

## Harvesting Charges for Florida Citrus, 2018/19

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In this report, we provide estimates for harvesting citrus in Florida during the 2018/19 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 2019. A total of 10 citrus harvesters participated in the survey; their combined harvested area accounted for 100,600 acres, which represents 23% of the citrus bearing acreage in the state (USDA-NASS, 2018).

Harvesting charges are classified into picking, roadsiding, and hauling. We attempted to collect data to obtain estimates for each of the three categories for the major citrus varieties grown in Florida. However, the Florida citrus industry has been undergoing a consolidation process in recent years due to the impact of HLB. Having fewer harvesting companies in the industry has made obtaining data such as that needed for this report increasingly challenging. Thus, this season we were not able to obtain estimates for picking and roadsiding charges for processed white grapefruit, tangelos, and tangerines.

For those varieties and markets that we did obtain data for, the picking, roadsiding, and hauling charges are presented in Table 1. The average picking charges for all fresh fruit varieties decreased by 4% compared to last season, whereas those for processed fruit showed an increase of 5%. The largest increase and decrease in picking charges was for processed red grapefruit and processed early and mid-season oranges, respectively; the former variety was up 26%, whereas the latter was down 12% compared to last season.

Relative to 2017/18, the average roadsiding charges for all fresh fruit decreased by 7%, whereas for processed fruit the charges had no change. While roadsiding charges for all fresh fruit varieties decreased relative to last season (except for white and red grapefruit), Early and Mid-season oranges were the only processed variety to show a decrease compared to the previous season. The average hauling charges of fresh and processed fruit increased by 13% and 7% compared to last season, respectively. In fact, hauling charges for all distances increased, except for distances of less than 31 miles (which decreased by 4 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 one company reported employing 95% H-2A workers, the remaining nine 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). During 2019, the quarantined region across the Florida has been extended and it now includes parts of Charlotte, Collier, Hendry, Lee, and Polk counties. 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 with it 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 \$3.23 and \$3.01 per box, respectively. For grapefruit, the average total harvesting charges were \$2.99 and \$2.86 per box for fresh and processed fruit, respectively, whereas for fresh specialty fruit the charges were \$4.47 per box. 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 shipped 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. 2018. Commercial Citrus Inventory Report

Table 1. Estimated Average Picking, Roadsiding, and Hauling Charges for Florida Citrus, 2018/19

Picking Charges	Fresh Fruit				Processed Fruit			
	Min.	Max.	Average	Change from 2017/18	Min.	Max.	Average	Change from 2017/18
	\$/box				\$/box			
Early and Mid-season Oranges	1.10	1.55	1.27	-11%	1.00	1.75	1.27	-12%
Valencia Oranges	1.05	1.65	1.35	0%	1.10	1.80	1.31	0%
Valencia Oranges (after May 15)	1.40	1.60	1.53	6%	1.25	1.53	1.35	5%
Pink/Red Grapefruit	1.00	1.15	1.06	5%	1.10	1.35	1.23	26%
White/Marsh Grapefruit	0.90	1.02	0.96	-9%	N/A	N/A	N/A	N/A
Tangelos	2.00	3.35	2.45	-4%	N/A	N/A	N/A	N/A
Tangerines (including Temples)	1.85	2.35	2.05	-17%	N/A	N/A	N/A	N/A
Average for all varieties				-4%				5%

  

Roadsiding Charges	Fresh Fruit				Processed Fruit			
	Min.	Max.	Average	Change from 2017/18	Min.	Max.	Average	Change from 2017/18
	\$/box				\$/box			
Early and Mid-season Oranges	1.04	1.60	1.26	-12%	0.90	1.44	1.08	-7%
Valencia Oranges	1.10	1.52	1.25	-8%	0.92	1.84	1.13	0%
Valencia Oranges (after May 15)	1.24	1.55	1.34	0%	0.93	1.51	1.09	1%
Pink/Red Grapefruit	1.24	1.39	1.30	11%	1.00	1.06	1.03	5%
White/Marsh Grapefruit	1.18	1.31	1.25	9%	N/A	N/A	N/A	N/A
Tangelos	1.40	2.33	1.71	-26%	N/A	N/A	N/A	N/A
Tangerines (including Temples)	1.40	2.09	1.70	-26%	N/A	N/A	N/A	N/A
Average for all varieties				-7%				0%

  

Hauling Charges	Fresh Fruit		Processed Fruit	
	Average All Varieties	Change from 2017/18	Average All Varieties	Change from 2017/18
	\$/box		\$/box	
0-30 miles	0.43	-4%	0.41	-3%
31-50 miles	0.56	9%	0.53	6%
51-80 miles	0.65	11%	0.61	3%
81-100 miles	0.76	16%	0.72	13%
100+ miles	0.97	32%	0.81	18%
Average for all distances		13%		7%

Table 2. Estimated Average Total Harvesting Charges for Florida Citrus, 2018/19<sup>1</sup>

	<b>Fresh Fruit</b>	<b>Processed Fruit</b>
	<i>\$/box</i>	<i>\$/box</i>
Early and Mid-season Oranges	3.18	2.97
Valencia Oranges	3.25	3.04
Valencia Oranges (after May 15)	3.52	3.05
<i>Sweet Oranges Average<sup>2</sup></i>	<i>3.23</i>	<i>3.01</i>
Pink/Red Grapefruit	3.00	2.86
White/Marsh Grapefruit	2.85	N/A
<i>Grapefruit Average<sup>2</sup></i>	<i>2.99</i>	<i>2.86</i>
Tangelos	4.81	N/A
Tangerines (including Temples)	4.40	N/A
<i>Specialty Citrus Average<sup>2</sup></i>	<i>4.47</i>	<i>N/A</i>

<sup>1</sup>Assuming hauling costs for 51-80 miles of \$0.65 per box for fresh fruit and \$0.61 per box for processing fruit.

<sup>2</sup>Weighted average by production at state level for fresh and processing markets based on the USDA-NASS 2016/17 Florida Citrus Statistics.