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# CITRUS

## DECEMBER FORECAST MATURITY TEST RESULTS AND FRUIT SIZE



FLORIDA  
AGRICULTURE

December 11, 2003

### ALL ORANGES AT 252.0 MILLION BOXES

The all orange forecast released today by the USDA Agricultural Statistics Board remains at 252.0 million boxes with offsetting changes in the components. The early-midseason-Navel orange forecast is reduced to 134.0 million boxes while the Valencia orange forecast is raised to 118.0 million boxes. In the past 10 seasons, the December forecast has differed from actual production by an average of 3.0 percent, with five seasons above and five below.

Estimated utilization to December 1, including an allowance for gift fruit, is 20.6 million boxes. This figure represents the harvest of early and midseason varieties only as Valencia harvest has not begun.

### EARLY-MIDSEASONS LOWERED TO 134.0 MILLION BOXES

The forecast of early-midseason-Navel oranges is decreased by 3.0 million boxes, or two percent, to 134.0 million boxes. Although fruit sizes were above average early in the season, the growth rate has slacked off for the past two months and the fruit is now projected to be near the average of the past 10 seasons. With the smaller size, it will take about eight more fruit to fill a 90-pound box. Results of the monthly objective surveys show that the drop rate has been increasing slightly more than average as the season progresses and is projected at 9.8 percent.

The Navel portion of this crop has been reduced to 4.8 million boxes from 5.0 million boxes. Even with droppage at a near record low level, estimated utilization to December 1 at 1.6 million boxes is lagging behind actual utilization of the previous 10 seasons. Fruit measurements show nearly 3/4 of the crop falls into the largest category with the average size larger than any in the previous 17-

Citrus production, December 1, 2003  
forecasts by varieties and states, with comparisons

Crop and State	Production		Forecast	
	2001-02	2002-03	Nov 12, 2003	Dec 11, 2003
--- 1,000 boxes ---				
Early, Midseason, and Navel Oranges:				
<b>FLORIDA</b>	<b>128,000</b>	<b>112,000</b>	<b>137,000</b>	<b>134,000</b>
California	32,000	41,000	39,000	39,000
Texas	1,530	1,350	1,300	1,300
Arizona	270	200	220	220
<b>Total Above Varieties</b>	<b>161,800</b>	<b>154,550</b>	<b>177,520</b>	<b>174,520</b>
Valencias:				
<b>FLORIDA</b>	<b>102,000</b>	<b>91,000</b>	<b>115,000</b>	<b>118,000</b>
California	19,500	21,000	20,000	20,000
Texas	210	220	250	250
Arizona	250	270	250	250
<b>Total Valencias</b>	<b>121,960</b>	<b>112,490</b>	<b>135,500</b>	<b>138,500</b>
All Oranges:				
<b>FLORIDA</b>	<b>230,000</b>	<b>203,000</b>	<b>252,000</b>	<b>252,000</b>
California	51,500	62,000	59,000	59,000
Texas	1,740	1,570	1,550	1,550
Arizona	520	470	470	470
<b>Total All Oranges</b>	<b>283,760</b>	<b>267,040</b>	<b>313,020</b>	<b>313,020</b>

### FORECAST DATES 2003-04 SEASON

January 12, 2004	February 10, 2004
March 10, 2004	April 8, 2004
May 12, 2004	June 11, 2004
July 12, 2004	

year series. With these large sizes and reports of fruit drying, final utilization may depend on the usability of the fruit.

### Components used in the December Forecast

Type	Bearing trees	Fruit per tree	Percent droppage	Fruit per box
(1,000)				
Early-Mid	32,161	1,236	9.8	239
Navel	2,158	379	9.1	129
Valencia	41,572	684	12.5	194

### VALENCIAS NOW 118.0 MILLION BOXES

The Valencia forecast is increased to 118.0 million boxes, three percent greater than the initial forecast in October. Objective survey measurements support this change. Fruit size continues above average following a growth pattern similar to last season while droppage remains below the average of the previous 10 seasons.

### FCOJ YIELD 1.55 GALLONS PER BOX

The all orange FCOJ yield is unchanged from October at 1.55 gallons per box of 42 degrees Brix concentrate. This is near last season's 1.54 gallons per box final yield as reported by the Florida Citrus Processors Association. The record high yield is 1.63 gallons in the 1998-99 season. A separate projection of yield for early-mids and Valencias will be made in the January report.

Percent acid in early and midseason oranges is very low for this time of year. Together with the relatively high soluble solids, ratios are the highest in many seasons. Valencia oranges, although not mature, show low acid and high Brix levels also.

