

CITRUS REFERENCE BOOK

Florida Department of Citrus
Economic and Market Research Department

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Bearing Acreage: Oranges

Season	Florida	Texas	Calif.	Arizona	U.S. ^a	Florida Temples
----- 1,000 acres -----						
1978-79	571.5	27.8	187.1	14.8	801.2	18.3
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	9.1	193.0	6.4	795.4	4.7
2002-03 ^b	587.6	8.6	191.5	5.8	793.5	4.2
2003-04						

^aMay not add up due to rounding.

^bPreliminary.

SOURCE: FASS.

Bearing Acreage: Grapefruit

Season	Florida	Texas	Calif.	Arizona	U.S.
----- 1,000 acres -----					
1978-79	124.6	39.8	19.5	8.9	192.8
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	20.0	14.0	2.0	137.3
2002-03 ^a	95.5	18.5	13.0	1.5	128.5
2003-04					

^aPreliminary.

SOURCE: FASS.

Florida Commercial Citrus Acreage

Census Year	Oranges	Grapefruit	Specialty Fruit ^a	Total
----- acres -----				
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				

^aIncludes lemons, limes and other citrus.

SOURCE: FASS.

Florida Commercial Citrus Bearing Acreage

Census Year	Oranges	Grapefruit	Specialty Fruit ^a	Total
----- acres -----				
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				

^aIncludes lemons, limes and other citrus.

SOURCE: FASS.

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				

^aIncludes lemons, limes and other citrus.

SOURCE: FASS.

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				

^aIncludes lemons, limes and other citrus.

SOURCE: FASS.

Production: Oranges

Season	Florida	Texas	Calif.	Arizona	U.S. ^a	Florida Temples
----- million 90-pound boxes -----						
1978-79	164.0	6.0	31.1	2.4	203.5	4.7
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 ^c	203.0	1.5	51.7	.4	256.5	1.3
2003-04						

^aMay not add up due to rounding.

^bLess than 50,000 boxes.

^cPreliminary.

SOURCE: FASS.

Production: Grapefruit

Season	Florida	Texas	Calif.	Arizona	U.S.
----- million 85-pound boxes -----					
1978-79	50.0	8.5	4.7	1.7	64.9
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 ^a	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 ^c	38.7	5.3	4.4	.1	48.5
2003-04					

^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

Season	Tangerines			Florida			Lemons	
	Florida	Calif.	Arizona	Tangelos	K-Early	Limes	Calif.	Arizona
----- 1,000 boxes -----								
1978-79	5,270	1,450	450	4,200	600	720	14,100	5,500
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 ^a	5,500	2,500	430	2,350	^b	^b	24,000	3,000
2003-04								

^aPreliminary. ^bNo longer reported.

SOURCE: FASS, *Citrus Summary*.

USDA Orange Crop Estimates Versus Actual Production

Season	Florida			California			Texas			Arizona			Total ^a
	Oct.	Actual	+ / -	Oct.	Actual	+ / -	Oct.	Actual	+ / -	Oct.	Actual	+ / -	Oct.
----- million boxes ^b -----													
1989-90	130.0	110.2	-19.8	61.0	71.4	10.4	2.0	1.2	- .8	1.4	1.6	.2	194.4
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			59.0			1.6			.5			313.0

^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

Season	October	Actual	+ / -
----- million 90-pound boxes -----			
1983-84	4.5	2.9	-1.6
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		

SOURCE: FASS.

USDA Grapefruit Crop Estimates Versus Actual Production

Season	Florida			California ^a			Texas			Arizona			Total ^a
	Oct.	Actual	+ / -	Oct.	Actual	+ / -	Oct.	Actual	+ / -	Oct.	Actual	+ / -	Oct.
----- million boxes ^b -----													
1989-90	44.0	35.7	-8.3	8.7	9.4	.7	4.4	2.0	-2.4	2.1	2.2	.1	59.2
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 ^c	-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			5.5			5.3			.1			52.9

^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.

SOURCE: FASS.

USDA Crop Estimates (Current)

Time Period ^a	Oranges				Temples	Grapefruit			
	FL	TX	CA	AZ	FL	FL	TX	CA	AZ

----- million boxes^b -----

2003-04

OCT	252.0	1.6	59.0	.5	1.4	42.0	5.3	5.5	.1
DEC	252.0	1.6	59.0	.5	1.4	41.0	5.3	5.5	.1
JAN	250.0	1.5	58.0	.5	1.4	40.0	5.2	5.3	.1
FEB	246.0	1.5	58.0	.5	1.4	40.0	5.2	5.3	.1
MAR	246.0	1.5	54.0	.5	1.4	40.0	5.2	5.3	.1
APR	245.0	1.7	54.0	.5	1.4	40.0	5.4	5.4	.1
MAY	245.0	1.7	54.0	.5	1.4	40.5	5.4	5.4	.1
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.

SOURCES: FASS.

USDA Florida FCOJ Gallons-per-Box Yield Estimates

Season	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL
----- 42° Brix gallons -----										
1988-89	1.52	1.52	1.52	1.50	1.52	1.52	1.53	1.53	1.53	1.53
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		

SOURCES: FASS.

