

2016/17 Average Packing Charges for Florida Fresh Citrus

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We conducted a survey among Florida fresh citrus packers in April 2017 to collect data on packing charges during the 2016/17 season. During the past six seasons, on average, 15 packers participated in the survey. This year, 11 packinghouses participated in the survey, including operations located in the Ridge and Indian River regions. The decrease in participation can be attributed to the impact of Huanglongbing (HLB, citrus greening) on the state's industry. As a result of HLB's impact on production, the citrus industry in Florida has begun a consolidating process, and packinghouses are no exception. Figure 1 shows that the number of active packinghouses in the state in 2016/17 were 27; almost half compared to those in 2008/09. However, such reduction is not surprising given that during the same period the volume of cartons shipped decreased by 64%.

The respondents that participated in the survey this season represent 41% of the number of packinghouses in the state and approximately 57% of the volume shipped in 2016/17. The average of their responses was computed to obtain the estimates presented below. It is worth noting our estimates correspond to packing charges, not packing costs. In addition, starting in 2016/17 the USDA has re-classified temples as royal tangerines; for that reason, this season we included the data we collected for temples within the tangerines category.

The average packing charges by citrus variety are shown in Table 1. For grapefruit, the 2016/17 average Packing Charge, Industry Assessment, and Sales Charge were \$4.412, \$0.194, and \$ 0.567 per carton, respectively, while for oranges, the charges per carton were \$4.661, \$0.179, and \$0.562. For tangelos, the charges were \$4.848, \$0.187, and \$0.562 per carton, respectively, and for tangerines, they were \$5.740, \$0.187, and \$0.562 per carton. The Total Packing Charge by variety is then calculated by adding up the three categories.

Table 1 also shows the estimated charges for Drenching, Packinghouse Eliminations, and Hauling Charge for Eliminations from packinghouses to processors. For grapefruit, the charges for Drenching, Packinghouse Eliminations, and Hauling were \$0.317, \$0.623, and \$0.547 per box, respectively. For oranges, those charges were \$0.354, \$0.625, and \$0.577 per box, respectively. The charges for tangelos were \$0.354, \$0.630, and \$0.615 per box, respectively. And, for tangerines such charges were \$0.382, \$0.630, and \$0.610, respectively.

Table 2 provides a comparison of the 2016/17 packing charges to those of 2008/09 through 2015/16. To make the estimates comparable across seasons, the 2015/16 and the 2016/17 Packing Charge, Industry Assessment, and Sales Charge were added together. Also, the estimates for grapefruit in seasons 2008/09 to 2011/12 correspond to the category presented as domestic grapefruit in previous reports.

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To provide a range for the different packing charges without disclosing individual packers' data, we provide the estimates shown in Table 3. The table presents the charges for each citrus variety as follows. Column 1 shows the average value of the responses for each listed charge; column 2 shows the value of the standard deviation of the responses for each listed charge; columns 3 and 4 were obtained by subtracting and adding column 2 from column 1, respectively. As an example of the calculations made, the average Packing Charge for Tangerines is \$5.740 per carton. Taking into account that the standard deviation across responses for that charge is \$0.778 per carton, a proxy for the minimum (maximum) charge during the 2016/17 is given by a lower (upper) bound of \$4.962 (\$6.518) per carton.

This report summarizes the 2016/17 packing charges for Florida fresh citrus and provides a comparison to historical values. The usefulness of these estimates resides in that they provide the basis for computing on-tree prices from delivered-in prices, which in turn are useful for computing growers' economic returns. The Florida citrus industry currently faces the challenges imposed by HLB: decreasing yields and production, lower quality and fruit size, and higher tree mortality rates; all of which have resulted in increased cost of production. As a consequence of the decrease in the state's supply of fresh citrus, the number of packinghouses has been declining in recent years. Thus, the estimates in this report document the changes in packing charges as the industry adapts to remain profitable.

Acknowledgments

We are grateful to all packers who participated in the survey.

Table 1. Estimated Average Packing Charges for Florida Fresh Citrus, 2016/17

	Grapefruit	Oranges	Tangelos	Tangerines ³
	-----\$ per Carton -----			
Packing Charge ¹	4.412	4.661	4.848	5.740
Industry Assessment ²	0.194	0.179	0.187	0.187
Sales Charge	0.567	0.562	0.562	0.562
Total	5.173	5.402	5.597	6.489
	-----\$ per Field Box -----			
Drenching Charge	0.317	0.354	0.354	0.382
Packinghouse Elimination Charge	0.623	0.625	0.630	0.630
Hauling Charge for Eliminations	0.547	0.577	0.615	0.610

¹Packing Charge includes the following items:

1. Materials including labels/PLUs (Price look-up codes).
2. Includes supervisor/foreman labor, grading, shipping and general labor. Includes payroll taxes (FICA), workers' compensation, insurance, etc.
3. Other direct packing costs include: fruit treating; power, lights and water; repair/maintenance; miscellaneous supplies; etc.
4. Indirect packing costs include such items as: insurance-fire and casualty; taxes and licenses, depreciation and rent.
5. General and Administrative (G&A) costs include: office personnel (FICA, with compensation); packinghouse and general manager; office supplies; telephone; etc.

