



# CITRUS MATURITY TEST RESULTS AND FRUIT SIZE

DECEMBER FORECAST

Cooperating with the Florida Department of Agriculture & Consumer Services  
2290 Lucien Way, Suite 300, Maitland, FL 32751  
(407) 648-6013 · (407) 648-6029 FAX · [www.nass.usda.gov/fl](http://www.nass.usda.gov/fl)

December 9, 2011

**All Orange Production Up 2 Percent from October**  
**Non-Valencia Orange Production Up 1 Percent**  
**Valencia Orange Production Up 3 Percent**  
**All Grapefruit Production Down 3 Percent**  
**All Tangerine Production Down 4 Percent**  
**Tangelo Production Unchanged**  
**FCOJ Yield Unchanged at 1.60 Gallons per Box (42° Brix)**

FORECAST DATES	2011-2012 SEASON
January 12, 2012	April 10, 2012
February 9, 2012	May 10, 2012
March 9, 2012	June 12, 2012
	July 11, 2012

## Citrus Production by Type and State – United States

Crop and State	Production			2011-2012 Forecast	
	2008-2009 (1,000 boxes)	2009-2010 (1,000 boxes)	2010-2011 (1,000 boxes)	October (1,000 boxes)	December (1,000 boxes)
<b>Non-Valencia Oranges <sup>1</sup></b>					
Florida .....	<b>84,600</b>	<b>68,600</b>	<b>70,300</b>	<b>74,000</b>	<b>75,000</b>
California <sup>2</sup> .....	34,500	42,500	48,000	44,000	44,000
Texas <sup>2</sup> .....	1,300	1,360	1,700	1,380	1,380
Arizona <sup>3</sup> .....	150				
United States.....	120,550	112,460	120,000	119,380	120,380
<b>Valencia Oranges</b>					
Florida .....	<b>77,900</b>	<b>65,100</b>	<b>70,000</b>	<b>73,000</b>	<b>75,000</b>
California <sup>2</sup> .....	12,000	15,000	13,500	13,500	13,500
Texas <sup>2</sup> .....	159	275	249	329	329
Arizona <sup>3</sup> .....	100				
United States.....	90,159	80,375	83,749	86,829	88,829
<b>All Oranges</b>					
Florida .....	<b>162,500</b>	<b>133,700</b>	<b>140,300</b>	<b>147,000</b>	<b>150,000</b>
California <sup>2</sup> .....	46,500	57,500	61,500	57,500	57,500
Texas <sup>2</sup> .....	1,459	1,635	1,949	1,709	1,709
Arizona <sup>3</sup> .....	250				
United States.....	210,709	192,835	203,749	206,209	209,209
<b>Grapefruit</b>					
Florida-All .....	<b>21,700</b>	<b>20,300</b>	<b>19,750</b>	<b>20,100</b>	<b>19,400</b>
White .....	<b>6,600</b>	<b>6,000</b>	<b>5,850</b>	<b>5,600</b>	<b>5,400</b>
Colored.....	<b>15,100</b>	<b>14,300</b>	<b>13,900</b>	<b>14,500</b>	<b>14,000</b>
California <sup>2</sup> .....	4,800	4,500	4,100	3,400	3,400
Texas <sup>2</sup> .....	5,500	5,600	6,300	5,100	5,100
Arizona <sup>3</sup> .....	25				
United States.....	32,025	30,400	30,150	28,600	27,900
<b>Lemons <sup>2</sup></b>					
California .....	21,000	21,000	21,000	20,000	20,000
Arizona .....	3,000	2,200	2,500	800	800
United States .....	24,000	23,200	23,500	20,800	20,800
<b>Tangelos</b>					
Florida .....	<b>1,150</b>	<b>900</b>	<b>1,150</b>	<b>1,100</b>	<b>1,100</b>
<b>Tangerines</b>					
Florida-All .....	<b>3,850</b>	<b>4,450</b>	<b>4,650</b>	<b>4,700</b>	<b>4,500</b>
Early <sup>4</sup> .....	<b>2,550</b>	<b>2,250</b>	<b>2,600</b>	<b>2,500</b>	<b>2,400</b>
Honey .....	<b>1,300</b>	<b>2,200</b>	<b>2,050</b>	<b>2,200</b>	<b>2,100</b>
California <sup>2,5</sup> .....	6,700	9,900	9,900	10,300	10,300
Arizona <sup>2,5</sup> .....	250	350	300	200	200
United States.....	10,800	14,700	14,850	15,200	15,000

