



CITRUS OCTOBER FORECAST

MATURITY TEST RESULTS AND FRUIT SIZE

Cooperating with the Florida Department of Agriculture and Consumer Services
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October 10, 2014

Florida All Orange Production Up 3 Percent from Last Season
Florida Non-Valencia Orange Production Down 2 Percent
Florida Valencia Orange Production Up 9 Percent
Florida All Grapefruit Production Down 4 Percent
Florida All Tangerine Production Down 3 Percent
Florida Tangelo Production Up 2 Percent
Florida FCOJ Yield 1.60 Gallons per Box

2014-2015 SEASON FORECAST DATES

November 10, 2014 December 10, 2014

Citrus Production by Type and State – United States

Crop and State	Production ¹			Forecasted Production ¹
	2011-2012 (1,000 boxes)	2012-2013 (1,000 boxes)	2013-2014 (1,000 boxes)	2014-2015 (1,000 boxes)
Non-Valencia Oranges ²				
Florida	74,200	67,100	53,300	52,000
California	45,500	42,500	39,000	40,500
Texas	1,108	1,499	1,400	1,627
United States.....	120,808	111,099	93,700	94,127
Valencia Oranges				
Florida	72,500	66,500	51,300	56,000
California	12,500	12,000	11,000	10,000
Texas	311	289	376	345
United States.....	85,311	78,789	62,676	66,345
All Oranges				
Florida	146,700	133,600	104,600	108,000
California	58,000	54,500	50,000	50,500
Texas	1,419	1,788	1,776	1,972
United States.....	206,119	189,888	156,376	160,472
Grapefruit				
Florida-All	18,850	18,350	15,650	15,000
White	5,350	5,250	4,150	4,000
Colored	13,500	13,100	11,500	11,000
California	4,000	4,500	4,000	4,000
Texas	4,800	6,100	5,700	5,750
United States.....	27,650	28,950	25,350	24,750
Lemons				
California.....	20,500	21,000	19,000	19,000
Arizona.....	750	1,800	1,800	2,000
United States.....	21,250	22,800	20,800	21,000
Tangelos				
Florida	1,150	1,000	880	900
Tangerines				
Florida-All	4,290	3,280	2,900	2,800
Early ³	2,330	1,910	1,750	1,700
Honey	1,960	1,370	1,150	1,100
California ⁴	10,800	13,000	14,500	16,000
Arizona ⁴	200	200	200	220
United States.....	15,290	16,480	17,600	19,020

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 tangerines in Texas and Temples in Florida.

³ Fallglo and Sunburst varieties.

⁴ Includes tangelos and tangors.

All Oranges 108.0 Million Boxes

The 2014-2015 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 108.0 million boxes, 3 percent more than last season's production. The total includes 52.0 million boxes of non-Valencia oranges (early, midseason, Navel, and Temple varieties) and 56.0 million boxes of Valencia oranges. The Navel orange forecast is 1.5 million boxes, 3 percent of the non-Valencia total.

The estimated number of bearing trees for all oranges is 54.9 million, down 2 percent from the previous season. Trees planted in 2011 and earlier are considered bearing this season. Field work for the latest Commercial Citrus Inventory was completed in July 2014. Attrition rates were applied to the results to determine the number of bearing trees which are used to weight and expand objective count data in the forecast model.

Citrus growing conditions were ideal from the start of the citrus bloom in March to the beginning of the 2014-2015 harvest season. Seasonal temperatures coupled with above average rainfall continued throughout early spring. Dry conditions in late May were quickly eliminated by adequate rainfall in early June. Sunshine and seasonal precipitation returned and continued throughout the summer months. By the start of the harvest season, dry seasonal conditions returned in the western part of the state, while the remaining citrus producing areas experienced adequate rainfall.

An 8 year regression has been used for comparison purposes. For those previous 8 seasons, average actual production is 140.1 million boxes. The initial forecast has deviated from final production by an average of 6 percent with 7 seasons above and 1 below, with differences ranging from 1 percent below to 20 percent above.

The procedures used in this forecast are the same as used in past seasons. The methodology is described on page 5 of this report. All references to "average", "minimum", and "maximum" refer to the previous 8 seasons. Average fruit per tree includes regular bloom and the first late bloom.

Non-Valencia Oranges 52.0 Million Boxes

The **non-Valencia** forecast of 52.0 million boxes is 2 percent lower than last season's production. The estimated number of bearing trees (excluding Navels) is 22.7 million, down 2 percent from the previous season. The estimated fruit per tree for early-midseason oranges is 890, a decrease of 3 percent from last season. Projected fruit size is close to the minimum, requiring an estimated 284 pieces of fruit to fill a 90-pound box. Projected droppage is well above average at 20 percent.