USDA Specialty Crop Estimates Versus Actual Production

Season	Florida Tangelos		Tangerines						California/ Arizona Lemons		Florida Limes	
			Florida		California		Arizona					
	Oct.	Actual	Oct.	Actual	Oct.	Actual	Oct.	Actual	Oct.	Actual	Oct.	Actual
	mil. 90-lb. boxes		mil. 95-lb. boxes		----- mil. 75-lb. boxes -----				mil. 76-lb. boxes		mil. 88-lb. boxes	
1989-90	3.5	3.0	2.2	1.7	1.8	1.7	.7	.6	19.7	18.6	1.4	1.7
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	2.5	.5	.4	23.8	27.0	b	b
2003-04	1.3		6.6		2.5		.6		26.0		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	Total ^a
----- million 90-pound 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

^a May not add up due to rounding.

^b Includes Florida non-member.

SOURCE: FDOC-EMRD.

Utilization of Florida Grapefruit

Season	Fresh	Frozen Concen- trate	Chilled Juice	Non- Certified	Other	Total
----- million 85-pound 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 ^c
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

^a Excludes 3 million boxes of economic abandonment.

^b Excludes 6 million boxes of economic abandonment.

^c Excludes 2 million boxes of economic abandonment.

SOURCE: FDOC-EMRD.

Total Shipments of Florida Fresh Citrus^a

Aug-July Season	Grapefruit	Oranges	Temples	Tangelos	Honey Tangerines	Tangerines	Total
----- thousand 4/5-bushel 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

^aColumns may not add up due to rounding.

SOURCE: FDOC-EMRD.

Florida Fresh Grapefruit Shipments

Aug-July Season	Domestic	Canada	Europe	Japan	Other Pacific Rim	Other	Total
----- thousand 42.5-pound cartons -----							
1989-90	14,276	2,106	3,893	5,200	224	11	25,710
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

SOURCE: FDOC-EMRD.

Florida Fresh Orange and Temple Shipments

Aug-July Season	Domestic	Canada	Europe	Japan	Other Pacific Rim	Other	Total
----- thousand 45-pound cartons -----							
1989-90	10,167	729	5	4	0	5	10,910
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
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

SOURCE: FDOC-EMRD.

World Orange Production

Country	Average		1998-99	1999-00	2000-01	2001-02 Preliminary
	70-71/ 78-79	80-81/ 88-89				
----- 1,000 metric tons -----						
United States	8,751.2	7,630.1	8,985.7	11,975.5	11,291.0	11,391.7
% of U.S. to World	27.0%	19.5%	15.8%	19.2%	19.2%	17.6%
Florida ^a	6,952.7	5,503.0	7,666.7	9,591.5	9,167.0	9,452.7
% of Florida to World	21.5%	14.1%	13.5%	15.4%	15.6%	14.6%
Argentina	771.6	627.6	660.0	788.7	913.0	780.0
Australia	344.0	433.0	515.0	624.0	437.0	591.0
Brazil	6,932.0	10,837.2	18,360.0	17,136.0	14,729.0	18,197.0
China	349.2	410.1	2,147.6	3,329.9	2,942.0	4,039.0
Cuba	133.0	395.2	440.6	440.2	554.8	554.8
Egypt	744.0	1,159.1	1,441.7	1,525.0	1,759.2	1,984.6
Greece	464.6	661.3	801.0	1,126.0	1,002.4	1,077.0
India	1,223.1	1,326.6	3,000.0	3,000.0	3,000.0	3,200.0
Israel	1,049.1	815.7	220.6	265.0	218.0	159.9
Italy	1,584.2	1,929.4	1,422.3	1,993.2	1,876.3	1,828.6
Mexico	1,324.4	1,601.9	2,903.0	3,385.0	3,885.0	4,000.0
Morocco	630.3	774.4	866.9	864.0	706.3	725.5
Pakistan	418.1	928.1	1,360.0	1,328.0	1,400.0	1,400.0
South Africa	494.6	564.6	1,048.0	1,158.4	1,119.2	1,265.3
Spain	1,860.4	1,885.2	2,623.7	2,811.4	2,708.8	2,923.7
Turkey	534.5	688.9	970.0	1,100.0	1,070.0	1,250.0
All Others	4,750.3	6,440.7	8,957.3	9,483.9	9,329.7	9,192.0
WORLD TOTAL	32,358.6	39,109.1	56,723.4	62,334.2	58,941.7	64,560.1

^aTemples included.

SOURCES: FAO, FASS.

World Grapefruit Production

Country	Average		1998-99	1999-00	2000-01	2001-02 Preliminary
	70-71/ 78-79	80-81/ 88-89				
----- 1,000 metric tons -----						
United States	2,512.4	2,327.2	2,279.0	2,499.9	2,239.7	2,201.7
% of U.S. to World	65.0%	55.7%	44.2%	43.8%	40.7%	40.4%
Florida	1,842.1	1,832.9	1,814.0	2,058.9	1,773.6	1,800.6
% of Florida to World	47.6%	43.9%	35.2%	36.1%	32.3%	33.1%
Argentina	161.6	160.0	178.0	189.0	177.0	170.0
Australia	19.3	31.6	15.5	13.4	14.0	14.0
Brazil	32.2	44.7	65.0	66.0	66.0	67.0
China	61.5	152.1	850.4	1,024.8	931.0	1,196.0
Cuba	26.5	203.7	300.0	310.0	310.0	175.0
Cyprus	59.0	98.2	52.0	35.9	38.4	37.6
India	26.1	36.0	124.0	130.0	130.0	130.0
Israel	421.9	422.1	321.1	310.0	316.0	250.3
Mexico	96.6	114.0	165.0	240.0	320.0	250.0
Morocco	11.8	6.7	1.5	1.0	1.2	3.0
Paraguay	39.4	73.2	59.8	47.9	48.0	50.0
Peru	5.4	4.3	30.0	30.5	29.0	30.0
South Africa	76.9	86.7	171.0	212.8	288.3	264.0
Spain	6.0	13.5	31.9	25.0	27.0	31.0
Tunisia	8.0	28.1	50.0	50.0	66.0	72.0
Turkey	12.0	25.9	85.0	106.2	110.0	140.0
All Others	290.4	350.3	381.2	409.7	385.0	363.0
WORLD TOTAL	3,867.0	4,178.3	5,160.4	5,702.1	5,496.6	5,444.6

SOURCES: FAO, FASS.