<sup>1</sup> Early, midseason, Navel, and Temple varieties.

<sup>2</sup> Estimates carried forward from October.

<sup>3</sup> Estimates discontinued beginning with the 2009-2010 crop year.

<sup>4</sup> Fallglo and Sunburst varieties. <sup>5</sup> Includes tangelos and tangors.

## All Oranges 150.0 Million Boxes

The 2011-2012 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 150.0 million boxes, up 2 percent from October and 7 percent more than last season's production. The total is comprised of 75.0 million boxes each of the non-Valencia oranges (early, midseason, Navel, and Temple varieties) and Valencia oranges. The Navel orange forecast is reduced to 2.5 million boxes, 3 percent of the non-Valencia total.

The hurricane seasons of 2004-2005 and 2005-2006 have been excluded from the usual 10-year regression analysis and from comparisons of the current season to previous seasons. For those previous 8 seasons, the December forecast has deviated from final production by an average of 3 percent with 6 seasons above and 2 below, with differences ranging from 3 percent below to 9 percent above. All references to "average" or "minimum" refer to the previous 8 non-hurricane seasons unless noted.

## Non-Valencia Oranges 75.0 Million Boxes

The forecast of non-Valencia production is raised by 1.0 million boxes to 75.0 million boxes. Current size and droppage are close to the maximums and projected to be near the maximums at harvest. The Navel forecast, included in the non-Valencia forecast, is reduced by 200 thousand boxes to 2.5 million boxes. Final Navel size is near average but final droppage has exceeded the projection and is the highest in any non-hurricane season since 1994-1995.

## Valencia Oranges 75.0 Million Boxes

The forecast of Valencia production is raised by 2.0 million boxes to 75.0 million boxes. Current fruit size is larger than in the past 7 seasons and is projected to continue above average. Current droppage continues above average and is projected to be final above average.

## All Grapefruit 19.4 Million Boxes

The forecast of all grapefruit production is reduced by 700 thousand boxes to 19.4 million boxes. The white grapefruit forecast is reduced by 200 thousand boxes to 5.4 million boxes. The colored grapefruit forecast is reduced 500 thousand boxes to 14.0 million boxes. White grapefruit current fruit size is below average and droppage is above the maximum. Colored grapefruit fruit size is tracking close to average and current drop is above the maximum. Droppage is projected to above average at harvest for all varieties.

## All Tangerines 4.5 Million Boxes

The forecast of all tangerine production is reduced 200 thousand boxes to 4.5 million boxes. The early tangerine forecast (Fallglo and Sunburst) is now 2.4 million boxes. The forecast of the later maturing Honey variety is reduced 100 thousand boxes to 2.1 million boxes. The decrease in early tangerines is based on Fallglo utilization and near record high droppage for the Sunburst variety which offset the above average fruit size. Honey fruit size is about average while the droppage rate is near the maximum. Both are projected to continue this relationship until harvest.

## Tangelos 1.1 Million Boxes

The forecast of tangelo production remains unchanged from the initial forecast of 1.1 million boxes. Tangelo size and droppage measurements are above average and final for the season. Approximately 227 pieces of fruit are required to fill a 1 3/5 bushel box.

## FCOJ Yield 1.60 Gallons per Box

The projection for frozen concentrated orange juice (FCOJ) remains 1.60 gallons per box of 42° Brix concentrate. Last season's final yield for all oranges was 1.586081 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.

