

Harvesting Charges for Florida Citrus, 2019/20

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In this report, we provide estimates for harvesting citrus in Florida during the 2019/20 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 11 citrus harvesters participated in the survey; their combined harvested area accounted for 95,800 acres, which represents 22% of the citrus bearing acreage in the state (USDA-NASS, 2019).

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 5% compared to last season, whereas those for processed fruit showed an increase of 1%. The largest increase and decrease in picking charges was for fresh Valencia oranges (after May 15) and fresh red grapefruit, respectively; the former variety was up 24%, whereas the latter was down 18% compared to last season.

Relative to 2018/19, the average roadsiding charges for all fresh fruit increased by 10%, whereas for processed fruit the charges increased by 3%. The largest change in roadsiding charges was for fresh tangelos, which increased by 55% relative to last season. Whereas the largest decrease was for fresh red grapefruit, which decreased by 10% compared to 2018/19. The average hauling charges of fresh and processed fruit increased by 4% and 1% compared to last season, respectively. In fact, hauling charges for all distances increased, except for distances of more than 100 miles (which decreased by 5 and 3% for fresh and processed fruit, 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, only three companies reported employing 95, 90 and 80% H-2A workers, the remaining eight 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 \$21.00 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 \$3.49 and \$3.08 per box, respectively. For grapefruit, the average total harvesting charges were \$2.76 and \$2.93 per box for fresh and processed fruit, respectively, whereas for fresh and processed specialty fruit the charges were \$4.93 and \$5.60 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. 2019. Commercial Citrus Inventory Report

Table 1. Estimated Average Picking, Roadsiding, and Hauling Charges for Florida Citrus, 2019/20

Fresh Fruit					Processed Fruit			
Picking Charges	Min.	Max.	Average	Change from 2018/19	Min.	Max.	Average	Change from 2018/19
	\$ / box				\$ / box			
Early and Mid-season Oranges	1.15	2.00	1.41	11%	1.05	1.50	1.28	1%
Valencia Oranges	1.10	2.00	1.45	7%	1.05	1.65	1.34	2%
Valencia Oranges (after May 15)	1.40	2.50	1.90	24%	1.20	1.50	1.36	0%
Pink/Red Grapefruit	0.75	1.03	0.87	-18%	1.08	1.30	1.23	0%
White/Marsh Grapefruit	0.85	1.10	0.98	2%	1.40	1.40	1.40	N/A
Tangelos	2.26	2.26	2.26	-8%	1.72	1.72	1.72	N/A
Tangerines (including Temples)	1.81	2.75	2.38	16%	3.50	3.50	3.50	N/A
Average for all varieties				5%				1%

Roadsiding Charges	Min.	Max.	Average	Change from 2018/19	Min.	Max.	Average	Change from 2018/19
	\$ / box				\$ / box			
Early and Mid-season Oranges	1.09	2.24	1.34	6%	0.90	1.54	1.12	4%
Valencia Oranges	1.07	1.59	1.30	4%	0.90	1.47	1.13	0%
Valencia Oranges (after May 15)	1.20	1.67	1.47	10%	0.90	1.48	1.13	4%
Pink/Red Grapefruit	1.11	1.29	1.18	-10%	0.90	1.25	1.06	3%
White/Marsh Grapefruit	1.15	1.32	1.24	-1%	1.35	1.35	1.35	N/A
Tangelos	2.65	2.65	2.65	55%	1.61	1.61	1.61	N/A
Tangerines (including Temples)	1.33	2.87	1.74	2%	1.87	1.87	1.87	N/A
Average for all varieties				10%				3%

Hauling Charges	Average All Varieties		Change from 2018/19	Average All Varieties		Change from 2018/19
	\$ / box			\$ / box		
0-30 miles	0.48		10%	0.42		3%
31-50 miles	0.60		8%	0.54		2%
51-80 miles	0.70		7%	0.64		5%
81-100 miles	0.76		0%	0.72		0%
100+ miles	0.92		-5%	0.78		-3%
Average for all distances			4%			1%

Table 2. Estimated Average Total Harvesting Charges for Florida Citrus, 2019/20¹

	Fresh Fruit	Processed Fruit
	<i>\$/box</i>	<i>\$/box</i>
Early and Mid-season Oranges	3.44	3.04
Valencia Oranges	3.45	3.11
Valencia Oranges (after May 15)	4.07	3.12
<i>Oranges Average²</i>	<i>3.49</i>	<i>3.08</i>
Pink/Red Grapefruit	2.74	2.93
White/Marsh Grapefruit	2.91	3.39
<i>Grapefruit Average²</i>	<i>2.76</i>	<i>2.93</i>
Tangelos	5.60	3.97
Tangerines (including Temples)	4.82	6.01
<i>Specialty Citrus Average²</i>	<i>4.93</i>	<i>5.60</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 2018/19 Florida Citrus Statistics.