## GRAPEFRUIT NOW 41.0 MILLION BOXES

The forecast of grapefruit for certified utilization (including an allocation of 1.5 million boxes of gift fruit and local sales) is decreased 1.0 million boxes to 41.0 million. The reduction is in the colored category. If realized, this forecast will be six percent more than harvested last season but 12 percent less than the 46.7 million boxes harvested in the 2001-02 season.

The **white** grapefruit forecast remains at 17.0 million boxes. Fruit growth patterns since October resemble last season which was different from the previous eight. Following the reduction in the rate of growth, it is now projected that it will take 85 fruit to fill a box instead of the 81 used in the October forecast. Fruit droppage however, is now projected at 8.5 percent, down from the 9 percent used in October. With the offsetting effect of these two factors, the resulting expansion remains near the forecast amount.

The **colored** grapefruit forecast is reduced 1.0 million boxes to 24.0 million. Fruit growth is following similar patterns for the colored varieties and the number of fruit required to fill a box is now projected at 94 instead of the 91 used in the October forecast. Droppage rates, however, have increased and

Citrus production, December 1, 2003  
forecasts by varieties and states, with comparisons

Crop and State	Production		Forecast	
	2001-02	2002-03	Nov 12, 2003	Dec 11, 2003
--- 1,000 boxes ---				
Grapefruit:				
<b>FLORIDA-All</b>	<b>46,700</b>	<b>38,700</b>	<b>42,000</b>	<b>41,000</b>
<b>White</b> <sup>1/</sup>	<b>18,900</b>	<b>16,200</b>	<b>17,000</b>	<b>17,000</b>
<b>Colored</b>	<b>27,800</b>	<b>22,500</b>	<b>25,000</b>	<b>24,000</b>
Texas	5,900	5,650	5,300	5,300
Arizona	160	130	90	90
California	5,900	5,600	5,500	5,500
<b>Total Grapefruit</b>	<b>58,660</b>	<b>50,080</b>	<b>52,890</b>	<b>51,890</b>
Lemons:				
California	18,300	24,000	23,000	23,000
Arizona	2,800	3,000	3,000	3,000
<b>Total Lemons</b>	<b>21,100</b>	<b>27,000</b>	<b>26,000</b>	<b>26,000</b>
Limes: <b>Florida</b>	<b>150</b>	<sup>2/</sup>	<sup>2/</sup>	<sup>2/</sup>
Temples: <b>Florida</b>	<b>1,550</b>	<b>1,300</b>	<b>1,400</b>	<b>1,400</b>
Tangelos: <b>Florida</b>	<b>2,150</b>	<b>2,350</b>	<b>1,300</b>	<b>1,300</b>
K-Early: <b>Florida</b>	<b>30</b>	<sup>2/</sup>	<sup>2/</sup>	<sup>2/</sup>
Tangerines:				
<b>FLORIDA-All</b>	<b>6,600</b>	<b>5,500</b>	<b>6,600</b>	<b>6,700</b>
Early <sup>3/</sup>	<b>4,350</b>	<b>3,000</b>	<b>4,400</b>	<b>4,400</b>
Honey	<b>2,250</b>	<b>2,500</b>	<b>2,200</b>	<b>2,300</b>
California <sup>4/</sup>	2,200	2,500	2,500	2,500
Arizona <sup>4/</sup>	620	430	600	600
<b>Total Tangerines</b>	<b>9,420</b>	<b>8,430</b>	<b>9,700</b>	<b>9,800</b>

<sup>1/</sup> Includes seedy. <sup>2/</sup> No forecast. <sup>3/</sup> 2001-02 -- Robinson, Fallglo, Sunburst, and Dancy; 2002-03 production and 2003-04 forecast -- Fallglo and Sunburst only. <sup>4/</sup> Includes tangelos.

the percent of loss to harvest is now projected at 11.5 instead of the 10.5 used in the October forecast. The resulting expansion indicates a reduction in the total number of boxes forecast to be utilized.

Components used in the December forecast

Type	Bearing trees	Fruit per tree	Percent droppage	Fruit per box
	(1,000)			
White Grapefruit <sup>1/</sup>	3,333	497	8.5	85
Colored Grapefruit	5,461	503	11.5	94

<sup>1/</sup> Seedless variety only.

## ALL TANGERINES NOW 6.7 MILLION BOXES

The forecast of all varieties of tangerines is increased 100,000 boxes to 6.7 million. The increase is in the Honey tangerine category. The early tangerine varieties (**Fallglo and Sunburst**) forecast remains unchanged at 4.4 million boxes. Fallglo harvest is complete with slightly less than 700,000 boxes estimated to have been used in fresh and processing channels.

Sunburst harvest is underway for the holiday season with commercial, gift fruit, and fundraising shipments. Estimated utilization of all early tangerines to the first of December is 2.1 million boxes, about the same as last season to the same period. The average fruit size of Sunburst tangerines is slightly larger than projected and droppage is slightly less. Projections remain consistent to attain the forecasted amount.