## Maturity

Regular bloom fruit samples were collected on November 28-29 from groves on established routes in Florida's five major citrus producing areas and tested November 30 through December 2. All comparisons are made to December 1, 2010. Although solids (Brix) levels vary, acid levels are lower for all fruit types resulting in higher ratios. Unfinished juice per box is higher for all varieties. Solids per box are higher for the orange varieties but lower for the grapefruit. Indian River grapefruit has higher acid and Brix levels resulting in lower ratios than the other areas. Unfinished juice per box and solids per box are higher for colored varieties but lower for white grapefruit in the Indian River District.

## Forecast Components, by Variety — Florida: December 2011

[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)
<b>ORANGES</b>				
Early-midseason.....	23,909	919	12	229
Navel.....	1,046	481	17	137
Valencia.....	32,467	567	16	201
<b>GRAPEFRUIT</b>				
White.....	1,377	443	15	96
Colored.....	3,486	430	15	100

### Citrus Unadjusted Maturity Tests — Florida: 2010-2011 and 2011-2012

[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	
	2010-2011 (percent)	2011-2012 (percent)	2010-2011 (percent)	2011-2012 (percent)	2010-2011	2011-2012	2010-2011 (pounds)	2011-2012 (pounds)	2010-2011 (pounds)	2011-2012 (pounds)
<b>ORANGES</b>										
Early (116-106)										
Sep 1.....	1.67	1.38	9.19	9.55	5.55	7.05	41.62	45.09	3.82	4.31
Oct 1.....	1.25	0.98	9.51	9.91	7.70	10.31	46.02	49.58	4.37	4.91
Nov 1.....	0.94	0.77	10.43	10.48	11.26	14.02	49.82	50.65	5.19	5.31
Dec 1.....	0.82	0.71	11.23	11.23	13.96	16.07	49.94	51.56	5.61	5.78
Midseason (54-52)										
Sep 1.....	2.01	1.54	9.33	9.38	4.82	6.19	40.88	45.69	3.81	4.28
Oct 1.....	1.56	1.11	9.41	9.83	6.14	9.01	45.77	50.03	4.31	4.92
Nov 1.....	1.13	0.88	10.36	10.54	9.36	12.21	49.13	52.11	5.09	5.50
Dec 1.....	0.94	0.81	11.33	11.46	12.30	14.42	50.12	53.26	5.68	6.10
Late (149-150)										
Sep 1.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Oct 1.....	2.56	2.09	8.95	8.92	3.52	4.32	43.91	48.57	3.93	4.33
Nov 1.....	2.01	1.53	9.68	9.45	4.86	6.32	48.82	51.56	4.72	4.87
Dec 1.....	1.62	1.37	10.42	10.31	6.50	7.67	51.48	55.06	5.36	5.68
<b>GRAPEFRUIT</b>										
White Seedless (48-48)										
Sep 1.....	1.88	1.63	10.19	10.17	5.45	6.27	31.82	33.79	3.24	3.44
Oct 1.....	1.72	1.37	10.38	9.90	6.05	7.29	35.51	38.54	3.68	3.82
Nov 1.....	1.58	1.32	10.64	10.29	6.78	7.85	39.81	41.68	4.23	4.29
Dec 1.....	1.56	1.33	10.73	10.28	6.93	7.80	41.44	42.70	4.45	4.39
Colored Seedless (47-47)										
Sep 1.....	1.82	1.62	10.33	10.16	5.80	6.30	31.99	35.95	3.30	3.65
Oct 1.....	1.68	1.37	10.54	10.19	6.32	7.44	36.31	39.39	3.83	4.02
Nov 1.....	1.58	1.31	10.98	10.41	7.01	8.02	39.97	42.55	4.38	4.43
Dec 1.....	1.55	1.28	11.45	10.74	7.42	8.42	43.62	44.42	4.99	4.78

(NA) Not available.

