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## County Property Values and Tax Impacts of Florida's Citrus Industry<sup>1</sup>

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### Introduction

Citrus fruits, such as oranges, grapefruit, tangelos, tangerines, limes, and other specialty fruits, are among the state's largest agricultural commodities. Florida accounts for over 80 percent of the United States production of citrus, and is the second largest producer in the world, following Brazil. Citrus is consumed as fresh fruit or utilized for processing into a variety of juice products.

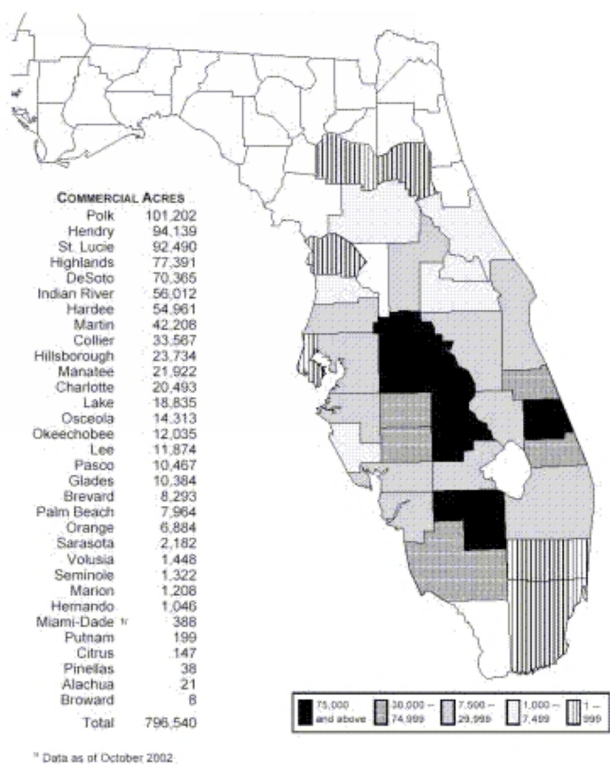
The citrus industry in Florida is an important sector of the state's agricultural economy. In the 2001-02 season, Florida produced 287 million boxes, or nearly 15 million metric tons of citrus fruit, which represented an on-tree value of \$879 million, prior to the value added operations of harvesting, hauling, packing, or processing (FASS, 2003). The total economic impacts associated with the citrus industry in 2000 were estimated at \$9.13 billion in industry output, including an indirect output impact of \$2.13 billion attributed to purchases from other industry sectors, and an induced impact of \$2.93 billion resulting from household spending of earnings by industry employees (Hodges, et al., 2001). The

industry also contributed \$4.18 billion in value added income to the gross regional product of the state's economy and provided 89,700 jobs.

Citrus groves in Florida occupy nearly 800,000 acres of agricultural land in 32 counties in the central and southern parts of the state, with production concentrated in 7 counties where each has over 50,000 acres (Figure 1). In several rural counties in the interior of the Florida peninsula, including Hendry, Glades, Highlands, DeSoto, and Hardee, citrus groves are a predominant agricultural land use, and as such are an important contributor to the local tax base. Citrus processing operations also generate significant tax revenues for local, state, and federal governments. The state and local taxes are important from a public policy standpoint because they pay for most of the local infrastructure development and public services. *Ad valorem* property tax revenues are the primary source of local funds for school districts, water management districts, libraries, emergency services, and general operations of municipal and county governments.

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**Figure 1.** Map of commercial citrus acreage in Florida, by county, 2002 (Source: FASS, 2003).

Events impacting the citrus industry, such as citrus canker or increased foreign competition due to liberalization of trade barriers, may have a dramatic impact on the welfare of local communities. This paper provides estimates of the local fiscal impacts of *ad valorem* property taxes paid by citrus grove owners, and taxes generated by citrus processing operations.

### County *Ad Valorem* Property Taxes on Citrus Orchards

Current information on property values of agricultural lands in Florida was obtained from the Florida Department of Revenue (2003). This information included total assessed value, land value, and “just” value. Total assessed value reflects investments in established citrus groves and other property improvements, while land value is for bare land exclusive of improvements. Just values represent an estimated market value adjusted for typical sale transaction costs (realtor commissions, title inspection, documentary stamps, etc). Typically, assessed values for agricultural land are significantly below the estimated market value because they reflect

only the agricultural use value rather than non-agricultural uses. The original source of this information is the property appraisers in each Florida county. Various assessment methods are used by property appraisers, which include both asset-based and income-based approaches. Assessed property value data were compiled for orchards (land use code 66), representing citrus groves as well as other fruit and nut tree farms, such as pecans and tropical fruits. For the 27 counties in central and south Florida, these data were assumed to represent citrus groves, since pecan orchards are restricted to the northern part of the state. Miami-Dade County was excluded because it has a significant acreage of commercial tropical fruit orchards, and its production of citrus is rather small.

