

# United States Department of Agriculture National Agricultural Statistics Service

# CITRUS APRIL FORECAST MATURITY TEST RESULTS AND FRUIT SIZE



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Florida All Orange Production Up 7 Percent Florida Non-Valencia Orange Production Unchanged Florida Valencia Orange Production Up 14 Percent Florida All Grapefruit Production Unchanged Florida Tangerine Production Unchanged Florida Tangelo Production Down 3 Percent Florida FCOJ Yield 1.42 Gallons per Box (42° Brix)

FORECAST DATES - 2015-2016 SEASON [Release time 12:00 p.m. EDT]

May 10, 2016

June 10, 2016

July 12, 2016

Citrus Production by Type and State - United States

Crop and State		Production <sup>1</sup>	2015-2016 Forecasted Production <sup>1</sup>		
Crop and State	2012-2013	2013-2014	2014-2015	March	April
	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)
Non-Valencia Oranges <sup>2</sup>					
Florida	67,100	53,300	47,400	36,000	36,000
California	42,500	38,700	* 39,100	42,000	42,000
Texas	1,504	1,401	1,170	1,130	1,350
United States	111,104	93,401	* 87,670	79,130	79,350
Valencia Oranges					
Florida	66,500	51,400	* 49,550	35,000	40,000
California	12,000	10,800	9,500	10,500	10,500
Texas	289	376	282	280	220
United States	78,789	62,576	* 59,332	45,780	50,720
All Oranges					
Florida	133,600	104,700	* 96,950	71,000	76,000
California	54,500	49,500	* 48,600	52,500	52,500
Texas	1,793	1,777	1,452	1,410	1,570
United States	189,893	155,977	* 147,002	124,910	130,070
Grapefruit					
Florida-All	18,350	15,650	12,900	10,700	10,700
White	5,250	4,150	3,250	2,500	2,500
Red	13,100	11,500	9,650	8,200	8,200
California	4,500	3,850	* 4,300	3,700	3,900
Texas	6,100	5,700	4,250	5,100	5,200
United States	28,950	25,200	* 21,450	19,500	19,800
Lemons					
California	21,000	18,800	* 20,600	20,000	21,000
Arizona	1,800	1,800	2,000	1,600	1,500
United States	22,800	20,600	* 22,600	21,600	22,500
Tangelos					
Florida	1,000	880	* 665	400	390
Tangerines	·				
Florida-All	3,280	2,900	* 2,265	1,400	1,400
Early <sup>3</sup>	1,910	1,750	1,445	800	800
Honey	1,370	1,150	* 820	600	600
California <sup>4</sup>	13,000	14,700	* 18,500	21,000	22,000
Arizona 45	160	150	170	(NA)	(NA)
United States	16,440	17,750	* 20,935	22,400	23,400

<sup>\*</sup> Revised.

<sup>&</sup>lt;sup>1</sup> 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.

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

<sup>&</sup>lt;sup>3</sup> Fallglo and Sunburst varieties.

<sup>&</sup>lt;sup>4</sup> Includes tangelos and tangors.

<sup>&</sup>lt;sup>5</sup> 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 76.0 Million Boxes**

The 2015-2016 Florida all orange forecast released today by the USDA Agricultural Statistics Board is raised to 76.0 million boxes, but still down 22 percent from last season's revised final production. The total includes 36.0 million boxes of non-Valencia oranges (early, midseason, Navel, and Temple varieties) and 40.0 million boxes of Valencia oranges. For those previous 9 seasons, the April forecast has deviated from final production by an average of 3 percent with 4 seasons below and 5 above, and differences ranging from 3 percent below to 5 percent above.

# Non-Valencia Oranges 36.0 Million Boxes

The forecast of non-Valencia orange production is unchanged at 36.0 million boxes. The Row Count survey conducted March 29-30 showed 99 percent of non-Valencia orange rows harvested. The Navel portion of the non-Valencia forecast is final at 1.0 million boxes, the smallest in a 36 year series.

# **Valencia Oranges 40.0 Million Boxes**

The forecast of Valencia production is raised to 40.0 million boxes. The March Drop survey indicated final droppage at 29 percent. Final fruit size is slightly smaller than last month's projection, requiring 228 pieces of fruit to fill a 1-3/5 bushel box. The Row Count survey conducted March 29-30 showed 46 percent of the Valencia rows are harvested.

