



CITRUS MAY FORECAST MATURITY TEST RESULTS AND FRUIT SIZE

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Florida All Orange Production Down 5 Percent from April
Florida Non-Valencia Orange Production Down Slightly
Florida Valencia Orange Production Down 9 Percent
Florida All Grapefruit Production Down 7 Percent
Florida All Tangerine and Tangelo Production Up 5 Percent

FORECAST DATES - 2018-2019 SEASON	
June 11, 2019	July 11, 2019

Citrus Production by Type – States and United States

Crop and State	Production ¹		2018-2019 Forecasted Production ¹	
	2016-2017 (1,000 boxes)	2017-2018 (1,000 boxes)	April (1,000 boxes)	May (1,000 boxes)
Non-Valencia Oranges ²				
Florida	33,000	18,950	30,500	30,400
California ³	39,300	35,900	40,000	40,000
Texas ³	1,090	1,530	1,300	1,300
United States	73,390	56,380	71,800	71,700
Valencia Oranges				
Florida	35,850	26,100	46,000	42,000
California ³	9,000	9,500	9,000	9,000
Texas ³	280	350	575	575
United States	45,130	35,950	55,575	51,575
All Oranges				
Florida	68,850	45,050	76,500	72,400
California ³	48,300	45,400	49,000	49,000
Texas ³	1,370	1,880	1,875	1,875
United States	118,520	92,330	127,375	123,275
Grapefruit				
Florida-All	7,760	3,880	4,900	4,580
Red	6,280	3,180	4,100	3,800
White	1,480	700	800	780
California ³	4,400	4,000	4,000	4,000
Texas ³	4,800	4,800	6,300	6,300
United States	16,960	12,680	15,200	14,880
Lemons ³				
Arizona	1,550	1,000	1,300	1,300
California	20,500	21,200	20,000	20,000
United States	22,050	22,200	21,300	21,300
Tangerines and Tangelos				
Florida-All ⁴	1,620	750	950	1,000
Early ⁵	600	(NA)	(NA)	(NA)
Royal	210	(NA)	(NA)	(NA)
Honey	530	(NA)	(NA)	(NA)
Tangelos	280	(NA)	(NA)	(NA)
California ^{3 6}	23,800	19,200	22,000	22,000
United States	25,420	19,950	22,950	23,000

NA Not available.

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

² Navel and miscellaneous varieties in California. Early and midseason non-Valencia (including Navel) varieties in Florida and Texas.

³ Estimates carried forward from April forecast

⁴ In 2016-2017, includes Fallglo, Sunburst, Royal, and Honey tangerine varieties and tangelos. Beginning in 2017-2018, includes all certified varieties of tangerines and tangelos.

⁵ Fallglo and Sunburst varieties.

⁶ Includes tangelos and tangors in California.

All Oranges 72.4 Million Boxes

The 2018-2019 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 72.4 million boxes, down 5 percent from the April forecast. The total includes of 30.4 million boxes of non-Valencia oranges (early, midseason, and Navel varieties) and 42.0 million boxes of Valencia oranges.

Non-Valencia Oranges 30.4 Million Boxes

The forecast of non-Valencia production is finalized at 30.4 million boxes. Harvest is complete for the included varieties. The Navel forecast, included in the non-Valencia portion of the forecast, is 750,000 boxes, 2 percent of the non-Valencia total.

Valencia Oranges 42.0 Million Boxes

The forecast of Valencia production is lowered to 42.0 million boxes, down 9 percent from the April forecast. Weekly certifications in April averaged 3.46 million boxes. The Row Count survey conducted April 29-30, 2019 showed 62 percent of the Valencia rows are harvested. Estimated utilization to May 1, including an allocation for other use, is 26.4 million boxes. Processors were surveyed regarding fruit processed through April 30th and the estimated quantity remaining to be processed to the end of the season. Analysis of the Row Count Survey, estimated utilization to the first of the month, and the results of the processors report support reducing the Valencia orange forecast.

All Grapefruit 4.58 Million Boxes

The forecast of all grapefruit production is lowered 320,000 boxes to 4.58 million boxes. The white grapefruit forecast is reduced 20,000 boxes to 780,000 boxes. The red grapefruit forecast is lowered 300,000 boxes to and is now 3.80 million boxes. Estimated utilization to May 1, with an allocation for non-certified use, of white grapefruit is 770,000 boxes and of red grapefruit is 3.70 million boxes. The Row Count survey conducted April 29-30, 2019, indicated harvest is relatively complete for these varieties.