*Ad valorem* property tax millage rates for each county were compiled from reports by the Florida Department of Revenue (2003). The millage represents the annual tax levied per \$1000 of assessed property value. Millage rates are applied separately for public schools, water management districts, libraries, debt service, and general operations of county governments and municipalities. The total countywide millage varied widely among the 27 counties, from a low of 11.5 in Collier County to a high of 29.6 in Pinellas County (Table 1). The total county millage was multiplied against the total assessed value of orchard lands in each county to estimate the *ad valorem* property tax revenues from citrus groves.

The number of separate orchard land parcels was 22,306 (Table 1). Total assessed values for orchard lands in Florida amounted to \$2.21 billion, including an assessed value on bare land of \$1.89 billion, while the total just (market) value of orchard lands was \$5.88 billion. Assessed values for orchard land exceeded \$200 million in Polk, Hendry, and Highlands Counties. Market values for orchards were over \$500 million in Polk, Hendry, and St. Lucie Counties. Based on countywide millage rates, total *ad valorem* property taxes levied on orchard lands in Florida were estimated at \$38.95 million annually (Table 1). Tax levies exceeded \$1 million in eleven counties and were highest in the counties of Hendry (\$5.99M), Polk (\$5.05M), Highlands (\$4.57M), and DeSoto (\$3.14M). Note that these figures do not

account for property tax exemptions, such as the homestead exemption for a landowner's primary residence; however, this would probably not apply to most citrus grove lands.

As an indicator of their relative importance to overall county government fiscal balances, property tax revenues from orchards (citrus groves) were compared to total countywide tax revenues provided by the Florida Department of Revenue (2002). Total county taxes levied by these 27 counties in 2002, excluding municipal and less-than-countywide taxes, amounted to \$9.46 billion (Table 1). Overall, estimated property taxes on orchards represented 0.41 percent of the total taxes levied. In some rural counties, however, the share of total tax revenues from orchard land was substantially higher, particularly in DeSoto and Hendry Counties where it was 21.3 and 19.3 percent, respectively (see right column of Table 1). A second tier of counties with a relatively high share of tax revenues from orchard lands included Hardee (12.3%), Glades (9.8%), and Highlands (8.5%). A third tier of counties with shares of at least one percent included Okeechobee (3.2%), Polk (1.7%), Indian River (1.4%), and St. Lucie (1.4%).

### Tax Impacts of Citrus Processing

Another important fiscal impact of the citrus industry is the taxes that are generated by citrus processing operations. Citrus processors are a highly regulated food-manufacturing business, which incurs significant taxes and other costs for environmental, labor, and food safety controls. About 90 percent of the oranges produced in Florida are processed for juice and other by-products. In the 1999-2000 season, Florida citrus processors had total output valued at \$3.58 billion, with exports to customers outside the state worth \$3.33 billion (Hodges, et al., 2001).

Taxes generated by the citrus processing industry in Florida were estimated using an input-output socio-economic modeling software package known as *Implan* (MIG, Inc.), together with regional economic data and other information. The *Implan* software enables the estimation of economic multipliers that account for the secondary impacts of

industrial activity on other businesses that provide purchased inputs (indirect effects) and consumer spending by employees (induced effects). Economic multipliers apply to exogenous changes in final demand, such as export shipments, which bring "new" money into the regional economy and stimulate additional economic activity. Further background on this method and the development of a regional economic model of the Florida citrus industry are described by Hodges, et al. (2001).

The estimated tax impacts of exports by the Florida citrus processing industry in the 1999-2000 season are summarized in Table 2. The total tax impact was \$854 million, including federal government taxes of \$608 million and state/local taxes of \$246 million. The total tax impact represented \$256,233 per million dollars of processed citrus exports, or 26 percent of the export value. The largest single tax item was personal federal income taxes paid by industry employees (\$251M). Among the state and local tax impacts were \$117 million in sales tax and \$77 million in property taxes. The latter figure includes some of the already noted property taxes paid by grove owners, which are backward-linked to processors. Therefore, it would be inappropriate to sum together these two independent estimates of tax impacts. It is important to note that these estimates represent the total economy-wide tax impacts of the citrus industry on other related businesses and industry employees.