### Citrus Maturity Test Averages, by Areas — Florida: December 1, 2010-2011 and 2011-2012

Fruit type (number of groves)	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2010-2011 (percent)	2011-2012 (percent)	2010-2011 (percent)	2011-2012 (percent)	2010-2011	2011-2012	2010-2011 (pounds)	2011-2012 (pounds)	2010-2011 (pounds)	2011-2012 (pounds)
<b>ORANGES</b>										
Early										
Indian River (9-9).....	0.91	0.71	12.02	11.49	13.49	16.54	49.86	51.92	5.99	5.96
Other Areas (107-97).....	0.81	0.71	11.17	11.20	14.00	16.03	49.95	51.53	5.58	5.77
Midseason										
Indian River (11-11).....	0.99	0.87	11.49	11.78	11.73	13.72	50.17	54.97	5.76	6.47
Other Areas (43-41).....	0.93	0.79	11.29	11.38	12.45	14.61	50.10	52.80	5.66	6.01
Late										
Indian River (27-27).....	1.75	1.47	10.76	10.41	6.18	7.24	52.00	54.66	5.59	5.69
Other Areas (122-123).....	1.59	1.34	10.34	10.29	6.57	7.77	51.36	55.14	5.31	5.67
<b>GRAPEFRUIT</b>										
White Seedless										
Indian River (38-36).....	1.59	1.35	10.82	10.37	6.84	7.69	41.34	42.13	4.48	4.37
Other Areas (10-12).....	1.44	1.24	10.36	10.03	7.27	8.12	41.83	44.41	4.33	4.45
Colored Seedless										
Indian River (39-38).....	1.59	1.30	11.57	10.82	7.32	8.33	44.20	44.49	5.11	4.82
Other Areas (9-9).....	1.40	1.19	10.95	10.42	7.84	8.77	41.20	44.11	4.51	4.59

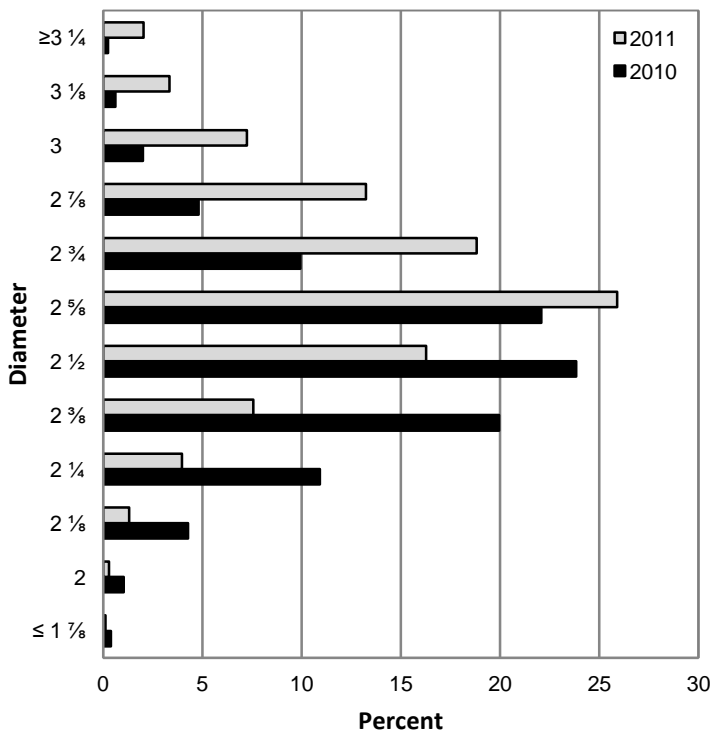
### Citrus Size Frequency Measurement Distributions, by Type — Florida: November

