

United States Department of Agriculture National Agricultural Statistics Service

MAY FORECAST

CITRUS

MATURITY TEST RESULTS AND FRUIT SIZE



Cooperating with the Florida Department of Agriculture and Consumer Services 2290 Lucien Way, Suite 300, Maitland, FL 32751-7057 (407) 648-6013 · (855) 271-9801 FAX · www.nass.usda.gov/fl

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Florida All Orange Production Up 7 percent
Florida Non-Valencia Orange Production Up Slightly
Florida Valencia Orange Production Up 13 percent
Florida All Grapefruit Production Up 1 Percent
Florida All Tangerine Production Up 1 Percent
Florida Tangelo Production Unchanged

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FORECAST DATES - 2015-2016 SEASON

Florida FCOJ Yield 1.41 Gallons per Box (42º Brix)

Citrus Production by Type and State – United States

Crop and State		Production ¹	2015-2016 Forecasted Production ¹			
Crop and State	2012-2013	2013-2014	2014-2015	April	May	
	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	
Non-Valencia Oranges ²						
Florida	67,100	53,300	47,400	36,000	36,100	
California ³	42,500	38,700	39,100	42,000	42,000	
Texas ³	1,504	1,401	1,170	1,350	1,350	
United States	111,104	93,401	87,670	79,350	79,450	
Valencia Oranges						
Florida	66,500	51,400	49,550	40,000	45,000	
California ³	12,000	10,800	9,500	10,500	10,500	
Texas ³	289	376	282	220	220	
United States	78,789	62,576	59,332	50,720	55,720	
All Oranges						
Florida	133,600	104,700	96,950	76,000	81,100	
California ³	54,500	49,500	48,600	52,500	52,500	
Texas ³	1,793	1,777	1,452	1,570	1,570	
United States	189,893	155,977	147,002	130,070	135,170	
Grapefruit						
Florida-All	18,350	15,650	12,900	10,700	10,850	
White	5,250	4,150	3,250	2,500	2,500	
Red	13,100	11,500	9,650	8,200	8,350	
California ³	4,500	3,850	4,300	3,900	3,900	
Texas ³	6,100	5,700	4,250	5,200	5,200	
United States	28,950	25,200	21,450	19,800	19,950	
Lemons ³						
California	21,000	18,800	20,600	21,000	21,000	
Arizona	1,800	1,800	2,000	1,500	1,500	
United States	22,800	20,600	22,600	22,500	22,500	
Tangelos						
Florida	1,000	880	665	390	390	
Tangerines						
Florida-All	3,280	2,900	2,265	1,400	1,420	
Early ⁴	1,910	1,750	1,445	800	800	
Honey	1,370	1,150	820	600	620	
California 35	13,000	14,700	18,500	22,000	22,000	
Arizona 56	160	150	170	(NA)	(NA)	
United States	16,440	17,750	20,935	23,400	23,420	

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. Small quantities of Temples in Florida.

³ Estimates carried forward from April forecast.

⁴ Fallglo and Sunburst varieties.

⁵ Includes tangelos and tangors.

⁶ Estimates discontinued in 2015-2016.

Regressions

Regression data used are from the 2006-2007 through 2014-2015 seasons. All references to "average", "minimum", and "maximum" refer to these 9 seasons unless noted.

All Oranges 81.1 Million Boxes

The 2015-2016 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 81.1 million boxes, up 7 percent from last month, but down 16 percent from last season's final production. If realized, this harvest will be the least since the 1963-1964 season's 54.9 million boxes (excluding Temples). The total comprises 36.1 million boxes of non-Valencia oranges (early, midseason, Navel, and Temple varieties) and 45.0 million boxes of Valencia oranges. For the previous 9 seasons, the May forecast has deviated from final production by an average of 2 percent, with 3 seasons above and 6 below, and differences ranging from 5 percent above to 3 percent below.

Non-Valencia Oranges 36.1 Million Boxes

The forecast of non-Valencia orange production is raised 100,000 boxes to 36.1 million boxes. Harvest is complete for the included varieties. The Navel portion of the non-Valencia forecast is adjusted to 1.05 million boxes.

Valencia Oranges 45.0 Million Boxes

The forecast of Valencia production is raised 5.0 million boxes to 45.0 million boxes. If realized, this forecasted production would be the least harvested since the 1989-1990 freeze season's 42.1 million boxes. Estimated utilization to the first of the month, including an allocation for other use, is 37.7 million boxes. Weekly certifications in April averaged nearly 4 million boxes.