### Conclusions

It is apparent that the Florida citrus industry is a significant contributor of tax revenues to local, state, and federal governments. Total *ad valorem* property taxes levied on Florida citrus groves were estimated at nearly \$39 million. Moreover, property taxes on citrus groves are an important part of the local tax base in certain rural counties of Florida (e.g., DeSoto and Hendry), where property taxes on citrus orchards may represent over 20 percent of the tax base. Local government fiscal balances are critically dependent upon the continued well-being of the citrus industry in these areas. In some larger urbanized counties, such as Polk and St. Lucie, the citrus industry is also sizeable, but contributes a smaller portion of total county tax revenues. The citrus processing industry

is also an important source of taxes for all levels of governments, amounting to an estimated \$854 million in 1999-2000.

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**Table 1.** Citrus property values and estimated *ad valorem* taxes levied in Florida counties, 2002-2003.

County	Parcel Count	Assessed Value (million\$)	Just (Market) Value (million\$)	Assessed Land Value (million\$)	Total County Millage Rate*	Estimated Taxes Levied on Orchard Land (\$1000)**	Total County Taxes Levied (million\$)	Share of Total County Taxes on Orchard Land (percent)
Brevard	402	44.2	104.3	83.7	14.890	658	320.0	0.21
Broward	24	3.2	8.2	1.4	16.945	55	1,610.2	<0.00
Charlotte	345	57.1	135.6	54.2	14.205	811	128.4	0.63
Citrus	21	0.2	0.6	0.1	18.223	4	105.6	<0.00
Collier	259	87.8	293.3	81.5	11.466	1,007	448.8	0.22
DeSoto	2,424	181.2	459.1	166.2	17.345	3,144	14.8	21.30
Glades	104	41.1	75.5	38.6	19.046	784	8.0	9.76
Hardee	1,815	133.3	356.3	109.5	17.931	2,390	19.5	12.29
Hendry	1,022	284.4	626.8	271.9	21.062	5,989	31.1	19.26
Hernando	85	3.2	11.4	1.7	18.273	58	94.2	0.06
Highlands	1,596	247.2	366.7	230.8	18.472	4,566	54.1	8.45
Hillsborough	1,687	123.6	329.6	70.2	18.262	2,257	798.3	0.28
Indian River	921	104.0	442.8	87.4	16.603	1,726	122.7	1.41
Lake	1,410	68.6	98.0	37.1	15.678	1,076	138.3	0.78
Lee	675	44.8	92.1	36.0	15.011	672	540.8	0.12
Manatee	464	73.3	169.7	62.2	16.460	1,207	278.0	0.43
Martin	403	59.0	197.0	48.0	15.153	894	181.5	0.49
Okeechobee	127	34.7	72.5	31.1	18.143	630	19.6	3.22
Orange	541	53.7	240.4	38.3	16.797	901	769.7	0.12
Osceola	467	39.7	169.0	31.2	16.004	635	168.4	0.38
Palm Beach	123	38.0	191.5	30.8	16.076	610	1,417.8	0.04
Pasco	506	46.6	131.5	35.5	18.009	839	220.8	0.38
Pinellas	19	1.7	9.2	1.4	29.649	49	766.7	0.01
Polk	5,509	291.5	697.8	215.4	17.322	5,049	293.9	1.72
St. Lucie	1,149	134.2	566.8	120.1	20.855	2,798	194.6	1.44
Sarasota	39	5.2	14.9	3.0	14.836	76	443.6	0.02
Seminole	169	4.4	18.6	3.5	14.670	65	271.2	0.02
Total	22,306	2,206	5,879	1,891		38,950	9,460.4	0.41

\* Millage rate represents dollars of tax levied per \$1000 assessed value.

\*\* Estimate does not account for property tax exemptions.

Source: Florida Department of Revenue.

**Table 2.** Tax impacts of processed citrus exports from Florida, 1999-2000.

Tax Type	Total Impact (\$1000)
Federal Government Taxes	<u>608,098</u>
Corporate Profits Tax	74,669
Customs Duty	5,899
Excise Taxes	18,506
Business Fines & Fees	4,636
Personal Income Tax	250,829
Social Insurance Tax -- Employee Contribution	127,419
Social Insurance Tax -- Employer Contribution	123,753
State/Local Government Taxes	<u>246,150</u>
Corporate Profits Tax	8,288
Dividends	130
Motor Vehicle License	1,843
Other Taxes	11,968
Property Tax	77,892
State & Local Fines & Fees	13,484
Sales Tax	117,721
Severance Tax	340
Motor Vehicle License	3,539
Personal Fines & Fees	5,862
Social Insurance Tax -- Employee Contribution	920
Social Insurance Tax -- Employer Contribution	4,193
Total All Taxes	<u>854,248</u>