# All Grapefruit 10.7 Million Boxes

The forecast of all grapefruit production is unchanged at 10.7 million boxes. The forecast of white grapefruit remains at 2.5 million boxes and red grapefruit is unchanged at 8.2 million boxes. The Row Count survey conducted March 29-30 showed harvest of both white and red grapefruit is nearly complete for the season.

# **All Tangerines 1.40 Million Boxes**

The forecast of all tangerine production is unchanged at 1.40 million boxes. The early varieties (Fallglo and Sunburst) are final at 800,000 boxes. The Honey variety is unchanged at 600,000 boxes.

#### **Tangelos 390 Thousand Boxes**

The forecast of tangelo production is lowered to 390,000 boxes, including an allocation for non-certified use. Tangelo harvest is complete for the season, and is the lowest amount since 300,000 boxes were harvested during the 1958-1959 season.

#### FCOJ Yield 1.42 Gallons per Box

The projection for frozen concentrated orange juice (FCOJ) is lowered to 1.42 gallons per box of 42° Brix concentrate. The projection for Valencia oranges is lowered to 1.52 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.

#### Forecast Components, by Variety – Florida: April 2016

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

Туре	Bearing trees	Fruit per tree	Droppage	Fruit per box	
	(1,000 trees)	(number)	(percent)	(number)	
ORANGES					
Early-midseason	21,650	744	32	284	
Navel	944	229	24	141	
Valencia	30,249	520	29	228	
GRAPEFRUIT					
White	1,087	449	34	132	
Red	3,236	439	40	127	

# **Maturity Tests**

Regular bloom fruit samples were collected from groves on established routes March 29-30, 2016 in Florida's five major citrus producing areas, and tested April 1, 2016. Only late oranges were collected for this month's testing. Acid level and solids (Brix) are lower than last season, resulting in a higher ratio. Unfinished juice per box is higher than last season, while solids per box are lower than last season.

Fruit from the Indian River District have a lower acid level, and a higher solids (Brix) compared to fruit from other areas, resulting in a higher ratio. Unfinished juice per box and solids per box is higher in fruit from the Indian River District 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)		Solids/Acid		Unfinished juice per box		Solids per box	
test date	2014-2015	14-2015 2015-2016 2014-2015 2015-2016 2014-2015		2015-2016	2014-2015	2015-2016	2014-2015	2015-2016		
	(percent)	(percent)	(percent)	(percent)	(ratio)	(ratio)	(pounds)	(pounds)	(pounds)	(pounds)
LATE ORANGES (130-81)										
Oct 1	2.09	1.95	8.70	8.61	4.20	4.46	45.20	48.37	3.93	4.16
Nov 1	1.78	1.63	9.12	9.34	5.18	5.77	50.42	52.40	4.60	4.89
Dec 1	1.49	1.33	9.69	9.74	6.55	7.40	53.95	54.77	5.23	5.33
Jan 1	1.27	1.05	10.87	10.26	8.63	9.85	54.87	57.08	5.96	5.86
Feb 1	1.19	0.99	11.33	10.67	9.62	10.88	55.28	56.19	6.26	5.99
Mar 1	1.10	0.89	11.78	11.32	10.79	12.86	54.62	56.38	6.43	6.38
Apr 1	0.95	0.81	11.94	11.64	12.73	14.60	55.36	56.29	6.60	6.55

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

Fruit type	Acid		Solids (Brix)		Solids/Acid		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)	(ratio)	(ratio)	(pounds)	(pounds)	(pounds)	(pounds)
LATE ORANGES										
Indian River (28-16)	0.98	0.79	12.33	12.04	12.70	15.26	54.39	56.32	6.70	6.77
Other Areas (102-65)	0.94	0.81	11.83	11.54	12.74	14.44	55.63	56.29	6.58	6.50

#### **Fruit Size Comparisons to Previous Seasons**

Size frequency distributions from the March 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: March

Distributions, by Type – Florida. March								
Type and number of fruit per 4/5 – bushel containers	2014	2015	2016					
	(percent)	(percent)	(percent)					
VALENCIA ORANGES								
64 or less	3.9	3.1	5.8					
80	13.5	12.3	16.3					
100	31.8	29.4	32.2					
125	29.2	32.2	27.4					
163 or more	21.6	23.0	18.3					

# Fruit Size Frequency Measurements, Valencia Oranges, by Diameter -Florida: March