Processors were surveyed regarding fruit processed through April 30th and the estimated quantity remaining to be processed for the season. The Row Count survey, conducted April 27-28, showed 82 percent of the Valencia rows are harvested. A combination of these factors support an increase of 5.0 million boxes in the Valencia category.

All Grapefruit 10.85 Million Boxes

The forecast of all grapefruit production is raised 150,000 boxes to 10.85 million boxes. If realized, this season's production will be 16 percent less than last season's and the least since the 10.7 million boxes in the 1931-1932 season. The white grapefruit forecast is unchanged at 2.5 million boxes. The red grapefruit forecast is raised 150,000 boxes to 8.35 million boxes. The Row Count survey showed nearly all of the grapefruit rows are harvested.

All Tangerines 1.42 Million Boxes

The forecast of all tangerine production is raised 20,000 boxes to 1.42 million boxes. Harvest is finished this season for the early varieties (Fallglo and Sunburst) at 800,000 boxes and is nearly complete for the Honey variety, forecast at 620,000 boxes. The Row Count survey showed almost all of the Honey tangerine rows are harvested.

Tangelos 390 Thousand Boxes

The forecast of tangelo production remains unchanged at 390,000 boxes, including an allocation for non-certified use. The forecasted production is 41 percent less than the 2014-2015 season, and the lowest since the 1958-1959 season.

FCOJ Yield 1.41 Gallons per Box

The projection for frozen concentrated orange juice (FCOJ) is lowered to 1.41 gallons per box of 42° Brix concentrate and is the lowest in any non-freeze year since the 1985-86 season. The projection for Valencia oranges is lowered to 1.48 gallons per box. The final yield for non-Valencia oranges is 1.347046 gallons per box, as reported by the Florida Department of Citrus (FDOC) in Report No. 20. Last season's final yield for all oranges was 1.502203 gallons per box, 1.419546 gallons per box for non-Valencia oranges, and 1.584149 for Valencia oranges.

Maturity Tests

Regular bloom fruit samples were collected from groves on established routes on April 27-28, 2016, in Florida's five major citrus producing areas, and tested April 29, 2016. Acid level and solids (Brix) are lower on late oranges than last season, with a higher ratio. Unfinished juice per box is higher than last season, while solids per box are lower. The current acid level in fruit from the Indian River District is the same as in other areas, however the solids (Brix) is higher, resulting in a higher ratio. Fruit from the Indian River has more unfinished juice per box and higher solids per box than fruit from other areas.

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)	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
test date	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)
LATE ORANGES (58-29)										
Oct 1	2.14	1.94	8.75	8.63	4.12	4.48	44.75	49.11	3.92	4.24
Nov 1	1.82	1.64	9.08	9.36	5.04	5.73	50.69	53.19	4.60	4.97
Dec 1	1.53	1.34	9.71	9.65	6.39	7.28	53.99	54.92	5.24	5.30
Jan 1	1.30	1.05	10.89	10.31	8.46	9.89	54.74	57.64	5.96	5.94
Feb 1	1.23	1.01	11.35	10.63	9.37	10.69	55.61	56.23	6.31	5.98
Mar 1	1.13	0.89	11.77	11.16	10.49	12.65	54.91	55.51	6.46	6.19
Apr 1	0.98	0.82	11.90	11.55	12.27	14.23	55.81	55.30	6.64	6.38
May 1	0.83	0.71	12.20	11.85	15.17	17.08	55.82	56.20	6.81	6.66

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

Fruit type	Ad	cid	Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
(number of groves)	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)
LATE ORANGES										
Indian River (10-4)	0.90	0.71	12.84	12.63	14.85	17.97	54.34	57.58	6.98	7.27
Other Areas (48-25)	0.80	0.71	12.01	11.72	15.27	16.94	56.24	55.98	6.76	6.57

Fruit Size Comparisons to Previous Seasons

Size frequency distributions from the April size survey are shown in the table below. The distributions are by percent of fruit falling within the size range of each 4/5-bushel container. These frequency distributions include fruit from regular bloom and exclude fruit from summer bloom.

The chart to the right shows the distribution of fruit sizes in 2016 compared to 2015. The diameter measurements shown are the minimum values of fruit measured, except for the smallest values.

Citrus Size Frequency Measurement Distributions, by Type — Florida: April Survey

Type and number of fruit per 4/5 – bushel containers	2014	2015	2016
	(percent)	(percent)	(percent)
VALENCIA ORANGES			
64 or less	3.7	3.2	7.2
80	13.6	12.5	17.0
100	31.7	28.0	28.6
125	29.9	31.3	25.9
163 or more	21.1	25.0	21.3

Fruit Size Frequency Measurements, Valencia Oranges, by Diameter -Florida: April Survey

