CITRUS REFERENCE BOOK

Florida Department of Citrus Economic and Market Research Department

April 2005

FDOC Web Site: http://www.floridajuice.com

Florida Department of Citrus

Economic and Market Research Department

GAINESVILLE OFFICE:

2125 McCarty Hall, P.O. Box 110249 University of Florida Gainesville, FL 32611-0249 USA

PHONE: 352-392-1874 • FAX: 352-392-8634

CAROLYN BROWN Data Base Analyst	E-Mail: CBrown@ifas.ufl.edu
MARK BROWN Senior Research Economist	E-Mail: MGBrown@ifas.ufl.edu
JONQ-YING LEE Senior Research Economist	E-Mail: JLee@ifas.ufl.edu
VERA SODEK Administrative Assistant	E-Mail: VMSodek@ifas.ufl.edu

LAKELAND OFFICE:

1115 East Memorial Boulevard, P.O. Box 148
Lakeland, FL 33802-0148 USA

PHONE: 863-499-2494 ● FAX: 863-499-2436

ROBERT P. NORBERG Economic & Market Research Director	E-Mail: BNORBERG@citrus.state.fl.us
SHELBY COE Administrative Assistant	E-Mail: SCOE@citrus.state.fl.us
MIKE SPARKS Market & Consumer Research Manager	E-Mail: MSPARKS@citrus.state.fl.us

Table of Contents

<u>Page</u>
ACREAGE, PRODUCTION AND UTILIZATION
Bearing Acreage: Oranges
Bearing Acreage: Grapefruit
Florida Commercial Citrus Acreage 3
Florida Commercial Citrus Bearing Acreage
Florida Commercial Citrus Trees
Florida Commercial Citrus Bearing Trees
Production: Oranges
Production: Grapefruit 8
Production: Specialty Fruit 9
USDA Orange Crop Estimates Versus Actual Production 10
USDA Florida Temple Crop Estimates Versus Actual Production
USDA Grapefruit Crop Estimates Versus Actual Production 12
USDA Crop Estimates (Current)
USDA Florida FCOJ Gallons-per-Box Yield Estimates 14
USDA Specialty Crop Estimates Versus Actual Production 19
Utilization of Florida Oranges
Utilization of Florida Grapefruit
Total Shipments of Florida Fresh Citrus
Florida Fresh Grapefruit Shipments
Florida Fresh Orange and Temple Shipments
World Orange Production
World Grapefruit Production 22
World Tangerine Production
BRAZIL
Brazil: Bearing Trees, Production and Utilization of Oranges in the State of São Paulo
Brazil FCOJ Exports and Prices 25

	<u>Page</u>
SUPPLY AND AVAILABILITY	
Estimated U.S. Orange-Juice Availability	26
Estimated U.S. Orange-Juice Supply and Demand	27
Estimated U.S. Grapefruit-Juice Availability	28
Estimated U.S. Grapefruit-Juice Supply and Demand	29
ECONOMIC INDICATORS	
General Economic Indicators	30
Estimated FOB Value of the Florida Citrus Industry, 2002-03	31
Estimated Economic Impact of the Citrus Industry on Florida's Economy, 1999-00	
Florida Land Value Survey, Estimated Value Per Acre by Geographic Area and Land Use (Weighted Estimates)	32
FCOJ FUTURES	
Certification and Carrying Costs for FCOJ Futures Contracts	33
New York FCOJ Monthly Average Nearby Futures Settlement Price	34
CONVERSIONS AND EQUIVALENTS	
Single-Strength & Chilled Juice	35
Canned & Chilled Sections	
Concentrate Factors (3+1)	
FCOJ 42.0° Brix Equivalent Conversion Factors Bulk for	
Manufacturing	36
Canned Citrus Fruit & Single-Strength Juice	37
Citrus Box Weights: Approximate Net Weight in Pounds by Fruit Type and States	. 38
Florida Citrus Product Seasons	
Significant Florida Citrus Belt Freeze and Hurricane Dates	38

<u> </u>	<u>Page</u>
Case Equivalents	38
Concentrate	38
Chilled	38
Canned	38
Basic Metric Conversions	39
Commonly Used Brix Equivalents	39
Pounds Solids and Weight per Gallon at Various Degrees Brix	40
International Marketing Conversion Tables	42
IMPORTS AND EXPORTS	
U.S. Orange-Juice Imports	43
U.S. Citrus-Juice Exports	44
U.S. Imports of Fresh Citrus	45
U.S. Exports of Fresh Citrus	46
Florida and Imported FCOJ Prices	47
History of the U.S. Orange Juice Tariff	48
MOVEMENT, PACK AND INVENTORY	
Florida FCOJ Movement by Product Type	49
Florida FCOJ Inventories, Pack and Movement	50
Florida COJ Inventories, Pack and Movement	51
Florida CSSOJ Inventories, Pack and Movement	52
Florida FCGJ Inventories, Pack and Movement	53
Florida CGJ Inventories, Pack and Movement	54
Florida CSSGJ Inventories, Pack and Movement	55
PRICES, SALES, VALUES AND CONSUMPTION	
Florida Orange On-Tree Earnings Per Box	. 56
Florida Grapefruit On-Tree Earnings Per Box	. 57
Total On-Tree Earnings of the Florida Citrus Industry	. 58

	<u>P</u>	<u>age</u>
	Delivered-In Prices Reported by Florida Citrus Processors Association for Oranges Purchased	59
	Delivered-In Prices Reported by Florida Citrus Processors Association for Grapefruit Purchased	60
	ACNielsen Retail OJ Sales, U.S	
	ACNielsen Retail OJ Sales in Grocery Stores > \$2 Million	
	Annual Sales	
	ACNielsen Retail OJ Sales in All-Outlet Stores	. 63
	ACNielsen Retail GJ Sales in All-Outlet Stores	. 64
	ACNielsen Retail GJ Sales, U.S	. 65
	ACNielsen Retail GJ Sales in Grocery Stores > \$2 Million Annual Sales	66
	ACNielsen Retail GJ and GJ Cocktail Sales in Grocery Stores	. 00
	>\$2 Million Annual Sales	. 67
	U.S. Per Capita Beverage Consumption	. 68
IN	DUSTRY STANDARDS / NUTRITION	
	Nutrient Value of Citrus	. 69
	U.S. Grade A Frozen Concentrated Juice Standards	
	U.S. Grade A Concentrated Juice for Manufacturing	
	Standards	. 71
	U.S. Grade A Juice from Concentrate Standards	. 72
	U.S. Grade A Juice Standards	. 73
	Florida Orange Standards	. 74
	Florida Grapefruit Standards	. 75
	Florida Grapefruit-Juice Requirements	. 76
	Florida Temple Orange Standards	. 77
	Florida Tangerine Standards (November 15-July 31)	. 78
	Florida Tangerine Standards (August 1-November 14)	. 79
	Florida Tangelo Standards	. 80
G۱	LOSSARY OF ACRONYMS	81

Bearing Acreage: Oranges

Season	Florida	Texas	Calif.	Arizona	U.S.ª	Florida Temples
1,000 acres						
1979-80	576.6	28.0	185.7	15.7	806.0	18.2
1980-81	573.4	25.3	182.7	13.2	794.6	17.7
1981-82	560.2	23.7	180.2	13.6	777.7	16.8
1982-83	536.8	24.0	177.4	12.6	750.8	15.8
1983-84	474.2	24.3	177.1	12.6	688.2	13.5
1984-85	420.1	11.4	175.3	10.9	617.7	12.2
1985-86	367.6	8.3	174.6	11.0	561.5	10.0
1986-87	375.4	10.3	172.9	10.9	569.5	9.4
1987-88	380.2	11.1	172.6	10.6	574.5	9.3
1988-89	388.7	12.0	177.6	10.4	588.7	9.3
1989-90	399.5	13.0	175.1	10.2	597.8	8.0
1990-91	420.9	3.5	178.4	9.9	612.7	7.7
1991-92	444.4	3.5	181.8	10.4	640.1	7.1
1992-93	489.2	4.4	184.0	10.6	688.2	7.3
1993-94	510.8	5.5	185.0	10.6	711.9	6.7
1994-95	562.8	7.0	191.0	10.4	771.2	6.8
1995-96	594.8	7.9	196.0	9.4	808.1	6.6
1996-97	624.9	8.7	200.0	10.0	843.6	6.7
1997-98	609.2	9.5	200.2	9.1	828.0	6.2
1998-99	612.6	9.1	201.5	6.9	830.1	6.0
1999-00	602.1	9.1	195.5	6.2	812.9	5.8
2000-01	605.0	9.1	194.5	6.4	815.0	5.5
2001-02	586.9	9.3	195.0	6.4	797.6	4.7
2002-03	587.6	8.8	189.5	5.8	791.7	4.2
2003-04 ^b	564.8	8.8	182.0	5.8	761.4	3.4
2004-05						

^aMay not add up due to rounding.

^bPreliminary.

Bearing Acreage: Grapefruit

Season	Florida	Texas	Calif.	Arizona	U.S.
			1,000 acres		
			1,000 acres		
1979-80	126.4	43.8	21.3	8.4	199.9
1980-81	125.6	41.5	21.8	8.1	197.0
1981-82	127.8	41.1	22.0	8.2	199.1
1982-83	128.6	42.2	21.7	6.8	199.3
1983-84	119.6	43.3	21.9	6.8	191.6
1984-85	115.5	19.1	21.1	7.1	162.8
1985-86	105.1	13.5	20.9	5.7	145.2
1986-87	106.0	15.2	20.8	5.9	147.9
1987-88	106.0	16.0	20.7	6.0	148.7
1988-89	106.9	16.9	19.9	6.5	150.2
1989-90	103.0	18.7	19.2	6.4	147.3
1990-91	104.2	4.5	18.3	6.2	133.2
1991-92	104.7	7.5	18.5	5.9	136.6
1992-93	111.9	10.1	17.8	5.9	145.7
1993-94	118.3	12.8	18.0	5.9	155.0
1994-95	127.3	15.0	18.4	5.7	166.4
1995-96	132.8	17.7	18.8	5.1	174.4
1996-97	139.2	20.4	18.0	4.4	182.0
1997-98	127.8	23.1	16.8	4.0	171.7
1998-99	116.6	20.0	16.6	3.3	156.5
1999-00	114.1	20.0	16.6	2.8	153.5
2000-01	107.8	20.0	15.4	2.0	145.2
2001-02	101.3	19.0	14.0	2.0	136.3
2002-03	95.5	18.5	13.0	1.5	128.5
2003-04 ^a	82.3	18.5	12.5	1.5	114.8
2004-05					

^aPreliminary.

Florida Commercial Citrus Acreage

Census Year	Oranges	Grapefruit	Specialty Fruit ^a	Total
		ac	res	
1970	715,806	124,050	101,615	941,471
1972	659,418	124,142	94,459	878,019
1974	642,431	130,326	91,341	864,098
1976	628,567	137,909	85,893	852,369
1978	616,020	136,342	78,873	831,235
1980	627,174	139,944	78,165	845,283
1982	636,864	139,939	71,053	847,856
1984	573,991	134,680	52,694	761,365
1986	466,252	117,845	40,395	624,492
1988	536,737	119,606	41,586	697,929
1990	564,809	125,300	42,658	732,767
1992	608,636	135,166	47,488	791,290
1994	653,370	146,915	53,457	853,742
1996	656,598	144,416	56,673	857,687
1998	658,390	132,817	54,053	845,260
1999	_	121,258	_	_
2000	665,529	118,145	48,601	832,275
2002	648,806	105,488	43,009	797,303
2004	622,821	89,048	36,686	748,555
2006				

^aIncludes lemons, limes and other citrus.

Florida Commercial Citrus Bearing Acreage

Census Year	Oranges	Grapefruit	Specialty Fruit ^a	Total
		ac	res	
1970	636,128	98,702	82,308	817,138
1972	624,209	112,554	87,485	824,248
1974	614,608	115,767	86,961	817,336
1976	596,432	117,856	81,871	796,159
1978	578,968	120,310	75,191	774,469
1980	576,615	126,395	72,757	775,767
1982	560,203	127,826	66,028	754,057
1984	474,269	119,630	48,983	642,882
1986	367,581	105,134	37,996	510,711
1988	380,163	105,962	35,677	521,802
1990	399,505	102,959	33,854	536,318
1992	444,421	104,719	36,511	585,651
1994	510,819	118,298	38,404	667,521
1996	594,775	132,838	47,742	775,355
1998	609,194	127,839	50,599	787,632
1999	_	116,599	_	_
2000	602,136	114,089	46,174	762,399
2002	586,859	101,338	41,334	729,531
2004	564,844	82,318	34,833	681,995
2006				

^aIncludes lemons, limes and other citrus.

Florida Commercial Citrus Trees

Census Year	Oranges	Grapefruit	Specialty Fruit ^a	Total
		1,000) trees	
1970	57,801.5	8,925.4	9,935.7	76,662.6
1972	53,731.1	9,012.7	9,345.8	72,089.6
1974	52,521.7	9,647.2	9,140.2	71,309.1
1976	51,595.3	10,398.1	8,553.6	70,547.0
1978	50,843.2	10,412.5	7,881.1	69,136.8
1980	51,977.8	10,768.7	7,905.9	70,652.4
1982	53,504.5	10,833.1	7,232.3	71,569.9
1984	49,884.7	10,582.9	5,507.9	65,975.5
1986	43,461.4	9,624.0	4,443.4	57,528.8
1988	54,536.6	10,081.2	4,690.4	69,308.2
1990	62,613.4	11,193.2	5,074.7	78,881.3
1992	72,826.3	13,119.2	6,070.2	92,015.7
1994	81,614.4	15,004.0	7,114.0	103,732.4
1996	84,155.4	15,116.9	7,824.5	107,096.8
1998	85,430.6	14,079.1	7,600.5	107,110.2
1999	_	12,961.2	_	_
2000	87,200.1	12,668.6	6,810.0	106,678.7
2002	85,751.1	11,329.2	6,091.7	103,172.0
2004	82,978.5	9,748.3	5,218.2	97,945.0
2006				

^aIncludes lemons, limes and other citrus.

Florida Commercial Citrus Bearing Trees

Census Year	Oranges	Grapefruit	Specialty Fruit ^a	Total
		1,000) trees	
1970	49,404.2	6,746.6	7,603.8	63,754.6
1972	49,786.5	8,032.1	8,373.4	66,192.0
1974	49,466.9	8,362.6	8,559.6	66,389.1
1976	48,373.8	8,598.9	8,075.0	65,047.7
1978	47,454.5	8,969.7	7,416.8	63,841.0
1980	47,366.3	9,586.2	7,196.5	64,149.0
1982	46,078.5	9,753.9	6,555.4	62,387.8
1984	39,777.7	9,192.8	5,044.9	54,015.4
1986	32,708.0	8,367.7	4,154.6	45,230.3
1988	35,537.3	8,654.7	3,928.7	48,120.7
1990	40,666.0	8,748.5	3,882.1	53,296.6
1992	49,577.1	9,556.9	4,427.3	63,561.3
1994	61,707.7	11,514.1	4,825.8	78,047.6
1996	75,286.6	13,632.8	6,340.1	95,259.5
1998	78,586.5	13,469.6	7,034.1	99,090.2
1999	_	12,431.4	_	_
2000	78,721.0	12,204.1	6,461.4	97,386.5
2002	77,595.9	10,869.7	5,854.3	94,319.9
2004	75,391.7	8,967.9	4,972.2	89,331.8
2006				

^aIncludes lemons, limes and other citrus.

Production: Oranges

Season	Florida	Texas	Calif.	Arizona	U.S.ª	Florida Temples
			- million 90-ہ	oound boxes	s	
1979-80	206.7	3.8	49.5	2.9	262.9	6.0
1980-81	172.4	4.1	54.4	2.2	233.0	3.6
1981-82	125.8	5.6	34.9	2.5	168.9	3.2
1982-83	139.6	5.4	63.4	3.2	211.5	4.7
1983-84	116.7	2.4	40.4	1.5	161.0	2.9
1984-85	103.9	.0	43.7	2.0	149.6	3.3
1985-86	119.2	.3	44.9	1.7	166.1	3.0
1986-87	119.7	.8	48.3	2.3	171.0	3.4
1987-88	138.0	1.4	49.2	1.5	190.0	3.6
1988-89	146.6	1.7	49.1	1.4	198.8	3.8
1989-90	110.2	1.1	59.5	1.3	172.2	1.4
1990-91	151.6		21.3	1.5	174.4	2.5
1991-92	139.8	b	56.2	2.0	198.0	2.4
1992-93	186.6	.5	55.7	1.5	244.3	2.5
1993-94	174.4	.5	53.0	1.6	229.5	2.3
1994-95	205.5	1.0	46.7	.9	254.0	2.6
1995-96	203.3	.9	48.3	1.4	253.9	2.2
1996-97	226.2	1.3	53.3	1.2	282.0	2.4
1997-98	244.0	1.4	57.5	.8	303.8	2.3
1998-99	186.0	1.4	30.0	1.0	218.3	1.8
1999-00	233.0	1.6	53.3	.9	288.8	2.0
2000-01	223.3	2.1	45.4	.8	271.6	1.3
2001-02	230.0	1.6	42.9	.4	275.0	1.6
2002-03	203.0	1.5	51.7	.4	256.5	1.3
2003-04°	242.0	1.6	43.3	.4	287.3	1.4
2004-05						

^aMay not add up due to rounding. SOURCE: FASS.

^bLess than 50,000 boxes.

