

## Summary of 2004-2005 Citrus Budget for the Central Florida (Ridge) Production Region

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Annually, citrus budgets are tabulated for the Central, Southwest and Indian River citrus production regions of Florida. The attached budget costs are for the example grove situation described in the expanded citrus budget series titled: “Budgeting Costs and Returns for the Central Florida” region. The budget costs may not represent your particular grove situation. However, they represent the most current comparative cost estimates for Florida citrus. The budget costs items for **Central Florida** represent a **custom managed operation**.

The 2004-2005 comparative budgets are presented in three scenarios: 1) Low Cost Processed Cultural Program Alternative; 2) Processed/Reduced Fresh Cost Cultural Program; and 3) Typical/Historical Fresh Cultural Program. Scenario one represents a low cost alternative that would allow growers to provide a maintenance cultural program in a low on-tree price situation. Scenario two represents a typical processed orange cultural program and/or reduced cost fresh fruit program. The third scenario represents typical costs of grove practices which have been performed for citrus grown for the fresh fruit market.

The 2004-2005 budgets reflect major cost increases in all production inputs: fuel averaged 22% increase; fertilizer products increased 15%; chemicals an 8% increase; and equipment operation costs increased 7%. Along with the increased costs, three major hurricanes (storms) during August and September 2004 resulted in wide tree damage and fruit loss. The Indian River region experienced fruit loss of 70% to 80% on red and white grapefruit, respectively. Hamlin orange losses in the Central Florida (ridge) region were 30% to 40% with Valencia orange losses between 20% and 30%. The only citrus growing region that was not majorly affected by the three storms was the Southwest Florida citrus region. As a result of the excessive fruit loss, the unit per box, per pound solid and per carton costs for the Indian River and Central (ridge) growing regions were substantially higher than in recent years.

Budget analysis provides the basis for many grower decisions. Budget analysis can be used to calculate potential profits from an operation, determine cash requirements for an operation and determine break-even prices. The budget costs presented will serve as a format for growers to analyze costs from their own individual records. The cost data was developed by surveying custom operators, suppliers, growers, colleagues with UF/IFAS and County Extension Citrus Agents in each production region.

Each budget lists the cost of individual grove care practices normally performed in a citrus grove. These costs are categorized into cumulative sub-totals of irrigated processed and irrigated fresh fruit program and reflecting current grove practices being used by growers. The estimated costs are for a mature grove (10+ years old); the grove care costs for a specific grove site may differ depending upon the tree age, tree density and the grove practices performed. For example, extensive tree loss due to blight or tristeza could at least double, if not increase more, the tree replacement and care costs. Also, travel and set-up costs may vary due to the size of a citrus grove and the distance from the grove equipment barn. The mandatory decontamination requirements to control the spread of citrus canker add to the total operational costs. These costs are shown in the expanded “delivered-in” cost table.

Included with the budget summaries are estimated **“delivered-in”** costs for Central Florida Valencia oranges. The “delivered-in” costs represent cultural programs for both the processed juice fruit and fresh fruit markets. The estimated delivered-in costs include total cultural/production, management, regulatory and harvesting costs.

Additional information on budgeting and cost analysis can be obtained by contacting the author or your County Extension Agent or going to the Extension or Economics section of the EDIS website: <http://edis.ifas.ufl.edu> or UF/IFAS CREC website: <http://www.crec.ifas.ufl.edu>

Table 1. A listing of estimated comparative Central Florida (Ridge) citrus production costs per acre for oranges, 2004-2005<sup>z</sup>