Based on fruit population, the prorated forecast shows a decrease of 900 thousand boxes in the Southern area compared to last season. The Indian River area shows a decrease of 400 thousand boxes. The combined other areas are forecasted to be the same as last season.

The **Navel** forecast of 1.5 million boxes is 22 percent lower than last season's production. If realized, this will be the lowest production since forecasting Navels as a separate variety. The estimated number of bearing trees is 970 thousand, down less than 1 percent from the previous season. The estimated fruit per tree is 295, a decrease of 32 percent from last season. Projected fruit size is above average, requiring an estimated 138 pieces of fruit to fill a 90-pound box. Projected droppage is close to the maximum at 27 percent.

Valencia Oranges 56.0 Million Boxes

The **Valencia** forecast of 56.0 million boxes is 9 percent higher than last season's production. The estimated number of bearing trees is 31.2 million, down 2 percent from the previous season. The estimated fruit per tree is 624, an increase of 2 percent from last season. Projected fruit size is well below average, requiring an estimated 235 pieces of fruit to fill a 90-pound box. Projected droppage is close to the maximum at 28 percent.

Based on fruit population, the prorated forecast shows a decrease of 500 thousand boxes in the Southern area compared to last season. The forecast shows an increase in the Indian River of 600 thousand boxes. The combined other areas show an increase of 4,600 boxes.

FCOJ Yield 1.60 Gallons per Box

The projection for frozen concentrated orange juice (FCOJ) is 1.60 gallons per box of 42° Brix concentrate. Last season's final yield for all oranges was 1.569080 gallons per box, as reported by the Florida Department of Citrus. Projections for the components will be published in January. Record yields were set in 2007-2008 for all oranges at 1.672737 gallons per box and the late category (Valencias) at 1.790343 gallons per box. The record for the early-midseason category is 1.597195 gallons per box which occurred in 2008-2009. All projections of yield assume the processing relationships this season will be similar to those of the past several seasons.

Forecast Components, by Type – Florida: October 2014

[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.....	22,707	890	20	284
Navel.....	970	295	27	138
Valencia.....	31,190	624	28	235
GRAPEFRUIT				
White.....	1,199	477	22	117
Colored.....	3,374	445	20	119

Citrus Production and Prorated Forecast, by Production Area – 2013-2014 and 2014-2015

[Forecasts based on fruit populations. The possible differences between growing areas, concerning average fruit size, loss from droppage, and harvest patterns, can alter the prorated estimates]

Production Area	Oranges				Grapefruit			
	Non-Valencia		Valencia		White		Colored	
	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015
	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)	(1,000 boxes)
Indian River.....	1,800	1,400	2,200	2,800	3,200	3,200	8,200	7,800
Southern.....	14,300	13,400	18,500	18,000	200	300	1,400	1,300
Other ¹	37,200	37,200	30,600	35,200	750	500	1,900	1,900
Florida Total.....	53,300	52,000	51,300	56,000	4,150	4,000	11,500	11,000

¹ Includes Central, Northern, and Western areas.

Distribution of Estimated Fruit Population, by Type, Area, and Age Groups – Florida: September

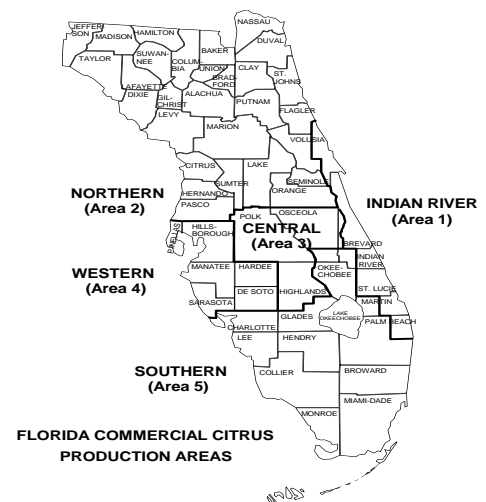
[Distribution of fruit population in September as determined by multiplying average fruit per tree from the Limb Count Survey by bearing age trees]

Areas and age groups	Oranges				Grapefruit			
	Non-Valencia		Valencia		White		Colored	
	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
Indian River.....	3	3	5	5	83	79	71	71
Northern.....	6	5	3	2	1	(Z)	2	3
Central.....	31	28	35	35	9	12	10	10
Western.....	34	38	23	26	2	1	4	4
Southern.....	26	26	34	32	5	8	13	12
3 - 5 years.....	3	4	2	2	1	(Z)	3	3
6 - 8 years.....	4	5	4	4	1	1	4	4
9 - 13 years.....	12	12	11	11	4	4	6	10
14 - 23 years.....	34	29	44	39	35	19	31	24
24 yrs & over.....	47	50	39	44	59	76	56	59

Z Less than half of the unit shown.