Type and number of fruit per 4/5 – bushel containers	2009	2010	2011	Type and number of fruit per 4/5 – bushel containers	2009	2010	2011
	(percent)	(percent)	(percent)		(percent)	(percent)	(percent)
<b>NON-VALENCIA ORANGES <sup>1</sup></b>				<b>WHITE GRAPEFRUIT <sup>2</sup></b>			
64 or less	0.8	0.5	3.5	32 or less	12.7	5.3	10.1
80	7.2	4.4	14.8	36	12.8	15.1	16.3
100	30.3	20.5	38.2	40	15.9	17.7	17.5
125	36.1	38.0	30.3	48	18.2	19.9	18.1
163 or more	25.6	36.6	13.2	56	13.5	15.4	11.6
				63 or more	26.9	26.6	26.4
<b>NAVEL ORANGES</b>				<b>COLORED GRAPEFRUIT</b>			
64 or less	46.9	30.4	49.2	32 or less	9.8	2.4	6.2
80	33.8	42.7	33.6	36	9.2	8.8	14.6
100	11.5	20.4	14.5	40	10.7	13.8	18.4
125	5.5	5.1	2.5	48	15.5	18.3	18.7
163 or more	2.3	1.4	0.2	56	14.9	17.5	13.9
				63 or more	39.9	39.2	28.2
<b>VALENCIA ORANGES</b>				<b>HONEY TANGERINES</b>			
64 or less	0.8	1.2	3.6	80 or less	5.5	3.3	12.1
80	8.9	7.0	19.6	100	19.3	15.6	24.7
100	34.3	26.7	38.8	120	29.1	32.9	26.6
125	32.8	37.0	27.0	176	16.0	18.2	12.7
163 or more	23.2	28.1	11.0	210 or more	30.1	30.0	23.9
<b>TANGELOS</b>				<b>SUNBURST TANGERINES</b>			
80 or less	26.6	14.6	45.2	100 or less	25.6	10.7	43.7
100	30.2	31.7	31.7	120	32.2	25.7	22.5
120	23.6	21.7	12.0	176	16.7	22.2	12.1
156 or more	19.6	32.0	11.1	210 or more	25.5	41.4	21.7

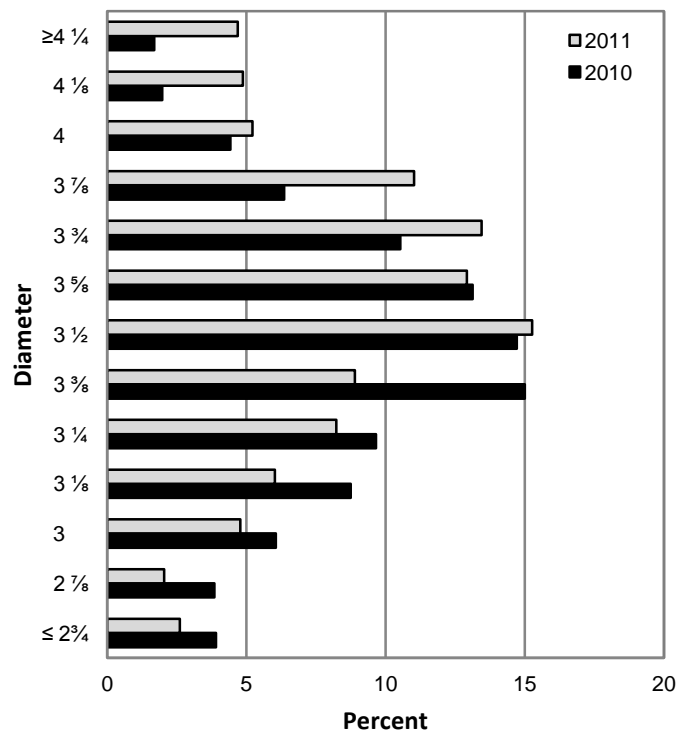
<sup>1</sup> Excludes Navel and Temple varieties.

<sup>2</sup> Excludes seedy.

**Fruit Size Frequency Measurements, Non-Valencia Oranges<sup>1</sup>, by Diameter - Florida: November**



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



<sup>1</sup> Excludes Navel and Temple varieties.