Production: Grapefruit

Season	Florida	Texas	Calif.	Arizona	U.S.
		millio	on 85-pound	boxes	
1979-80	54.8	7.4	5.7	2.3	70.2
1980-81	50.3	6.3	6.2	2.1	64.9
1981-82	48.1	13.1	4.7	1.8	67.7
1982-83	39.4	10.5	5.6	2.0	57.6
1983-84	40.9	3.0	5.5	1.7	51.2
1984-85	44.0	.0	6.7	2.3	53.0
1985-86	46.8	.2	6.2	2.1	55.3
1986-87	49.8	1.8	7.1	2.1	60.8
1987-88	53.9	3.6	7.0	1.5	65.9
1988-89	54.8	4.5	6.1	1.5	66.9
1989-90	35.7	1.9	7.2	1.7	46.4
1990-91	45.1		6.1	1.8	53.0
1991-92	42.4	.1	7.6	2.1	52.2
1992-93	55.2	1.8	7.0	1.6	65.6
1993-94	51.1	2.8	7.3	1.4	62.6
1994-95	55.7	4.4	7.3	1.1	68.5
1995-96	52.4°	4.3	6.4	.9	64.0
1996-97	55.8 ^b	5.0	6.5	.6	67.9
1997-98	49.6 ^b	4.5	6.3	.6	61.0
1998-99	47.1	5.7	5.8	.6	59.1
1999-00	53.4	5.6	5.7	.4	65.0
2000-01	46.0 ^d	6.8	5.0	.2	57.9
2001-02	46.7	5.6	4.7	.1	57.0
2002-03	38.7	5.3	4.4	.1	48.5
2003-04°	40.9	5.4	4.3	.1	50.6
2004-05					

^aExcludes 3 million boxes of economic abandonment. ^bExcludes 6 million boxes of economic abandonment. ^cPreliminary. ^dExcludes 2 million boxes of economic abandonment. SOURCE: FASS.

Production: Specialty Fruit

Sassan	Та	ngerin	es	F	lorida		Lemons		
Season	Florida	Calif.	Arizona	Tangelos	K-Early	Limes	Calif.	Arizona	
				1,000 bo	xes		-		
1979-80	6,700	1,650	750	6,400	600	1,100	17,700	3,050	
1980-81	4,100	1,860	700	4,900	600	1,200	24,300	7,000	
1981-82	4,100	1,730	750	5,100	400	1,300	18,500	6,300	
1982-83	3,400	2,150	1,100	3,800	280	1,700	20,300	5,050	
1983-84	2,975	1,850	1,150	3,600	520	1,440	17,250	4,000	
1984-85	1,840	1,680	1,100	3,600	125	1,640	19,800	5,650	
1985-86	1,950	1,800	950	2,950	160	1,725	15,100	3,100	
1986-87	2,340	2,230	900	4,000	220	1,450	21,500	7,100	
1987-88	2,450	2,090	600	4,200	240	1,300	17,000	3,650	
1988-89	2,900	2,040	650	3,800	320	1,250	16,200	3,800	
1989-90	1,700	1,650	600	2,950	210	1,650	15,800	2,800	
1990-91	1,950	1,350	600	2,650	160	1,450	14,800	4,100	
1991-92	2,600	2,440	1,200	2,600	165	1,600	15,100	5,100	
1992-93	2,800	2,100	950	3,050	185	1,000	20,400	4,400	
1993-94	4,100	2,300	1,000	3,350	210	200	20,700	5,200	
1994-95	3,550	2,500	650	3,150	120	230	20,000	3,600	
1995-96	4,500	2,600	1,000	2,450	160	300	21,000	5,100	
1996-97	6,300	2,600	750	3,950	150	320	22,600	2,700	
1997-98	5,200	2,400	600	2,850	40	440	21,000	2,600	
1998-99	4,950	1,500	950	2,550	80	500	16,200	3,450	
1999-00	7,000	2,500	850	2,200	110	600	19,000	3,100	
2000-01	5,600	2,200	650	2,100	40	250	22,600	3,600	
2001-02	6,600	2,200	620	2,150	30	150	18,300	2,800	
2002-03	5,500	2,800	430	2,350	b	b	24,000	3,000	
2003-04 ^a	6,500	2,700	690	1,000	b	b	18,000	3,000	
2004-05									

^aPreliminary. ^bNo longer reported.

USDA Orange Crop Estimates Versus Actual Production

C		Florida			Californi	ia		Texas			Arizona		Total
Season	Oct.	Actual	+/-	Oct.	Actual	+/-	Oct.	Actual	+/-	Oct.	Actual	+/-	Oct.
						millio	n boxe	es ^b					
1990-91	165.0	151.6	-13.4	64.0	25.6	-38.4	_	_	_	1.8	1.8	_	230.8
1991-92	136.0	139.8	3.8	53.0	67.4	14.4	.1	d	_	2.1	2.4	.3	191.2
1992-93	186.0	186.6	.6	68.0	66.8	-1.2	.5	.5	_	1.9	1.9	_	256.4
1993-94	172.0	174.4	2.4	65.0	63.6	-1.4	.5	.6	.1	2.0	1.9	1	239.5
1994-95	196.0	205.5	9.5	65.0	56.0	-9.0	1.0	1.1	.1	1.7	1.1	6	263.7
1995-96	202.0	203.3	1.3	66.0	58.0	-8.0	1.2	.9	3	1.1	1.7	.6	270.3
1996-97	220.0	226.2	6.2	63.0	64.0	1.0	1.5	1.4	1	1.5	1.4	1	286.0
1997-98	254.0	244.0	-10.0	74.0	69.0	-5.0	1.6	1.5	1	1.0	1.0	-	330.6
1998-99	190.0	186.0	-4.0	62.0	36.0	-26.0	1.4	1.4	_	1.0	1.2	.2	254.4
1999-00	211.0	233.0	22.0	67.0	64.0	-3.0	1.6	1.7	.1	.9	1.1	.2	280.5
2000-01	240.0	223.3	-16.7	59.0	54.5	-4.5	2.0	2.2	.2	1.1	.9	2	302.1
2001-02	231.0	230.0	-1.0	54.0	51.5	-2.5	2.2	1.7	5	.8	.5	3	288.0
2002-03	197.0	203.0	6.0	63.0	62.0	-1.0	1.6	1.6	-	.5	.5	-	262.0
2003-04	252.0	242.0	-10.0	59.0	52.0	-7.0	1.6	1.7	.1	.5	.5	_	313.0
2004-05	176.0			62.0			1.9			.4			240.3

^aMay not add up due to rounding. ^bBox sizes: FL, 90#; CA & AZ, 75#; TX 85#. ^cNo forecast. ^dLess than 50,000 boxes. SOURCE: FASS.

USDA Florida Temple Crop Estimates
Versus Actual Production

V	<u>versus Actual Production</u>									
Season	October	Actual	+/-							
	millio	n 90-pound boxes	;							
1984-85	3.7	3.3	4							
1985-86	3.5	3.0	5							
1986-87	3.6	3.4	2							
1987-88	3.4	3.6	.2							
1988-89	3.8	3.8	_							
1989-90	3.0	1.4	-1.6							
1990-91	3.1	2.5	6							
1991-92	2.6	2.4	2							
1992-93	2.7	2.5	2							
1993-94	2.3	2.3	_							
1994-95	2.6	2.6	_							
1995-96	2.2	2.2	_							
1996-97	2.5	2.4	1							
1997-98	2.3	2.3	_							
1998-99	2.0	1.8	2							
1999-00	2.1	2.0	1							
2000-01	1.8	1.3	5							
2001-02	1.4	1.6	.2							
2002-03	1.4	1.3	1							
2003-04	1.4	1.4	_							
2004-05	.8									

USDA Grapefruit Crop Estimates Versus Actual Production

Sassan		Florida		(California	a ^a		Texas		Arizona			Total
Season	Oct.	Actual	+/-	Oct.	Actual	+/-	Oct.	Actual	+/-	Oct.	Actual	+/-	Oct.
						millio	n boxe	s ^b					
1990-91	50.5	45.1	-5.4	8.4	8.0	4	_	_	_	2.2	2.4	.2	61.1
1991-92	42.5	42.4	1	9.5	10.0	.5	.1	.1	_	2.3	2.8	.5	54.4
1992-93	54.0	55.2	1.2	9.5	9.2	3	1.2	1.9	.7	2.2	2.2	_	66.9
1993-94	49.0	51.1	2.1	8.8	9.3	.5	2.7	3.0	.3	2.2	1.8	4	62.7
1994-95	55.5	55.7	.2	9.4	9.3	1	3.6	4.7	1.1	1.7	1.4	3	70.2
1995-96	54.0	52.4°	-1.6	8.5	8.1	4	5.0	4.6	4	1.2	1.2	_	68.7
1996-97	59.0	55.8 ^d	-3.2	8.0	8.2	.2	5.7	5.3	4	1.1	.8	3	73.8
1997-98	54.0	49.6 ^d	-4.4	9.0	8.0	-1.0	5.0	4.8	2	.8	.8	_	68.8
1998-99	50.0	47.1	-2.9	8.4	7.3	-1.1	5.0	6.1	1.1	.7	.8	.1	64.1
1999-00	50.0	53.4	3.4	8.0	7.2	8	5.5	5.9	.4	.7	.5	2	64.2
2000-01	50.0	46.0	-4.0	7.2	6.3	9	6.5	7.2	.7	.6	.3	3	64.3
2001-02	48.0	46.7	-1.3	6.0	5.9	1	7.8	5.9	-1.9	.2	.2	_	62.0
2002-03	42.0	38.7	-3.3	6.2	5.6	6	5.6	5.7	.1	.1	.1	_	53.9
2003-04	42.0	40.9	-1.1	5.5	5.4	1	5.3	5.7	.4	.1	.1	_	52.9
2004-05	15.0			5.2			5.9			.2			26.3

^aIncludes April forecast for California.

^bBox sizes: FL, 85#; CA & AZ, 67#; TX 80#.

^cExcludes 3 million boxes of economic abandonment.

dExcludes 6 million boxes of economic abandonment.

USDA Crop Estimates (Current)

Time		Oran	ges		Temples		Grape	efruit	
Period ^a	FL	ТХ	CA	AZ	FL	FL	TX	CA	AZ
				mi	llion boxes	b			
<u>2004-05</u>									
ОСТ	176.0	1.9	62.0	.4	.8	15.0	5.9	5.2	.2
DEC	168.0	1.9	62.0	.4	.8	13.0	5.9	5.2	.2
JAN	162.0	1.8	60.5	.4	.7	13.0	6.2	5.3	.2
FEB	162.0	1.8	60.5	.4	.7	13.0	6.2	5.3	.2
MAR	153.0	1.8	64.0	.4	.7	13.0	6.2	5.3	.2
APR	151.2	2.0	61.0	.4	.7	13.0	6.5	5.4	.2
MAY									
JUN									
JUL		_							

^aNo November crop estimate is made.

^bFL oranges and Temples 90# box, grapefruit 85# box. CA and AZ oranges 75# box, grapefruit 67# box. TX oranges 85# box, grapefruit 80# box.

USDA Florida FCOJ Gallons-per-Box Yield Estimates

Season	ост	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
					42° Brix	k gallons	S			
1989-90	1.48	1.48	1.48	1.30	1.29	1.24	1.21	1.22	1.23	1.23
1990-91	1.52	1.52	1.50	1.48	1.48	1.48	1.47	1.45	1.45	1.45
1991-92	1.50	1.50	1.50	1.50	1.51	1.52	1.52	1.54	1.55	1.55
1992-93	1.48	1.48	1.48	1.52	1.55	1.57	1.57	1.58	1.58	1.58
1993-94	1.55	1.55	1.55	1.56	1.57	1.57	1.57	1.57	1.57	1.57
1994-95	1.54	1.54	1.52	1.51	1.51	1.51	1.50	1.50	1.50	1.50
1995-96	1.54	1.54	1.50	1.47	1.47	1.48	1.48	1.52	1.52	1.52
1996-97	1.53	1.53	1.53	1.53	1.54	1.54	1.57	1.58	1.58	1.58
1997-98	1.55	1.55	1.55	1.55	1.56	1.56	1.56	1.58	1.58	1.58
1998-99	1.57	1.57	1.57	1.57	1.60	1.62	1.63	1.64	1.63	1.63
1999-00	1.60	1.60	1.60	1.57	1.54	1.54	1.54	1.54	1.55	1.55
2000-01	1.55	1.55	1.55	1.55	1.54	1.58	1.58	1.58	1.58	1.58
2001-02	1.55	1.55	1.55	1.58	1.58	1.58	1.58	1.58	1.58	1.58
2002-03	1.57	1.57	1.57	1.57	1.57	1.55	1.55	1.53	1.52	1.54
2003-04	1.55	1.55	1.55	1.53	1.53	1.53	1.54	1.55	1.56	1.56
2004-05	1.56	1.56	1.56	1.56	1.58	1.58	1.58			

USDA Specialty Crop Estimates Versus Actual Production

	Flo	rida			Tang	erines				ornia/	Flo	rida
Season	Tang	gelos	Flo	rida	Calif	ornia	Ariz	ona		ona ions	Lin	nes
	Oct.	Actual	Oct.	Actual	Oct.	Actual	Oct.	Actual	Oct.	Actual	Oct.	Actual
	mil. 90-l	b. boxes	mil. 95-l	b. boxes		- mil. 75-lb	. boxes -		mil. 76-l	b. boxes	mil. 88-l	b. boxes
1990-91	3.1	2.7	2.1	2.0	2.0	1.4	.7	.6	20.1	18.9	1.5	1.5
1991-92	2.6	2.6	2.6	2.6	1.5	2.4	.7	1.2	18.1	20.2	1.6	1.6
1992-93	3.3	3.1	2.6	2.8	2.5	2.1	1.0	1.0	22.7	24.8	1.3	1.0
1993-94	3.1	3.4	3.8	4.1	2.5	2.3	1.1	1.0	24.3	25.9	.2	.2
1994-95	3.2	3.2	4.0	3.6	2.2	2.5	.8	.7	25.2	23.6	.3	.2
1995-96	2.5	2.5	4.1	4.5	2.3	2.6	1.0	1.0	27.5	26.1	.3	.3
1996-97	3.8	4.0	6.0	6.3	2.6	2.6	.9	.8	26.7	25.3	.4	.3
1997-98	3.3	2.9	5.5	5.2	2.4	2.4	.5	.6	24.6	23.6	.4	.4
1998-99	2.5	2.6	4.2	5.0	2.5	1.5	.7	1.0	23.7	19.7	.6	.5
1999-00	2.6	2.2	6.4	7.0	2.3	2.5	.7	.9	24.4	22.1	.6	.6
2000-01	2.1	2.1	6.3	5.6	2.0	2.2	.9	.7	24.6	26.2	.3	.3
2001-02	2.3	2.2	7.0	6.6	2.5	2.2	.6	.6	26.1	21.1	.2	.2
2002-03	2.4	2.4	5.2	5.5	2.3	2.8	.5	.4	23.8	27.0	b	b
2003-04	1.3	1.0	6.6	6.5	2.5	2.7	.6	.7	26.0	21.0	b	b
2004-05	1.4		4.7		2.9		.5		21.9		b	b

^aSize 210 and larger. ^bNo longer forecast or reported.

SOURCE: FASS, Citrus Summary.

Utilization of Florida Oranges

Season	Fresh	Frozen Concen- trate	Chilled Juice	Non- Certified	Other	Totalª
		· m	illion 90-po	ound boxes		
1992-93	9.4	128.3	47.3 ^b	1.3	.3	186.6
1993-94	8.6	111.7	51.0	1.3	1.8	174.4
1994-95	8.9	140.8	53.4	1.5	.9	205.5
1995-96	8.5	129.3	62.1	1.5	1.9	203.3
1996-97	9.3	147.9	65.7	1.4	1.9	226.2
1997-98	8.7	156.4	74.8	2.5	1.6	244.0
1998-99	8.6	93.7	80.1	2.2	1.4	186.0
1999-00	6.9	129.5	90.1	2.5	4.0	233.0
2000-01	6.7	120.5	89.6	3.0	3.5	223.3
2001-02	6.9	132.2	85.9	2.5	2.5	230.0
2002-03	6.3	98.7	92.5	3.4	2.1	203.0
2003-04	6.2	137.0	93.4	3.5	1.9	242.0

^a May not add up due to rounding.

^b Includes Florida non-member.

Utilization of Florida Grapefruit

Season	Fresh	Frozen Concen- trate	Chilled Juice	Non- Certified	Other	Total
		mill	lion 85-pou	und boxes -		
1992-93	22.1	26.6	4.5	1.1	.9	55.2
1993-94	21.5	22.3	5.7	1.0	.6	51.1
1994-95	21.2	27.3	5.6	1.1	.5	55.7
1995-96	21.8	23.0	6.1	1.0	.5	52.4 ^a
1996-97	22.1	25.0	7.1	1.1	.5	55.8 ^b
1997-98	20.0	20.6	7.2	1.2	.6	49.6 ^b
1998-99	18.7	19.0	7.5	1.2	.7	47.1
1999-00	17.0	24.1	10.4	1.3	.6	53.4
2000-01	15.9	21.2	6.4	1.6	.9	46.0°
2001-02	15.9	21.7	6.4	1.5	1.2	46.7
2002-03	14.1	16.0	6.2	1.5	.9	38.7
2003-04	15.2	17.2	6.6	1.5	.4	40.9

^a Excludes 3 million boxes of economic abandonment.

^b Excludes 6 million boxes of economic abandonment.

^c Excludes 2 million boxes of economic abandonment.

Aug-July Season	Grapefruit	Oranges	Temples	Tangelos	Honey Tangerines	Tangerines	Total
			thousa	nd 4/5-bushe	l cartons		
1990-91	46,436	23,107	1,353	1,962	1,273	549	74,680
1991-92	43,863	20,724	1,540	2,236	1,795	1,907	72,065
1992-93	44,196	19,096	1,671	2,241	1,823	2,091	71,118
1993-94	43,027	17,480	1,391	1,838	2,385	3,352	69,473
1994-95	42,405	18,002	1,378	1,804	1,595	3,387	68,570
1995-96	43,535	16,985	1,204	1,614	2,114	3,875	69,326
1996-97	44,224	18,690	879	1,584	1,958	5,163	72,498
1997-98	39,922	17,411	851	1,339	2,610	3,837	65,968
1998-99	37,399	17,303	956	1,199	2,651	4,102	63,610
1999-00	33,925	13,906	694	1,076	3,427	4,972	58,002
2000-01	31,850	13,397	585	1,096	2,368	4,517	53,813
2001-02	31,783	13,860	592	967	2,627	5,162	54,992
2002-03	28,270	12,552	471	837	3,380	3,883	49,392
2003-04	30,350	12,310	552	646	3,968	4,284	52,111

^aColumns may not add up due to rounding.