²Industry Assessment includes: Advertising taxes, Inspection fees, Florida Citrus Packers tax, and a Citrus Administrative Committee (CAC) tax.

³Starting in 2016/17, Temples have been reclassified as Royal Tangerines by the USDA.

Table 2. Comparison of Average Packing Charges for Florida Fresh Citrus by Season

	Season	Grapefruit	Oranges	Tangelos	Tangerines ²
	-----\$ per Carton -----				
Total Packing Charge ¹	2016/17	5.173	5.402	5.597	6.489
	2015/16	5.565	5.767	6.060	6.958
	2014/15	5.362	5.525	5.774	6.666
	2011/12	4.907	5.241	5.451	6.336
	2010/11	4.654	5.071	5.486	6.105
	2009/10	4.730	5.065	5.252	6.054
	2008/09	4.495	4.886	5.088	6.116
	-----\$ per Field Box -----				
Drenching Charge	2016/17	0.317	0.354	0.354	0.382
	2015/16	0.211	0.213	0.213	0.210
	2014/15	0.199	0.200	0.196	0.200
	2011/12	0.207	0.203	0.191	0.199
	2010/11	0.199	0.201	0.195	0.195
	2009/10	0.192	0.192	0.191	0.191
	2008/09	0.191	0.193	0.191	0.190
Packinghouse Elimination Charges	2016/17	0.623	0.625	0.630	0.630
	2015/16	0.747	0.789	0.813	0.876
	2014/15	0.663	0.678	0.703	0.702
	2011/12	0.654	0.680	0.687	0.718
	2010/11	0.676	0.706	0.744	0.777
	2009/10	0.649	0.675	0.712	0.710
	2008/09	0.656	0.675	0.709	0.749
Hauling Charge for Eliminations	2016/17	0.547	0.577	0.615	0.610
	2015/16	0.566	0.557	0.645	0.676
	2014/15	0.559	0.554	0.642	0.692
	2011/12	0.615	0.568	0.559	0.590
	2010/11	0.516	0.498	0.537	0.588
	2009/10	0.564	0.510	0.525	0.525
	2008/09	0.586	0.571	0.585	0.589

¹Total Packing Charges include Packing Charge, Industry Assessment, and Sales Charge as defined in Table 1.

²Starting in 2016/17, temples have been re-classified as royal tangerines by the USDA. In the past, temples were grouped with tangelos.

Table 3. Average, Standard Deviation, and Range of Packing Charges for Florida Fresh Citrus, 2016/17

Grapefruit	(1)	(2)	(3)	(4)
	Average	Standard deviation	- 1 std.dev	+ 1 std.dev
-----\$ per Carton -----				
Packing Charge	4.412	0.480	3.932	4.892
Industry Assessment	0.194	0.061	0.133	0.255
Sales Charge	0.567	0.110	0.457	0.677
Total	5.173		4.522	5.825
-----\$ per Field Box -----				
Drenching Charge	0.317	0.349	0.000	0.666
Packinghouse Elimination Charge	0.623	0.151	0.472	0.773
Hauling Charge for Eliminations	0.547	0.146	0.401	0.693
Oranges	Average	Standard deviation	- 1 std.dev	+ 1 std.dev
	-----\$ per Carton -----			
Packing Charge	4.661	0.554	4.107	5.215
Industry Assessment	0.179	0.060	0.119	0.240
Sales Charge	0.562	0.114	0.447	0.676
Total	5.402		4.674	6.131
-----\$ per Field Box -----				
Drenching Charge	0.354	0.433	0.000	0.788
Packinghouse Elimination Charge	0.625	0.159	0.466	0.784
Hauling Charge for Eliminations	0.577	0.178	0.399	0.755
Tangelos	Average	Standard deviation	- 1 std.dev	+ 1 std.dev
	-----\$ per Carton -----			
Packing Charge	4.848	0.575	4.273	5.423
Industry Assessment	0.187	0.061	0.126	0.248
Sales Charge	0.562	0.114	0.447	0.676
Total	5.597		4.847	6.347
-----\$ per Field Box -----				
Drenching Charge	0.354	0.433	0.000	0.788
Packinghouse Elimination Charge	0.630	0.160	0.470	0.790
Hauling Charge for Eliminations	0.615	0.199	0.416	0.814

Table 3. Average, Standard Deviation, and Range of Packing Charges for Florida Fresh Citrus, 2016/17 (cont'd)

Tangerines¹	Average	Standard deviation	- 1 std.dev	+ 1 std.dev
-----\$ per Carton -----				
Packing Charge	5.740	0.778	4.962	6.518
Industry Assessment	0.187	0.061	0.126	0.248
Sales Charge	0.562	0.114	0.447	0.676
Total	6.489		5.536	7.442
-----\$ per Field Box -----				
Drenching Charge	0.382	0.516	0.000	0.898
Packinghouse Elimination Charge	0.630	0.160	0.470	0.790
Hauling Charge for Eliminations	0.610	0.188	0.422	0.798

¹Starting in 2016/17, temples have been re-classified as royal tangerines by the USDA.

Figure 1. Number of Packinghouses and Shipments of Fresh Citrus Cartons in Florida by Season