Tangerines and Tangelos 1.00 Million Boxes

The forecast for the tangerine and tangelo production is increased 50,000 boxes to 1.00 million boxes. If realized, this production level will be 33 percent more than last season's hurricane affected production of 750,000 boxes. This forecast number includes all certified tangerine and tangelo varieties. Estimated utilization to May 1, with an allocation for non-certified use is 989,000 boxes.

Reliability

To assist users in evaluating the reliability of the May 1 Florida production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the May 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of squared percentage deviations for the latest 20-year period is computed. The square root of the average becomes statistically the "Root Mean Square Error." Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

The "Root Mean Square Error" for the May 1 Florida all orange production forecast is 2.0 percent. If you exclude the three abnormal production seasons (three hurricane seasons), the "Root Mean Square Error" is 2.0 percent. This means chances are 2 out of 3 that the current all orange production forecast will not be above or below the final estimates by more than 2.0 percent, including or excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 3.5 percent. The results are the same when excluding abnormal seasons.

Changes between the May 1 Florida all orange forecast and the final estimates during the past 20 years have averaged 2.44 million boxes (2.47 million, excluding abnormal seasons), ranging from 0.10 million boxes to 5.6 million boxes including abnormal seasons, (0.50 to 5.6 million boxes excluding abnormal seasons). The May 1 forecast for all oranges has been below the final estimate 12 times, above 8 times, (below 11 times and above 6 times, excluding abnormal seasons). The difference does not imply that the May 1 forecasts this year are likely to understate or overstate final production.

Maturity

Regular bloom fruit samples were collected from groves on established routes April 29-30, 2019 in Florida's five major citrus producing areas and tested May 1, 2019. All comparisons are made to May 1, 2018. Acids are lower and solids (Brix) are higher, resulting in higher ratios. Unfinished juice per box is lower and solids per box are higher.

Fruit tested from the Indian River has higher acid and higher solids (Brix) than fruit from the other areas while ratios are lower. Unfinished juice per box is lower and solids per box are higher in fruit from the Indian River.

Unadjusted Maturity Tests — Florida: May 1, 2017-2018 and 2018-2019

[Averages of regular bloom fruit from sample groves. Juice and solids per box are unadjusted and not comparable to juice processing plant test results. Samples were run through an FMC 091B machine using pneumatic pressure. This machine utilizes a 0.025 short strainer and a 1.00 inch orifice tube for the 3 inch cup and a 1.25 inch orifice tube for the 4 inch and 5 inch cups]

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
Valencia Oranges (17-49)										
Oct 1	1.85	1.88	8.86	8.54	4.88	4.59	49.61	46.73	4.41	3.99
Nov 1	1.55	1.46	8.83	9.02	5.79	6.25	51.89	50.56	4.58	4.56
Dec 1	1.23	1.22	9.18	9.58	7.57	7.87	53.15	52.67	4.89	5.05
Jan 1	1.05	1.04	10.12	10.43	9.78	10.17	53.70	52.52	5.44	5.48
Feb 1	0.99	0.99	10.76	10.86	10.95	11.07	55.21	52.65	5.93	5.72
Mar 1	0.86	0.84	11.02	11.40	12.97	13.57	53.15	53.90	5.86	6.14
Apr 1	0.84	0.79	11.47	11.71	13.85	14.87	54.68	54.87	6.26	6.42
May 1	0.75	0.65	11.41	11.81	15.28	18.37	54.74	54.37	6.26	6.43

Unadjusted Maturity Test Averages, by Areas — Florida: May 1, 2017-2018 and 2018-2019

Fruit type (number of groves)	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019	2017-2018	2018-2019
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
Valencia Oranges										
Indian River (3-6)	(D)	0.71	(D)	12.42	(D)	17.47	(D)	52.73	(D)	6.51
Other Areas (13-43)	0.75	0.64	11.49	11.72	15.51	18.50	54.60	54.60	6.29	6.42

D Withheld to avoid disclosing data for individual operations.