5

Florida Fresh Grapefruit Shipments

Aug-July Season	Domestic	Canada	Europe	Japan	Other Pacific Rim	Other	Total				
1990-91	23,467	3,616	7,408	11,184	746	15	46,436				
1991-92	22,244	2,983	6,630	11,011	973	22	43,863				
1992-93	22,909	3,809	7,094	9,184	1,183	17	44,196				
1993-94	19,472	3,206	7,499	11,541	1,287	22	43,027				
1994-95	19,561	3,133	8,118	10,428	1,138	27	42,405				
1995-96	18,230	2,960	9,512	11,324	1,482	27	43,535				
1996-97	18,638	3,042	9,536	11,045	1,922	41	44,224				
1997-98	18,062	2,833	8,846	9,309	843	29	39,922				
1998-99	15,273	2,617	8,298	9,967	1,224	20	37,399				
1999-00	13,197	2,254	6,700	10,912	846	16	33,925				
2000-01	11,602	2,236	6,637	10,719	635	21	31,850				
2001-02	11,103	2,183	6,549	11,227	696	25	31,783				
2002-03	9,936	1,619	6,227	10,150	325	13	28,270				
2003-04	8,995	1,780	6,912	12,123	529	11	30,350				

Florida Fresh Orange and Temple Shipments

	Aug-July Season	Domestic	Canada	Europe	Japan	Other Pacific Rim	Other	Total
				thousa	nd 45-pound	cartons		
	1990-91	22,049	1,739	61	328	265	18	24,460
	1991-92	20,507	1,358	49	37	284	29	22,264
	1992-93	19,034	1,549	40	11	113	20	20,767
	1993-94	17,245	1,280	12	55	257	22	18,871
	1994-95	17,250	1,376	130		602	21	19,379
20	1995-96	16,340	1,201	100	27	479	42	18,189
	1996-97	17,788	1,334	57	22	345	23	19,569
	1997-98	16,778	1,149	27	22	271	15	18,262
	1998-99	16,162	1,051	9	149	863	25	18,259
	1999-00	13,341	873	7	20	355	5	14,601
	2000-01	12,465	870	24	11	594	18	13,982
	2001-02	13,264	1,033	43	4	95	13	14,452
	2002-03	11,977	797	24	3	215	7	13,023
	2003-04	11,417	867	178	2	330	68	12,862

World Orange Production

		Average				2002.02	
Country	70-71/ 78-79	80-81/ 88-89	90-91/ 98-99	2000-01	2001-02	2002-03 Preliminary	
			- 1,000 me	etric tons -			
United States	8,751.2	7,630.1	9,881.8	11,291.0	11,391.7	10,509.1	
% of U.S. to World	27.0%	19.5%	18.2%	19.1%	17.8%	17.6%	
Florida ^a	6,952.7	5,503.0	7,790.1	9,115.9	9,389.5	8,287.2	
% of Florida to World	21.5%	14.1%	14.3%	15.4%	14.7%	13.9%	
Argentina	771.6	627.6	734.3	913.0	780.0	725.0	
Australia	344.0	433.0	528.4	437.0	633.0	410.0	
Brazil	6,932.0	10,837.2	15,711.6	14,729.0	18,360.0	14,974.0	
China	349.2	410.1	1,791.5	3,007.7	3,671.5	4,474.3	
Cuba	133.0	395.2	387.8	554.8	350.0	387.0	
Egypt	744.0	1,159.1	1,548.8	1,759.2	1,984.6	1,688.3	
Greece	464.6	661.3	918.3	1,002.4	1,077.0	1,176.9	
India	1,223.1	1,326.6	2,200.6	2,860.0	2,890.0	2,980.0	
Israel	1,049.1	815.7	398.4	218.0	159.9	142.4	
Italy	1,584.2	1,929.4	1,980.0	1,876.3	1,828.6	1,723.6	
Mexico	1,324.4	1,601.9	3,109.5	3,885.0	4,020.2	3,838.3	
Morocco	630.3	774.4	901.8	706.3	725.5	800.1	
Pakistan	418.1	928.1	1,287.6	1,400.0	1,400.0	1,400.0	
South Africa	494.6	564.6	823.9	1,119.2	1,263.0	1,265.0	
Spain	1,860.4	1,885.2	2,658.8	2,708.8	2,923.7	2,935.0	
Turkey	534.5	688.9	832.4	1,070.0	1,250.0	985.0	
All Others	4,750.3	6,440.7	8,641.8	9,648.5	9,317.9	9,297.2	
WORLD TOTAL	32,358.6	39,109.1	54,337.3	59,186.2	64,026.6	59,711.2	

^aTemples included. SOURCES: FAO, FASS.

World Grapefruit Production

		Average				
Country	70-71/ 78-79	80-81/ 88-89	90-91/ 98-99	2000-01	2001-02	2002-03 Preliminary
				tric tons		
United States	2,512.4	2,327.2	2,372.3	2,239.7	2,199.0	1,871.0
% of U.S. to World	65.0%	55.7%	46.3%	40.1%	38.3%	34.9%
Florida	1,842.1	1,832.9	1,945.6	1,773.6	1,800.6	1,492.1
% of Florida to World	47.6%	43.9%	38.0%	31.7%	31.4%	27.8%
Argentina	161.6	160.0	195.6	177.0	170.0	185.0
Australia	19.3	31.6	18.8	14.0	14.0	14.0
Brazil	32.2	44.7	61.2	66.0	67.0	67.0
China	61.5	152.1	697.4	1,020.9	1,291.8	1,321.9
Cuba	26.5	203.7	283.7	310.0	175.0	200.0
Cyprus	59.0	98.2	89.1	38.4	37.6	38.6
India	26.1	36.0	94.6	130.0	137.0	137.0
Israel	421.9	422.1	366.5	316.0	250.3	255.0
Mexico	96.6	114.0	157.1	320.0	297.0	310.0
Morocco	11.8	6.7	2.9	1.2	3.0	4.0
Paraguay	39.4	73.2	65.0	48.0	46.7	47.0
Peru	5.4	4.3	18.6	29.0	30.0	30.0
South Africa	76.9	86.7	151.7	288.3	384.0	268.0
Spain	6.0	13.5	28.5	27.0	31.0	37.0
Tunisia	8.0	28.1	48.9	66.0	72.0	72.0
Turkey	12.0	25.9	56.4	110.0	140.0	127.5
All Others	290.5	350.3	418.3	389.1	389.8	382.7
WORLD TOTAL	3,867.1	4,178.3	5,126.6	5,590.6	5,735.2	5,367.7

SOURCES: FAO, FASS.

World Tangerine Production

		Average				2002-03
Country	70-71/ 78-79	80-81/ 88-89	90-91/ 98-99	2000-01	2001-02	Preliminary
	70-79			etric tons - ·		
			- 1,000 1116	tilic tolls -		
United States	381.2	353.3	396.3	420.6	468.1	432.6
% of U.S. to World	5.7%	4.0%	2.9%	2.9%	2.8%	2.7%
Florida	139.8	119.5	172.1	241.3	284.4	237.0
% of Florida to World	2.1%	1.4%	1.3%	1.7%	1.7%	1.5%
Algeria	148.8	88.9	94.1	110.0	111.0	111.0
Argentina	239.7	257.9	376.1	501.0	416.0	380.0
Brazil	248.3	470.8	641.5	1,125.1	910.0	910.0
China	233.8	1,145.1	4,828.8	5,134.2	7,020.4	6,478.7
Egypt	86.4	108.1	337.5	495.0	643.6	534.6
Greece	34.2	52.1	81.4	85.5	67.0	82.9
Israel	62.9	112.2	113.0	80.0	83.4	71.0
Italy	323.8	413.4	499.5	593.0	611.1	548.3
Japan	3,395.8	2,873.1	1,718.6	1,398.0	1,527.0	1,332.0
Korea, Republic of	44.5	311.8	581.0	563.0	651.0	690.0
Mexico	143.3	123.4	220.8	364.5	360.0	360.0
Morocco	177.4	301.5	370.6	251.5	405.0	478.4
Peru	18.2	27.5	82.0	128.2	133.2	135.0
Spain	600.4	1,052.5	1,646.5	1,819.0	1,778.1	2,010.0
Turkey	105.2	219.4	396.4	344.5	410.0	400.0
Uruguay	17.7	37.7	71.1	97.0	74.5	75.0
All Others	466.8	804.0	1,012.3	1,080.5	1,112.2	1,131.2
WORLD TOTAL	6,728.4	8,752.7	13,467.5	14,590.6	16,781.6	16,160.7

SOURCES: FAO, FASS.

Brazil: Bearing Trees, Production and Utilization of Oranges in the State of São Paulo

Production	Bearing	Oranges	Oranges	Utilized for	Frozen Concen	trate Productio
Season ^a	Trees	Produced		Concentrate	65° Brix	SSE
	- million -	million b	ooxes	- % of total -	- thousand MT -	- million gallons -
1975-76	56	85	53	62	189	263
1980-81	66	170	138	81	492	685
1985-86	87	239	220	92	860	1,198
1990-91	109	242	202	83	838	1,167
1995-96	163	357	263	74	1,062	1,479
1997-98	178	420	320	76	1,353	1,884
1998-99	169	342	280	82	1,156	1,610
1999-00	165	395	300	76	1,310	1,824
2000-01	162	355	270	76	1,140	1,588
2001-02	161	280	220	79	953	1,327
2002-03	160	365	305	84	1,309	1,823
2003-04	159	290	230	79	1,040	1,448
2004-05 ^b	161	380	310	82	1,280	1,783
2005-06°	163	320	248	78	1,085	1,511

^aJuly-June.

^bEstimate.

°Projected.

Brazil FCOJ Exports and Prices

Year	Exports	U.S. \$ per MT ^a	Season	Exports	U.S. \$ per MT ^a
	MT 65° Brix	dollars	July- June	MT 65° Brix	dollars
1974	108,460	546	1996-97	1,153,799	1,024
1975	180,897	454	1997-98	1,280,921	877
1976	209,841	481	1998-99	1,140,606	1,112
1977	213,524	829	1999-00	1,295,725	969
1978	335,629	991	2000-01	1,235,679	691
1979	308,328	965	2001-02	1,033,628	767
1980	401,144	845	2002-03	998,851	875
1981	639,143	1,032	2003-04	1,071,045	831
1982	502,034	1,101			
1983	552,373	1,104			
1984	905,231	1,563			
1985	484,782	1,544			
1986	808,262	844			
1987	754,968	1,100			
1988	663,600	1,716			
1989	710,114	1,381			
1990	899,801	1,527			
1991	913,747	985			
1992	968,627	1,087			
1993	1,165,241	709			
1994	1,146,758	859			
1995	960,905	1,150			
1996	1,202,427	1,156			
1997	1,179,572	850			

^aFOB value of product, Brazil.

			Flor	rida				U.S. In	nports		Tota	al
	Oct-Sept Season	FCOJ 11.8° Brix	cssoj	COJ	Total	Texasª	Calif./ ^a Arizona	Florida	Total	U.S. Exports	Domestic Availability	
						- million	SSE gallor	ıs				1,000 MT 65° Brix
	1993-94	736.0	1.4	320.9	1,058.2	.3	68.8	215.0	424.9	110.3	1,441.9	1,035
	1994-95	874.4	1.7	330.3	1,206.5	2.0	44.7	98.8	240.4	141.5	1,352.1	971
	1995-96	817.3	1.4	394.6	1,213.3	.9	52.2	130.6	221.0	128.1	1,359.3	976
26	1996-97	976.6	1.1	410.6	1,388.3	2.7	48.4	177.5	294.9	149.0	1,585.3	1,138
	1997-98	1,024.8	NA	462.0	1,486.8	2.3	56.7	127.7	280.8	146.3	1,680.2	1,207
	1998-99	641.7	NA	512.9	1,154.6	1.8	69.6	188.5	350.2	146.6	1,429.7	1,027
	1999-00	838.9	NA	583.5	1,422.4	2.2	86.6	139.4	339.4	145.2	1,705.4	1,225
	2000-01	791.8	NA	565.2	1,357.1	5.6	36.0	125.2	257.7	122.9	1,533.5	1,101
	2001-02	868.6	NA	546.5	1,415.0	2.0	30.4	96.6	188.8	181.2	1,455.1	1,045
	2002-03	633.5	NA	574.6	1,208.1	2.6	50.6	155.2	290.9	104.8	1,447.4	1,039
	2003-04	881.7	NA	570.7	1,452.4	2.8	30.0	84.8	222.3	123.0	1,584.6	1,138

^aBased on assumed yields.

SOURCES: FCPA, FASS Citrus Summary, FAS, NASS, U.S. Department of Commerce, FDOC-EMRD.

Estimated U.S. Orange-Juice Supply and Demand

Oct-Sep Season	Total Domestic Availability	Net Florida Carry- over	Total Presumed Consump- tion	Sa Retail ^a	les Other ^b	Popula- tion	Per Capita Consump- tion
		million	SSE gallons	;		millions	SSE gal.
1991-92	1,093	-33	1,126	NA	NA	256	4.4
1992-93	1,381	94	1,286	NA	NA	259	5.0
1993-94	1,442	61	1,381	NA	NA	262	5.3
1994-95	1,352	-30	1,382	NA	NA	266	5.2
1995-96	1,359	-15	1,374	807	567	269	5.1
1996-97	1,585	151	1,434	832	602	272	5.3
1997-98	1,680	84	1,596	835	762	275	5.8
1998-99	1,430	-117	1,547	853	694	278	5.6
1999-00	1,705	107	1,599	872	726	281	5.7
2000-01	1,534	52	1,482	889	593	284	5.2
2001-02	1,455	-5	1,460	861	599	287	5.1
2002-03	1,447	15	1,433	838	595	290	4.9
2003-04	1,585	110	1,474	810	665	293	5.0

^aAll outlets.

SOURCES: FCPA, FASS Citrus Summary, U.S. Census Bureau, ACNielsen.

^bIncludes unidentified inventory.

28

Estimated U.S. Grapefruit-Juice Availability

Oct-Sept		Flori	da			Calif./a	U.S.	Total	U.S.	Total
Season	FCGJ	CSSGJ	CGJ	Total	Texasª	Arizona	Imports	Supply	Exports	Domestic Availability
					million S	SSE gallon	s			
1993-94	105.9	1.4	30.5	137.8	4.1	10.8	1.0	153.7	22.5	131.2
1994-95	125.4	1.5	30.7	157.5	7.0	9.8	.8	175.1	28.4	146.7
1995-96	107.7	.7	33.1	141.5	7.3	7.2	.6	156.6	27.6	129.0
1996-97	121.3	.8	37.2	159.3	7.6	7.1	.2	174.4	23.4	151.0
1997-98	96.9	NA	39.2	136.1	6.3	7.8	.2	150.4	18.6	131.8
1998-99	98.0	NA	42.3	140.4	9.7	2.5	.3	152.8	24.3	128.5
1999-00	114.6	NA	55.3	169.9	9.9	3.6	5.0	188.4	32.9	155.5
2000-01	108.8	NA	37.8	146.6	15.1	2.7	.9	165.3	39.0	126.3
2001-02	109.2	NA	39.9	149.1	9.6	2.3	.3	161.3	36.3	125.1
2002-03	77.5	NA	37.3	114.8	11.2	2.0	.4	128.4	39.5	89.0
2003-04	83.6	NA	36.8	120.4	11.0	2.0	.5	133.8	55.5	78.4

^aBased on assumed yields.

SOURCES: FCPA, FASS Citrus Summary, NASS, U.S. Department of Commerce.

Estimated U.S. Grapefruit-Juice Supply and Demand

Oct-Sep Season	Total Domestic Availability	Net Florida Carry- over	Total Presumed Consump- tion	Sa Retail ^a		Popula- tion	Per Capita Consump- tion
			SSE gallons			millions	
1991-92	90	-23	112	NA	NA	256	.44
1992-93	147	26	121	NA	NA	259	.47
1993-94	131	5	126	NA	NA	262	.48
1994-95	147	16	131	NA	NA	266	.49
1995-96	129	-2	131	48	83	269	.49
1996-97	151	20	131	50	81	272	.48
1997-98	132	-17	149	57	91	275	.54
1998-99	129	-32	160	60	101	278	.58
1999-00	156	24	132	52	80	281	.47
2000-01	126	1	126	46	79	284	.44
2001-02	125	12	114	40	74	287	.39
2002-03	89	-14	103	37	66	290	.35
2003-04	78	-10	88	34	54	293	.30

^aAll outlets.

SOURCES: FCPA, FASS Citrus Summary, U.S. Census Bureau, ACNielsen.

^bIncludes unidentified inventory.

General Economic Indicators

Year	Consumer P (1982-84		Population	Disposable Personal
	All Food	All Items	•	Income
			- millions -	- billion \$ -
1982	97.4	96.5	231.7	2,421.2
1983	99.4	99.6	233.8	2,608.4
1984	103.2	103.9	235.8	2,912.0
1985	105.6	107.6	237.9	3,109.3
1986	109.0	109.6	240.1	3,285.1
1987	113.5	113.6	242.3	3,458.3
1988	118.2	118.3	244.5	3,748.7
1989	125.1	124.0	246.8	4,021.7
1990	132.4	130.7	249.6	4,285.8
1991	136.3	136.2	253.0	4,464.3
1992	137.9	140.3	256.5	4,751.4
1993	140.9	144.5	259.9	4,911.9
1994	144.3	148.2	263.1	5,151.8
1995	148.4	152.4	266.3	5,408.2
1996	153.3	156.9	269.4	5,688.5
1997	157.3	160.5	272.6	5,988.8
1998	160.7	163.0	275.9	6,395.9
1999	164.1	166.6	279.0	6,695.0
2000	167.8	172.2	282.2	7,194.0
2001	173.1	177.1	285.1	7,486.8
2002	176.2	179.9	287.9	7,827.7
2003	180.0	184.0	290.8	8,159.9
2004	186.2	188.9	293.7	8,632.4°

^aPreliminary.

