



CITRUS FEBRUARY FORECAST MATURITY TEST RESULTS AND FRUIT SIZE

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February 8, 2024

Florida All Orange Production Down 3 Percent from January Forecast
Florida Non-Valencia Orange Production Down 9 Percent
Florida Valencia Orange Unchanged
Florida All Grapefruit Production Unchanged
Florida All Tangerine and Tangelo Production Unchanged

FORECAST DATES - 2023-2024 SEASON			
March 8, 2024		May 10, 2024	
April 11, 2024		June 12, 2024	
		July 12, 2024	

Citrus Production by Type – States and United States

Crop and State	Production ¹		2023-2024 Forecasted Production ¹	
	2021-2022 (1,000 boxes)	2022-2023 (1,000 boxes)	January (1,000 boxes)	February (1,000 boxes)
Non-Valencia Oranges ²				
Florida	18,250	6,150	7,500	6,800
California ³	31,500	36,500	38,000	38,000
Texas ³	170	570	600	600
United States	49,920	43,220	46,100	45,400
Valencia Oranges				
Florida	22,950	9,650	13,000	13,000
California ³	7,600	6,700	7,800	7,800
Texas ³	30	560	350	350
United States	30,580	16,910	21,150	21,150
All Oranges				
Florida	41,200	15,800	20,500	19,800
California ³	39,100	43,200	45,800	45,800
Texas ³	200	1,130	950	950
United States	80,500	60,130	67,250	66,550
Grapefruit				
Florida-All	3,330	1,810	2,400	2,400
Red	2,830	1,560	2,100	2,100
White	500	250	300	300
California ³	4,100	4,000	3,800	3,800
Texas ³	1,700	2,250	2,350	2,350
United States	9,130	8,060	8,550	8,550
Lemons ³				
Arizona	1,250	1,400	900	900
California	25,200	26,500	20,000	20,000
United States	26,450	27,900	20,900	20,900
Tangerines and Mandarins ⁴				
Florida	750	480	550	550
California ³	17,500	23,700	22,000	22,000
United States	18,250	24,180	22,550	22,550

¹ Net pounds per box: oranges in California-80, Florida-90, Texas-85; grapefruit in California and Texas-80, Florida-85; lemons-80; and tangerines and mandarins in California-80, Florida-95.

² Navel and miscellaneous varieties in California. Early (including Navel) and midseason varieties in Florida and Texas.

³ Estimates carried forward from January.

⁴ Includes tangelos and tangors.

All Oranges 19.8 Million Boxes

The 2023-2024 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 19.8 million boxes, down 700,000 boxes from the January forecast. If realized, this will be 25 percent more than last season's final production. The forecast consists of 6.80 million boxes of non-Valencia oranges (early, mid-season, and Navel varieties) and 13.0 million boxes of Valencia oranges. An 8-year regression was used for comparison purposes. All references to "average", "minimum", and "maximum" refer to the previous 10 seasons, excluding the 2017-2018 season, which was affected by Hurricane Irma, and the 2022-2023 season, which was affected by Hurricanes Ian and Nicole. Average fruit per tree includes both regular bloom and the first late bloom.

Non-Valencia Oranges 6.80 Million Boxes

The forecast of non-Valencia production is reduced 700,000 boxes to 6.80 million boxes. Size and drop components were final last month. The Row Count survey conducted January 25-26, 2024, showed 96 percent of the early and mid-season non-Valencia rows, excluding Navels, are harvested. The Navel forecast, included in the non-Valencia portion of the forecast, is 200,000 boxes.

Valencia Oranges 13.0 Million Boxes

The forecast of Valencia production is unchanged from the January forecast at 13.0 million boxes. Current fruit size is below average and is projected to be below average at harvest. Current droppage is above average and projected to be above average at harvest.

All Grapefruit 2.40 Million Boxes

The February forecast of all grapefruit production is unchanged from the January forecast. The white grapefruit forecast is unchanged at 300,000 boxes. Fruit size and drop are final in this report. White and red grapefruit final size are above average. Drop for white grapefruit is below average, while red grapefruit drop is above average. The Row Count survey conducted January 25-26, 2024 showed 60 percent of the grapefruit rows are harvested.

Tangerines and Mandarins 550,000 Boxes

The forecast for tangerines and tangelos is unchanged from the January forecast at 550,000 boxes, 15 percent more than last season's utilization of 480,000 boxes. This forecast number includes all certified tangerine and tangelo varieties.

Reliability

To assist users in evaluating the reliability of the February 1 Florida production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the February 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of squared percentage deviations for the latest 20-year period is computed. The square root of the average becomes statistically the "Root Mean Square Error." Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

The "Root Mean Square Error" for the February 1 Florida all orange production forecast is 6.3 percent. If you exclude the four abnormal production seasons (four hurricane seasons), the "Root Mean Square Error" is 6.5 percent. This means chances are 2 out of 3 that the current all orange production forecast will not be above or below the final estimates by more than 6.3 percent, or 6.5 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 10.9 percent including abnormal seasons and 11.3 percent excluding abnormal seasons.

Changes between the February 1 Florida all orange forecast and the final estimates during the past 20 years have averaged 5.35 million boxes (5.27 million, excluding abnormal seasons), ranging from 0.05 million boxes to 12.7 million boxes including abnormal seasons, (0.70 to 12.7 million boxes excluding abnormal seasons). The February 1 forecast for all oranges has been below the final estimate 7 times, above 13 times, (below 6 times, above 10 times, excluding abnormal seasons). The difference does not imply that the February 1 forecasts this year are likely to understate or overstate final production.