World Tangerine Production

Country	Average		1998-99	1999-00	2000-01	2001-02 Preliminary
	70-71/ 78-79	80-81/ 88-89				
----- 1,000 metric tons -----						
United States	381.2	353.3	400.8	498.6	420.6	468.1
% of U.S. to World	5.7%	4.0%	2.8%	3.0%	2.9%	2.9%
Florida	139.8	119.5	213.3	301.6	241.3	284.4
% of Florida to World	2.1%	1.4%	1.5%	1.8%	1.7%	1.8%
Algeria	148.8	88.9	115.5	102.4	110.0	111.0
Argentina	239.7	257.9	346.0	438.1	501.0	416.0
Brazil	248.3	407.8	831.1	902.6	1,125.1	910.0
China	233.8	1,145.1	5,583.7	6,418.3	4,831.0	6,268.0
Egypt	86.4	108.1	421.8	425.0	495.0	643.6
Greece	34.2	52.1	85.0	100.0	85.5	67.0
Israel	62.9	112.2	72.8	105.0	80.0	83.4
Italy	323.8	413.4	443.3	637.3	593.0	611.1
Japan	3,395.8	2,873.1	1,471.0	1,704.0	1,398.0	1,527.0
Korea, Republic of	44.5	311.8	516.0	635.0	563.0	651.0
Mexico	143.3	123.4	271.3	313.6	364.5	270.0
Morocco	177.4	301.5	425.3	511.0	251.5	405.0
Peru	18.2	27.5	116.8	131.8	128.2	133.1
Spain	600.4	1,052.5	1,749.2	2,042.3	1,819.0	1,778.1
Turkey	105.2	219.4	372.0	357.0	344.5	410.0
Uruguay	17.7	37.7	94.5	65.2	97.0	100.0
All Others	466.9	867.0	1,036.2	1,091.0	1,080.4	1,114.7
WORLD TOTAL	6,728.5	8,752.7	14,352.3	16,478.2	14,287.3	15,967.1

SOURCES: FAO, FASS.

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

Production Season ^a	Bearing Trees	Oranges Produced	Oranges Utilized for Frozen Concentrate		Frozen Concentrate Production	
					65° Brix	SSE
	- million -	- - - million boxes - - -		- % 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
1996-97	173	366	269	73	1,122	1,562
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 ^b	159	280	215	77	970	1,351
2004-05 ^c	160	360	282	78	1,215	1,692

^aJuly-June.

^bEstimate.

^cProjected.

SOURCE: FAS.

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			
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.

SOURCE: CACEX, DECEX, FAS.

Estimated U.S. Orange-Juice Availability

Oct-Sept Season	Florida				Texas ^a	Calif./ ^a Arizona	U.S. Imports		U.S. Exports	Total Domestic Availability	
	FCOJ 11.8° Brix	CSSOJ	COJ	Total			Florida	Total			
----- million SSE gallons -----											1,000 MT 65° Brix
1992-93	842.8	2.0	286.0	1,130.8	.4	68.1	165.4	298.3	116.8	1,380.8	992
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
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	43.3	155.2	290.9	104.8	1,440.1	1,034

^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	Sales		Popula- tion	Per Capita Consump- tion
				Retail ^a	Other ^b		
----- 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	1,440	15	1,426	838	587	290	4.9

^aAll outlets.

^bIncludes unidentified inventory.

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

Estimated U.S. Grapefruit-Juice Availability

Oct-Sept Season	Florida				Texas ^a	Calif./ ^a Arizona	U.S. Imports	Total Supply	U.S. Exports	Total Domestic Availability
	FCGJ	CSSGJ	CGJ	Total						
----- million SSE gallons -----										
1992-93	126.1	2.8	25.1	154.0	2.3	11.9	2.2	170.4	23.1	147.3
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	37.2	114.7	11.2	2.0	.4	128.3	38.3	90.0

^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	Sales		Popula- tion	Per Capita Consump- tion
				Retail ^a	Other ^b		
----- million SSE gallons -----						millions	SSE gal.
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	90	-14	104	37	67	290	.36

^aAll outlets.

^bIncludes unidentified inventory.

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

General Economic Indicators

Year	Consumer Price Indices (1982-84 = 100)		Population	Disposable Personal Income
	All Food	All Items		
			- millions -	- billion \$ -
1981	93.6	90.9	229.5	2,246.1
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	7,469.4
2002	176.2	179.9	288.0	7,857.2
2003	180.0	184.0	290.8	8,202.9 ^a

^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
	----- million \$ -----		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).

