

Harvesting Charges for Florida Citrus, 2020/21

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In this report, we provide estimates for harvesting citrus in Florida during the 2020/21 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 2020. A total of 10 citrus harvesters participated in the survey; their combined harvested area accounted for 82,900 acres, which represents 21% of the citrus bearing acreage in the state (USDA-NASS, 2020).

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 decreased by 8% compared to last season, and those for processed fruit showed decreased by 3%. The largest increase and decrease in picking charges were for processed red grapefruit and processed white grapefruit, respectively; the former variety was up 26%, whereas the latter was down 46% compared to last season. In both cases, only one harvester reported charges for such category.

Relative to 2019/20, the average roadsiding charges for all fresh fruit decreased by 12%, and for processed fruit the charges decreased by 5%. The largest change in roadsiding charges was for fresh tangelos, which decreased by 42% relative to last season. The average hauling charges of fresh and processed fruit increased by 12% and 14% compared to last season, respectively. In fact, hauling charges for all distances increased relative to 2019/20.

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 companies reported employing less than 100% of H-2A workers, and one reported zero percent, the remaining five companies 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 43 minutes, and the additional cost associated was \$20.00 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 81-100 miles. The average total harvesting charges for fresh and processed oranges were \$3.46 and \$3.30 per box, respectively. For grapefruit, the average total harvesting charges were \$2.92 and \$3.27 per box for fresh and processed fruit, respectively, whereas for fresh and processed specialty fruit the charges were \$4.69 and \$3.56 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. 2020. Commercial Citrus Inventory Report

Table 1. Estimated Average Picking, Roadsiding, and Hauling Charges for Florida Citrus, 2020/21

Picking Charges	Fresh Fruit				Processed Fruit			
	Min.	Max.	Average	Change from 2019/20	Min.	Max.	Average	Change from 2019/20
	\$ / box				\$ / box			
Early and Mid-season Oranges	1.00	1.56	1.33	-5%	1.00	1.62	1.34	5%
Valencia Oranges	0.95	1.60	1.39	-4%	1.20	1.60	1.42	6%
Valencia Oranges (after May 15)	1.60	1.60	1.60	-16%	1.50	1.50	1.50	10%
Pink/Red Grapefruit	0.75	1.01	0.88	1%	1.55	1.55	1.55	26%
White/Marsh Grapefruit	0.80	1.01	0.94	-4%	0.75	0.75	0.75	-46%
Tangelos	1.40	2.00	1.70	-25%	1.45	1.45	1.45	-16%
Tangerines (including Temples)	2.00	2.50	2.27	-5%	N/A	N/A	N/A	N/A
Average for all varieties				-8%				-3%

Roadsiding Charges	Min.	Max.	Average	Change from 2019/20	Min.	Max.	Average	Change from 2019/20
	\$ / box				\$ / box			
	Early and Mid-season Oranges	1.01	1.62	1.20	-11%	0.82	1.54	1.10
Valencia Oranges	1.09	1.61	1.23	-5%	0.83	1.50	1.13	0%
Valencia Oranges (after May 15)	1.24	1.24	1.24	-16%	1.20	1.20	1.20	6%
Pink/Red Grapefruit	1.11	1.29	1.17	-1%	1.14	1.14	1.14	8%
White/Marsh Grapefruit	1.13	1.28	1.19	-4%	1.00	1.00	1.00	-26%
Tangelos	1.20	1.89	1.54	-42%	1.32	1.32	1.32	-18%
Tangerines (including Temples)	1.20	2.51	1.64	-6%	N/A	N/A	N/A	N/A
Average for all varieties				-12%				-5%

Hauling Charges	Average All Varieties	Change from 2019/20	Average All Varieties	Change from 2019/20
	\$ / box		\$ / box	
0-30 miles	0.58	21%	0.51	22%
31-50 miles	0.65	9%	0.60	10%
51-80 miles	0.76	8%	0.66	3%
81-100 miles	0.86	13%	0.79	9%
100+ miles	1.01	9%	0.95	22%
Average for all distances		12%		14%

Table 2. Estimated Average Total Harvesting Charges for Florida Citrus, 2020/21¹

	Fresh Fruit	Processed Fruit
	<i>\$/box</i>	<i>\$/box</i>
Early and Mid-season Oranges	3.39	3.22
Valencia Oranges	3.48	3.33
Valencia Oranges (after May 15)	3.70	3.49
<i>Sweet Oranges Average²</i>	<i>3.46</i>	<i>3.30</i>
Pink/Red Grapefruit	2.91	3.48
White/Marsh Grapefruit	2.99	2.54
<i>Grapefruit Average²</i>	<i>2.92</i>	<i>3.27</i>
Tangelos	4.10	3.56
Tangerines (including Temples)	4.77	N/A
<i>Specialty Citrus Average²</i>	<i>4.69</i>	<i>3.56</i>

¹Using hauling costs for 81-100 miles.

²Weighted average by production at state level for fresh and processing markets based on the USDA-NASS 2019/20 Florida Citrus Statistics.