

Harvesting Charges for Florida Citrus, 2022/23

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In this report, we provide estimates for harvesting citrus in Florida during the 2022/23 season. The estimates are useful for computing on-tree prices and to estimate economic returns to citrus growers. To collect the data, we conducted a survey in May 2023. A total of eight citrus harvesters participated in the survey. The combined harvested area of those who reported it accounted for 21,946 acres, which represents 6% of the citrus bearing acreage in the state (USDA-NASS, 2022).

Harvesting charges are classified into picking, roadsiding, and hauling. We collected data to obtain estimates for each of those three categories for the major citrus varieties grown in Florida. Table 1 shows the average, minimum, maximum, as well as the percentage change from last season for each harvesting category and variety. The average picking charges for all fresh fruit varieties increased by 6% compared to last season, and those for processed fruit increased by 35%. The largest increase in picking charges was for tangelos, which increased by 28% and 55% for fresh and processed fruit, respectively. In both cases, only one harvester reported charges for tangelos. Similarly to last season, this season harvesters reported, on average, higher picking charges for processed fruit than for fresh fruit for all varieties, except for tangerines (including Temples). As processing fruit becomes scarcer, the fruit that is picked has a higher charge.

Relative to 2021/22, the average roadsiding charges for all fresh fruit increased by 11%, and for processed fruit the charges increased by 14%. The largest change in roadsiding charges was for tangelos, which increased by 38% and 66% for fresh and processed fruit, respectively, relative to last season. In both cases, only one harvester reported charges for tangelos. Also for tangerines (including Temples), only one harvester reported charges. The average hauling charges for fresh and processed fruit increased by 17% and 2% compared to last season, respectively.

Since citrus harvesting is performed manually, the cost of labor is a key component of harvesting. A large proportion of the labor used for harvesting citrus in Florida is hired under the H-2A temporary agricultural program. Harvesting companies often end up employing a majority of H-2A workers because domestic harvesting workers are in short supply. Among the companies surveyed, six reported employing 100% of H-2A workers, the other two reported that at least 95% of their crews were hired under H-2A. Therefore, the costs associated with employing H-2A workers are embedded in the harvesting charges presented in this report.

Citrus black spot is a fungal disease that affects yield and fruit quality and was first detected in Florida in March 2010 (Dewdney *et al.*, 2016). All trailers hauling citrus fruit from regions in which citrus black spot has been detected, are required to be tarped. The cost to tarp the hauling trailer increases the total

harvesting charge. According to the responses we obtained, the average time to install and remove a tarp from the trailer was 49 minutes, and the additional cost associated was \$32.00 per load.

In Table 2 we present the estimates for the average total harvesting charges by variety, for fresh and processed fruit, using the hauling charges for 51-80 miles. The average total harvesting charges for fresh and processed sweet oranges were \$4.23 and \$4.33 per box, respectively. For grapefruit, the average total harvesting charges were \$2.95 and \$3.42 per box for fresh and processed fruit, respectively, whereas for fresh and processed specialty fruit the charges were \$6.46 and \$6.45 per box, respectively. The significantly higher charges for harvesting specialty fruit may be attributed to the extra labor needed to clip, pick, and handle these thin peel varieties so that the fruit is not damaged. Moreover, hauling costs for processed specialty fruit can be higher than those for other processed varieties because they are not hauled in a fully loaded trailer to prevent the fruit on the bottom from becoming crushed from the weight of fruit loaded on top.

References

Dewdney, M. M., T.S. Schubert, M.R. Estes, P.D. Roberts, N.A. Peres. 2016. 2016 Florida Citrus Pest Management Guide: Ch. 19 Citrus Black Spot. Available at: <http://edis.ifas.ufl.edu/cg088>

USDA-NASS. 2022. Commercial Citrus Inventory Report

Table 1. Estimated Average Picking, Roadsiding, and Hauling Charges for Florida Citrus, 2022/23

Picking Charges	Fresh Fruit				Processed Fruit			
	Min.	Max.	Average	Change from 2021/22	Min.	Max.	Average	Change from 2021/22
	\$ / box				\$ / box			
Early and Mid-season Oranges	1.65	1.80	1.72	15%	1.60	2.75	2.06	20%
Valencia Oranges	1.23	2.50	2.01	26%	1.52	7.60	2.26	40%
Valencia Oranges (after May 15)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pink/Red Grapefruit	0.85	0.97	0.91	-6%	1.64	1.75	1.70	N/A
White/Marsh Grapefruit	1.06	1.06	1.06	-9%	1.75	1.75	1.75	25%
Tangelos	3.11	3.11	3.11	28%	4.65	4.65	4.65	55%
Tangerines (including Temples)	2.50	2.50	2.50	-18%	2.00	2.00	2.00	N/A
Average for all varieties	6%				35%			

Roadsiding Charges	Fresh Fruit				Processed Fruit			
	Min.	Max.	Average	Change from 2021/22	Min.	Max.	Average	Change from 2021/22
	\$ / box				\$ / box			
Early and Mid-season Oranges	1.00	1.89	1.56	16%	0.18	2.03	1.47	11%
Valencia Oranges	1.20	2.20	1.69	18%	0.18	2.64	1.55	5%
Valencia Oranges (after May 15)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pink/Red Grapefruit	1.20	1.28	1.24	2%	0.63	1.46	1.05	N/A
White/Marsh Grapefruit	1.35	1.35	1.35	2%	0.75	1.50	1.13	-24%
Tangelos	3.77	3.77	3.77	38%	4.65	4.65	4.65	66%
Tangerines (including Temples)	2.00	2.00	2.00	-12%	0.30	0.30	0.30	N/A
Average for all varieties	11%				14%			

Hauling Charges	Fresh Fruit		Processed Fruit	
	Average All Varieties	Change from 2021/22	Average All Varieties	Change from 2021/22
	\$ / box		\$ / box	
0-30 miles	0.59	23%	0.51	6%
31-50 miles	0.68	24%	0.57	4%
51-80 miles	0.78	16%	0.65	1%
81-100 miles	0.96	20%	0.77	0%
100+ miles	0.92	2%	0.87	1%
Average for all distances	17%		2%	

Table 2. Estimated Average Total Harvesting Charges for Florida Citrus, 2022/23¹

	Fresh Fruit	Processed Fruit
	<i>\$/box</i>	<i>\$/box</i>
Early and Mid-season Oranges	4.05	4.17
Valencia Oranges	4.47	4.46
Valencia Oranges (after May 15)	N/A	N/A
<i>Sweet Oranges Average²</i>	<i>4.23</i>	<i>4.33</i>
Pink/Red Grapefruit	2.93	3.39
White/Marsh Grapefruit	3.19	3.52
<i>Grapefruit Average²</i>	<i>2.95</i>	<i>3.42</i>
Tangelos	7.65	9.95
Tangerines (including Temples)	5.28	2.95
<i>Specialty Citrus Average</i>	<i>6.46</i>	<i>6.45</i>

¹Using hauling costs for 51-80 miles.

²Weighted average by production at state level for fresh and processing markets based on the USDA-NASS 2021/22 Florida Citrus Statistics.