Forecast Components, by Type – Florida: February 2024

[Survey data is considered final in December for Navels, January for early and mid-season (non-Valencia) oranges, February for grapefruit, and April for Valencia oranges]

Type	Bearing trees (1,000 trees)	Fruit per tree (number)	Droppage (percent)	Fruit per box (number)
ORANGES				
Early & mid-season (Non-Valencia) ¹	13,299	342	43	336
Navel.....	570	138	37	138
Valencia	24,868	279	43	260
GRAPEFRUIT				
Red	1,418	356	34	119
White.....	194	479	25	109

¹ Excludes Navels.

Maturity

Regular bloom fruit samples were collected from groves on established routes January 25-26, 2024 in Florida’s five major citrus producing areas and tested January 26, 2024. In the table below, all comparisons are made to the previous season.

Unadjusted Maturity Tests — Florida: February 1, 2022-2023 and 2023-2024

[Averages of regular bloom fruit from sample groves. Samples were run through an FMC 091B machine using pneumatic pressure. This machine utilizes a 0.025 short strainer with a 1.00-inch orifice tube for the 3-inch cup, and a 1.25-inch orifice tube for the 4-inch and 5-inch cups.]

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2022-2023	2023-2024	2022-2023	2023-2024	2022-2023	2023-2024	2022-2023	2023-2024	2022-2023	2023-2024
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Valencia (145-147)										
Oct 1	1.94	1.76	8.95	9.15	4.66	5.31	46.74	45.56	4.18	4.17
Nov 1	1.61	1.46	8.89	9.21	5.58	6.41	49.68	49.11	4.42	4.52
Dec 1	1.26	1.23	8.99	9.53	7.22	7.92	52.19	51.43	4.70	4.90
Jan 1	1.13	1.08	9.21	9.72	8.20	9.12	53.86	53.39	4.96	5.19
Feb 1	1.00	0.96	9.49	10.03	9.59	10.61	54.41	54.68	5.17	5.49

Size Frequency Measurement Distributions, by Type — Florida: January Survey

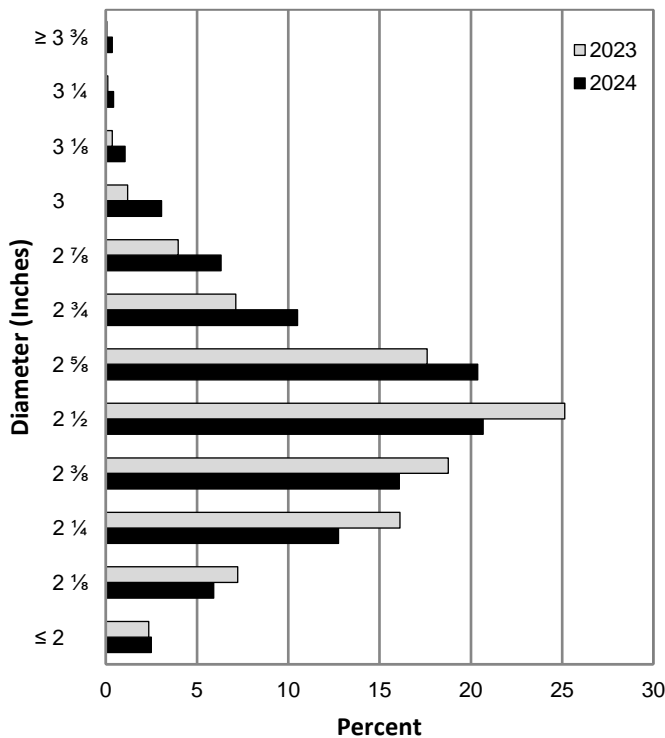
[Size frequency distributions from the January size survey are shown in the following table. The distributions are by percent of fruit falling within the size range of each 4/5-bushel container. These frequency distributions include fruit from regular bloom and exclude fruit from summer bloom]

Type and number of fruit per 4/5 – bushel containers	2022	2023	2024	Type and number of fruit per 4/5 – bushel containers	2022	2023	2024
	(percent)	(percent)	(percent)		(percent)	(percent)	(percent)
VALENCIA ORANGES				WHITE GRAPEFRUIT ¹			
64 or less	0.6	0.3	1.2	32 or less	0.9	3.9	2.0
80	4.0	2.8	6.3	36	16.2	8.5	8.3
100	18.6	15.8	21.8	40	25.9	15.2	23.0
125	32.2	36.7	33.5	48	24.4	20.3	23.0
163 or more	44.6	44.4	37.2	56	12.6	19.4	18.4
				63 or more	20.0	32.7	25.3
RED GRAPEFRUIT							
32 or less	1.7	0.6	4.4				
36	4.7	2.3	6.8				
40	7.3	5.7	12.2				
48	12.6	6.5	14.9				
56	16.7	11.3	19.1				
63 or more	57.0	73.6	42.6				

¹ Excludes seedy.

The charts below show the distribution of fruit sizes in 2023 compared to 2024. The diameter measurements shown are the minimum values of each eighth inch range, except for the smallest value.

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



Fruit Size Frequency Measurements, Red Seedless Grapefruit, by Diameter - Florida: January Survey