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

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

Florida Land Value Survey

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

Date	South Florida			Central Florida		
	Oranges	Grape- fruit	5-7 Year Citrus	Oranges	Grape- fruit	5-7 Year Citrus
----- \$/acre -----						
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

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

Certification and Carrying Costs for FCOJ Futures Contracts

Item		Selected Approximate Costs		
Delivery Only	Commission	\$ 20.00 ^a		
	Service Fee	25.00 ^a		
	Labor	132.00 ^b		
	Total per Contract	\$ 177.00		
	Total Points	118		
Carry for <u>Two</u> Months	Cost per Pound	\$.50	\$.65	\$.80
	Storage (per contract)	\$ 528.00	\$ 528.00	\$ 528.00
	Interest ^c	73.54	93.71	113.88
	Total per Contract	\$ 601.54	\$ 621.71	\$ 641.88
	Total Points	401	414	428
Receive, Carry for Two Months, and Redeliver	Storage (per contract)	\$ 528.00	\$ 528.00	\$ 528.00
	Commission-In ^a	20.00	20.00	20.00
	Commission-Out ^a	20.00	20.00	20.00
	Service Fee ^a	50.00	50.00	50.00
	Interest ^c	73.54	93.71	113.88
	Total per Contract	\$ 691.54	\$ 711.71	\$ 731.88
	Total Points	461	474	488

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

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

^aRate is negotiable.

^bHandling out only. Storage cost ÷ 4.

^cInterest is calculated as 5.50% per annum (1.5% over prime).

SOURCE: Citrus Associates of the New York Board of Trade, *FCOJ Deliverer's and Receiver's Guide* (Revised 4/04).

New York FCOJ Monthly Average Nearby Futures Settlement Price

Month	1998	1999	2000	2001	2002	2003	2004
----- cents per pound solids-----							
JAN	90.98	99.66	84.37	76.01	89.41	92.04	62.95
FEB	97.67	93.00	84.66	75.69	89.64	87.08	60.97
MAR	105.94	83.48	84.82	74.80	92.68	84.68	61.21
APR	97.07	84.47	82.49	74.25	89.61	85.49	59.45
MAY	109.96	85.42	81.77	78.33	91.17	85.74	
JUN	103.73	89.23	84.44	77.02	91.40	85.30	
JUL	104.01	80.16	79.65	81.36	95.42	81.31	
AUG	110.18	92.55	74.07	77.68	100.93	78.66	
SEP	108.18	92.97	71.42	80.81	100.30	77.17	
OCT	115.24	88.52	70.03	85.26	95.14	70.77	
NOV	117.72	94.85	73.99	93.76	100.53	70.11	
DEC	108.57	93.19	80.42	91.67	97.36	67.01	

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	Factor	Brix	Factors
42°	Gallons X 1.0000	59°	Gallons X 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.

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 and States					
State	Oranges	Grapefruit	Tangerines	Lemons	Limes
----- pounds per 1-3/5 bushel box -----					
Florida	90 ^a	85	95	90	88
California	75	67 ^b	75	76	--
Texas	85	80	--	--	--
Arizona	75	67 ^b	75	76	--
^a Includes Temples and tangelos at 90 pounds.					
^b Arizona was 64 pounds prior to 1993-94. California was 65 pounds prior to 1993-94.					

Significant Florida Citrus Belt Freeze Dates	
Dec. 12 - 13	1957
Dec. 11, 13 - 16	1962
Jan. 19, 20 & 21	1971
Jan. 17 - 22	1977
Jan. 12 - 13	1981
Jan. 11 - 14	1982
Dec. 24 & 25	1983
Jan. 21 & 22	1985
Dec. 23 & 24	1989

Florida Citrus Product Seasons	
Fresh	Aug. 1 - July 31
Frozen Concentrate	Oct. 1 - Sept. 30*
Chilled & Canned	Oct. 1 - Sept. 30

*Historical frozen concentrate season was Dec. 1 - Nov. 30. Data in this reference book have been converted to reflect the current Oct.-Sept. season.

Case Equivalents

Concentrate		
48/6 oz. = 2.25	concentrate	gallons
24/12 oz. = 2.25	“	”
24/6 oz. = 1.125	“	”
24/16 oz. = 3.0	“	”
12/32 oz. = 3.0	“	”
6/64 oz. = 3.0	“	”

Chilled		
12/32 oz. = 3.0	SSE	gallons
6/64 oz. = 3.0	“	”

Canned		
24/#2's = 3.375	SSE	gallons
12/46 oz. = 4.31	“	”
48/6 oz. = 2.25	“	”
24/12 oz. = 2.25	“	”

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 Brix	PS Per Gallon	Weight/Gallon in Air at 20°C (pounds)	Equivalent Gallons		
			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

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.)

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	“ ”
^a Based on an average yield of 6.0 SSE gallons/box. ^b Based 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 Season	Florida Ports			Total U.S.		
	Volume		Value	Volume		Value
	mil. SSE gal.	thou. MT 65°	mil. \$	mil. SSE gal.	thou. MT 65°	mil. \$
1983-84	308.0	221.2	295.6	501.5	360.1	491.4
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						

SOURCE: U.S. Department of Commerce.

U.S. Citrus-Juice Exports

Oct-Sep Season	Orange Juice		Grapefruit Juice		Citrus Juice, NSPF ^a	
	Volume	Value	Volume	Value	Volume	Value
	mil. SSE gal.	mil. \$	mil. SSE gal.	mil. \$	mil. SSE gal.	mil. \$
1983-84	77.0	129.8	15.0	23.6	18.8	19.6
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						

^aIncludes lemon juice.

SOURCE: U.S. Department of Commerce.

U.S. Imports of Fresh Citrus

Season ^a	Oranges		Grapefruit		Mandarins and Tangerines	
	Volume	Value	Volume	Value	Volume	Value
	mil. lbs.	mil. \$	mil. lbs.	mil. \$	mil. lbs.	mil. \$
1983-84	36.31	6.35	2.81	.24	40.78	4.51
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	96.39	40.76	12.62	.91	207.49	97.13
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						

^aAugust 1 through July 31.