SOURCES: U.S. Dept. of Commerce, Bureau of Labor Statistics, and Bureau of the Census.

Estimated FOB Value of the Florida Citrus Industry, 2002-03

Item	Estimated FOB Value
	real million \$ ^a
FRESH ^a	
Oranges	91.2
Grapefruit	210.5
<u>Specialty</u>	<u> 106.8</u>
TOTAL FRESH	408.5
PROCESSED ^{b,c}	
Oranges ^d	3,068.2
<u>Grapefruit</u>	<u> 170.7</u>
TOTAL PROCESSED	3,238.9
TOTAL VALUE	3,647.4

^aCAC. ^bFCM. ^cFrozen concentrated and chilled product; excludes canned juice. ^dIncludes specialty.

Estimated Economic Impact^a of the Citrus Industry on Florida's Economy, 1999-00

Item	Value Added ^b	Output/Sales	Employment
	millio	full-time equivalent jobs	
Fresh	509.4	1,130.7	17,471
Processed	3,668.2	8,002.1	72,306
TOTAL	4,177.7	9,132.8	89,778

^aTotal effect (direct, indirect and induced).

SOURCE: A. Hodges, E. Philippakos, D. Mulkey, T. Spreen, and R. Muraro, *Economic Impact of Florida's Citrus Industry*, 1999-2000, UF-IFAS-FRED, El Report 01-2, July 2001.

^bWages earned by industry employees, income to business owners, and business taxes paid.

Florida Land Value Survey
Estimated Value Per Acre by Geographic Area
and Land Use (Weighted Estimates)

	and Land Use (Weighted Estimates)								
	Sc	outh Flori	da	Cen	tral Flori	da			
Date	Oranges	Grape- fruit	5-7 Year Citrus	Oranges	Grape- fruit	5-7 Year Citrus			
			\$/ac	cre					
5/1984	9,166	6,992		9,314	6,925				
5/1985	10,071	7,889		9,254	6,365				
5/1986	8,685	8,289		8,798	6,918				
5/1987	9,661	8,833		8,792	7,701				
5/1988	10,911	10,012		10,550	8,835				
5/1989	11,873	10,420		11,800	10,265				
5/1990	13,351	12,169		12,863	10,058				
5/1991	11,274	10,890	8,888	10,771	9,215	6,823			
5/1992	10,756	10,804	9,136	10,250	8,695	7,193			
5/1993	9,046	9,478	7,432	8,796	7,119	6,526			
5/1994	8,097	8,188	6,677	7,822	6,749	6,342			
5/1995	7,477	6,182	6,121	7,253	5,836	5,231			
5/1996	7,457	4,986	6,159	6,774	4,980	5,053			
5/1997	7,290	4,053	6,096	6,776	4,216	4,981			
5/1998	6,882	3,035	5,691	6,763	3,322	4,875			
5/1999	6,956	3,759	5,799	6,780	3,543	4,871			
5/2000	7,073	4,824	5,909	6,899	4,431	4,941			
5/2001	6,410	4,344	5,802	6,139	4,241	4,783			
5/2002	5,687	3,658	5,211	5,438	3,614	4,668			
5/2003	5,932	3,929	5,440	5,721	3,914	4,889			
5/2004	6,540	5,264	5,920	6,409	4,518	5,340			

SOURCE: Dr. John E. Reynolds, "Florida Land Value Survey," FRED-IFAS-UF, various surveys.

Certification and Carrying Costs for FCOJ Futures Contracts

lte	m	Selected Approximate Costs			
Delivery Only	Commission Service Fee Labor Total per Contract Total Points	\$ 20.00° 25.00° <u>132.00</u> ° \$ 177.00 118			
Carry for <u>Two</u> Months	Cost per Pound Storage (per contract) Interest ^c Total per Contract Total Points	\$.85 \$ 528.00 <u>141.96</u> \$ 669.96 447	\$.95 \$ 528.00 <u>157.79</u> \$685.79 457	\$ 1.05 \$ 528.00 <u>173.62</u> \$ 701.62 468	
Receive, Carry for Two Months, and Redeliver	Storage (per contract) Commission-In ^a Commission-Out ^a Service Fee ^a Interest ^c Total per Contract Total Points	\$ 528.00 20.00 20.00 50.00 141.96 \$ 759.96 507	\$ 528.00 20.00 20.00 50.00 <u>157.79</u> \$ 775.79 517	\$528.00 20.00 20.00 50.00 <u>173.62</u> \$ 791.62 528	

If inspection is necessary, the following charges must be added to the above cost:

Warehouse In-Store Labor Charge \$ 56.00 (average)

USDA Inspection Fee \$111.00 (drums only)

NOTE: Prompt payment of monthly storage is advised, as all warehouses are charging interest on late payments.

Tank Facilities

	<u></u>		
Services	Current Rate		
Handling In/Out Storage per Month Reinspection	\$ 264.00 per Contract \$ 264.00 per Contract \$ 100.00 per Contract		

^aRate is negotiable.

^bHandling out only. Storage cost ÷ 4.

clnterest is calculated as 6.50% per annum (1.5% over prime).

SOURCE: Citrus Associates of the New York Board of Trade, FCOJ Deliverer's and Receiver's Guide (Revised 4/05).

New York FCOJ Monthly Average Nearby Futures Settlement Price

	Futures Settlement Frice							
Month	1999	2000	2001	2002	2003	2004	2005	
			cents p	er pound	solids			
JAN	99.66	84.37	76.01	89.41	92.04	62.95	82.11	
FEB	93.00	84.66	75.69	89.64	87.08	60.97	85.02	
MAR	83.48	84.82	74.80	92.68	84.68	61.21	94.84	
APR	84.47	82.49	74.25	89.61	85.49	59.45		
MAY	85.42	81.77	78.33	91.17	85.74	65.65		
JUN	89.23	84.44	77.02	91.40	85.30	57.66		
JUL	80.16	79.65	81.36	95.42	81.31	66.74		
AUG	92.55	74.07	77.68	100.93	78.66	67.27		
SEP	92.97	71.42	80.81	100.30	77.17	88.52		
OCT	88.52	70.03	85.26	95.14	70.77	82.49		
NOV	94.85	73.99	93.76	100.53	70.11	74.99		
DEC	93.19	80.42	91.67	97.36	67.01	83.46		

SOURCES: New York Board of Trade.

Single-Strength & Chilled Juice

Factors to convert cases of single-strength or chilled juice to equivalent cases of 24 No. 2's.

Cans per Case	Container Size	Equivalent Cases of 24/2's	Cans per Case	Container Size	Equivalent Cases of 24/2's
24	4 - ounces	.222	1	1 - gallon	.2963
24	4.25 - "	.236	24	7 - ounces	.389
24	6 - "	.333	48	4.25 - "	.472
24	8 - "	.444	12	24 - "	.667
48	4 - "	.444	12	26 - "	.722
48	5.5 - "	.611	12	32 - "	.889
48	6 - "	.667	64	6 - "	.889
24	12 - "	.667	6	64 - "	.889
48	8 - "	.889	12	1 - quart	.889
24	18 - "	1.000	12	1 - liter	.939
12	46 - "	1.278	72	6 - ounces	1.000
6	No.10	1.333	4	1 - gallon	1.185
			20	1 - quart	1.482

Canned & Chilled Sections

Factors to convert cases of canned and chilled sections to equivalent cases of 24 No. 2's.

Cans per Case	Container Size	Equivalent Cases of 24/2's
12	303	.444
12	1 - pound	.444
4	½ - gallon	.592
6	3 - pounds	.667
2	10 - "	.740
48	8 - ounces	.889
24	303	.889
12	32 - ounces	.889
6	4 - pounds	.889
4	8 - "	1.185
4	1 - gallon	1.185
12	No. 3 cyl. (404)	1.278
12	48 - ounces	1.333

Concentrate Factors (3+1)

Factors to convert cases concentrate (retail size containers) to equivalent cases of 24 No. 2's. These factors apply to FCOJ, FCGJ, FCBJ, FCTJ, sugar-added FCOJ, FCGJ, FCBJ, lemonade, limeade, and/or other concentrated with 3+1 reconstitution.

Cans per Case	Container Size	Equivalent Cases of 24/2's	Cans per Case	Container Size	Equivalent Cases of 24/2's
24	6 - ounces	1.333	9	32 - ounces	2.666
24	8 - "	1.778	12	25.6 - "	2.844
48	4 - "	1.778	24	16 - "	3.555
6	42 - "	2.333	48	8 - "	3.555
6	46 - "	2.555	12	32 - "	3.555
48	6 - "	2.666	72	6 - "	3.999
24	12 - "	2.666	36	12 - "	3.999
			96	6 - "	5.332

FCOJ -- 42.0° Brix Equivalent Conversion Factors -- Bulk for Manufacturing

Brix	F	ac	tor	Brix	F	act	ors
42°	Gallons	Χ	1.0000	59°	Gallons	Χ	1.5159
43°	"	X	1.0284	60°	"	X	1.5486
43.4°	"	X	1.0397	61°	"	X	1.5818
44°	"	X	1.0570	62°	"	X	1.6150
45°	"	X	1.0857	63°	"	X	1.6487
46°	"	X	1.1148	64°	"	X	1.6826
47°	"	X	1.1441	65°	"	X	1.7168
48°	"	X	1.1735	66°	"	X	1.7512
49°	"	X	1.2033	67°	"	X	1.7861
50°	"	X	1.2334	68°	"	X	1.8210
51°	"	X	1.2637	69°	"	X	1.8566
52°	"	X	1.2943	70°	"	X	1.8922
53°	"	X	1.3253	71°	"	X	1.9281
54°	"	X	1.3564	72°	"	X	1.9644
55°	"	X	1.3876	73°	"	X	2.0010
56°	"	X	1.4194	74°	"	X	2.0380
57°	"	X	1.4512	75°	"	X	2.0751
58°	"	X	1.4834				

Canned Citrus Fruit & Single-Strength Juice

Factors to convert cases of canned citrus products in different sized cans to the equivalent number of cases packed 24 No. 2 cans per case.

	equivalent number of case	S packed 24 N	o. Z cans per	case.
Cans/ Case	Name of Can	Dimensions of Can	SSE Gal./Case ^a	Equivalent Cases 24/2's
24	4 - ounces (baby juice)	202 x 214	.793	.235
24	4 - ounces	211 x 200	.807	.239
24	6 - "	202 x 308	.992	.294
48	6 - "	202 x 308	1.985	.588
24	6 - "	202 x 314	1.110	.329
48	6 - "	202 x 314	2.221	.658
48	8 - ounces (short)	211 x 300	2.599	.770
24	8 - ounces (tall)	211 x 304	1.424	.422
48	8 - ounces	211 x 304	2.849	.844
48	No. 1 (picnic)	211 x 400	3.591	1.064
24	No. 211 (cylinder)	211 x 414	2.228	.660
48	No. 211	211 x 414	4.455	1.320
24	12 - ounces	300 x 400	2.231	.661
24	No. 300	300 x 407	2.498	.740
36	No. 300	300 x 407	3.746	1.110
48	No. 300	300 x 407	4.995	1.480
48	12 - ounces	300 x 411	5.306	1.572
48	No. 1 (tall)	301 x 411	5.468	1.620
24	No. 303	303 x 406	2.771	.821
48	No. 303	303 x 406	5.542	1.642
24	No. 303	303 x 504	3.378	1.001
24	No. 2	307 x 409	3.375	1.000
24	No. 2	401 x 411	4.894	1.450
12	No. 3 (32 - ounces)	404 x 414	2.886	.855
24	No. 3 (32 - ounces)	404 x 414	5.771	1.710
6	No. 3 (cylinder)	404 x 700	2.126	.630
12	No. 3 (cylinder)	404 x 700	4.249	1.259
6	No. 5	502 x 510	2.433	.721
6	No. 10	603 x 700	4.502	1.334
6	No. 12 (gallon)	603 x 812	5.690	1.686
6	No. 12 (gallon)	610 x 800	5.994	1.776

^aBased on a case of 24/2's being 432 ounces. SOURCE: National Canners Association, Washington, DC.

Citrus Box Weights: Approximate Net Weight In Pounds by Fruit Type & States							
State	te Oranges Grape- Tanger- Lemons Li				Limes		
	pounds per 1-3/5 bushel box						
FL	90°	85	95	90	88		
CA	75	67 ^b	75	76	_		
TX	85	80	_	_	_		
AZ	75	67 ^b	75	76	-		

^a Includes Temples & tangelos at 90 poun

^bAZ was 64 lbs. prior to 1993-94. CA was 65 lbs. prior to 1993-94.

Florida Citrus Product Seasons		
Fresh:		
AUG 1 - JUL 31		
Frozen Concentrate:		
OCT 1 - SEP 30*		
Chilled & Canned:		
OCT 1 - SEP 30		

*Historical frozen conc. season was Dec 1-Nov 30. Data in this book have been converted to reflect current Oct-Sep season.

Significant Florida Citrus Belt Freeze & Hurricane Dates				
FREEZES		HU	RRICANES	
DEC 12 - 13	1957	Charley	AUG 13, 2004	
DEC 11, 13 - 16	1962	Frances	SEP 5, 2004	
JAN 19 - 21	1971	Jeanne	SEP 26, 2004	
JAN 17 - 22	1977			
JAN 12 - 13	1981			
JAN 11 - 14	1982			
DEC 24 - 25	1983			
JAN 21 - 22	1985			
DEC 23 - 24	1989			

CASE EQUIVALENTS				
Concentrate	Chilled	Canned		
48/6 oz. = 2.25 conc. gal.	12/32 oz. = 3.0 SSE gal.	24/#2's = 3.375 SSE gal.		
24/12 oz. = 2.25 " "	6/64 oz. = 3.0 ""	12/46 oz. = 4.31 ""		
24/6 oz. = 1.125 " "		48/6 oz. = 2.25 " "		
24/16 oz. = 3.0 ""		24/12 oz. = 2.25 ""		
12/32 oz. = 3.0 ""				
6/64 oz. = 3.0 ""				

Basic Metric Conversions

1 metric ton=2,204.6 pounds
1 pound=.454 kilograms
1 kilogram=2.2046 pounds
1 90-lb. box=40.8 kilograms
1 85-lb. box=38.56 kilograms
1 gallon=3.785 liters
1 liter=.2641 gallons
1 kiloliter=1,000 liters
1 hectare=2.47 acres
1 acre=.405 hectare

	1 Metric Ton					
65° Brix	66° Brix					
= 1,433	= 1,455	pounds solids (PS)				
= 200.84	= 203.92	gallons 65° Brix				
= 196.89	= 191.91	gallons 66° Brix				
= 344.8	= 350.1	gallons 42° Brix				
= 1,392.6	= 1,414.0	gallons 11.8° Brix				
= 760.5	= 772.1	liters 65° Brix				
= 745.5	= 726.7	liters 66° Brix				
= 1,305.6	= 1,325.6	liters 42° Brix				
= 5,273.0	= 5,354.0	liters 11.8° Brix				

One (1) 55-gallon drum 65° Brix

= 370 pounds solids, contains about 52 gallons, & weighs about 625 pounds.

Commonly Used Brix Equivalents

Degrees	PS	Weight/Gallon	Equ	ıivalent Gallo	ns
Brix	Per Gallon	in Air at 20°C (pounds)	11.8° Brix	42° Brix	65° Brix
10.0	0.865	8.655	0.84062	0.20813	0.12123
11.8	1.029	8.717	1.00000	0.24759	0.14422
40.0	3.924	9.809	3.81341	0.94418	0.54996
42.0	4.156	9.896	4.03887	1.00000	0.58248
43.4	4.321	9.957	4.19922	1.03970	0.60561
45.0	4.512	10.027	4.38484	1.08566	0.63238
50.0	5.126	10.253	4.98154	1.23340	0.71843
58.0	6.165	10.630	5.99125	1.48340	0.86405
65.0	7.135	10.977	6.93392	1.71679	1.00000
66.0	7.278	11.028	7.07289	1.75120	1.02004
66.5	7.350	11.053	7.14286	1.76853	1.03013

SOURCE: C.S. Chen, "Brix and Pounds Solids Tables," Scientific Research Department, Florida Department of Citrus, Lake Alfred, FL, May 1983.

Pounds Solids and Weight per Gallon at Various Degrees Brix

		4110402	09.000		
Degrees Brix	Pounds Solids/ Gallon	Weight/ Gallon in Air at 20°C (pounds)	Degrees Brix	Pounds Solids/ Gallon	Weight/ Gallon in Air at 20°C (pounds)
8.0	0.687	8.586	12.5	1.093	8.742
8.5	0.731	8.603	12.6	1.102	8.745
9.0	0.776	8.621	12.7	1.111	8.749
9.5	0.821	8.638	12.8	1.120	8.752
9.6	0.830	8.641	12.9	1.130	8.756
9.7	0.839	8.645	39.5	3.866	9.788
9.8	0.848	8.648	39.6	3.878	9.792
9.9	0.856	8.651	39.7	3.889	9.796
10.0	0.865	8.655	39.8	3.901	9.801
10.1	0.874	8.658	39.9	3.912	9.805
10.2	0.883	8.662	40.0	3.924	9.809
10.3	0.893	8.665	40.1	3.935	9.814
10.4	0.902	8.669	40.2	3.947	9.818
10.5	0.911	8.672	40.3	3.958	9.822
10.6	0.920	8.676	40.4	3.970	9.827
10.7	0.929	8.679	41.5	4.098	9.874
10.8	0.938	8.682	41.6	4.109	9.878
10.9	0.947	8.686	41.7	4.121	9.883
11.0	0.956	8.689	41.8	4.133	9.887
11.1	0.965	8.693	41.9	4.144	9.891
11.2	0.974	8.696	42.0	4.156	9.896
11.3	0.983	8.700	42.1	4.168	9.900
11.4	0.992	8.703	42.2	4.180	9.904
11.5	1.001	8.707	42.3	4.191	9.909
11.6	1.010	8.710	42.4	4.203	9.913
11.7	1.020	8.714	42.5	4.215	9.917
11.8	1.029	8.717	42.6	4.227	9.922
11.9	1.038	8.721	42.7	4.238	9.926
12.0	1.047	8.724	42.8	4.250	9.930
12.1	1.056	8.728	42.9	4.262	9.935
12.2	1.065	8.731	43.0	4.274	9.939
12.3	1.074	8.735	43.1	4.286	9.943
12.4	1.084	8.738	43.2	4.297	9.948

Continued...

