58,346	47,935	44,500	0.5	0.4	0.4
Ohio	32,671	32,360	23,266	0.3	0.3	0.2
Oklahoma	26,165	1,275	12,343	0.2	3/	0.1
Oregon	240,915	268,022	326,372	2.2	2.3	2.6
Pennsylvania	92,510	102,381	102,790	0.9	0.9	0.8
Rhode Island	1,204	1,398	1,635	3/	3/	3/
South Carolina	44,792	9,977	30,533	0.4	0.1	0.2
Tennessee	4,810	2,634	3,238	3/	3/	3/
Texas	94,957	61,415	103,741	0.9	0.5	0.8
Utah	7,860	14,019	8,936	0.1	0.1	0.1
Vermont	7,440	6,925	7,498	0.1	0.1	0.1
Virginia	44,502	34,580	31,040	0.4	0.3	0.2
Washington	1,396,860	1,283,288	1,370,727	12.9	11.2	10.9
West Virginia	20,785	16,826	13,812	0.2	0.1	0.1
Wisconsin	114,949	145,711	169,464	1.1	1.3	1.4
United States	10,861,994	11,438,538	12,552,040	100.0	100.0	100.0

1/ Crop value does not include avocados, tart cherries, cranberries, guavas, dried prunes from California, kiwifruit, or walnuts for 1996.

2/ Estimates discontinued in 1997.

3/ Less than 0.05 percent.

Source: National Agricultural Statistics Service, USDA.

Visit ERS on the World Wide Web

The **Economic Research Service,** USDA's economic and social science research agency, produces a wealth of information, data, and analysis on farm commodities, the farm economy, agricultural trade, natural resources, food marketing and nutrition, and the rural economy. Material is updated and new reports are added continually.

Over 1,000 visitors daily

www.econ.ag.gov

What you'll find on the ERS Web site

Electronic Publications

A large collection of complete research reports and recent issues of ERS periodicals in Adobe Acrobat pdf format, which can be printed from the web site with format of the original publications.

About ERS

Phone numbers of subject specialists in more than 200 research areas, e-mail addresses of all ERS staff members, an ERS management directory, and a link to the USDA searchable phone directory.

This Week at ERS

Daily listings of all publications as they are released, with links to complete reports, summaries, and ordering information.

Briefing Rooms

- Agriculture and Food Economy at a Glance
- Agriculture and Water Quality
- Agricultural Baseline Projections
- Agricultural Resources and Environmental Indicators
- Farm Business Economics
- Food Safety
- Forces Shaping U.S. Agriculture
- Fresh-Market Tomatoes
- Meat Prices and Price Spreads
- Rural Development
- Tobacco
- U.S. Dry Edible Beans

More being added

A service of the U.S. Department of Agriculture

United States
Department of Agriculture
1800 M Street, N.W.
Washington, D.C. 20036-5831

OFFICIAL BUSINESS
Penalty for Private Use, $300

FIRST CLASS
POSTAGE & FEES PAID
USDA
PERMIT NO. G-145

Moving? To change your address, send this sheet with label intact, showing new address to ERS Customer Service, Rm. 3098, 1800 M Street, N.W., Washington, D.C. 20036-5831