<b>Costs represent a mature (10+ years old) Central Florida (Ridge) Orange Grove.</b>	<b>Low Cost Processed Cultural Program One-Year Alternative</b>	<b>Processed and Reduced Fresh Cost Cultural Program</b>	<b>Typical/Historical Fresh Fruit Cultural Program</b>
<b>PRODUCTION/CULTURAL COSTS:<sup>y</sup></b>			
Weed Management/Control:			
Discing (2 times per year)	\$ 20.16	\$ 20.16	\$ 20.16
Mechanical Mow Middles (4 times per year)	42.28	42.28	42.28
General Grove Work (2 labor hours per acre)	26.86	26.86	26.86
Herbicide (1/2 tree acre treated):			
Application (4 glyphosate or 2 residual applications)	\$56.00	\$28.00	\$28.00
Material	32.08	77.76	77.76
Spot Treatment (Material/application)	—	15.34	15.34
Total Herbicide Cost	88.08	121.10	121.10
Spray:			
Summer Oil #1 (Processed @ 125 GPA) or Post Bloom (Fresh @ 150 GPA):			
Application	—	24.15	24.15
Material	—	65.87	66.45
Total Summer Oil #1 or Post Bloom Cost	—	90.02	90.60
Summer Oil #2: Application (PTO – 125 GPA)	24.15	24.15	30.30
Material	75.41 <sup>w</sup>	32.76	71.82
Total Summer Oil #2 Cost	99.56	56.91	102.12
Supplemental Fall Miticide:			
Application (PTO – 150 GPA)	—	—	24.15
Material	—	—	11.55
Total Supplemental Fall Miticide Cost	—	—	35.70
Fertilizer (Bulk): 3 Applications			
Material (16-0-16-4 MgO @ 204 lbs N per acre)	26.91	26.91	26.91
Total Fertilizer Cost	168.30	168.30	168.30
Dolomite (one ton applied every 4 years)	195.21	195.21	195.21
Material/Application			
	11.36	11.36	11.36
Pruning: Topping (\$39.65/A ÷ 2.5 yrs) <sup>y</sup>			
	15.86	15.86	15.86
Hedging (\$33.63/A ÷ 2 yrs) <sup>y</sup>			
	16.82	16.82	16.82
Chop/Mow Brush after Hedging (\$9.70/A ÷ 2 yrs) <sup>y</sup>			
	4.87	4.87	4.87
Total Pruning Cost	37.55	37.55	37.55
Tree Replacement--1 thru 3 years of age: (3 trees/acre)			
Remove Trees: Pull, Stack & Burn 3 Trees with Front-end Loader			
	15.22	15.22	15.22
Prepare Site & Plant Tree (Includes 3 reset trees)			
	34.80	34.80	34.80
Supplemental Fertilizer, Tree Wraps Maintenance, Sprout, Etc. (Trees 1-3 years old)			
	19.56	29.79	29.79
Total Tree Replacement Cost	69.58	79.81	79.81
Irrigation: Microsprinkler System <sup>u</sup>			
	166.17	166.17	166.17
<b>IRRIGATED PROCESSED FRUIT PRODUCTION COSTS</b>	<b>\$756.81</b>	<b>\$847.43</b>	
Fall Miticide: Application (125 GPA)			
		24.15	24.15
Material		32.70	32.70
Total Fall Miticide Cost		56.85	56.85
<b>IRRIGATED FRESH FRUIT PRODUCTION COSTS</b>		<b>\$904.28</b>	<b>\$985.77</b>

<sup>z</sup>The listed estimated comparative costs are for the example grove situation described in the Economic Information Report Series entitled: "Budgeting Costs and Returns for Central Florida Citrus Production" and may not represent your particular grove situation in Central Florida.

SOURCE: Ronald P. Muraro, University of Florida-IFAS, Citrus Research and Education Center, Lake Alfred, FL, August 2005.

<sup>y</sup>Central Florida production area refers to Polk and Highlands counties. However, the costs presented in this report are applicable to other counties such as Hardee, Hillsborough, Lake-Orange, Osceola and Pasco counties.

Where **equipment use** or **application** is listed (discing, hedging, spray application, etc.), an **average custom charge** (cost) is used which includes a charge for equipment repairs, maintenance, labor and overhead management charges/costs. A **management charge** for equipment supervision and fruit marketing is not included. Management charges/costs could be based on a monthly charge (\$3-\$6/acre) or percentage of gross sales. In addition to these charges, a harvesting supervision cost (10¢/box to 20¢/box) for overseeing and coordinating harvesting may be charged. Other cost items which are not included in the budget are ad valorem taxes and interest on grove investment. In addition to these cost items, overhead and administrative costs, such as water drainage/district taxes, crop insurance, and other grower assessments, can add up to 12 percent to the total grove care costs. These costs vary from grove to grove depending on age, location, and time of purchase or establishment.

Included in the materials expense is a supervision (or handling) charge of 10% of cost/price of the materials.

The budget cost items have been revised to reflect current grove practices being used by growers--e.g., chemical mowing, different spray materials, and rates of fertilization, microsprinkler irrigation, more reset trees, hedging and topping practices, etc. Therefore, the revised costs for each grove practice shown may be higher, or lower, than previously reported.