The **Honey** tangerine forecast is increased 100,000 boxes to 2.3 million. Average fruit sizes are now projected to be slightly larger than expected and droppage less. The average size is larger than any of the previous ten seasons and is expected to be near the largest at harvest.

## TEMPLES AT 1.4 MILLION BOXES

The Temple forecast is unchanged at 1.4 million boxes. If attained, this would equal the freeze affected 1989-90 harvest with only two seasons lower. Average fruit sizes are now expected to be slightly smaller at harvest with droppage slightly less. These offsetting factors have no affect on the expansion and the forecast.

## TANGELOS STAY AT 1.3 MILLION BOXES

The tangelo forecast remains at 1.3 million boxes. This is the smallest amount of harvest since the 1965-66 season. The primary reason is the very low average fruit per tree, down 52 percent from the previous season.

Average fruit sizes at harvest are near the largest of the previous ten season series primarily because of the light fruit set. Droppage is below average and near the lowest in the series.

**UNADJUSTED MATURITY TESTS: Average of regular bloom fruit from sample groves, 2002-03 and 2003-04 seasons**

Fruit type (No. groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04	2002-03	2003-04
	Percent		Percent				Pounds		Pounds	
Juice and solids per box are unadjusted and not comparable to plant test results.										
<b>ORANGES:</b>										
Early (76-83)										
Sep 1	1.34	1.23	9.47	9.32	7.19	7.66	44.76	42.77	4.24	3.98
Oct 1	0.91	0.86	9.90	9.71	11.10	11.56	51.00	49.60	5.04	4.81
Nov 1	0.73	0.74	10.57	10.44	14.74	14.38	52.78	51.32	5.58	5.36
Dec 1	0.73	0.66	11.37	11.30	15.89	17.32	49.57	50.85	5.63	5.74
Mid (51-52)										
Sep 1	1.43	1.43	9.04	9.34	6.41	6.58	46.06	44.13	4.16	4.12
Oct 1	1.02	1.06	9.59	9.76	9.63	9.38	52.84	49.20	5.07	4.80
Nov 1	0.83	0.88	10.40	10.72	12.84	12.45	54.64	52.39	5.68	5.61
Dec 1	0.79	0.77	11.27	11.68	14.62	15.52	53.66	51.94	6.05	6.07
Late (150-150)										
Sep 1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Oct 1	2.04	2.01	8.70	8.92	4.34	4.47	48.96	46.28	4.26	4.13
Nov 1	1.64	1.63	9.23	9.55	5.72	5.91	52.37	51.07	4.83	4.88
Dec 1	1.42	1.40	10.05	10.38	7.19	7.53	53.19	53.45	5.35	5.55
<b>GRAPEFRUIT:</b>										
White Seedless (42-44)										
Sep 1	1.56	1.55	9.67	9.52	6.23	6.16	35.25	35.11	3.41	3.34
Oct 1	1.42	1.40	9.88	9.74	6.99	7.00	38.21	38.98	3.77	3.79
Nov 1	1.27	1.26	10.20	9.96	8.15	7.95	40.30	42.65	4.10	4.25
Dec 1	1.30	1.20	10.45	10.01	8.10	8.40	42.37	44.47	4.42	4.45
Colored Seedless (36-39)										
Sep 1	1.54	1.50	10.16	9.84	6.63	6.55	35.80	35.24	3.64	3.46
Oct 1	1.34	1.34	10.32	10.12	7.78	7.60	39.41	40.20	4.07	4.07
Nov 1	1.20	1.23	10.71	10.41	8.99	8.49	42.25	43.20	4.52	4.50
Dec 1	1.21	1.12	10.85	10.47	9.01	9.39	42.97	45.65	4.66	4.78

NOTICE: 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.

Maturity test averages by areas, December 1, 2003

Fruit type	Groves sampled	Acid	Solids (Brix)	Ratio	Unfinished juice per box	Solids per box
	Number	Percent	Percent		Pounds	Pounds
<b>ORANGES:</b>						
Early						
Indian River Dist.	6	0.72	11.75	16.56	48.90	5.74
Other Areas	77	0.66	11.26	17.38	51.00	5.74
Midseason						
Indian River Dist.	10	0.77	11.69	15.21	52.51	6.14
Other Areas	42	0.77	11.68	15.59	51.80	6.05
Late						
Indian River Dist.	26	1.40	10.55	7.62	53.94	5.69
Other Areas	124	1.40	10.34	7.52	53.35	5.52
<b>GRAPEFRUIT:</b>						
White Seedless						
Indian River Dist.	33	1.23	10.13	8.29	44.55	4.51
Other Areas	11	1.12	9.65	8.73	44.25	4.28
Colored Seedless						
Indian River Dist.	33	1.12	10.52	9.41	45.59	4.80
Other Areas	6	1.11	10.18	9.27	45.96	4.68

