



CITRUS MATURITY TEST RESULTS AND FRUIT SIZE

DECEMBER FORECAST

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December 9, 2015

Florida All Orange Production Down 7 Percent
Florida Non-Valencia Orange Production Down 3 Percent
Florida Valencia Orange Production Down 11 Percent
Florida All Grapefruit Production Down 6 Percent
Florida All Tangerine Production Down 3 Percent
Florida Tangelo Production Unchanged
FCOJ Yield Now 1.56 Gallons per Box (42° Brix)

2015-2016 SEASON FORECAST DATES	
January 12, 2016	April 12, 2016
February 9, 2016	May 10, 2016
March 9, 2016	June 10, 2016
July 12, 2016	

Citrus Production by Type and State – United States

Crop and State	Production ¹			2015-2016 Forecasted Production ¹	
	2012-2013 (1,000 boxes)	2013-2014 (1,000 boxes)	2014-2015 (1,000 boxes)	November (1,000 boxes)	December (1,000 boxes)
Non-Valencia Oranges ²					
Florida	67,100	53,300	47,400	37,000	36,000
California ³	42,500	38,700	39,500	43,000	43,000
Texas ³	1,504	1,401	1,170	1,317	1,317
United States	111,104	93,401	88,070	81,317	80,317
Valencia Oranges					
Florida	66,500	51,400	49,400	37,000	33,000
California ³	12,000	10,800	9,500	9,500	9,500
Texas ³	289	376	282	366	366
United States	78,789	62,576	59,182	46,866	42,866
All Oranges					
Florida	133,600	104,700	96,800	74,000	69,000
California ³	54,500	49,500	49,000	52,500	52,500
Texas ³	1,793	1,777	1,452	1,683	1,683
United States	189,893	155,977	147,252	128,183	123,183
Grapefruit					
Florida-All	18,350	15,650	12,900	12,200	11,500
White	5,250	4,150	3,250	2,700	2,500
Red	13,100	11,500	9,650	9,500	9,000
California ³	4,500	3,850	3,800	3,500	3,500
Texas ³	6,100	5,700	4,250	4,000	4,000
United States	28,950	25,200	20,950	19,700	19,000
Lemons ³					
California	21,000	18,800	20,500	19,500	19,500
Arizona	1,800	1,800	2,000	1,600	1,600
United States	22,800	20,600	22,500	21,100	21,100
Tangelos					
Florida	1,000	880	680	400	400
Tangerines					
Florida-All	3,280	2,900	2,270	1,750	1,700
Early ⁴	1,910	1,750	1,445	1,000	1,000
Honey	1,370	1,150	825	750	700
California ^{3,5}	13,000	14,700	18,200	19,000	19,000
Arizona ^{5,6}	160	150	170	(NA)	(NA)
United States	16,440	17,750	20,640	20,750	20,700

NA Not available.

¹ Net pounds per box: oranges in California-80, Florida-90, Texas-85; grapefruit in California-80, Florida-85, Texas-80; lemons-80, tangelos-90; tangerines and mandarins in Arizona and California-80, Florida-95.

² Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas. Includes small quantities of Temples in Florida.

³ Estimates carried forward from November.

⁴ Fallglo and Sunburst varieties.

⁵ Includes tangelos and tangors.

⁶ Estimates discontinued in 2015-2016.

All Oranges 69.0 Million Boxes

The 2015-2016 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 69.0 million boxes, down 5.0 million boxes from November. If realized, this forecast will be 29 percent less than last season's production and the least utilized since the 58.3 million box crop (including Temples) of the 1963-1964 season. The forecast consists of 36.0 million boxes of the non-Valencia oranges (early, midseason, Navel, and Temple varieties) and 33.0 million boxes of the Valencia oranges. Regression data used are from the 2006-2007 through 2014-2015 seasons. For those previous 9 seasons, the December forecast has deviated from final production by an average of 6 percent, with 8 seasons above and 1 below, and with differences ranging from 1 percent below to 16 percent above. All references to "average", "minimum", and "maximum" refer to the previous 9 seasons unless noted.