SOURCE: U.S. Department of Commerce.

U.S. Exports of Fresh Citrus

Season ^a	Oranges		Grapefruit		Tangerines	
	Volume	Value	Volume	Value	Volume	Value
	mil. lbs.	mil. \$	mil. lbs.	mil. \$	mil. lbs.	mil. \$
1983-84	887.5	213.4	582.6	98.7	24.6	5.7
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						

^aAugust 1 through July 31.

SOURCE: U.S. Department of Commerce.

Florida and Imported FCOJ Prices^a

Oct-Sept Season	Florida ^b		Brazil		Mexico		Other		Imported Average	
	MT ^c	PS ^d	MT ^c	PS ^d	MT ^c	PS ^d	MT ^c	PS ^d	MT ^c	PS ^d
----- dollars -----										
1989-90	2,764	1.93	1,788	1.25	2,054	1.43	1,988	1.39	1,820	1.27
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	1,558	1.09	907	.63	1,361	.95	1,733	1.21	1,073	.75

^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

Year	FCOJ			NFC	
	\$/SSE gal.	\$/ liter	\$/ PS	\$/SSE gal.	\$/ liter
TARIFF ACT OF 1930					
1930-1947	70.00		68.03	70.00	
GATT – GENEVA SWITZERLAND					
1948-1971	35.00		34.01	35.00	
GATT – KENNEDY ROUND					
1972-1988	35.00		34.01	20.00	
1989-1994*	35.02	9.25	34.04	20.07	5.3
GATT – URUGUAY ROUND					
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 -----				
1983-84	104.7	18.4	101.3	224.3
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				

^aMay not add to total due to rounding.

^bAdjusted.

SOURCE: FCPA.

Florida FCOJ Inventories, Pack and Movement

Oct-Sep Season	Beginning Inventory	Pack		Movement ^a	Ending Inventory ^b
		From Fruit	Other		
----- million gallons 42°Brix -----					
1983-84	70.91	121.22	100.34	233.38	59.08
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 ^c
1997-98	105.45 ^c	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				

^aIncludes futures contract.

^bMay not calculate due to rounding deliveries.

^cReporting definition change.

^dAdjusted.

SOURCE: FCPA.

Florida COJ Inventories, Pack and Movement

Oct-Sep Season	Beginning Inventory	Pack		Movement	Ending Inventory ^a
		From Fruit	From Concen- trate		
----- million SSE gallons -----					
1983-84	17.52	92.81	181.01	264.99	26.35
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				

^aMay not calculate due to rounding.

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

SOURCE: FCPA.

Florida CSSOJ Inventories, Pack and Movement

Oct-Sep Season	Beginning Inventory	Pack		Movement	Ending Inventory ^a
		From Fruit	From Concen- trate		
----- 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 ^c	1.01				

^aMay not calculate due to rounding.

^bAdjusted.

^cCSSOJ no longer reported.

SOURCE: FCPA, FDOC.

Florida FCGJ Inventories, Pack and Movement

Oct-Sep Season	Beginning Inventory	Pack ^a	Movement		Ending Inventory ^b
			Retail and Institutional	Bulk	
----- million 40° Brix gallons -----					
1983-84	8.55	20.33	3.88	17.24	7.77
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 ^c	30.47	3.30	25.57	8.94
1987-88	8.96 ^c	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 ^c	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 ^c	20.41	.68	22.75	15.65
2003-04	15.65				

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

^bMay not calculate due to rounding.

^cAdjusted.

^dIncludes definitional adjustment.

SOURCE: FCPA.

Florida CGJ Inventories, Pack and Movement

Oct-Sep Season	Beginning Inventory	Pack		Movement	Ending Inventory ^a
		From Fruit	From Concen- trate		
----- million SSE gallons -----					
1983-84	1.36	6.23	21.41	27.34	1.67
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				

^aMay not calculate due to rounding.

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

SOURCE: FCPA.

Florida CSSGJ Inventories, Pack and Movement

Oct-Sep Season	Beginning Inventory	Pack		Movement	Ending Inventory ^a
		From Fruit	From Concen- trate		
----- million SSE gallons -----					
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.

SOURCE: FCPA.

Florida Orange On-Tree Earnings Per Box

Season	Early & Midseason		Valencia		Total	
	Fresh	Proc.	Fresh	Proc.	Fresh	Proc.
----- dollars per 90-lb. box-----						
1983-84	6.80	4.96	9.50	6.55	7.75	5.61
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 ^a	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	5.85	2.61	5.30	3.91	5.69	3.20

^aPreliminary.

SOURCE: FASS.

Florida Grapefruit On-Tree Earnings Per Box

Season	White		Colored		Total	
	Fresh	Proc.	Fresh	Proc.	Fresh	Proc.
----- dollars per 85-lb. box-----						
1983-84	2.95	1.65	5.25	1.57	4.20	1.70
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 ^a	6.53	.87	4.30	.29	4.81	.59
2001-02 ^a	6.54	.91	4.92	.17	5.25	.56
2002-03 ^a	7.44	.19	5.06	-.68	5.55	-.19

^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
----- thousand dollars -----									
1989-90	684,226	7,889	201,756	25,981	15,046	1,179	13,634	2,592	952,303
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 ^a	797,602	3,395	107,653	51,554	5,307	36	929	327	966,803
2002-03 ^a	674,073	3,059	82,189	46,936	7,599	^b	^b	2,061	815,917

^aPreliminary. ^bNo longer reported.