Expected Gift Fruit Shipments Under the 6-R Program and Non-Certified Usage, by Type – Florida: 2014-2015

Type	1,000 boxes
Non-Valencia Oranges.....	700
Valencia Oranges.....	400
White Grapefruit.....	125
Colored Grapefruit.....	375
Tangelos.....	80
Tangerines.....	200



Maturity

Regular bloom fruit samples were collected from groves on established routes in Florida's five major citrus producing areas and tested in the Florida Agricultural Statistics Service (FASS) laboratory October 1-3, 2014. The orange sample size is 325 and the grapefruit sample size is 100.

Citrus Unadjusted Maturity Tests – Florida: 2013-2014 and 2014-2015

[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	
	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Early (120-120)										
Sep 1.....	1.47	1.38	9.24	9.12	6.42	6.69	42.34	43.72	3.91	3.98
Oct 1.....	(NA)	1.01	(NA)	9.05	(NA)	9.11	(NA)	49.01	(NA)	4.43
Midseason (55-55)										
Sep 1.....	1.69	1.53	9.26	9.10	5.59	6.05	43.30	44.18	4.01	4.02
Oct 1.....	(NA)	1.14	(NA)	9.09	(NA)	8.08	(NA)	49.77	(NA)	4.52
Late (150-150)										
Sep 1.....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Oct 1.....	(NA)	2.08	(NA)	8.69	(NA)	4.23	(NA)	45.17	(NA)	3.92
GRAPEFRUIT										
White Seedless (50-50)										
Sep 1.....	1.78	1.64	10.08	9.97	5.70	6.11	31.55	34.69	3.17	3.46
Oct 1.....	(NA)	1.47	(NA)	9.76	(NA)	6.68	(NA)	38.25	(NA)	3.73
Colored Seedless (50-50)										
Sep 1.....	1.70	1.63	9.99	9.92	5.91	6.10	33.05	34.79	3.30	3.45
Oct 1.....	(NA)	1.43	(NA)	9.56	(NA)	6.75	(NA)	39.17	(NA)	3.74

NA Not available.

Citrus Maturity Test Averages, by Areas – Florida: October 2014-2015

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Early										
Indian River (NA-9).....	(NA)	1.04	(NA)	9.06	(NA)	8.87	(NA)	47.05	(NA)	4.26
Other Areas ¹ (NA-111) .	(NA)	1.01	(NA)	9.05	(NA)	9.13	(NA)	49.17	(NA)	4.44
Midseason										
Indian River (NA-11).....	(NA)	1.19	(NA)	8.87	(NA)	7.48	(NA)	48.27	(NA)	4.28
Other Areas ¹ (NA-44) ...	(NA)	1.13	(NA)	9.14	(NA)	8.23	(NA)	50.14	(NA)	4.58
Late										
Indian River (NA-29).....	(NA)	2.13	(NA)	8.84	(NA)	4.18	(NA)	44.76	(NA)	3.96
Other Areas ¹ (NA-121) .	(NA)	2.06	(NA)	8.66	(NA)	4.24	(NA)	45.26	(NA)	3.92
GRAPEFRUIT										
White Seedless										
Indian River (NA-38).....	(NA)	1.48	(NA)	9.86	(NA)	6.71	(NA)	37.89	(NA)	3.73
Other Areas ¹ (NA-12) ...	(NA)	1.44	(NA)	9.48	(NA)	6.60	(NA)	39.38	(NA)	3.73
Colored Seedless										
Indian River (NA-40).....	(NA)	1.46	(NA)	9.62	(NA)	6.65	(NA)	38.64	(NA)	3.71
Other Areas ¹ (NA-10) ...	(NA)	1.31	(NA)	9.32	(NA)	7.16	(NA)	41.29	(NA)	3.85

NA Not available.

¹ Includes Central, Northern, Southern, and Western areas.

All Grapefruit 15.0 Million Boxes

The forecast of grapefruit production is 15.0 million boxes, 4 percent less than last season's production. The total includes 4.0 million boxes of white grapefruit and 11.0 million boxes of colored grapefruit. All grapefruit bearing trees are estimated to be 4.6 million, down 4 percent from the previous season.

