

# **Economic Contributions of the Florida Citrus Industry in 2016-17**

## **Executive Summary**

**Sponsored project report to the Florida Department of Citrus**

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## Executive Summary

The Florida citrus industry encompasses a range of economic activities, including fruit production in 27 counties of central and south Florida, fresh fruit grading, packing and shipping to domestic and international markets, fruit processing for juice extraction and bulk shipment, and juice packaging for retail distribution. Florida citrus bearing grove area declined from over 750,000 acres in the year 2000 to around 411,000 acres in 2017, a reduction of 45 percent, while production volume utilized declined by 71 percent, primarily due to losses from citrus greening disease (also known as *Huanglongbing* or HLB), which entered the state in 2005. The purpose of this study is to estimate the economic contributions of the citrus industry in the state of Florida in fiscal year 2016-17, to update previous studies for 2015-16 and 2014-15. The analysis was conducted using the IMPLAN<sup>®</sup> regional economic modeling system and associated databases (IMPLAN Group, LLC) with modifications for multi-industry contribution analysis (Cheney, 2016), to estimate the broad regional contributions of the industry, including economic multipliers that capture the economic activity generated in other sectors through the industry supply chain and by re-spending of income generated from the sale of Florida citrus products.

During the 2016-17 marketing season, 78.4 million boxes of citrus fruit were produced in Florida, including 68.7 million boxes of oranges, 7.8 million boxes of grapefruit, and 1.9 million boxes of specialty citrus, of which 9 percent was sold in the fresh market and 91 percent was utilized for processing. The total grower value of citrus fruit was over \$1.182 billion, with fruit for processing valued at nearly \$1.022 billion and fruit for fresh consumption valued at nearly \$160 million, based on delivered prices. Florida citrus juice processors produced 774 million gallons of citrus juice in 2016-17, with a total producer value of \$3.043 billion (free on board [F.O.B.] price basis). Florida citrus processors also produced byproducts of citrus pulp, meal, molasses, and the essential oil d-Limonene, valued at over \$72 million.

The economic contribution analysis estimated total industry output contributions of \$7.241 billion, including \$2.388 billion from citrus fruit production, \$4.766 billion from citrus juice manufacturing, and \$87 million for fresh citrus marketing. The citrus industry supported a total of 50,030 fulltime and part-time jobs in the state. Total value added contributions, estimated at \$2.823 billion, represent the industry's contribution to Gross State Product. Labor income contributions amounted to \$1.954 billion, representing earnings by employees and business owners. Total state and local tax contributions of the Florida citrus industry were \$128 million. The Western production area had the highest share of citrus industry employment contributions (14,789 jobs), followed by Central (peninsular) (14,275 jobs), Southern (13,786), Indian River (6,019 jobs), and Northern (1,160 jobs). Comparing the overall economic contributions of the Florida citrus industry in 2016-17 with the 2014-15 season using updated data, employment grew by 3.65 percent, labor income increased by 2.66 percent, value added decreased by 3.21 percent, and industry output decreased by 0.16 percent in constant dollar terms.

Table ES-1. Summary of economic contributions of Florida citrus industry activities, 2016-17

Industry Activity	Impact Type (multiplier)	Employment (Jobs)	Labor Income (Million \$)	Value Added (Million \$)	Industry Output (Million \$)
Grower Receipts	Direct Effect	21,418	\$540	\$639	\$1,182
	Indirect Effect	6,222	\$226	\$289	\$501
	Induced Effect	5,221	\$220	\$403	\$705
	<u>Total Effect</u>	<u>32,860</u>	<u>\$986</u>	<u>\$1,331</u>	<u>\$2,388</u>
Juice Processor Sales	Direct Effect	5,949	\$412	\$578	\$3,043
	Indirect Effect	5,422	\$298	\$446	\$947
	Induced Effect	4,917	\$207	\$379	\$665
	<u>Total Effect</u>	<u>16,287</u>	<u>\$918</u>	<u>\$1,404</u>	<u>\$4,656</u>
Processor Byproduct Sales	Direct Effect	144	\$10	\$14	\$72
	Indirect Effect	133	\$7	\$11	\$23
	Induced Effect	119	\$5	\$9	\$16
	<u>Total Effect</u>	<u>396</u>	<u>\$22</u>	<u>\$34</u>	<u>\$110</u>
Fresh Fruit Packinghouse Sales	Direct Effect	203	\$16	\$31	\$48
	Indirect Effect	129	\$7	\$11	\$19
	Induced Effect	155	\$7	\$12	\$21
	<u>Total Effect</u>	<u>487</u>	<u>\$29</u>	<u>\$54</u>	<u>\$87</u>
Total All Activities	Direct Effect	27,713	\$978	\$1,263	\$4,344
	Indirect Effect	11,905	\$537	\$757	\$1,490
	Induced Effect	10,412	\$439	\$803	\$1,407
	<u>Total Effect</u>	<u>50,030</u>	<u>\$1,954</u>	<u>\$2,823</u>	<u>\$7,241</u>

Values in 2017 dollars. Employment includes fulltime and part-time jobs. Numbers may not sum due to rounding.

Source: IMPLAN<sup>®</sup> software and 2016 region data for Florida (IMPLAN Group LLC).