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
<u>1994-95</u>			
Priced Boxes	30,344,464	18,553,014	48,897,478
\$/PS Average	.77917	1.04146	.88380
\$/Box Average	4.55126	6.60332	5.32987
<u>1995-96</u>			
Priced Boxes	34,206,110	15,437,619	49,643,729
\$/PS Average	.93536	1.34341	1.07320
\$/Box Average	5.47869	8.89471	6.54096
<u>1996-97</u>			
Priced Boxes	42,787,042	13,503,135	56,290,177
\$/PS Average	.90988	.91915	.91226
\$/Box Average	5.50157	6.07658	5.63950
<u>1997-98</u>			
Priced Boxes	36,036,571	23,170,962	59,207,533
\$/PS Average	.68680	1.12584	.87187
\$/Box Average	4.18520	7.77519	5.59015
<u>1998-99</u>			
Priced Boxes	30,459,473	8,793,742	39,253,215
\$/PS Average	1.05238	1.11576	1.06780
\$/Box Average	6.68851	7.90036	6.96000
<u>1999-00</u>			
Priced Boxes	33,041,166	16,102,486	49,143,652
\$/PS Average	.854363	.997951	.905359
\$/Box Average	5.196875	6.860122	5.741857
<u>2000-01</u>			
Priced Boxes	24,417,244	11,550,205	35,967,449
\$/PS Average	.695792	.899491	.764827
\$/Box Average	4.357134	6.104480	4.918258
<u>2001-02</u>			
Priced Boxes	22,967,205	17,526,601	40,493,806
\$/PS Average	.748566	.942557	.836374
\$/Box Average	4.565481	6.229543	5.285723
<u>2002-03</u>			
Priced Boxes	23,036,107	14,998,208	38,034,315
\$/PS Average	.873196	1.031572	.937849
\$/Box Average	5.128478	6.412195	5.634950

^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
<u>1994-95</u>			
Priced Boxes	6,724,134	4,183,275	10,907,409
\$/PS Average	.64698	.22132	.48468
\$/Box Average	2.89821	.97534	2.15770
<u>1995-96</u>			
Priced Boxes	6,766,641	2,509,094	9,275,735
\$/PS Average	.70106	.27765	.57877
\$/Box Average	3.08381	1.23914	2.55594
<u>1996-97</u>			
Priced Boxes	5,712,100	2,921,720	8,633,820
\$/PS Average	.35791	.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>			
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>			
Priced Boxes	8,251,541	3,732,761	11,984,302
\$/PS Average	.669177	.484440	.608396
\$/Box Average	3.160538	2.480057	2.948588
<u>2001-02</u>			
Priced Boxes	8,286,298	2,813,133	11,099,431
\$/PS Average	.719602	.272997	.601665
\$/Box Average	3.324959	1.333261	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

SOURCE: FCPA.

ACNielsen Retail OJ Sales, U.S.^{a,b}

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Dec- Nov Season	FCOJ			R-T-S OJ (except canned)			Canned OJ			Total OJ		
	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
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.

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

Oct-Sept Season	Frozen			Refrigerated - NFC			Refrigerated - Recon			Total OJ ^a		
	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.
1991-92	290.1	897.9	3.10	140.6	735.5	5.23	305.7	1,170.1	3.83	749.9	2,874.4	3.83
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	328.8	3.28	335.0	1,771.1	5.29	323.0	1,256.5	3.89	766.7	3,402.1	4.44
2002-03	82.0	281.0	3.43	341.8	1,804.2	5.28	294.6	1,154.3	3.92	725.7	3,279.7	4.52
2003-04												

^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 Season	Frozen			Refrigerated - NFC			Refrigerated - Recon			Total OJ		
	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
1997-98	187.6	541.0	2.88	260.3	1,249.4	4.80	407.2	1,416.2	3.48	864.5	3,254.5	3.76
1998-99	165.0	517.2	3.13	287.1	1,508.7	5.25	391.3	1,500.6	3.84	852.8	3,576.4	4.19
1999-00	149.3	479.7	3.21	311.3	1,671.6	5.37	403.4	1,583.0	3.92	872.4	3,780.0	4.33
2000-01	135.5	429.5	3.17	346.3	1,835.2	5.30	398.8	1,578.8	3.96	888.6	3,886.4	4.37
2001-02	112.8	363.5	3.22	363.2	1,906.9	5.25	375.8	1,458.3	3.88	861.1	3,777.9	4.39
2002-03	95.6	319.3	3.34	379.8	1,986.5	5.23	354.2	1,372.2	3.87	838.2	3,723.1	4.44
2003-04												

^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 Season	Frozen			R-T-S - NFC			R-T-S - Recon			Total GJ		
	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	21.1	104.2	4.93	31.8 ^b	128.4 ^b	4.04 ^b	57.4	246.0	4.29
64 1998-99	4.3	12.9	3.01	23.0	125.8	5.48	32.3 ^b	132.5 ^b	4.10 ^b	59.5	271.2	4.55
1999-00	3.0	10.0	3.29	22.2	125.0	5.64	26.5 ^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	234.7	5.08
2001-02	2.4	8.1	3.35	18.8	104.1	5.53	18.6	86.6	4.64	39.9	198.8	4.98
2002-03	1.9	6.5	3.51	18.0	96.3	5.37	17.2	79.8	4.64	37.0	182.7	4.94
2003-04												

^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 (except canned)			Canned GJ			Total GJ		
	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
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.

