

2015/16 Harvesting Charges for Florida Citrus: Picking, Roadsiding and Hauling

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A survey of Florida citrus harvesters was conducted in July 2016 to collect data on harvesting charges during the 2015/16 season. A total of seven harvesters participated in the survey and reported charges for processed fruit; four of them also reported charges for fresh fruit. The average and range of their responses were computed to estimate the harvesting charges to Florida citrus growers during the 2015-16 season.

Harvesting charges are classified into picking, roadsiding and hauling, described as follows:

- The picking charge is for removing the fruit from the tree and filling a field bin.
- The roadsiding charge is for collecting the fruit that the picker has placed in the bin or tub and transporting the picked fruit to the flatbed or bulk trailer. This charge also includes the costs related to harvesting equipment (fruit pallet boxes or tubs, ladders), workers' transportation, payroll taxes, insurance, and crew supervisor salary.
- The hauling charge is associated with transporting the fruit from the field to the packinghouse (fresh fruit) or the processing plant (juice fruit).

Table 1 shows the range, average, and change relative to the past season of picking, roadsiding, and hauling charges by variety and type of fruit (fresh or processed). Roadsiding for fresh fruit showed the greatest average change relative to the previous season among all three charges categories, with a 47% increase. As a comparison the average roadsiding for processed fruit increased by 22%. For processed fruit, the harvesting charge category that increased the most was picking; up 29%, on average, compared to last season.

The general increase in harvesting charges is due to the lower fruit production during the 2015/16 season. Lower volume of fruit per tree reduces harvesting efficiency and thereby increases costs, especially that of picking and roadsiding. Efficiency is impacted by having smaller-sized fruit, another consequence of HLB. As a result of the significant decrease in citrus production in Florida in the last few years, the industry has started a consolidation process and harvesting companies are no exception.

A key component of harvesting is the cost of labor. Six of the companies that participated in the survey reported hiring, on average, 92% of their harvesting crews for the 2015/16 season under the H-2A temporary agricultural program.⁴ The Adverse Effect Wage Rates (AEWRs), that is, the minimum wage to be paid to foreign agricultural guest workers, were \$10.19 and \$10.70 per hour for 2015 and 2016, respectively. Comparatively, Florida's

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⁴ One company did not answer this question

minimum wage for domestic workers during 2015 and 2016 was \$8.05 per hour. If an employer hires only domestic workers the state minimum wage applies. However, an H-2A employer must provide domestic workers the same benefits being given to foreign workers including the AEWR. Employers using the H-2A program also incur costs related to housing, in-bound and out-bound transportation for workers, and all recruitment and administrative costs associated with the guest worker program. All of these costs are embedded in the harvesting charges presented in this report.

The average hauling distance reported by harvesters was 90.91 miles. Thus, table 2 shows the average total harvesting charges by variety assuming hauling costs for 81-100 miles. An average hauling charge was applied across all for fresh and processed of \$0.72 and \$0.70 per box respectively.

Oranges represent the bulk of Florida citrus production, accounting for approximately 85% of the crop each year and with approximately 95% of oranges being processed for juice (USDA-NASS, 2016). The average total harvesting charges across oranges for processing was \$3.22 per box. The specialty citrus varieties temples/tangelos and tangerines presented the highest average of total harvesting cost (picking, roadsiding, and hauling) with \$5.12 and \$4.08 per box for fresh and processed, respectively. This may be attributed to the extra labor needed to pick and handle these varieties, which have thin skin and peel easily, so the fruit is not damaged while being handled. Moreover, hauling costs for processed temples/tangelos and tangerines can typically be higher than those for other processed varieties. This is so because temples/tangelos and tangerines are not shipped in a fully loaded trailer since the fruit on the bottom may not stand the weight of the fruit on top.

On average, harvesting for fresh fruit market is higher than for processed fruit, but it is interesting to note that, for example, as shown in Table 2 for oranges and grapefruit, charges for fresh fruit are lower than those for processed fruit. A possible explanation for this seemingly counterintuitive finding could be the following. As the impact of Huanglongbing (HLB; citrus greening) increases, only the blocks with trees having lower infection levels yield fruit that qualifies for the fresh market. Since those trees are likely to have more fruit, the cost of harvesting such blocks is lower. Contrastingly, as the number of blocks with trees that have a higher infection level increases, and the volume of fruit they yield is lower, harvesting costs of such blocks increases.