Pounds Solids and Weight per Gallon at Various Degrees Brix (Cont.)

various Degrees Drix (Goriti)						
Degrees Brix	Pounds Solids/ Gallon	Weight/ Gallon in Air at 20°C (pounds)	Degrees Brix	Pounds Solids/ Gallon	Weight/ Gallon in Air at 20°C (pounds)	
43.3	4.309	9.952	57.6	6.112	10.611	
43.4	4.321	9.957	57.7	6.125	10.616	
43.5	4.333	9.961	57.8	6.139	10.620	
43.6	4.345	9.965	57.9	6.152	10.625	
43.7	4.357	9.970	58.0	6.165	10.630	
43.8	4.369	9.974	58.1	6.179	10.635	
43.9	4.381	9.978	58.2	6.192	10.640	
44.0	4.392	9.983	58.3	6.206	10.645	
44.1	4.404	9.987	58.4	6.219	10.649	
44.2	4.416	9.992	59.0	6.300	10.679	
44.3	4.428	9.996	64.0	6.993	10.927	
44.4	4.440	10.000	64.5	7.064	10.952	
44.5	4.452	10.005	64.6	7.078	10.957	
44.6	4.464	10.009	64.7	7.092	10.962	
44.7	4.476	10.014	64.8	7.107	10.967	
44.8	4.488	10.018	64.9	7.121	10.972	
44.9	4.500	10.023	65.0	7.135	10.977	
45.0	4.512	10.027	65.1	7.149	10.982	
45.1	4.524	10.032	65.2	7.164	10.987	
45.2	4.536	10.036	65.3	7.178	10.992	
45.3	4.548	10.041	65.4	7.192	10.997	
45.4	4.560	10.045	65.5	7.207	11.002	
49.5	5.064	10.230	65.6	7.221	11.007	
49.6	5.076	10.234	65.7	7.235	11.013	
49.7	5.089	10.239	65.8	7.250	11.018	
49.8	5.101	10.243	65.9	7.264	11.023	
49.9	5.114	10.248	66.0	7.278	11.028	
50.0	5.126	10.253	66.1	7.293	11.033	
50.1	5.139	10.257	66.2	7.307	11.038	
50.2	5.151	10.262	66.3	7.322	11.043	
50.3	5.164	10.267	66.4	7.336	11.048	
50.4	5.177	10.271	66.5	7.350	11.053	
57.5	6.098	10.606	66.6	7.365	11.058	

SOURCE: C.S. Chen, "Brix and Pounds Solids Tables," Scientific Research Department, Florida Department of Citrus, Lake Alfred, FL, May 1983.

International Marketing Conversion Tables

```
One (1) metric ton 65° Brix = 1,392.6 SSE gallons
One (1) metric ton 58° Brix = 1,242.5 "

One (1) kiloliter 65° Brix = 1,831.2 "

One (1) kiloliter 58° Brix = 1,582.3 "

4/5-bushel carton oranges = 3.0 a "

4/5-bushel carton grapefruit = 2.4 b "
```

^aBased on an average yield of 6.0 SSE gallons/box. ^bBased on an average yield of 4.8 SSE gallons/box

40-foot Shipping Container Capacity			
55-gallon drums 65° Brix	=	84	
55-gallon drums SSE	=	103	
300-gallon bins SSE	=	21	

Concentrate				
One (1) case 24/12-ounce 58° Brix (1:5)	=	13.48	SSE	gallons
One (1) case 24/12-ounce 65° Brix (1:6)	=	15.60	"	"
One (1) 55-gallon drum 58° Brix (1:5)	=	311.55	"	"
One (1) 55-gallon drum 65° Brix (1:6)	=	360.56	"	"

Chilled				
One (1) case 6/64-ounce	=	3.00 SSE gallons		
One (1) case 8/64-ounce	=	4.00 ""		

Canned				
One (1) case 12/46-ounce	=	4.31 SSE gallons		
One (1) case 48/6-ounce	=	2.25 ""		

U.S. Orange-Juice Imports

Oct-Sep	FI	orida Por	ts	Total U.S.			
Season	Volu	ıme	Value	Volume		Value	
	mil. SSE gal.	thou. MT 65°	mil. \$	mil. SSE gal.	thou. MT 65°	mil. \$	
1984-85	375.2	269.4	460.8	634.4	455.5	778.7	
1985-86	229.5	164.8	186.5	504.4	362.2	417.2	
1986-87	273.7	196.5	206.2	553.6	397.5	423.5	
1987-88	194.5	139.7	227.6	447.8	321.6	522.8	
1988-89	154.3	110.8	197.1	379.5	272.5	493.4	
1989-90	292.7	210.2	383.5	527.6	378.9	683.9	
1990-91	185.8	133.4	167.8	319.8	229.6	287.0	
1991-92	190.1	136.5	209.2	285.4	205.0	310.2	
1992-93	165.4	118.8	116.5	298.3	214.2	195.2	
1993-94	215.0	154.4	159.5	424.9	305.1	320.1	
1994-95	98.8	70.9	74.7	240.4	172.6	191.0	
1995-96	130.6	93.8	125.8	221.0	158.7	223.8	
1996-97	177.5	127.5	133.9	294.9	211.8	240.1	
1997-98	127.7	91.7	86.6	280.8	201.6	211.4	
1998-99	188.5	135.3	146.4	350.2	251.5	285.9	
1999-00	139.4	100.1	85.1	339.4	243.7	243.4	
2000-01	125.2	89.9	77.8	257.7	185.0	185.0	
2001-02	96.6	69.3	64.8	188.8	135.6	159.0	
2002-03	155.2	111.5	123.5	290.9	208.9	239.8	
2003-04	84.8	60.9	60.7	222.3	159.7	147.4	
2004-05							

U.S. Citrus-Juice Exports

Oct-Sep	Orange	Juice	Grapefru	uit Juice	Citrus Juice, NSPF ^a		
Season 	Volume	Value	Volume	Value	Volume	Value	
	mil. SSE gal.	mil. \$	mil. SSE gal.	mil. \$	mil. SSE gal.	mil. \$	
1984-85	57.9	107.2	14.5	25.6	15.0	17.3	
1985-86	44.4	67.5	12.5	23.0	9.8	11.3	
1986-87	59.3	87.4	17.2	32.8	10.7	11.6	
1987-88	65.3	114.9	23.4	42.5	15.5	20.5	
1988-89	71.4	133.4	17.8	37.6	7.9	12.6	
1989-90	87.9	166.7	15.5	40.0	8.5	13.7	
1990-91	93.9	171.6	15.7	37.9	9.2	14.8	
1991-92	107.2	206.0	23.1	56.1	12.1	18.3	
1992-93	116.8	209.5	23.1	55.3	9.6	16.0	
1993-94	104.8	233.9	16.2	50.9	12.9	18.9	
1994-95	117.2	272.7	22.5	62.4	12.3	21.4	
1995-96	116.7	273.8	23.3	60.4	13.2	25.2	
1996-97	149.0	305.3	21.2	55.5	12.8	28.2	
1997-98	146.3	295.7	18.6	47.2	19.2	32.2	
1998-99	146.6	307.4	24.3	52.4	39.1	57.2	
1999-00	145.2	289.9	32.9	72.4	22.7	43.6	
2000-01	122.9	251.7	39.0	75.3	20.0	36.5	
2001-02	181.2	290.5	36.3	72.0	9.3	22.9	
2002-03	104.8	257.0	38.3	71.6	3.7	11.5	
2003-04	123.0	260.1	42.3	67.4	2.6	8.6	
2004-05	man into						

^aIncludes lemon juice.

U.S. Imports of Fresh Citrus

Season	Orar	nges	Grap	efruit	Mandarins and Tangerines		
	Volume	Value	Volume	Value	Volume	Value	
	mil. lbs.	mil. \$	mil. lbs.	mil. \$	mil. lbs.	mil. \$	
1984-85	51.63	9.87	5.17	.39	15.22	2.09	
1985-86	64.34	12.76	5.68	.30	20.12	3.82	
1986-87	43.29	6.27	3.96	.22	29.57	7.35	
1987-88	49.67	9.88	11.25	.54	32.98	4.97	
1988-89	17.92	4.07	8.48	.75	38.18	6.75	
1989-90	25.63	4.74	9.95	.87	36.92	7.54	
1990-91	134.81	40.64	16.51	1.00	46.15	12.15	
1991-92	30.62	6.62	23.35	1.24	42.63	16.20	
1992-93	18.90	3.22	27.33	1.30	43.21	16.98	
1993-94	30.15	11.71	32.41	1.43	39.22	17.57	
1994-95	42.21	12.65	29.44	1.21	47.43	19.17	
1995-96	48.37	17.43	33.01	1.59	42.49	19.05	
1996-97	53.70	20.95	28.23	1.24	72.94	35.25	
1997-98	84.42	36.90	11.40	.50	88.82	45.45	
1998-99	229.01	82.46	34.19	1.30	122.58	65.74	
1999-00	97.03	40.93	12.62	.91	207.52	97.16	
2000-01	117.11	38.70	41.62	2.02	202.03	113.07	
2001-02	118.87	37.99	61.55	2.77	142.42	77.60	
2002-03	119.10	50.45	37.96	1.54	185.53	123.92	
2003-04	121.22	49.12	40.61	1.76	198.63	126.04	
2004-05							

^aAugust 1 through July 31.

U.S. Exports of Fresh Citrus

Saccara	Orar	nges	Grape	efruit	Tange	rines
Season	Volume	Value	Volume	Value	Volume	Value
	mil. lbs.	mil. \$	mil. lbs.	mil. \$	mil. lbs.	mil. \$
1984-85	819.8	224.3	439.5	85.7	33.7	8.6
1985-86	875.8	224.9	583.7	122.1	20.1	4.9
1986-87	922.4	236.8	781.9	162.9	34.6	8.3
1987-88	736.8	189.6	1,000.0	220.0	32.7	9.0
1988-89	801.2	210.1	1,059.9	233.8	42.0	10.4
1989-90	1,042.1	256.8	636.0	161.1	31.0	10.6
1990-91	647.1	203.5	1,022.2	270.7	27.9	11.9
1991-92	995.7	254.8	1,011.7	252.2	43.4	17.4
1992-93	1,211.8	266.8	980.3	222.2	33.8	12.6
1993-94	1,183.9	291.4	999.8	224.8	49.3	16.4
1994-95	1,326.0	331.1	1,081.4	242.7	41.3	16.1
1995-96	1,158.0	293.9	1,105.2	261.0	48.5	18.6
1996-97	1,288.3	320.7	1,062.0	240.1	50.6	19.1
1997-98	1,394.8	358.4	865.5	191.5	55.4	19.8
1998-99	659.4	188.7	946.5	222.5	31.9	12.5
1999-00	1,049.4	265.3	855.8	206.3	61.4	19.6
2000-01	1,292.4	332.0	862.2	200.9	32.4	11.4
2001-02	1,114.0	302.3	875.8	201.8	33.6	13.0
2002-03	1,385.4	339.1	784.9	189.8	37.9	15.3
2003-04	1,419.3	379.6	868.7	241.4	44.1	16.1
2004-05						

^aAugust 1 through July 31.

Oct-Sept	Flori	ida ^b	Braz	zil	Mex	cico	Oth	ner		orted rage
Season 	MT°	PS ^d	MT ^c	PS ^d	MT ^c	PS ^d	MT°	PS ^d	MT ^c	PS ^d
					dolla	ars				
1990-91	1,869	1.30	1,235	.86	1,220	.85	1,627	1.14	1,240	.87
1991-92	2,289	1.60	1,484	1.04	1,500	1.05	1,809	1.26	1,505	1.05
1992-93	1,516	1.06	889	.62	930	.65	1,041	.73	900	.63
1993-94	1,863	1.30	1,001	.70	1,249	.87	1,206	.84	1,034	.72
1994-95	1,701	1.19	988	.69	1,260	.88	1,229	.86	1,087	.76
1995-96	2,032	1.42	1,316	.92	1,533	1.07	1,573	1.10	1,390	.97
1996-97	1,636	1.14	1,074	.75	1,211	.85	1,197	.84	1,117	.78
1997-98	1,601	1.12	884	.62	1,265	.88.	1,299	.91	1,029	.72
1998-99	1,876	1.31	1,015	.71	1,382	.96	1,424	.99	1,110	.77
1999-00	1,518	1.06	782	.55	1,295	.90	1,404	.98	954	.67
2000-01	1,294	.90	681	.48	1,044	.73	1,759	1.23	955	.67
2001-02	1,493	1.04	719	.50	1,147	.80	2,282	1.59	1,115	.78
2002-03	1,562	1.09	907	.63	1,361	.95	1,733	1.21	1,073	.75
2003-04	1,204	.84	811	.57	1,131	.79	1,186	.83	923	.64

^aPrice is defined as "market value in the foreign country and therefore excludes U.S. import duties, freight charges from the foreign country to the U.S. and insurance" (U.S. Guide to Foreign Trade Statistics). 1988-89 data include "other orange juice."

^bFlorida Price = Bulk Price Equivalent.
^cMetric ton 65° Brix.
^dBased on 1.029 PS per gallon of 11.8° Brix.
SOURCES: FCPA, FCM and U.S. Department of Commerce.

History of the U.S. Orange Juice Tariff

		FCOJ		NF	
Voor		r CO3		INF	<u> </u>
Year 	\$/SSE gal.	\$/ liter	\$/ PS	\$/SSE gal.	\$/ liter
TARIFF ACT C	F 1930				
1930-1947	70.00		68.03	70.00	
GATT – GENE	VA SWIT	ΓZERLA	ND		
1948-1971	35.00		34.01	35.00	
GATT – KENN	EDY RO	UND .			
1972-1988	35.00		34.01	20.00	
1989-1994*	35.02	9.25	34.04	20.07	5.3
GATT – URUG	UAY RO	UND .		 	
1995	34.15	9.02	33.19	19.69	5.2
1996	33.24	8.78	32.31	18.93	5.0
1997	32.37	8.55	31.46	18.55	4.9
1998	31.50	8.32	30.62	18.17	4.8
1999	30.59	8.08	29.73	17.42	4.6
2000-2011	29.72	7.85	28.89	17.04	4.5

^{*} Beginning 1989, Harmonized Tariff System based on metric units.

Florida FCOJ Movement by Product Type

Oct-Sep Season	Retail	Institutional	Bulk	Total ^a
		million gallons	42° Brix	
1984-85	96.5	18.7	93.5	208.7
1985-86	92.4	18.4	107.4	218.2
1986-87	92.5	20.0	112.1	224.6
1987-88	80.5	21.0	123.9	225.4
1988-89	74.6	21.1	123.2	218.8
1989-90	65.7	20.9	100.6	187.2
1990-91	72.1	21.5	116.0	209.7
1991-92	68.3	22.8	120.6	211.7
1992-93	69.5	20.9	153.6	244.0
1993-94	60.7	20.5	157.0	238.2
1994-95	54.3	22.7	188.4	265.5
1995-96	52.3	28.4	196.2	276.9
1996-97	53.1	24.5	189.7	267.3
1997-98	49.5	26.2	192.1	267.8
1998-99	41.1	27.2	170.7	239.1
1999-00	35.7	27.5	176.5 ^b	239.7 ^b
2000-01	34.7	27.1	164.2 ^b	226.0 ^b
2001-02	30.8	25.5	193.7	249.9
2002-03	25.8	25.0	149.2	200.1
2003-04	22.8	26.9	167.3	217.0
2004-05				

^aMay not add to total due to rounding.

^bAdjusted.

Florida FCOJ Inventories, Pack and Movement

1 10110	<u>u i 000 i</u>	11101	100, i a	<u>on and m</u>	<u>overnen</u>	
Oct-Sep	Beginning	Pack			Ending .	
Season Season	Inventory	From Fruit	Other	Movement	Inventory ^b	
		millio	on gallons 4	2°Brix		
1984-85	59.08	118.47	109.60	215.81	71.35	
1985-86	71.35	132.41	78.11	223.62	58.25	
1986-87	58.25	145.06	86.24	230.11	59.44	
1987-88	59.44	169.97	74.43	240.48	63.37	
1988-89	63.37	174.73	58.48	233.17	63.41	
1989-90	63.41	90.28	99.81	195.87	57.64	
1990-91	57.64	151.40	68.67	219.01	58.69	
1991-92	58.69	145.42	68.80	222.64	50.28	
1992-93	50.28	208.66	75.77	261.05	73.67	
1993-94	73.67	182.23	84.27	254.03	86.14	
1994-95	86.14	216.50	59.75	280.95	81.44	
1995-96	81.44	202.35	73.61	286.93	70.48	
1996-97	70.48	241.80	69.65	278.87	105.45°	
1997-98	105.45°	253.73	47.18	271.40	134.97	
1998-99	134.97	158.88	58.02	247.64	105.20 ^d	
1999-00	105.20 ^d	207.71	46.32	246.57	112.65 ^d	
2000-01	112.65 ^d	196.06	49.15	229.59	128.27	
2001-02	128.27	215.06	44.59 ^d	261.26	126.66 ^d	
2002-03	126.66 ^d	156.84	47.35 ^d	206.85	124.03	
2003-04	124.03	218.30	32.18	222.26	151.83	
2004-05	151.83					

^aIncludes futures contract.

^bMay not calculate due to rounding deliveries.

^cReporting definition change.

dAdjusted.