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

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Oct-Sept Season	Frozen			Carton/Plastic/Glass			Canned/Aseptic			Total GJ		
	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.
1991-92	6.7	23.0	3.44	26.8	135.1	5.04	17.3	63.8	3.69	50.9	222.3	4.37
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	146.9	5.45	5.7	25.9	4.54	34.8	180.2	5.18
2002-03	1.6	5.9	3.63	25.2	135.1	5.35	5.1	23.1	4.51	32.0	164.2	5.13
2003-04												

^aNumbers may not calculate due to rounding.

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

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

Oct-Sept Season	R-T-S - NFC			R-T-S - Recon			Total GJ			GJ Cocktail		
	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	28.1 ^a	115.7 ^a	4.11 ^a	53.0	230.4	4.35	21.2	107.6	5.08
1998-99	22.1	120.4	5.46	28.2 ^a	119.1 ^a	4.22 ^a	54.3	251.7	4.64	21.3	107.8	5.06
1999-00	20.7	118.2	5.70	23.3 ^a	110.7 ^a	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	180.2	5.18	12.4	63.2	5.11
2002-03	17.1	92.4	5.39	13.2	65.8	4.97	32.0	164.2	5.13	10.4	54.4	5.23
2003-04												

^aIncludes unidentified GJ.

U.S. Per Capita Beverage Consumption

Year	Milk	Bottled Water	Soft Drinks	Selected Fruit Juices				
				OJ	GJ	Apple	Grape	TOTAL ^a
----- gallons -----								
1970	31.3	NA	24.3	3.8	.7	.5	.2	5.7
1975	29.5	NA	28.2	5.2	.6	.6	.2	6.9
1980	27.6	2.4	35.1	4.7	.7	1.1	.3	7.4
1985	26.7	4.5	35.7	5.0	.5	1.5	.2	7.8
1990	25.7	8.0	46.2	4.6	.5	1.7	.3	8.0
1991	25.5	8.0	47.8	4.3	.4	1.5	.4	7.4
1992	25.1	9.7	48.2	5.2	.5	1.6	.4	8.5
1993	24.4	10.3	48.6	5.1	.6	1.8	.4	8.6
1994	24.3	11.3	48.4	4.7	.6	1.8	.3	8.1
1995	23.9	12.1	47.4	5.3	.6	1.6	.5	8.6
1996	23.8	13.0	46.6	5.2	.6	1.7	.4	8.6
1997	23.4	13.9	46.8	5.8	.6	1.5	.4	9.0
1998	23.0	15.0	47.9	5.5	.6	1.8	.3	8.8
1999	22.9	16.4	49.7	5.0	.5	1.8	.4	8.5
2000	22.5	17.4	49.2	5.3	.5	1.8	.3	8.7
2001	22.0	19.0	49.0	5.1	.5	1.8	.3	8.3
2002								

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

SOURCE: USDA-ERS.

Nutrition Values of Citrus

ITEM	REFER- ENCE VALUE	JUICE		FRESH		
		ORANGE	GRAPEFRUIT	ORANGES	GRAPEFRUIT	TANGERINES
SERVING SIZE		1 cup / 8-oz.		154g / 1 med. fruit	154g / ½ med. fruit	109g / 1 med. fruit
		----- Amount Per Serving (% Daily Value) -----				
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 (8.5%)	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	1	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	200 (4%)	0 (0%) 600 (12%) ¹	100 (2%)	750 (15%) ¹	750 (15%)
Vitamin C	60 mg	72 (120%)	48 (80%)	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 (6/20/02). ¹Colored 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 one 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.

SOURCE: *Federal Register*.

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

SOURCE: *Federal Register*.

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

SOURCE: *Federal Register*.

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

SOURCE: *Federal Register*.

Florida Orange Standards

Minimum Total Solids (%)				Solids to Acid Minimum Ratio				Minimum Total Solids (%)				Solids to Acid Minimum Ratio			
^a 8.0 to (not incl)	8.1	—	10.50	to	1			9.6 to (not incl)	9.7	—	9.70	to	1		
8.1 to	8.2	—	10.45	to	1			9.7 to	9.8	—	9.65	to	1		
8.2 to	8.3	—	10.40	to	1			9.8 to	9.9	—	9.60	to	1		
8.3 to	8.4	—	10.35	to	1			9.9 to	10.0	—	9.55	to	1		
8.4 to	8.5	—	10.30	to	1			10.0 to	10.1	—	9.50	to	1		
^b 8.5 to	8.6	—	10.25	to	1			10.1 to	10.2	—	9.45	to	1		
8.6 to	8.7	—	10.20	to	1			10.2 to	10.3	—	9.40	to	1		
^c 8.7 to	8.8	—	10.15	to	1			10.3 to	10.4	—	9.35	to	1		
8.8 to	8.9	—	10.10	to	1			10.4 to	10.5	—	9.30	to	1		
8.9 to	9.0	—	10.05	to	1			10.5 to	10.6	—	9.25	to	1		
^d 9.0 to	9.1	—	10.00	to	1			10.6 to	10.7	—	9.20	to	1		
9.1 to	9.2	—	9.95	to	1			10.7 to	10.8	—	9.15	to	1		
9.2 to	9.3	—	9.90	to	1			10.8 to	10.9	—	9.10	to	1		
9.3 to	9.4	—	9.85	to	1			10.9 to	11.0	—	9.05	to	1		
9.4 to	9.5	—	9.80	to	1			11.0 and above		—	9.00	to	1 ^e		
9.5 to	9.6	—	9.75	to	1										

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

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

^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.