The **white** grapefruit forecast of 4.0 million boxes is 4 percent less than last season's production. The estimated number of bearing trees is down 5 percent from the previous season. The estimated fruit per tree is 477, a decrease of 14 percent from last season. Projected fruit size is slightly above the minimum, requiring an estimated 117 pieces of fruit to fill an 85-pound box. Projected droppage is above average at 22 percent.

The **colored** grapefruit forecast of 11.0 million boxes is 4 percent less than last season's final production. The estimated number of bearing trees is down 3 percent from the previous season. The estimated fruit per tree is 445, a decrease of 12 percent from last season. Projected fruit size is below average, requiring an estimated 119 pieces of fruit to fill an 85-pound box. Projected droppage is above average at 20 percent.

All Tangerines 2.8 Million Boxes

The forecast of all tangerines is 2.8 million boxes, 3 percent lower than last season's production. The total includes 1.7 million boxes of the early varieties (Fallglo and Sunburst) and 1.1 million boxes of the later maturing Honey variety. All tangerine bearing trees are estimated to be 1.58 million, down 5 percent from last season.

The **Fallglo** tangerine forecast of 500 thousand boxes is equal to last season's final production. The estimated number of bearing trees is down 2 percent from the previous season. The estimated fruit per tree is 1,138, an increase of 14 percent from last season. Projected fruit size is below the minimum, requiring an estimated 376 pieces of fruit to fill a 95-pound box. Projected droppage is well above average at 31 percent.

The **Sunburst** tangerine forecast of 1.20 million boxes is 4 percent lower than last season's final production. The estimated number of bearing trees is down 5 percent from the previous season. The estimated fruit per tree is 1,022, a 9 percent decrease from last season. Projected fruit size is near the minimum, requiring an estimated 414 pieces of fruit to fill a 95-pound box. Projected droppage is above average at 24 percent.

The **Honey** tangerine forecast of 1.1 million boxes is 4 percent lower than last season's final production. The estimated number of bearing trees is down 6 percent from last season. The estimated fruit per tree is 1,077, a decrease of 17 pieces of fruit from last season. Projected fruit size is below average, requiring an estimated 303 pieces of fruit to fill a 95-pound box. Projected droppage is above average at 40 percent.

Tangelos 900 Thousand Boxes

The tangelo forecast of 900 thousand boxes is 2 percent higher than last season's final production. The estimated number of bearing trees is down 6 percent from the previous season. The estimated fruit per tree is 824, a decrease of 8 percent from last season. Projected fruit size is below average, requiring an estimated 280 pieces of fruit to fill a 90-pound box. Projected droppage is above average at 11 percent.

Forecast Procedures

All citrus forecasts are based on actual fruit counts and measurements. The objective count method uses four components:

- (1) bearing age trees provided from the latest Commercial Citrus Inventory;
- (2) average fruit per tree obtained from the Limb Count survey using randomly selected trees and limbs;
- (3) fruit size from the fruit measurement survey; and
- (4) fruit loss from the drop survey.

These measurements are used in the forecast models; regression data are from the 2006-2007 through 2013-2014 seasons.

The latest tree inventory is used to determine estimated tree numbers. All trees planted in 2011 and earlier are included for the current season. An attrition factor was applied to these tree numbers (by age and area) to account for losses since the inventory period.

Statistically valid procedures are used to provide unbiased estimates of fruit count. Samples are drawn with known probabilities from the Commercial Citrus Inventory, taking into account the variability in fruit per tree. Limbs are randomly selected from sample trees. Fruit on these limbs are counted in the mid-July to mid-September period.

Fruit size and loss surveys were conducted in August and September. Results of these surveys are used in the models to project the fruit size at harvest and the fruit population expected to be available for harvest.