Florida COJ Inventories, Pack and Movement

	Beginning Inventory	Pa	ck		Ending Inventory ^a	
Oct-Sep Season		From Fruit	From Concen- trate	Movement		
million SSE gallons						
1984-85	26.35	NA	NA	241.48	NA	
1985-86	NA	NA	NA	279.84	NA	
1986-87	NA	NA	NA	311.42	NA	
1987-88	NA	NA	NA	308.87	NA	
1988-89	NA	NA	NA	333.34	NA	
1989-90	NA	NA	NA	336.16	NA	
1990-91	NA	NA	NA	349.86	NA	
1991-92	NA	NA	NA	384.73	NA	
1992-93	NA	NA	NA	408.42	NA	
1993-94 ^b	78.42	311.12	142.20	444.20	89.00	
1994-95 ^b	89.00	326.66	126.89	463.99	78.88	
1995-96 ^b	78.88	384.12	116.30	472.60	108.27	
1996-97 ^b	108.27	400.28	86.35	477.41	119.06	
1997-98 ^b	119.06	452.07	96.08	583.61	83.69	
1998-99 ^b	83.69	505.51	85.10	588.06	86.69	
1999-00 ^b	86.69	558.82	86.71	577.87	163.42	
2000-01 ^b	163.42	543.28	72.90	635.17	152.32	
2001-02 ^b	152.32	531.27	58.80	602.61	154.36	
2002-03 ^b	154.36	561.69	53.36	603.15	179.68	
2003-04 ^b	179.68	559.08	39.49	615.81	181.54°	
2004-05 ^b	181.54°					

^aMay not calculate due to rounding.

blnventories include domestic receipts of non-Florida product and receipts of Florida product from non-members.

[°]Adjusted to "standard" 11.8° Brix galllons.

<u>Florid</u>	a CSSOJ	Invento	ries, Pa	ck and M	<u>lovemen</u> t			
		Pa	ck					
Oct-Sep Season	Beginning Inventory	From Fruit	From Concen- trate	Movement	Ending Inventory ^a			
million SSE gallons								
1978-79	7.00 ^b	33.46	11.16	42.79	8.84			
1979-80	8.84	36.49	10.32	47.16	8.48			
1980-81	8.48	28.76	15.15	43.98	8.42			
1981-82	8.42	20.56	18.27	39.13	8.11			
1982-83	8.11	12.34	20.74	36.42	4.77			
1983-84	4.77	10.94	19.72	31.42	4.01			
1984-85	4.01	6.07	18.99	26.06	3.00			
1985-86	3.00	7.10	18.54	25.31	3.33			
1986-87	3.33	5.34	22.07	27.28	3.46			
1987-88	3.46	4.80	19.69	25.06	2.89			
1988-89	2.89	6.39	21.16	27.77	2.67			
1989-90	2.67	3.35	19.06	23.01	2.07			
1990-91	2.07	3.24	20.82	24.30	1.84			
1991-92	1.84	2.65	23.17	25.05	2.62			
1992-93	2.62	1.99	24.75	26.79	2.56			
1993-94	2.56	1.36	21.76	23.10	2.58			
1994-95	2.58	1.73	17.65	19.96	2.01			
1995-96	2.01	1.43	16.18	17.80	1.81			
1996-97	1.81	1.07	12.20	14.13	.95			
1997-98	.95	NA	NA	12.13	1.01			
1998-99°	1.01							

^aMay not calculate due to rounding. ^bAdjusted. ^cCSSOJ no longer reported. SOURCE: FCPA, FDOC.

Florida FCGJ Inventories, Pack and Movement

			Movem	- Fradina	
	Beginning Inventory	Pack ^a	Retail and Institutional	Bulk	Ending Inventory ^b
		mi	llion 40° Brix gall	ons	
1984-85	7.84 ^c	25.27	4.15	22.01	6.95
1985-86	6.95	26.03	3.67	21.97	7.34
1986-87	7.33°	30.47	3.30	25.57	8.94
1987-88	8.96°	33.40	3.08	25.10	14.17
1988-89	14.17	33.28	2.88	25.48	19.09
1989-90	19.09	22.59	2.51	22.50	16.67
1990-91	16.50°	22.16	2.38	24.07	12.21
1991-92	12.21	20.55	2.28	23.73	6.76
1992-93	6.76	32.87	2.07	24.42	13.14
1993-94	13.14	27.27	1.72	24.92	13.77
1994-95	13.77	31.48	1.55	26.39	17.31
1995-96	17.31	27.42	1.45	25.92	17.36
1996-97	17.36	30.94	1.42	25.72	21.15
1997-98	21.46 ^d	24.61	1.32	27.10	17.64
1998-99	17.64	24.77	1.37	30.88	10.17
1999-00	10.10 ^c	30.05	.97	23.57	15.60
2000-01	13.47 ^c	27.50	.81	24.74	15.42
2001-02	15.42	27.55	.70	23.92	18.36
2002-03	18.68°	20.41	.68	22.75	15.65
2003-04	15.65	21.11	.60	22.92	13.25
2004-05	13.25				

^aIncludes non-Florida & foreign imports & Florida non-member & chilled GJ in FCGJ.

^bMay not calculate due to rounding.

^cAdjusted.

dincludes definitional adjustment.

Florida CGJ Inventories, Pack and Movement

		Pa	ck		Ending Inventory ^a	
Oct-Sep Season	Beginning Inventory	From Fruit	From Concen- trate	Movement		
		mil	lion SSE gall	ons		
1984-85	1.67	5.08	27.31	32.49	1.57	
1985-86	1.57	5.88	28.11	33.60	1.96	
1986-87	1.96	6.72	30.77	37.55	1.91	
1987-88	1.91	5.71	31.17	36.27	2.52	
1988-89	2.52	8.99	28.49	36.22	3.78	
1989-90 ^b	3.78	5.71	26.33 ^b	32.87	3.14	
1990-91 ^b	3.14	11.13	27.22 ^b	31.66	NA	
1991-92 ^b	NA	12.60	25.13 ^b	31.78	NA	
1992-93 ^b	NA	23.09	38.10 ^b	37.66	NA	
1993-94 ^b	6.77	29.31	16.93	42.99	10.02	
1994-95 ^b	10.02	29.31	17.56	44.66	12.25	
1995-96 ^b	12.25	31.90	12.02	45.29	10.93	
1996-97 ^b	10.93	37.21	13.60	46.90	14.84	
1997-98 ^b	14.84	36.30	14.75	53.04	12.89	
1998-99 ^b	12.89	39.38	15.50	56.39	11.38	
1999-00 ^b	11.38	51.78	6.27	47.53	21.91	
2000-01 ^b	21.91	32.88	3.93	45.75	14.86	
2001-02 ^b	14.86	33.61	3.81	39.00	13.44	
2002-03 ^b	13.44	32.43	2.52	39.62	11.74	
2003-04 ^b	11.74	34.28	.03	34.45	12.03°	
2004-05 ^b	12.03°					

^aMay not calculate due to rounding.

^bInventories include domestic receipts of non-Florida and Florida non-member product.

[°]Adjusted to "standard" 10.0° Brix gallons.

Florida CSSGJ Inventories, Pack and Movement

		Pa	ck		
Oct-Sep Season	Beginning Inventory	From Fruit	From Concen- trate	Movement	Ending Inventory ^a
		mil	lion SSE gall	ons	
1978-79	12.02	52.06	4.52	58.37	10.23
1979-80	10.23	49.62	6.42	54.75	11.52
1980-81	11.52	38.02	10.01	48.38	11.16
1981-82	11.16	37.90	15.17	49.84	14.40
1982-83	14.40	19.80	19.53	45.55	8.17
1983-84	8.17	14.00	18.10	34.53	5.75
1984-85	5.75	17.58	18.04	37.02	4.35
1985-86	4.35	15.12	18.45	32.81	5.11
1986-87	5.11	12.13	18.19	30.47	4.96
1987-88	4.96	10.51	15.55	26.57	4.46
1988-89	4.46	8.09	18.76	26.61	4.71
1989-90	4.71	4.78	15.42	22.21	2.70
1990-91	2.70	4.30	18.24	22.51	2.73
1991-92	2.73	3.14	16.51	20.35	2.02
1992-93	2.02	2.81	16.60	18.85	2.58
1993-94	2.58	1.36	16.78	18.56	2.16
1994-95	2.16	1.45	16.23	18.02	1.82
1995-96	1.82	.72	15.17	16.24	1.48
1996-97	1.48	.76	14.01	15.00	1.25
1997-98	1.25	NA	NA	16.53	1.47
1998-99 ^b	1.47				

^aMay not calculate due to rounding.

^bCSSGJ no longer reported.

Florida Orange On-Tree Earnings Per Box

Season	Ear	ly & eason	Vale		To	otal
	Fresh	Proc.	Fresh	Proc.	Fresh	Proc.
		d	ollars per	90-lb. bo)X	
1984-85	11.85	6.90	9.65	6.75	11.11	6.83
1985-86	6.40	3.70	3.90	3.98	5.33	3.83
1986-87	6.10	4.43	6.30	6.00	6.18	5.14
1987-88	7.65	6.64	8.45	8.75	7.96	7.56
1988-89	7.65	6.63	7.55	8.45	7.61	7.40
1989-90	9.55	5.74	13.75	6.34	10.31	5.98
1990-91	8.30	5.17	8.60	6.35	8.46	5.66
1991-92	9.40	5.03	6.70	6.65	8.52	5.69
1992-93	4.50	3.15	2.54	3.95	3.81	3.46
1993-94	6.75	3.56	4.25	4.63	5.98	3.98
1994-95	4.00	3.21	4.20	4.42	4.07	3.72
1995-96	4.95	3.54	6.45	5.53	5.46	4.35
1996-97	4.50	3.11	4.70	4.04	4.57	3.49
1997-98	3.70	2.76	4.20	4.90	3.85	3.68
1998-99	8.30	4.12	9.40	5.32	8.78	4.59
1999-00	5.55	3.07	4.95	4.31	5.37	3.60
2000-01	4.00	2.53	4.80	3.99	4.29	3.16
2001-02 ^a	4.65	2.79	5.25	4.17	4.84	3.41
2002-03 ^a	5.75	2.42	5.30	3.80	5.61	3.05
2003-04 ^a	4.65	1.63	3.15	2.99	4.02	2.29

^aPreliminary.

SOURCE: FASS.

Florida Grapefruit On-Tree Earnings Per Box

Sacran	Wł	nite	Colo	red	To	otal
Season	Fresh	Proc.	Fresh	Proc.	Fresh	Proc.
		c	lollars pe	r 85-lb. be	OX	
1984-85	3.94	2.77	6.55	2.37	5.62	2.66
1985-86	4.20	3.33	5.70	3.17	5.19	3.29
1986-87	4.70	4.36	6.50	4.23	5.89	4.32
1987-88	6.82	4.80	6.86	3.86	6.85	4.61
1988-89	6.22	3.56	5.93	2.23	6.03	3.24
1989-90	10.91	3.55	9.60	1.92	10.00	3.06
1990-91	8.60	2.16	8.95	1.42	8.83	2.08
1991-92	10.20	4.41	8.05	3.71	8.69	4.20
1992-93	5.30	1.26	4.70	.56	4.86	1.06
1993-94	7.55	1.69	4.70	1.13	5.52	1.51
1994-95	6.75	1.39	3.05	23	4.00	.83
1995-96	5.88	.88	2.96	06	3.71	.56
1996-97	5.23	18	3.26	.20	3.74	01
1997-98	5.38	65	2.85	05	3.42	33
1998-99	6.80	.29	4.52	.28	5.04	.30
1999-00	9.78	2.35	5.52	1.60	6.52	1.98
2000-01	6.53	.87	4.30	.29	4.81	.59
2001-02 ^a	6.54	.91	4.92	.17	5.25	.56
2002-03 ^a	7.57	.14	5.13	09	5.63	.04
2003-04 ^a	7.50	08	7.27	13	7.32	10

^aPreliminary.

SOURCE: FASS.

Total On-Tree Earnings of the Florida Citrus Industry

Season	Oranges	Temples	Grape- fruit	Tanger- ines	Tangelos	K-Early	Limes	Lemons	Total
				thous	and dollars				
1990-91	892,675	15,786	255,328	33,349	16,203	799	20,289	1,697	1,236,126
1991-92	828,749	15,289	280,629	46,797	18,618	489	14,589	3,784	1,208,944
1992-93	649,713	7,475	146,432	38,503	10,092	1,015	1,017	1,565	855,812
1993-94	713,312	6,136	167,211	40,303	7,976	377	2,540	1,998	939,853
1994-95	767,924	8,848	116,602	42,539	8,318	276	1,989	1,677	948,173
1995-96	895,465	9,543	101,140	56,646	8,883	365	2,414	1,361	1,075,817
1996-97	801,344	7,723	86,583	50,343	8,645	210	2,216	2,006	959,070
1997-98	900,815	6,898	63,000	44,126	4,723	-53	3,035	839	1,023,383
1998-99	900,044	9,208	108,411	59,763	11,560	145	6,413	1,516	1,097,060
1999-00	856,052	4,971	188,332	46,622	5,549	68	6,728	201	1,108,523
2000-01	716,055	2,565	100,869	35,867	2,671	84	2,999	921	862,031
2001-02	797,602	3,395	107,653	51,554	5,307	36	929	299	966,775
2002-03ª	643,804	2,615	88,628	46,217	6,114	b	b	2,061	789,439
2003-04ª	569,829	1,393	119,190	48,217	7,334	b	b	b	745,963

^aPreliminary. ^bNo longer reported.

58

SOURCE: FASS, Citrus Summary.

Delivered-In Prices Reported by Florida Citrus Processors Association for Oranges Purchased^a

Season/ Item ^b	To Midseason Break	After Midseason Break	Combined Early/Midseason and Valencia
1995-96 Priced Boxes \$/PS Average \$/Box Average	34,206,110 .93536 5.47869	15,437,619 1.34341 8.89471	49,643,729 1.07320 6.54096
1996-97 Priced Boxes \$/PS Average \$/Box Average	42,787,042 .90988 5.50157	13,503,135 .91915 6.07658	56,290,177 .91226 5.63950
1997-98 Priced Boxes \$/PS Average \$/Box Average	36,036,571 .68680 4.18520	23,170,962 1.12584 7.77519	59,207,533 .87187 5.59015
1998-99 Priced Boxes \$/PS Average \$/Box Average	30,459,473 1.05238 6.68851	8,793,742 1.11576 7.90036	39,253,215 1.06780 6.96000
1999-00 Priced Boxes \$/PS Average \$/Box Average	33,041,166 .854363 5.196875	16,102,486 .997951 6.860122	49,143,652 .905359 5.741857
2000-01 Priced Boxes \$/PS Average \$/Box Average	24,417,244 .695792 4.357134	11,550,205 .899491 6.104480	35,967,449 .764827 4.918258
2001-02 Priced Boxes \$/PS Average \$/Box Average	22,967,205 .748566 4.565481	17,526,601 .942557 6.229543	40,493,806 .836374 5.285723
2002-03 Priced Boxes \$/PS Average \$/Box Average	23,036,107 .873196 5.128478	14,998,208 1.031572 6.412195	38,034,315 .937849 5.634950
2003-04 Priced Boxes \$/PS Average \$/Box Average	30,633,873 .648933 3.710253	26,910,288 .765150 5.019599	57,544,161 .707271 4.322563

^aExcludes participation and intermediate prices, and prices for oranges purchased for chilled-orange-juice production.

^bTotal boxes and weighted average price of spot, contract and final prices combined. SOURCE: FCPA.

Delivered-In Prices Reported by Florida Citrus Processors Association for Grapefruit Purchased

	=	_	
Season/ Item	White	Colored	Combined
1995-96			
Priced Boxes	6,766,641	2,509,094	9,275,735
\$/PS Average	.70106	.27765	.57877
\$/Box Average	3.08381	1.23914	2.55594
1996-97			
Priced Boxes	5,712,100	2,921,720	8,633,820
\$/PS Average	.357 9 1	.28922	.33488
\$/Box Average	1.63026	1.29894	1.51814
<u>1997-98</u>			
Priced Boxes	4,162,430	2,856,500	7,018,930
\$/PS Average	.20734	.25901	.22897
\$/Box Average	.90094	1.18099	1.01492
<u>1998-99</u>			
Priced Boxes	4,520,473	3,431,463	7,951,936
\$/PS Average	.53982	.51271	.52810
\$/Box Average	2.57700	2.45472	2.52423
<u>1999-00</u>	0.004.445	4 0 4 7 4 0 7	40.000.040
Priced Boxes	8,981,415	4,847,195	13,828,610
\$/PS Average	1.163851	1.096553	1.139355
\$/Box Average	5.035492	5.031245	5.034004
<u>2000-01</u>	0.054.544		44.004.000
Priced Boxes	8,251,541	3,732,761	11,984,302
\$/PS Average	.669177	.484440	.608396
\$/Box Average	3.160538	2.480057	2.948588
2001-02	0.000.000	2 042 422	44 000 424
Priced Boxes	8,286,298	2,813,133	11,099,431
\$/PS Average	.719602	.272997 1.333261	.601665
\$/Box Average	3.324959	1.333201	2.820166
<u>2002-03</u>			
Priced Boxes	3,901,815	1,606,522	5,508,337
\$/PS Average	.534171	.403529	.494971
\$/Box Average	2.388766	1.878852	2.240048
2003-04	F 044 000	0.076.007	0.046.000
Priced Boxes	5,641,239	2,372,097	8,013,336
\$/PS Average	.493767	.490457	.492743
\$/Box Average	2.127092	2.250097	2.163504

	Dec- Nov		FCOJ			R-T-S OJ ept canne	d)	Ca	nned O	J	Total OJ		
	Season	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price
		mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.
	1972-73	425.0	524.1	1.23	100.3	176.1	1.76	27.1	42.7	1.58	552.4	742.9	1.34
	1973-74	460.9	587.4	1.27	110.7	203.6	1.84	28.5	47.8	1.68	600.1	838.8	1.40
	1974-75	498.6	687.2	1.38	132.5	250.0	1.89	28.2	53.1	1.88	659.2	990.3	1.50
	1975-76	521.3	735.4	1.41	160.9	310.2	1.93	27.4	56.0	2.04	709.5	1,101.6	1.55
	1976-77	497.3	849.4	1.71	188.9	411.5	2.18	28.7	65.5	2.28	714.9	1,326.4	1.86
2	1977-78	446.9	999.7	2.24	204.1	545.2	2.67	30.0	84.7	2.82	681.0	1,629.6	2.39
	1978-79	457.1	1,097.0	2.40	223.4	655.1	2.93	28.2	90.3	3.20	708.6	1,842.3	2.60
	1979-80	501.1	1,178.1	2.35	277.6	824.8	2.97	29.3	95.1	3.25	808.0	2,098.0	2.60
	1980-81	491.7	1,341.9	2.73	289.0	964.8	3.34	27.2	98.4	3.62	807.9	2,405.1	2.98
	1981-82	484.0	1,382.3	2.86	295.0	1,020.3	3.46	24.9	95.5	3.83	803.9	2,498.0	3.11
	1982-83	493.7	1,380.7	2.80	345.8	1,156.2	3.34	23.1	90.7	3.93	862.6	2,627.6	3.05
	1983-84	457.4	1,483.4	3.24	378.3	1,418.3	3.75	20.3	91.0	4.49	856.0	2,992.7	3.50
	1984-85	425.9	1,502.3	3.53	373.4	1,511.8	4.05	18.0	87.8	4.89	817.2	3,102.0	3.80
	1985-86	429.5	1,244.0	2.90	437.2	1,550.2	3.55	17.3	77.0	4.44	884.0	2,871.0	3.25
	1986-87	393.9	1,166.3	2.96	447.6	1,626.1	3.63	16.6	73.8	4.45	858.1	2,866.2	3.34
	1987-88	353.1	1,245.2	3.53	427.4	1,840.2	4.31	15.9	77.7	4.89	796.5	3,163.1	3.97

^aThis data series is no longer available. For current data see page 61.