## FRUIT SIZE COMPARISONS BY TYPES TO PREVIOUS SEASONS

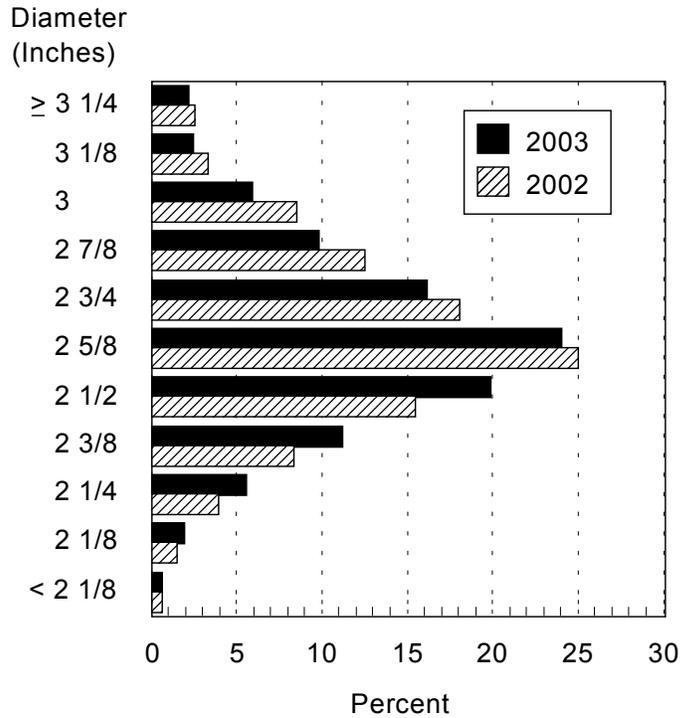
Size frequency distributions are from the November size survey conducted in sample groves during the period of November 3 through 25, 2003. The distributions are by percent from fruit within the size range of each 4/5 bushel container. These frequency distributions relate only to fruit from spring bloom and exclude summer bloom fruit in all seasons.

Florida Citrus: Size frequency distributions  
from November measurements

Type of fruit and size in 4/5-bushel containers	2001	2002	2003
--- Percent ---			
<b>Early and midseason oranges: (excluding Navels)</b>			
64 and larger	2.2	3.9	3.1
80	7.9	16.2	11.9
100	29.8	36.1	31.9
125	35.9	29.3	33.7
163 and smaller	24.2	14.5	19.4
<b>Navel oranges:</b>			
64 and larger	58.1	56.2	72.7
80	29.2	29.9	22.4
100	10.0	10.9	4.0
125	2.2	2.5	0.7
163 and smaller	0.5	0.5	0.2
<b>White seedless grapefruit:</b>			
32 and larger	7.3	19.2	13.4
36	14.9	19.8	17.2
40	20.4	24.7	23.7
48	21.8	16.6	17.0
56	13.5	9.5	10.6
63 and smaller	22.1	10.2	18.1
<b>Colored seedless grapefruit:</b>			
32 and larger	3.9	12.4	8.2
36	11.9	16.9	12.1
40	17.5	25.6	22.5
48	22.4	18.7	21.7
56	15.5	11.4	14.6
63 and smaller	28.8	15.0	20.9
<b>Sunburst tangerines:</b>			
80 and larger	9.6	23.3	15.6
100	20.2	35.3	25.3
120	33.3	26.1	31.9
176	15.2	8.9	13.9
210 and smaller	21.7	6.4	13.3
<b>Honey tangerines:</b>			
80 and larger	21.7	12.3	24.5
100	30.7	29.0	35.6
120	25.4	31.6	22.6
176	9.2	12.7	9.1
210 and smaller	13.0	14.4	8.2
<b>Templets:</b>			
80 and larger	8.8	43.0	17.1
100	38.9	39.3	37.2
120	35.8	12.7	30.2
156 and smaller	16.5	5.0	15.5
<b>Tangelos:</b>			
80 and larger	41.5	46.4	57.4
100	31.8	31.4	26.5
120	16.7	17.0	9.8
156 and smaller	10.0	5.2	6.3

The charts below describe the relationships of the fruit size measurements with those taken in the previous year. The diameter measurements shown are the minimum values of each eighth inch range, except for the smallest values.

**CHART 1: Early and midseason oranges (excluding Navels) size frequency by diameter from November measurements.**



**CHART 2: White seedless grapefruit size frequency by diameter from November measurements.**