Citrus Size Frequency Measurement Distributions, by Type – Florida: September

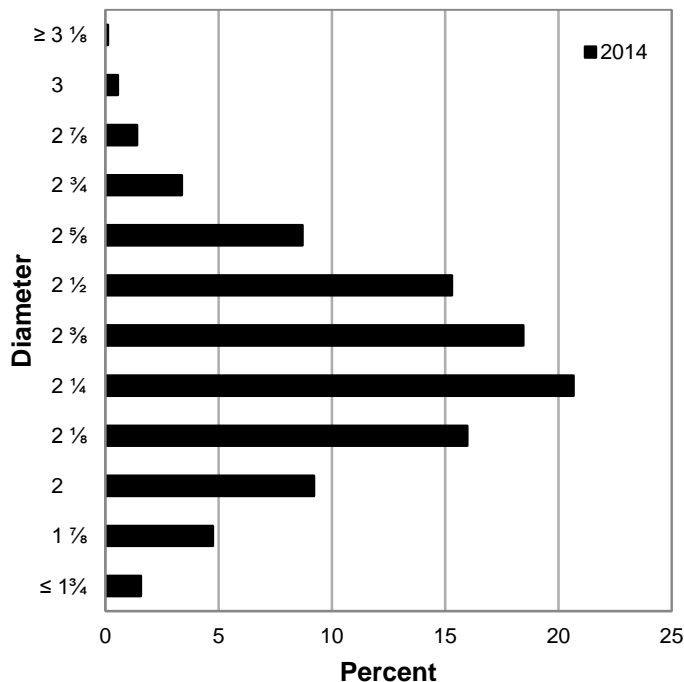
Type and number of fruit per 4/5 – bushel containers	2012	2013	2014	Type and number of fruit per 4/5 – bushel containers	2012	2013	2014
	(percent)	(percent)	(percent)		(percent)	(percent)	(percent)
NON-VALENCIA ORANGES ¹				WHITE GRAPEFRUIT ²			
64 or less	0.1	(NA)	0.1	32 or less	0.8	(NA)	0.9
80	1.5	(NA)	1.1	36	3.6	(NA)	3.2
100	9.2	(NA)	7.2	40	7.8	(NA)	6.3
125	26.5	(NA)	21.0	48	10.1	(NA)	10.6
163 or more	62.7	(NA)	70.6	56	11.4	(NA)	12.3
				63 or more	66.3	(NA)	66.7
NAVEL ORANGES				COLORED GRAPEFRUIT			
64 or less	17.4	(NA)	20.6	32 or less	0.1	(NA)	0.9
80	28.4	(NA)	31.1	36	1.7	(NA)	2.8
100	30.2	(NA)	27.6	40	5.3	(NA)	6.2
125	14.6	(NA)	14.2	48	8.8	(NA)	11.4
163 or more	9.4	(NA)	6.5	56	10.0	(NA)	12.1
				63 or more	74.1	(NA)	66.6
VALENCIA ORANGES				FALLGLO TANGERINES			
64 or less	0.2	(NA)	0.1	80 or less	17.5	(NA)	5.0
80	1.8	(NA)	1.0	100	7.5	(NA)	28.2
100	10.3	(NA)	7.5	120	18.8	(NA)	7.3
125	28.4	(NA)	23.6	176	13.7	(NA)	5.0
163 or more	59.3	(NA)	67.8	210 or more	42.5	(NA)	54.5
TANGELOS				SUNBURST TANGERINES			
80 or less	2.0	(NA)	3.0	100 or less	2.3	(NA)	0.5
100	7.6	(NA)	9.4	120	8.3	(NA)	3.5
120	18.7	(NA)	18.0	176	9.7	(NA)	7.4
156 or more	71.7	(NA)	69.6	210 or more	79.7	(NA)	88.6

NA Not available.

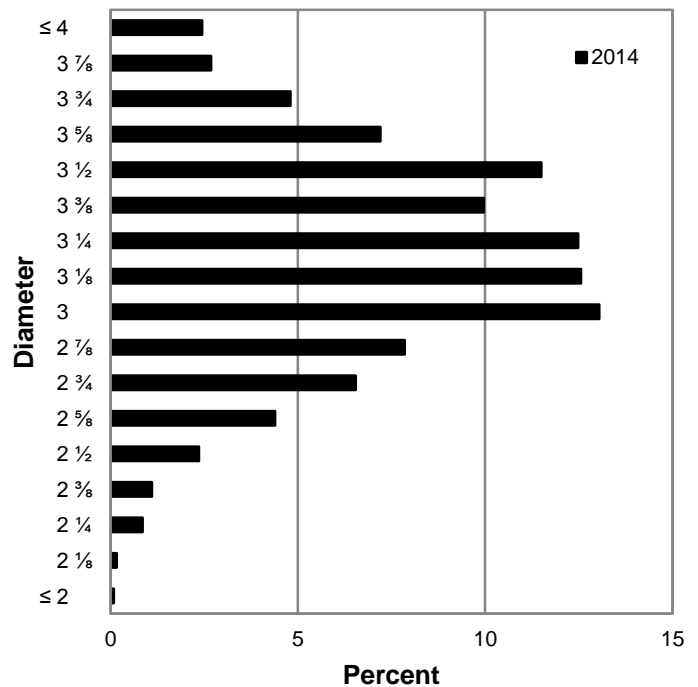
¹ Excludes Navel and Temple varieties.

² Excludes seedy variety.

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



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



¹ Excludes Navel and Temple varieties.