^bNumbers may not calculate due to rounding.

60

ACNielsen Retail OJ Sales in Grocery Stores > \$2 Million Annual Sales

Oct-Sept		Frozen		Refrig	jerated - N	NFC	Refrige	rated -	Recon	Total OJ ^a			
Season	Volume	Value	Price ^b	Volume	Value	Price ^b	Volume	Value	Price ^b	Volume	Value	Price ^b	
	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	
1992-93	287.3	777.7	2.71	175.4	833.7	4.75	332.6	1,067.4	3.21	807.9	2,742.1	3.39	
1993-94	263.6	720.3	2.73	191.6	882.3	4.60	336.2	1,071.3	3.19	803.8	2,732.6	3.40	
1994-95	243.3	660.8	2.72	207.5	965.5	4.65	345.0	1,090.3	3.16	806.7	2,768.6	3.43	
1995-96	218.8	635.9	2.91	216.4	1,031.2	4.76	344.3	1,159.6	3.37	789.9	2,877.1	3.64	
1996-97	197.1	594.2	3.01	223.8	1,098.4	4.91	365.8	1,289.2	3.52	796.4	3,030.3	3.80	
1997-98	179.4	518.8	2.89	260.9	1,240.7	4.76	369.6	1,277.0	3.46	818.9	3,082.6	3.76	
1998-99	154.7	487.8	3.15	286.4	1,488.7	5.20	344.5	1,320.4	3.83	794.4	3,344.1	4.21	
1999-00	139.6	455.9	3.26	293.8	1,602.1	5.45	366.9	1,429.8	3.90	808.5	3,532.2	4.37	
2000-01	122.9	397.5	3.24	320.0	1,727.1	5.40	356.2	1,397.0	3.92	806.4	3,561.6	4.42	
2001-02	100.2	328.9	3.28	335.1	1,770.9	5.28	322.9	1,255.8	3.89	766.7	3,401.3	4.44	
2002-03	81.7	281.2	3.44	342.3	1,801.1	5.26	293.8	1,148.7	3.91	725.2	3,270.9	4.51	
2003-04	66.6	230.8	3.47	339.6	1,777.7	5.23	266.4	1,022.5	3.84	679.2	3,066.5	4.51	
2004-05													

^aTotal includes shelf stable product not listed separately in this table.

^bReflects actual price paid after discounts (coupons, sales, etc.).

ACNielsen Retail OJ Sales in All-Outlet Stores^a

Oct-Sept		Frozen		Refriç	gerated - N	IFC	Refrige	rated - I	Recon	Total OJ		
Season	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price
	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.
1995-96	222.0	645.6	2.91	198.4	960.9	4.84	376.5	1,288.1	3.42	807.4	2,945.6	3.65
1996-97	204.2	615.0	3.01	220.0	1,088.4	4.95	398.2	1,415.8	3.56	832.3	3,169.3	3.81
31997-98	187.6	541.1	2.88	260.3	1,249.3	4.80	407.4	1,416.5	3.48	864.7	3,254.9	3.76
1998-99	165.0	517.2	3.13	287.0	1,508.5	5.26	391.2	1,500.6	3.84	852.6	3,576.4	4.19
1999-00	149.3	479.8	3.21	311.4	1,671.9	5.37	403.4	1,582.9	3.92	872.5	3,780.3	4.33
2000-01	135.5	429.6	3.17	346.4	1,835.4	5.30	398.8	1,578.8	3.96	888.7	3,886.6	4.37
2001-02	112.9	363.7	3.22	363.3	1,906.7	5.25	375.9	1,458.2	3.88	861.2	3,777.7	4.39
2002-03	95.4	319.5	3.35	380.2	1,982.7	5.22	353.6	1,367.1	3.87	837.6	3,714.1	4.43
2003-04	79.4	267.7	3.37	390.1	2,016.5	5.17	332.7	1,262.8	3.80	809.6	3,586.3	4.43
2004-05												

^aData include supercenter sales through 11/24/01 and Wal-Mart sales estimates thereafter.

ACNielsen Retail GJ Sales in All-Outlet Stores^a

Oct-Sept		Frozen	_	R-	T-S - NFC	;	R-T-S - Recon			Total GJ		
Season	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price
	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.
1995-96	4.8	14.6	3.02	16.0	78.2	4.89	27.1 ^b	113.1 ^b	4.17 ^b	48.0	206.0	4.29
1996-97	4.6	14.0	3.02	17.8	89.3	5.03	27.3 ^b	112.7 ^b	4.13 ^b	49.7	216.0	4.35
1997-98	4.5	13.4	2.99	21.2	104.3	4.93	31.8 ^b	128.4 ^b	4.04 ^b	57.4	246.1	4.29
² 1998-99	4.3	12.9	3.01	23.0	125.8	5.48	32.3 ^b	132.4 ^b	4.10 ^b	59.5	271.2	4.56
1999-00	3.0	10.0	3.29	22.2	125.0	5.64	26.6 ^b	119.4 ^b	4.50 ^b	51.8	254.4	4.91
2000-01	2.5	8.8	3.51	20.4	114.7	5.63	23.4	111.2	4.76	46.3	234.8	5.08
2001-02	2.4	8.1	3.35	18.8	104.0	5.53	18.6	86.7	4.66	39.9	198.8	4.98
2002-03	1.8	6.5	3.50	17.9	95.8	5.35	17.1	79.4	4.63	36.9	181.6	4.93
2003-04	1.6	5.5	3.44	17.1	90.7	5.29	15.5	70.6	4.55	34.2	166.7	4.87
2004-05												

^aData include supercenter sales through 03/18/00 and Wal-Mart sales estimates thereafter.

^bIncludes unidentified GJ.

ACNielsen Retail GJ Sales, U.S.a,b

	Dec-Nov Season		FCGJ			R-T-S GJ ept cann		Ca	anned G	J	Т	otal GJ	
	Season	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price
		mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.
	1976-77	10.9	18.7	1.72	21.4	52.6	2.46	64.1	125.0	1.95	96.4	196.3	2.04
	1977-78	12.2	23.7	1.94	25.2	69.4	2.75	68.3	142.0	2.08	105.7	235.1	2.22
	1978-79	14.1	28.6	2.03	29.0	85.7	2.96	61.2	146.7	2.40	104.3	261.1	2.50
	1979-80	13.7	32.4	2.36	29.9	101.5	3.39	53.0	151.2	2.85	96.6	285.1	2.95
65	1980-81	14.0	36.5	2.61	29.8	113.6	3.81	47.7	148.9	3.12	91.5	299.1	3.27
	1981-82	13.5	35.3	2.61	27.8	113.0	4.06	49.4	142.2	2.88	90.7	290.4	3.20
	1982-83	13.9	32.0	2.30	28.3	112.8	3.99	47.4	129.4	2.73	89.6	274.1	3.06
	1983-84	13.2	32.4	2.45	28.5	117.9	4.14	39.8	128.7	3.23	81.5	278.9	3.42
	1984-85	14.0	37.6	2.69	34.2	150.4	4.40	42.4	151.8	3.58	90.6	339.8	3.75
	1985-86	12.3	35.8	2.90	36.6	163.0	4.45	36.0	134.4	3.73	85.0	333.2	3.92
	1986-87	10.9	34.1	3.13	37.0	174.3	4.71	30.2	118.7	3.93	78.1	327.1	4.19
	1987-88	9.7	33.1	3.41	35.5	175.4	4.94	26.7	109.9	4.12	71.9	318.4	4.43

^aThis data series is no longer available. For current data see page 65. ^bNumbers may not calculate due to rounding.

9

ACNielsen Retail GJ Sales in Grocery Stores >\$2 Million Annual Sales a

Oct-Sept		Frozen		Cartor	n/Plastic	'Glass	Canı	ned/Ase	otic	Т	otal GJ	
Season	Volume	Value	Price ^b	Volume	Value	Price ^b	Volume	Value	Price ^b	Volume	Value	Price ^b
	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.
1992-93	5.9	19.9	3.36	27.1	134.1	4.96	13.7	53.3	3.90	46.8	207.6	4.44
1993-94	5.4	17.6	3.23	29.3	140.6	4.80	12.9	47.9	3.72	47.7	206.2	4.32
1994-95	5.0	15.5	3.13	28.9	138.5	4.79	12.0	43.0	3.58	45.9	197.1	4.29
1995-96	4.8	14.5	3.05	28.5	140.3	4.91	12.0	41.8	3.47	45.3	196.6	4.34
1996-97	4.5	13.7	3.07	30.5	150.3	4.93	11.6	40.1	3.46	46.6	204.2	4.38
1997-98	4.2	12.9	3.05	35.2	170.3	4.84	13.5	47.2	3.49	53.0	230.4	4.35
1998-99	4.0	12.2	3.07	38.0	193.8	5.11	12.3	45.6	3.70	54.3	251.7	4.64
1999-00	2.6	9.0	3.42	35.5	192.4	5.42	8.6	36.5	4.27	46.6	237.8	5.10
2000-01	2.3	8.2	3.59	31.5	173.9	5.52	6.6	30.3	4.58	40.5	212.5	5.25
2001-02	2.1	7.4	3.45	26.9	146.8	5.45	5.7	25.9	4.54	34.8	180.1	5.18
2002-03	1.6	5.9	3.62	25.1	134.2	5.35	5.1	23.2	4.50	31.9	163.3	5.12
2003-04	1.3	4.6	3.66	22.8	120.7	5.30	4.1	18.8	4.57	28.1	144.1	5.12
2004-05												

^aNumbers may not calculate due to rounding.

^bReflects actual price paid after discounts (coupons, sales, etc.).

67

ACNielsen Retail GJ and GJ Cocktail Sales in Grocery Stores >\$2 Million Annual Sales

Oct-Sept		T-S - NF	С	R-T-S - Recon			1	otal GJ		GJ Cocktail		
Season	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price	Volume	Value	Price
	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.	mil. SSE gals.	mil. \$	\$/gal.
1997-98	20.6	101.8	4.94	28.1ª	115.7ª	4.11 ^a	53.0	230.4	4.35	21.2	107.6	5.08
1998-99	22.1	120.4	5.46	28.2ª	119.1ª	4.22 ^a	54.3	251.7	4.64	21.3	107.8	5.06
1999-00	20.7	118.2	5.70	23.3ª	110.7ª	4.75 ^a	46.6	237.8	5.10	15.8	78.5	4.97
2000-01	19.2	109.2	5.70	19.0	95.0	5.01	40.5	212.5	5.25	14.1	70.6	5.00
2001-02	18.2	101.3	5.56	14.4	71.5	4.96	34.8	180.1	5.18	12.4	63.2	5.11
2002-03	17.1	91.8	5.38	13.2	65.5	4.96	31.9	163.3	5.12	10.4	54.5	5.22
2003-04	15.7	83.9	5.35	11.2	55.6	4.96	28.1	144.1	5.12	9.5	51.2	5.37
2004-05												

^aIncludes unidentified GJ.

U.S. Per Capita Beverage Consumption

Vaar	Mille	Bottled	Soft		Selec	ted Fru	it Juice	s
Year 	Milk	Water	Drinks	OJ	GJ	Apple	Grape	TOTAL
				- gallo	ns			
1970	31.3	NA	24.3	3.7	.6	.5	.2	5.5
1975	29.5	NA	28.2	4.7	.7	.6	.2	6.7
1980	27.6	2.4	35.1	5.0	.6	1.1	.3	7.4
1985	26.7	4.5	35.7	4.8	.6	1.6	.2	7.8
1990	25.7	8.0	46.2	3.3	.9	1.7	.3	7.0
1991	25.5	8.0	47.8	4.6	.5	1.5	.4	7.9
1992	25.1	9.7	48.2	4.3	.4	1.6	.4	7.5
1993	24.4	10.3	48.6	5.2	.5	1.8	.4	8.6
1994	24.3	11.3	48.4	5.1	.6	1.8	.3	8.5
1995	23.9	12.1	47.4	4.7	.6	1.6	.5	8.1
1996	23.8	13.0	46.6	5.3	.6	1.7	.4	8.7
1997	23.4	13.9	46.8	5.2	.6	1.6	.4	8.5
1998	23.0	15.0	47.9	5.8	.6	1.8	.3	9.1
1999	22.9	16.4	49.7	5.5	.6	1.8	.4	9.0
2000	22.5	17.4	49.3	5.5	.5	1.8	.3	8.9
2001	22.0	18.8	46.7	5.7	.5	1.8	.3	9.1
2002	21.9	20.7	46.6	5.1	.5	1.8	.4	8.4
2003	21.6	22.0	46.4	4.9	.4	2.0	.4	8.4
2004								

^aIncludes lemon, lime, pineapple, cranberry & prune juice.

SOURCE: USDA-ERS.

69

Nutrition Values of Citrus

ITEM	REFER-		JU	ICE				FRE	ESH		
ITEM	ENCE VALUE	ORA	NGE	GRAPI	EFRUIT	ORA	ORANGES		GRAPEFRUIT		RINES
SERVING SIZE		1 cup / 8-oz.				154g / 154g / 1 med. fruit ½ med. fruit				109g / 1 med. fruit	
				Ar	nount P	er Serv	ing (% l	Daily Va	lue)		
Calories	2000	110		90		70		60		50	
Calories from Fat	NA	0		0		0		0		0	
Cholesterol	<300 mg	0		0		0		0		0	
Total Fat	65 g	0		0		0		0		0	
Saturated Fat	20 g	0		0		0		0		0	
Sodium	<2400 mg	0		0		0		0		0	
Potassium	3500 mg	450	(13%)	300	(9%)	260	(7%)	230	(7%)	180	(5%)
Total Carbohydrates	300 g	26	(9%)	22	(7%)	21	(7%)	16	(5%)	15	(5%)
Sugar	NA g	22		20		14		10		8	
Protein	50 g	2		1		1		1		1	
Dietary Fiber	25 g	0	(0%)	0	(0%)	7	(28%)	6	(24%)	3	(12%)
Folate	400 mcg	60	(15%)	24	(6%)	40	(10%)	16	(4%)	8	(2%)
Vitamin A	5000 IU	0	(0%)	0	(0%)	100	(2%)			750	(15%)
				600	$(12\%)^1$			750	$(15\%)^1$		
Vitamin C	60 mg	72	(120%)	60	(100%)	78	(130%)	66	(110%)	30	(50%)
Calcium	1000 mg	20	(2%)	20	(2%)	60	(6%)	20	(2%)	40	(4%)
Thiamin	1.5 mg	.15	(10%)	.09	(6%)	.15	(10%)	.06	(4%)	.12	(8%)
Magnesium	400 mg	24	(6%)	24	(6%)	16	(4%)	16	(4%)	16	(4%)

SOURCES: Daily Values are based on a 2000 calorie diet for moderately active adults. FDA National Fact (61 FR at 42761) 5/21/96; FDOC Scientific Research (04/11/05).

1 Colored varieties.

U.S. Grade A Frozen Concentrated Juice Standards

Scoring Factors	Orange	Grapefruit
Color	Minimum 36 points, but OJ 5 color tube	Minimum 18 points
Defects	Minimum 18 points	Minimum 18 points
Flavor	Minimum 36 points	Minimum 54 points
Minimum Total Score	90 points ^a	90 points ^a
OTHER FACTORS		
Ratio	12.5:1 to 19.5:1	9.0:1 to 14.0:1
Concentrate Brix	Minimum 41.8°	Minimum 38.0°
Reconstituted Brix	Minimum 11.8°	Minimum 10.6°
Sinking Pulp	No requirement	Maximum 10%
Recoverable Oil	Maximum 0.035%	Maximum 0.020%
Gel Test	No requirement	No requirement
Washed Pulp Solids	In-line permitted	Not permitted

^aThe lowest score of any <u>one</u> factor (color, defects or flavor) determines the grade even though the total score for the product places it in a higher grade. Florida requires that FCOJ scored Grade B must have a Grade A Flavor.