Non-Valencia Oranges 36.0 Million Boxes

The forecast of non-Valencia production is lowered 1.0 million boxes to 36.0 million boxes. Current fruit size continues near the minimum and is projected to be near the minimum until harvest. Current droppage continues above the maximum this season. Final droppage is projected at 30 percent, well above the record set in the 2013-2014 season. The Navel forecast, included in the non-Valencia forecast, is unchanged at 1.1 million boxes. If realized, this utilization will be the lowest in the series which began in 1979-1980. Final Navel size is below average and final droppage, at 24 percent, is well above average.

Valencia Oranges 33.0 Million Boxes

The forecast of Valencia production is decreased 4.0 million boxes to 33.0 million boxes. Current fruit size is below average and is projected to remain below average until harvest. Current droppage remains above the maximum. Projected final droppage at 36 percent would surpass the standing record set 55 years ago.

All Grapefruit 11.5 Million Boxes

The forecast of all grapefruit production is lowered 700,000 boxes to 11.5 million boxes with changes in both fruit types. The white grapefruit forecast is lowered 200,000 boxes to 2.5 million boxes. The red grapefruit forecast is lowered 500,000 boxes to 9.0 million boxes. Current fruit size of white grapefruit is slightly below the minimum and droppage is well above the maximum. Current fruit size of red grapefruit is slightly above the minimum while droppage is slightly above the maximum.

All Tangerines 1.70 Million Boxes

The forecast of all tangerine production is lowered 50,000 to 1.70 million boxes. The early tangerine forecast (Fallglo and Sunburst varieties) remains at 1.0 million boxes with adjustments in the varieties. A reduction of 20,000 boxes in the forecast of the Fallglo variety, now 280,000 boxes, is offset by an increase in the Sunburst forecast to 720,000 boxes. The forecast of the later maturing Honey variety is lowered 50,000 boxes and is now 700,000 boxes. Projected Honey fruit size is slightly above the minimum, requiring 326 pieces to fill a 1-3/5 bushel box. Honey tangerine current droppage is slightly above the maximum and final droppage is projected to be 48 percent.

Tangelos 400 Thousand Boxes

The forecast of tangelo production is unchanged at 400,000 boxes. Tangelo final fruit size is below average requiring 298 pieces of fruit to fill a 1-3/5 bushel box. Final droppage is above the maximum at 25 percent.

FCOJ Yield 1.56 Gallons per Box

The projection for frozen concentrated orange juice (FCOJ) is lowered to 1.56 gallons per box of 42° Brix concentrate. Last season's final yield for all oranges was 1.502203 gallons per box, as reported by the Florida Department of Citrus. Yield projections for the early-midseason and late components will be published in January. All projections of yield assume the processing relationships this season will be similar to those of the past several seasons.

Maturity

Regular bloom fruit samples were collected on November 24-25, 2015, from groves on established routes in Florida's five major citrus producing areas and tested November 30 to December 2, 2015. All comparisons are made to December 1, 2014. Acid levels are lower on all orange varieties and solids are higher resulting in higher ratios. Acid levels and solids (Brix) are lower on white and red grapefruit with higher ratios. Unfinished juice per box is higher only on late oranges and white grapefruit. Solids per box is higher for early and late oranges, and lower on midseason oranges and grapefruit.

All Indian River comparisons are made to fruit from the other areas for this test period. Indian River fruit has higher acid levels and solids (Brix) on all varieties with lower ratios for the midseason and late oranges. Unfinished juice per box is lower on all varieties. Solids per box is higher only on early oranges and white grapefruit.

Forecast Components, by Variety — Florida: December 2015

[Survey data is considered final in December for Navels, January for early-midseason oranges, February for grapefruit, and April for Valencias]

Type	Bearing trees (1,000 trees)	Fruit per tree (number)	Droppage (percent)	Fruit per box (number)
ORANGES				
Early-midseason	21,650	744	30	293
Navel.....	944	229	24	141
Valencia	30,249	520	36	231
GRAPEFRUIT				
White.....	1,087	449	36	123
Red	3,236	439	30	124

