

Harvesting Charges for Florida Citrus, 2021/22

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In this report, we provide estimates for harvesting citrus in Florida during the 2021/22 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 2021. A total of eight citrus harvesters participated in the survey. The combined harvested area of those who reported it accounted for 35,897 acres, which represents 10% of the citrus bearing acreage in the state (USDA-NASS, 2021).

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 20% compared to last season, and those for processed fruit increased by 48%. The largest increase in picking charges was for tangelos, which increased by 44% and 107% for fresh and processed fruit, respectively. In both cases, only one harvester reported charges for tangelos. It is noteworthy that this season harvesters reported, on average, higher picking charges for processed fruit than for fresh fruit for all varieties, except for Valencias (after May 15). This is likely the result of processing fruit becoming scarcer (due to the fruit drop caused by HLB), so the fruit that was picked had a higher charge.

Relative to 2020/21, the average roadsiding charges for all fresh fruit increased by 23%, and for processed fruit the charges increased by 44%. The largest change in roadsiding charges was for tangelos, which increased by 76% and 112% for fresh and processed fruit, respectively, relative to last season. In both cases, only one harvester reported charges for tangelos. Also, for roadsiding, this season harvesters reported that for Valencias, White Grapefruit and Tangelos charges were, on average, higher for processed fruit than for fresh fruit. The average hauling charges of fresh and processed fruit decreased by 12% and 6% 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, four reported employing less than 100% of H-2A workers, the other four reported that 100% 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 60 minutes, and the additional cost associated was \$22.00 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 oranges were \$3.59 and \$3.68 per box, respectively. For grapefruit, the average total harvesting charges were \$2.88 and \$3.52 per box for fresh and processed fruit, respectively, whereas for fresh and processed specialty fruit the charges were \$5.95 and \$6.44 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 typically 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. 2021. Commercial Citrus Inventory Report

Table 1. Estimated Average Picking, Roadsiding, and Hauling Charges for Florida Citrus, 2021/22

Picking Charges	Fresh Fruit				Processed Fruit			
	Min.	Max.	Average	Change from 2020/21	Min.	Max.	Average	Change from 2020/21
	<i>\$/box</i>				<i>\$/box</i>			
Early and Mid-season Oranges	1.12	1.85	1.49	12%	1.30	2.50	1.72	28%
Valencia Oranges	1.40	1.77	1.59	15%	1.20	2.45	1.61	14%
Valencia Oranges (after May 15)	1.65	1.65	1.65	3%	1.55	1.55	1.55	3%
Pink/Red Grapefruit	0.75	1.38	0.97	10%	N/A	N/A	N/A	N/A
White/Marsh Grapefruit	0.89	1.42	1.16	23%	1.40	1.40	1.40	87%
Tangelos	2.44	2.44	2.44	44%	3.00	3.00	3.00	107%
Tangerines (including Temples)	3.05	3.05	3.05	34%	N/A	N/A	N/A	N/A
Average for all varieties				20%				48%

Roadsiding Charges	Min.	Max.	Average	Change from 2020/21	Min.	Max.	Average	Change from 2020/21
	<i>\$/box</i>				<i>\$/box</i>			
	Early and Mid-season Oranges	1.11	1.73	1.34	12%	1.08	1.71	1.33
Valencia Oranges	1.17	2.01	1.43	16%	1.16	2.25	1.47	31%
Valencia Oranges (after May 15)	1.28	1.28	1.28	3%	1.25	1.25	1.25	4%
Pink/Red Grapefruit	1.11	1.43	1.22	4%	N/A	N/A	N/A	N/A
White/Marsh Grapefruit	1.18	1.45	1.32	11%	1.49	1.49	1.49	49%
Tangelos	2.72	2.72	2.72	76%	2.80	2.80	2.80	112%
Tangerines (including Temples)	2.26	2.26	2.26	38%	N/A	N/A	N/A	N/A
Average for all varieties				23%				44%

Hauling Charges	Average All Varieties	Change from 2020/21	Average All Varieties	Change from 2020/21
	<i>\$/box</i>		<i>\$/box</i>	
0-30 miles	0.48	-17%	0.48	-7%
31-50 miles	0.55	-16%	0.55	-9%
51-80 miles	0.67	-12%	0.64	-3%
81-100 miles	0.80	-7%	0.77	-3%
100+ miles	0.90	-11%	0.86	-9%
Average for all distances		-12%		-6%

Table 2. Estimated Average Total Harvesting Charges for Florida Citrus, 2021/22¹

	Fresh Fruit	Processed Fruit
	<i>\$/box</i>	<i>\$/box</i>
Early and Mid-season Oranges	3.50	3.69
Valencia Oranges	3.70	3.72
Valencia Oranges (after May 15)	3.60	3.44
<i>Sweet Oranges Average²</i>	<i>3.59</i>	<i>3.68</i>
Pink/Red Grapefruit	2.86	N/A
White/Marsh Grapefruit	3.14	3.53
<i>Grapefruit Average²</i>	<i>2.88</i>	<i>3.52</i>
Tangelos	5.83	6.44
Tangerines (including Temples)	5.98	N/A
<i>Specialty Citrus Average²</i>	<i>5.95</i>	<i>6.44</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 2020/21 Florida Citrus Statistics.