The Florida citrus industry has started a consolidation and downsizing process as a consequence of the challenges imposed by HLB. This article summarizes the harvesting charges for citrus during the 2015/16 season and it also documents the changes in harvesting costs as the impact of HLB increases across the state. On-tree prices are the basis for establishing the economic return to citrus growers. Therefore, the usefulness of the estimates we presented resides in that they provide the basis for computing on-tree prices from delivered-in prices; allowing to compute the change in citrus growers' economic returns as the industry adapts to remain profitable.

References

United States Department of Agriculture, National Agricultural Statistics Service (USDA-NASS). 2016. Citrus Forecast. Available at: https://www.nass.usda.gov/Statistics_by_State/Florida/Publications/Citrus/Citrus_Forecast/2015-16/cit0716.pdf

Table 1. Estimated Average Picking, Roadsiding and Hauling Charges for Florida Citrus, 2015/16

Fresh Fruit					Processed Fruit			
	Range		Average	Change from 2014/15	Range		Average	Change from 2014/15
	min.	max.			min.	max.		
	\$ / box				\$ / box			
<u>Picking Charges:</u>								
Early and Mid-season Oranges	1.10	1.30	1.19	16%	1.00	2.10	1.36	27%
Valencia Oranges	1.15	1.39	1.24	15%	1.10	2.09	1.39	25%
Valencia Oranges (after May 15)	1.39	1.39	1.39	22%	1.10	2.20	1.58	30%
Pink/Red Grapefruit	0.75	0.95	0.84	12%	0.90	1.10	1.01	26%
White/March Grapefruit	0.80	0.95	0.88	17%	0.75	1.60	1.05	29%
Temples/Tangelos	1.15	3.50	2.01	39%	2.15	2.15	2.15	48%
Tangerines	1.75	3.25	2.20	47%	1.75	1.75	1.75	17%
			Average	24%			Average	29%
	Range				Range			
	min.	max.	Average	Change from 2014/15	min.	max.	Average	Change from 2014/15
	\$ / box				\$ / box			
<u>Roadsiding Charges:</u>								
Early and Mid-season Oranges	0.96	1.44	1.19	29%	0.88	1.32	1.08	18%
Valencia Oranges	0.98	1.60	1.29	39%	0.92	1.54	1.15	21%
Valencia Oranges (after May 15)	1.50	1.50	1.50	55%	0.92	1.50	1.27	25%
Pink/Red Grapefruit	0.86	1.14	1.03	9%	0.96	1.08	1.01	25%
White/March Grapefruit	0.88	1.14	1.00	27%	0.85	1.12	1.01	18%
Temples/Tangelos	1.20	3.64	2.10	79%	1.20	1.35	1.30	11%
Tangerines	1.50	3.54	2.27	91%	1.50	1.70	1.60	36%
			Average	47%			Average	22%
	Average All Varieties				Average All Varieties			
		\$ / box		Change from 2014/15		\$ / box		Change from 2014/15
0-30 miles		0.47		10%		0.44		19%
31-50 miles		0.51		0%		0.53		13%
51-80 miles		0.60		1%		0.61		2%
81-100 miles		0.72		-3%		0.70		-10%
100+ miles		0.88		-12%		0.64		-34%
			Average	-1%			Average	-2%

Source:

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Table 2. Estimated Average of Total Harvesting Charges for Florida Citrus, 2015/16^a

	Fresh Fruit	Processed Fruit
	<i>\$/box</i>	<i>\$/box</i>
Early and Mid-season Oranges	3.10	3.14
Valencia Oranges	3.25	3.24
Valencia Oranges (after May 15)	3.61	3.55
<i>Oranges Average¹</i>	<i>3.17</i>	<i>3.22</i>
Pink/Red Grapefruit	2.59	2.72
White/March Grapefruit	2.60	2.76
<i>Grapefruit Average¹</i>	<i>2.59</i>	<i>2.73</i>
Temples/Tangelos	4.83	4.14
Tangerines	5.19	4.05
<i>Specialty Citrus Average¹</i>	<i>5.12</i>	<i>4.08</i>

^aAssuming hauling costs for 81-100 miles, of \$0.72 per box for fresh fruit and \$0.70 per box for processing fruit.

¹Weighted average by production at state level for fresh and processing markets.

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