Citrus Unadjusted Maturity Tests — Florida: 2014-2015 and 2015-2016

[Averages of regular bloom fruit from sample groves. Juice and solids per box are unadjusted and not comparable to juice processing plant test results. All samples were run through an FMC 091 machine using mechanical pressure only. This machine utilizes a .040 short strainer and standard 5/8 inch orifice tube. The beam settings are also identical to past tests and no restrictors are used]

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Early (119-119)										
Sep 1.....	1.39	1.26	9.11	9.14	6.68	7.33	43.74	44.84	3.98	4.09
Oct 1.....	1.01	0.91	9.04	9.43	9.10	10.51	49.00	52.37	4.43	4.93
Nov 1.....	0.88	0.75	9.68	10.30	11.28	13.88	51.53	50.42	4.99	5.19
Dec 1.....	0.79	0.65	10.31	10.68	13.15	16.59	51.61	51.20	5.32	5.47
Midseason (55-55)										
Sep 1.....	1.53	1.42	9.10	9.08	6.05	6.51	44.18	45.82	4.02	4.16
Oct 1.....	1.14	1.06	9.09	9.21	8.08	8.93	49.77	49.59	4.52	4.57
Nov 1.....	1.01	0.89	9.80	10.37	9.96	11.89	52.25	51.35	5.50	5.33
Dec 1.....	0.95	0.75	10.75	10.89	11.68	14.92	53.31	52.26	5.73	5.69
Late (150-150)										
Sep 1.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Oct 1.....	2.08	1.91	8.69	8.57	4.23	4.55	45.17	48.46	3.92	4.15
Nov 1.....	1.76	1.60	9.10	9.35	5.22	5.91	50.35	52.44	4.58	4.90
Dec 1.....	1.48	1.31	9.70	9.75	6.62	7.52	53.83	54.53	5.22	5.31
GRAPEFRUIT										
White Seedless (50-49)										
Sep 1.....	1.64	1.65	9.97	9.75	6.11	5.91	34.69	34.89	3.46	3.40
Oct 1.....	1.47	1.48	9.76	9.49	6.68	6.45	38.25	38.94	3.73	3.69
Nov 1.....	1.38	1.36	9.72	9.79	7.11	7.23	42.77	41.39	4.16	4.05
Dec 1.....	1.34	1.25	9.76	9.50	7.33	7.68	44.01	44.44	4.30	4.23
Red Seedless (45-48)										
Sep 1.....	1.64	1.58	9.91	9.76	6.08	6.19	34.89	35.24	3.46	3.44
Oct 1.....	1.44	1.37	9.60	9.58	6.69	7.02	38.96	42.44	3.74	4.06
Nov 1.....	1.42	1.29	9.93	9.96	7.04	7.75	42.94	42.48	4.26	4.23
Dec 1.....	1.33	1.19	10.24	9.91	7.72	8.37	44.83	44.63	4.59	4.42

NA Not available.

Citrus Maturity Test Averages, by Areas — Florida: December 1, 2014-2015 and 2015-2016

Fruit type (number of groves)	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016	2014-2015	2015-2016
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Early										
Indian River (9-9).....	0.80	0.66	10.71	11.21	13.50	17.35	50.82	50.48	5.44	5.66
Other Areas (110-110).....	0.79	0.65	10.28	10.64	13.12	16.53	51.68	51.26	5.31	5.45
Midseason										
Indian River (11-8).....	0.93	0.83	10.99	11.14	12.20	13.91	51.92	49.45	5.70	5.50
Other Areas (44-47).....	0.95	0.73	10.70	10.85	11.55	15.09	53.66	52.74	5.73	5.72
Late										
Indian River (29-29).....	1.51	1.37	9.98	10.07	6.65	7.44	53.77	52.40	5.36	5.28
Other Areas (121-121).....	1.47	1.30	9.64	9.67	6.61	7.54	53.85	55.04	5.19	5.32
GRAPEFRUIT										
White Seedless										
Indian River (38-38).....	1.37	1.28	9.95	9.69	7.32	7.69	44.11	44.44	4.39	4.31
Other Areas (12-11).....	1.25	1.17	9.18	8.85	7.36	7.66	43.70	44.46	4.01	3.94
Red Seedless										
Indian River (39-40).....	1.35	1.19	10.27	9.97	7.66	8.39	44.83	44.33	4.60	4.42
Other Areas (6-8).....	1.25	1.16	10.07	9.59	8.06	8.27	44.87	46.12	4.51	4.43