^dMinimum solids for oranges August 1 thru October 31.

^e11.00 and higher solids, minimum 9.00 to 1 ratio. Juice requirements 4½ gallons per box, minimum acid 0.40.

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.

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

SOURCE: FDACS.

Florida Grapefruit Standards

Minimum Total Solids (%)				Solids to Acid Minimum Ratio		Minimum Total Solids (%)				Solids to Acid Minimum Ratio	
^a 6.5	,					10.4 to (not incl)	10.5	—	6.40	to 1	
^b 7.0	/))))	10.5 to	“	10.6	—	6.375	to 1
^c 7.5	*					10.6 to	“	10.7	—	6.35	to 1
^d 8.0	-					10.7 to	“	10.8	—	6.325	to 1
8.1 to (not incl)		9.1	—	7.00	to 1	10.8 to	“	10.9	—	6.30	to 1
9.1 to	“	9.2	—	6.95	to 1	10.9 to	“	11.0	—	6.275	to 1
9.2 to	“	9.3	—	6.90	to 1	11.0 to	“	11.1	—	6.25	to 1
9.3 to	“	9.4	—	6.85	to 1	11.1 to	“	11.2	—	6.225	to 1
9.4 to	“	9.5	—	6.80	to 1	11.2 to	“	11.3	—	6.20	to 1
9.5 to	“	9.6	—	6.75	to 1	11.3 to	“	11.4	—	6.175	to 1
9.6 to	“	9.7	—	6.70	to 1	11.4 to	“	11.5	—	6.15	to 1
9.7 to	“	9.8	—	6.65	to 1	11.5 to	“	11.6	—	6.125	to 1
9.8 to	“	9.9	—	6.60	to 1	11.6 to	“	11.7	—	6.10	to 1
9.9 to	“	10.0	—	6.55	to 1	11.7 to	“	11.8	—	6.075	to 1
10.0 to	“	10.1	—	6.50	to 1 ^g	11.8 to	“	11.9	—	6.05	to 1
10.1 to	“	10.2	—	6.475	to 1	11.9 to	“	12.0	—	6.025	to 1
10.2 to	“	10.3	—	6.45	to 1	12.0 and above		—	6.00	to 1 ^h	
10.3 to	“	10.4	—	6.425	to 1						

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

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

^c 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 Minimum 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.

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

^g 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.

NOTE 1: Until Dec. 1 of each year, all grapefruit for processing must meet fresh fruit requirements unless otherwise noted. 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*.

SOURCE: FDACS.

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 centimeters 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

SOURCE: FDACS.

Florida Temple Orange Standards

Minimum Total Solids (%)				Solids to Acid Minimum Ratio	
^a 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 ^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	and above			—	7.5 to 1 ^c

^aMinimum solids for all Temples.

^b8.50 to 1 minimum ratio for fresh.

^c7.50 to 1 minimum ratio for processing.

NOTE 1: Until December 1 of each year, all Temples 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 tables.

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

SOURCE: FDACS.

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

Minimum Total Solids (%)				Solids to Acid Minimum Ratio	
^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	and 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.

^bMinimum solids November 15 thru July 31.

NOTE 1: Until December 1 of each year, all tangerines 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 tables.

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

SOURCE: FDACS.

Florida Tangerine Standards^a

(August 1 through November 14)

Minimum Total Solids (%)			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	and 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.

^bMinimum solids August 1 thru November 14.

NOTE 1: Until December 1 of each year, all tangerines 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 tables.

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

SOURCE: FDACS.

Florida Tangelo Standards^a

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	10.1	to	(not incl)	10.2	—
8.1	to	“	8.2	—	10.45	to	10.2	to	“	10.3	—
8.2	to	“	8.3	—	10.40	to	10.3	to	“	10.4	—
8.3	to	“	8.4	—	10.35	to	10.4	to	“	10.5	—
8.4	to	“	8.5	—	10.30	to	10.5	to	“	10.6	—
^c 8.5	to	“	8.6	—	10.25	to	10.6	to	“	10.7	—
8.6	to	“	8.7	—	10.20	to	10.7	to	“	10.8	—
8.7	to	“	8.8	—	10.15	to	10.8	to	“	10.9	—
8.8	to	“	8.9	—	10.10	to	10.9	to	“	11.0	—
8.9	to	“	9.0	—	10.05	to	11.0	to	“	11.1	—
^d 9.0	to	“	9.1	—	10.00	to	11.1	to	“	11.2	—
9.1	to	“	9.2	—	9.95	to	11.2	to	“	11.3	—
9.2	to	“	9.3	—	9.90	to	11.3	to	“	11.4	—
9.3	to	“	9.4	—	9.85	to	11.4	to	“	11.5	—
9.4	to	“	9.5	—	9.80	to	11.5	to	“	11.6	—
^e 9.5	to	“	9.6	—	9.75	to	11.6	to	“	11.7	—
9.6	to	“	9.7	—	9.70	to	11.7	to	“	11.8	—
9.7	to	“	9.8	—	9.65	to	11.8	to	“	11.9	—
9.8	to	“	9.9	—	9.60	to	^f 11.9 and above		—	8.55	to 1
9.9	to	“	10.0	—	9.55	to	^g See Below		—	8.00	to 1
10.0	to	“	10.1	—	9.50	to					

^aMinimum acid 0.40 Tangelo.

^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.

^dMinimum 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.

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

^gFlat 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 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.

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

SOURCE: FDACS.

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