U.S. Grade A
Concentrated Juice for Manufacturing
Standards

Scoring Factors	Orange	Grapefruit
Color	Minimum 36 points, but OJ 6 color tube	Minimum 18 points
Defects	Minimum 18 points	Minimum 18 points
Flavor	Minimum 36 points	Minimum 54 points
Minimum Total Score	90 points	90 points
OTHER FACTORS		
Ratio	8:1 to 24:1	Minimum 6.0:1
Concentrate Brix	Minimum 20°	
Reconstituted Brix	Minimum 11.8°	
Sinking Pulp	No requirement	Maximum 10%
Recoverable Oil	No requirement	No requirement
Gel Test	No requirement	No requirement
Washed Pulp Solids	In-line permitted	Not permitted

U.S. Grade A
Juice from Concentrate Standards

Scoring Factors	Orange	Grapefruit
Color	Minimum 36 points, but OJ 5 color tube	Minimum 18 points
Defects	Minimum 18 points	Minimum 18 points
Flavor	Minimum 36 points	Minimum 54 points
Minimum Total Score	90 points	90 points
OTHER FACTORS		
Ratio	12:5 to 20.5:1	8.0:1 to 14.0:1
°Brix	Minimum 11.8°	Minimum 10.0°
Sinking Pulp	No requirement	Maximum 10%
Recoverable Oil	Maximum 0.035%	Maximum 0.020%
Washed Pulp Solids	In-line permitted	Not permitted

U.S. Grade A Juice Standards

Scoring Factors	Pasteurized Orange	Grapefruit
Color	Minimum 36 points	Minimum 18 points
Defects	Minimum 18 points	Minimum 18 points
Flavor	Minimum 36 points	Minimum 54 points
Minimum Total Score	90 points	90 points
OTHER FACTORS		
Ratio	12:5 to 20.5:1	8.0:1 to 14.0:1
°Brix	Minimum 11.0°	Minimum 9.0°
Sinking Pulp	No requirement	Maximum 10%
Recoverable Oil	Maximum 0.035%	Maximum 0.020%
Washed Pulp Solids	Not permitted	Not permitted

Florida Orange Standards

I	Mini	mum Tota	al	Sc	olids to	Acid	N	lini	mum Tot	al	Sol	Solids to Acid		
	Sc	Solids (%)			Minimum Ratio			Solids (%)				Minimum Ratio		
74		olids (%) (not incl) " " " " " " " " " " " " " " "	8.1 8.2 8.3 8.4 8.5 8.6 8.7 8.8 9.0 9.1 9.1	Mi 	10.50 10.45 10.40 10.35 10.30 10.25 10.20 10.15 10.00 10.05 10.00 9.95	to 1 to 1 to 1 to 1 to 1 to 1 to 1 to 1	9.6 9.7 9.8 9.9 10.0 10.1 10.2 10.3 10.4 10.5 10.6 10.7	to to to to to to to to	olids (%) (not incl) " " " " " " " " " " " " " "	9.7 9.8 9.9 10.0 10.1 10.2 10.3 10.4 10.5 10.6 10.7 10.8	Mini	9.70 9.65 9.60 9.55 9.50 9.45 9.40 9.35 9.20 9.25	to to to to to to to to	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	9.2 to 9.3 to	"	9.3 9.4	_	9.90 9.85	to 1	10.8 10.9		"	10.9 11.0	_	9.10 9.05	to to	_
	9.4 to 9.5 to	"	9.5 9.6	_	9.80 9.75	to 1 to 1	11.0		d above		_	9.00		i ^e

NEW VARIETIES: Ambersweet (orange), Sunburst & Falglo (tangerines) Not exempt.

(Page, Osceola, Lee, Robinson, Dancy, K-Early, Ortanique and Pummelo exempt from inspection.)

NOTE 1: Until December 1 of each year, all oranges for processing must meet fresh fruit requirements unless otherwise noted. From December 1 thru July 31, no juice content, minimum acid or color break requirements for processed fruit. Apply minimum solids and ratio requirements as indicated in table.

<u>NOTE 2</u>: For color break requirements and individual fruit testing, see *Citrus Fruit Laws*.

^aMinimum solids for processing December 1 thru July 31.

^bMinimum solids for oranges fresh November 16 thru July 31, and processing November 16 thru November 30.

^cMinimum solids for oranges November 1 thru November 15.

^dMinimun solids for oranges August 1 thru October 31.

 $^{^{\}mathrm{e}}$ 11.00 and higher solids, minimum 9.00 to 1 ratio. Juice requirements 4% gallons per box, minimum acid 0.40.

Florida Grapefruit Standards

Minimum Total Solids (%)			Solids to Acid Minimum Ratio			Minimum Total Solids (%)				Solids to Acid Minimum Ratio		
		William Ratio			3011d5 (70)				IVII	Willillulli Ratio		
^a 6.5 ^b 7.0 ^c 7.5		_	7.00 7.50	to 1 to 1e	10.4 10.5		(not incl)	10.5 10.6	_	6.40 6.375	to 1 to 1	
^d 8.0			8.00	to 1 ^t	10.6	to	"	10.7	_	6.35	to 1	
8.1 to (not incl)	9.1	_	7.00	to 1	10.7	to	"	10.8		6.325	to 1	
9.1 to ` " ´	9.2	_	6.95	to 1	10.8	to	"	10.9		6.30	to 1	
9.2 to "	9.3	_	6.90	to 1	10.9	to	"	11.0	_	6.275	to 1	
9.3 to "	9.4	_	6.85	to 1	11.0	to	"	11.1		6.25	to 1	
9.4 to "	9.5	_	6.80	to 1	11.1	to	"	11.2	_	6.225	to 1	
9.5 to "	9.6	_	6.75	to 1	11.2	to	"	11.3	_	6.20	to 1	
9.6 to "	9.7	_	6.70	to 1	11.3	to	"	11.4	_	6.175	to 1	
9.7 to "	9.8	_	6.65	to 1	11.4	to	"	11.5	_	6.15	to 1	
9.8 to "	9.9	_	6.60	to 1	11.5	to	"	11.6	_	6.125	to 1	
9.9 to "	10.0	_	6.55	to 1	11.6	to	"	11.7	_	6.10	to 1	
10.0 to "	10.1		6.50	to 1 ^g	11.7	to	"	11.8	_	6.075	to 1	
10.1 to "	10.2		6.475	to 1	11.8	to	"	11.9	_	6.05	to 1	
10.2 to "	10.3		6.45	to 1	11.9	to	"	12.0		6.025	to 1	
10.3 to "	10.4		6.425	to 1	12.0	ar	nd above			6.00	to 1 ^h	

^a Minimum solids all grapefruit for processing, Jan. 1 thru July 31.

NOTE 1: Until Dec. 1 of each year, all grapefruit for processing must meet fresh fruit requirements <u>unless otherwise noted</u>. From Dec. 1 thru July 31, no juice content, minimum acid or color break requirements for processed fruit. Apply minimum solids and ratio requirements as indicated in table.

NOTE 2: For color break requirements and individual fruit testing, see Citrus Fruit Laws.

^b Minimum solids seedless grapefruit fresh, Jan. 1 thru July 31. Minimum solids all grapefruit for processing, Dec. 1 thru Dec. 31.

[°]Minimum solids seedy grapefruit fresh, Jan. 1 thru July 31. Minimum solids seedless grapefruit for processing, Aug. 1 thru Nov 30. Minimum solids seedless grapefruit fresh, Aug. 1, thru Dec. 31.

^d Minimun solids seedy grapefruit for processing, Aug. 1 thru Nov. 30. Minimum solids seedy grapefruit fresh, Aug. 1 thru Dec. 31.

e Minimum 7.50 ratio packinghouse eliminations for processing, Aug. 1 thru Jan 31. Less than 7.50 to 1 but meeting minimum maturity, beverage base only.

Minimum 8.00 ratio field run grapefruit for processing, Aug. 1 thru Jan. 31. Sections and eliminations thereof must meet minimum maturity.

⁹ Minimum 6.50 ratio for sectionizing, Jan. 1 thru April 14. Minimum 6.50 ratio for all grapefruit for processing, Feb. 1 thru April 14.

h Minimum 6.00 ratio for all grapefruit, April 15 thru July 31.

Florida Grapefruit-Juice Requirements

D.O.C. 20-34.006

Weight/Weight Method: 4-1/4" in diameter or less requires a minimum 52% juice content. Greater than 4-1/4" in diameter requires a minimum 49% juice content.

Size	Aug. 1 thru Nov. 15	Nov. 16 thru March 1	March 2 thru July 31	Juice Content
	cubic ce	ntimeters per (grapefruit	- % -
14	400	380	360	49
18	350	335	320	49
23	305	290	275	49
27	275	265	250	49
32	245	230	220	52
36	230	220	210	52
40	210	200	190	52
48	185	180	170	52
56	170	165	155	52
64	165	160	150	52

Florida Temple Orange Standards

				I			
	Min	imum Tot	al	S	olids to	Ac	id
_	S	Solids (%)		M	inimum	Ra	tio
^a 9.0	to	(not incl)	9.1		9.0	to	1
		(HOT HICI)	_				-
9.1	to	••	9.2	—	8.9	to	1
9.2	to	"	9.3	—	8.8	to	1
9.3	to	"	9.4		8.7	to	1
9.4	to	"	9.5	_	8.6	to	1
9.5	to	"	9.6	—	8.5	to	1 ^b
9.6	to	"	9.7	—	8.4	to	1
9.7	to	"	9.8		8.3	to	1
9.8	to	"	9.9		8.2	to	1
9.9	to	"	10.0		8.1	to	1
10.0	to	"	10.1		8.0	to	1
10.1	to	"	10.2		7.9	to	1
10.2	to	"	10.3		7.8	to	1
10.3	to	"	10.4		7.7	to	1
10.4	to	"	10.5		7.6	to	1
10.5	an	d above		_	7.5	to	1°

^aMinimum solids for all Temples.

<u>NOTE 1</u>: Until December 1 of each year, all Temples for processing must meet fresh fruit requirements <u>unless otherwise noted</u>. From December 1 thru July 31, no juice content, minimum acid or color break requirements for processed fruit. Apply minimum solids and ratio requirements as indicated in tables.

<u>NOTE 2</u>: For color break requirements and individual fruit testing, see *Citrus Fruit Laws*. SOURCE: FDACS.

^b8.50 to 1 minimum ratio for fresh.

^{°7.50} to 1 minimum ratio for processing.

Florida Tangerine Standards^a (November 15 through July 31)

				 3	<u> </u>		
		imum Tot olids (%)	al		Solids to Iinimum		
^b 8.75	to	(not incl)	9.1	_	8.75	to	1
9.10	to	"	9.2		8.65	to	1
9.20	to	"	9.3		8.55	to	1
9.30	to	"	9.4		8.45	to	1
9.40	to	"	9.5		8.35	to	1
9.50	to	"	9.6		8.25	to	1
9.60	to	"	9.7		8.15	to	1
9.70	to	"	9.8		8.05	to	1
9.80	to	"	9.9		7.95	to	1
9.90	to	"	10.0		7.85	to	1
10.00	to	"	10.1		7.75	to	1
10.10	to	"	10.2		7.65	to	1
10.20	to	"	10.3		7.55	to	1
10.30	to	"	10.4		7.45	to	1
10.40	to	"	10.5		7.35	to	1
10.50	an	d above			7.25	to	1

^aMurcotts fresh: maximum 1.00 acid any ratio, 1.01 acid and up minimum 12.00 to 1 ratio. Murcotts processed: minimum 10 to 1 ratio.

<u>NOTE 2</u>: For color break requirements and individual fruit testing, see *Citrus Fruit Laws*. SOURCE: FDACS.

^bMinimum solids November 15 thru July 31.

<u>NOTE 1</u>: Until December 1 of each year, all tangerines for processing must meet fresh fruit requirements <u>unless otherwise noted</u>. From December 1 thru July 31, no juice content, minimum acid or color break requirements for processed fruit. Apply minimum solids and ratio requirements as indicated in tables.

Florida Tangerine Standards^a (August 1 through November 14)

	_	imum Tot olids (%)	Solids to Acid Minimum Ratio					
^b 9.0	to	(not incl)	9.1		 9.0	to	1	
9.1	to	"	9.2		 8.9	to	1	
9.2	to	"	9.3		 8.8	to	1	
9.3	to	"	9.4		 8.7	to	1	
9.4	to	"	9.5		 8.6	to	1	
9.5	to	"	9.6		 8.5	to	1	
9.6	to	"	9.7		 8.4	to	1	
9.7	to	"	9.8		 8.3	to	1	
9.8	to	"	9.9		 8.2	to	1	
9.9	to	"	10.0		 8.1	to	1	
10.0	to	"	10.1		 8.0	to	1	
10.1	to	"	10.2		 7.9	to	1	
10.2	to	"	10.3		 7.8	to	1	
10.3	to	"	10.4		 7.7	to	1	
10.4	to	"	10.5		 7.6	to	1	
10.5	an	d above			 7.5	to	1	

^aMurcotts fresh: maximum 1.00 acid any ratio, 1.01 acid and up minimum 12.00 to 1 ratio. Murcotts processed: minimum 10 to 1 ratio.

<u>NOTE 2</u>: For color break requirements and individual fruit testing, see *Citrus Fruit Laws*. SOURCE: FDACS.

^bMinimum solids August 1 thru November 14.

NOTE 1: Until December 1 of each year, all tangerines for processing must meet fresh fruit requirements <u>unless otherwise noted</u>. From December 1 thru July 31, no juice content, minimum acid or color break requirements for processed fruit. Apply minimum solids and ratio requirements as indicated in tables.

Florida Tangelo Standards^a

_	i idiida idiigolo otalidalao																
	Minimum Total Solids (%)					Solids to Acid Minimum Ratio			Minimum Total Solids (%)					Solids to Acid Minimum Ratio			
_	^b 8.0	to	(not incl)	8.1	_	10.50	to	1	10.1	to	(not incl)	10.2	_	9.45	to	1	
	8.1	to	"	8.2		10.45	to	1	10.2	to	"	10.3	_	9.40	to	1	
	8.2	to	"	8.3	_	10.40	to	1	10.3	to	"	10.4	_	9.35	to	1	
	8.3	to	"	8.4	_	10.35	to	1	10.4	to	"	10.5	_	9.30	to	1	
	8.4	to	"	8.5	_	10.30	to	1	10.5	to	"	10.6	_	9.25	to	1	
	°8.5	to	"	8.6	_	10.25	to	1	10.6	to	"	10.7	_	9.20	to	1	
	8.6	to	"	8.7	_	10.20	to	1	10.7	to	"	10.8	_	9.15	to	1	
	8.7	to	"	8.8	_	10.15	to	1	10.8	to	"	10.9	_	9.10	to	1	
	8.8	to	"	8.9	_	10.10	to	1	10.9	to	"	11.0	_	9.05	to	1	
	8.9	to	"	9.0	_	10.05	to	1	11.0	to	"	11.1	_	9.00	to	1	
	^d 9.0	to	"	9.1	_	10.00	to	1	11.1	to	"	11.2	_	8.95	to	1	
	9.1	to	"	9.2	_	9.95	to	1	11.2	to	"	11.3	_	8.90	to	1	
~	9.2	to	"	9.3	_	9.90	to	1	11.3	to	"	11.4	_	8.85	to	1	
8	9.3	to	"	9.4	_	9.85	to	1	11.4	to	"	11.5	_	8.80	to	1	
	9.4	to	"	9.5	_	9.80	to	1	11.5	to	"	11.6	_	8.75	to	1	
	°9.5	to	"	9.6	_	9.75	to	1	11.6	to	"	11.7	_	8.70	to	1	
	9.6	to	"	9.7	_	9.70	to	1	11.7	to	"	11.8	_	8.65	to	1	
	9.7	to	"	9.8	_	9.65	to	1	11.8	to	"	11.9	_	8.60	to	1	
	9.8	to	"	9.9	_	9.60	to	1	^f 11.9	and	above		_	8.55	to	1	
	9.9	to	"	10.0	_	9.55	to	1	^g See	Belo	w		_	8.00	to	1	
	10.0	to	"	10.1	_	9.50	to	1									
-									-								

^aMinimum acid 0.40 Tangelo.

NOTE 2: For color break requirements and individual fruit testing, see Citrus Fruit Laws.

^bMinimum solids for processing November 16 thru November 30.

^cMinimum solids for processing November 1 thru November 15. Minimum solids for fresh November 16 thru November 30.

^dMinimun solids for processing August 1 thru October 31. Minimum solids for fresh November 1 thru November 15.

^eMinimum solids for fresh August 1 thru October 31.

Flat 8.55 to 1 ratio for fresh December 1 thru January 31, with NO minimum solids.

⁹Flat 8 to 1 ratio for fresh Feb. 1 thru July 31, with NO minimum solids. Flat 8 to 1 ratio for processing Dec. 1 thru July 31, with NO minimum solids.

NOTE 1: Until December 1 of each year, all tangelos for processing must meet fresh fruit requirements <u>unless otherwise noted</u>. From December 1 thru July 31, no juice content, minimum acid or color break requirements for processed fruit. Apply minimum solids and ratio requirements as indicated in table.

Glossary of Acronyms

CAC: Citrus Administrative Committee CACEX: Carteira de Comercio Exterior **CGJ:** Chilled Grapefruit Juice **COJ: Chilled Orange Juice CPI:** Consumer Price Index CSSGJ: Canned Single-Strength Grapefruit Juice **CSSOJ: Canned Single-Strength Orange Juice DECEX:** Departamento de Comercio Exterior **EMRD:** Economic and Market Research Department FAO: Food and Agriculture Organization of the United Nations **FAS: Foreign Agricultural Service** FASS: Florida Agricultural Statistics Service FCBJ: Frozen Concentrated Blended Juice FCGJ: Frozen Concentrated Grapefruit Juice **FCM:** Florida Citrus Mutual FCOJ: Frozen Concentrated Orange Juice FCPA: Florida Citrus Processors Association FCTJ: Frozen Concentrated Tangerine Juice FDACS: Florida Department of Agriculture and Consumer Services FDOC: Florida Department of Citrus FOB: Free on Board FRED: Food and Resource Economics Department GJ: Grapefruit Juice IFAS: Institute of Food and Agricultural Sciences MT: Metric Ton NA: Not Available **NASS: National Agricultural Statistics Service NFC: Not From Concentrate NSPF:** Not Specifically Provided For OJ: Orange Juice **PS: Pounds Solids** RTS: Ready to Serve SSE: Single Strength Equivalent UF: University of Florida

USDA: United States Department of Agriculture

NOTES