Citrus Size Frequency Measurement Distributions, by Type — Florida: November

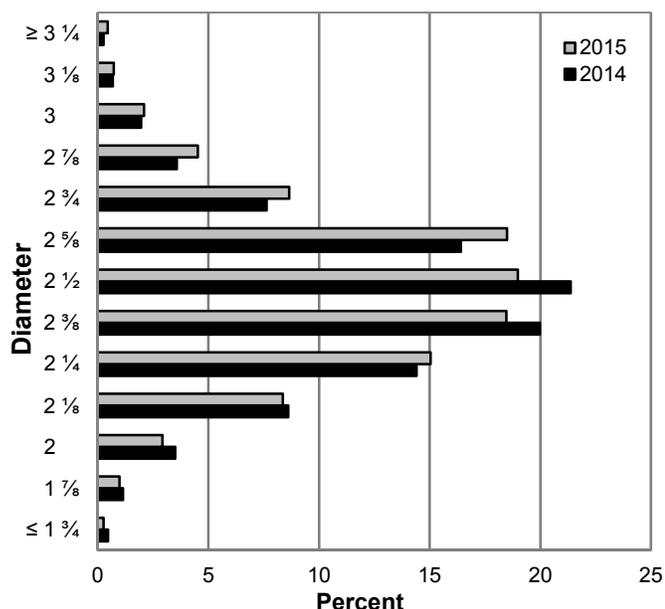
Type and number of fruit per 4/5 bushel containers	2013	2014	2015	Type and number of fruit per 4/5 bushel containers	(percent)	(percent)	(percent)
NON-VALENCIA ORANGES ¹	(percent)	(percent)	(percent)	WHITE GRAPEFRUIT ²	(percent)	(percent)	(percent)
64 or less	0.7	0.5	0.8	32 or less	2.3	2.2	0.9
80	4.0	4.0	4.4	36	6.7	7.6	5.1
100	17.7	15.4	18.3	40	8.2	10.5	7.8
125	29.6	32.0	30.5	48	13.6	15.0	13.0
163 or more	48.0	48.1	46.0	56	10.7	13.9	14.1
				63 or more	58.5	50.8	59.1
NAVEL ORANGES				RED GRAPEFRUIT			
64 or less	34.8	40.7	45.0	32 or less	1.4	2.1	1.2
80	29.1	30.5	26.8	36	4.4	6.1	3.7
100	20.4	19.5	17.5	40	8.0	10.8	7.9
125	10.0	6.9	7.5	48	11.8	15.4	13.6
163 or more	5.7	2.4	3.2	56	12.1	14.5	13.3
				63 or more	62.3	51.1	60.3
VALENCIA ORANGES				HONEY TANGERINES			
64 or less	0.7	0.6	1.3	80 or less	1.8	3.8	2.4
80	5.6	5.9	8.8	100	11.3	13.7	12.7
100	20.6	22.9	27.0	120	19.9	20.1	21.9
125	31.8	35.6	34.0	176	17.1	12.5	17.1
163 or more	41.3	35.0	28.9	210 or more	49.9	49.9	45.9
TANGELOS				SUNBURST TANGERINES			
80 or less	19.6	23.3	25.6	100 or less	11.3	10.6	22.1
100	20.6	26.5	22.3	120	16.3	15.9	20.3
120	20.9	18.3	20.6	176	14.2	15.4	19.7
156 or more	38.9	31.9	31.5	210 or more	58.2	58.1	37.9

¹ Excludes Navel and Temple varieties.

² Excludes seedy.

The charts below show the distribution of fruit sizes in 2015 compared to 2014. The diameter measurements shown are the minimum values of each eighth inch range, except for the smallest values.

Fruit Size Frequency Measurements, Non-Valencia Oranges ¹, by Diameter - Florida: November



¹ Excludes Navel and Temple varieties.

Fruit Size Frequency Measurements, Red Grapefruit, by Diameter - Florida: November