Although the estimated annual per acre grove costs listed are representative for a mature citrus grove (10+ years old), the grove care costs for a specific grove site may differ depending upon the tree age, tree density and the grove practices performed; e.g., spot herbicide for grass/brush regrowth under trees could add an additional \$15.34 per acre; Diaprepes control could add \$84.18 per acre for each foliar application; extensive tree loss due to blight or tristeza could substantially increase the tree replacement and care costs; spray applications to control citrus leafminer and nematicide applications of such as Temik (\$131.11/acre) could increase the total cultural costs per acre above the average costs shown in the comparative budgets; travel and set-up costs may vary due to size of the citrus grove and distance from grove equipment barn and could add \$28.86 per acre; etc.

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<sup>x</sup>Spray materials include copper (Cu), oil, miticide and nutritionals.

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<sup>v</sup>Per acre costs shown in parenthesis are for 2005.

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<sup>u</sup>Irrigation Expense includes the following:

	<u>Microsprinkler</u>
Variable Operating Expense (Diesel)	\$ 59.44*
Fixed-Variable Expense (annual maintenance repairs to system)	<u>50.17</u>
Total Cash Expenses	\$109.61
Fixed-Depreciation Expense	<u>56.56</u>
Total Cash and Fixed Expense	<u>\$166.17</u>
*Reflects the higher fuels costs.	

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Source: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, Florida, August 2005.

Table 2. Estimated total delivered-in cost for Central Florida (Ridge) Valencia oranges grown for the processed market under three cultural cost programs, 2004-05

Represents a mature (10+ years old) Central Florida (Ridge) Orange Grove	Processed Valencia Orange Low Cost Cultural Program			Processed Valencia Orange Cultural Program			Fresh/Processed Valencia Orange Historical Cost Cultural Program		
	\$/Acre	\$/Box	\$/P.S.	\$/Acre	\$/Box	\$/P.S.	\$/Acre	\$/Box	\$/P.S.
Total Production/Cultural Costs	\$ 756.81	2.266	\$0.3382	\$ 847.43	\$2.537	\$0.3787	\$904.28	\$2.707	\$0.4041
Interest on Operating (Cultural) Costs	20.81	0.062	0.0093	23.30	0.070	0.0104	24.87	0.074	0.0111
Management Costs	48.00	0.144	0.0214	48.00	0.144	0.0214	48.00	0.144	0.0214
Taxes/Regulatory Costs:									
Property Tax and Water Management Tax	61.87	0.185	0.0276	61.87	0.185	0.0276	61.87	0.185	0.0276
Canker Decontamination Costs	<u>5.52</u>	<u>0.017</u>	<u>0.0025</u>	<u>5.52</u>	<u>0.017</u>	<u>0.0025</u>	<u>5.52</u>	<u>0.017</u>	<u>0.0025</u>
Total Direct Grower Costs	\$ 893.01	\$2.674	\$0.3991	\$ 986.12	\$2.952	\$0.4407	\$1,044.53	\$3.127	\$0.4668
Interest on Average Capital Investment Costs	<u>321.22</u>	<u>0.962</u>	<u>\$0.1435</u>	<u>321.22</u>	<u>0.962</u>	<u>0.1435</u>	<u>321.22</u>	<u>0.962</u>	<u>0.1435</u>
Total Grower Costs	\$1,214.22	\$3.635	\$0.5426	\$1,307.34	\$3.914	\$0.5842	\$1,365.75	\$4.089	\$0.6103
Harvesting and Assessment Costs:									
Pick/Spot Pick, Roadside & Haul and Canker Decontamination Costs	784.23	2.348	0.3504	784.23	2.348	0.3504	784.23	2.348	0.3504
DOC Assessment	<u>55.11</u>	<u>0.165</u>	<u>0.0246</u>	<u>55.11</u>	<u>0.165</u>	<u>0.0246</u>	<u>55.11</u>	<u>0.165</u>	<u>0.0246</u>
Total Harvesting and Assessment Costs	839.34	2.513	0.3751	839.34	2.513	0.3751	839.34	2.513	0.3751
Total Delivered-In Cost	<u>\$2,053.57</u>	<u>\$6.148</u>	<u>\$0.9177</u>	<u>\$2,146.68</u>	<u>\$6.427</u>	<u>\$0.9593</u>	<u>\$2,205.09</u>	<u>\$6.602</u>	<u>\$0.9854</u>
P.S. = Pound Solids	Refer to cultural program shown in Table 1.			Refer to cultural program shown in Table 1.			Refer to cultural program shown in Table 1.		
Yield: 334 boxes/acre @ 6.7 P.S. per box 112 trees per acre	Only summer oil sprays with oil, copper and Agri-mek & Nutritionals.			Refer to cultural program shown in Table 1.			A Fall Miticide Spray added to the cultural program shown in Table 1.		

Source: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, Florida, August 2005.