

## **Summary of 2006-2007 Citrus Budget for the Southwest Florida Production Region**

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Citrus budgets are tabulated annually for the Central, Southwest and Indian River citrus production regions of Florida. The attached budget costs are for the Southwest Florida citrus production region. These 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 the **Southwest Florida** are more representative of an **owner-managed operation; not a custom-managed operation.**

Budget analysis provides the basis for many grower decisions. Budgets 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 their own individual records. The cost data was developed by surveying custom operators, suppliers, growers, colleagues with UF/IFAS and County Extension Agents in each production region.

Except for fertilizer materials, there were minimal price increases in fuel and chemicals. Most of the increases in fuel costs occurred during the 2005-2006 production season and stabilized during 2006-2007. The use of more generic formulations of commonly used spray chemicals kept prices about the same as reported in 2005-2006. Fertilizer had the highest increase in prices averaging about 8% above previous year. Due to both domestic and international demand for fertilizer products, prices are expected to continue increasing into the 2007-2008 season. Chemicals may also show some increase into the next season with fuel prices hopefully remaining stable.

The 2006-2007 summary comparative budget summary for a processed orange cultural program is shown in Table 1 and for a fresh market cultural program is shown in Table 2. Two scenarios are presented for each budget: 1) Typical/Historic Cultural Program **Without Citrus Greening** and 2) Cultural Program **With Citrus Greening**. Scenario one represents costs of typical grove practices which have been historically performed for citrus grown in Southwest Florida. Scenario one does not include citrus canker and greening management control programs. Scenario two is the same cultural program for scenario one but expanded to include the additional costs for managing citrus canker and greening summarized in Table 3.

With the introduction of citrus greening in 2005, Florida citrus growers have had to develop new management strategies to identify and remove infected trees along with adding new spray programs to control the insect vector, Asian citrus psyllid. Likewise, with the end of the citrus canker eradication program in 2006, to reduce the impact of canker infestations on new tree flushes and reduce fruit drop, copper spray material is being added with each spray tank mix. For fruit grown for the fresh fruit market, additional costs are incurred by growers to assure that the blocks and fruit can be certified "canker free" for shipments to the U.S. domestic and European markets. Table 3 presents the estimated additional costs required to manage citrus greening and canker and were based on the cultural programs being implemented in UF/IFAS CREC research groves and information from citrus growers. These costs were incorporated into Tables 1, 2, 4 and 5.

The budgets shown in Table 1 lists the costs of individual grove care practices normally performed in a citrus grove. These costs reflect current grove practices being performed 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 actually performed. For example, tree losses due to blight, tristeza or citrus greening could double, if not increase more, the tree replacement costs. Travel and set-up costs may vary due to the size of a citrus grove and the distance from the grove equipment barn. Citrus canker and greening control costs will also vary between individual blocks due to variety and fresh or processed market destination.

The comparative budget costs are shown as an expanded “**delivered-in**” format in Tables 4 and 5. The delivered-in costs include cultural/production, management, regulatory and harvesting costs. For processed juice cultural program, the costs are presented in per acre, per box and per pound solids cost units. For the fresh fruit cultural program, the costs are presented in per acre, per box and per packed carton cost units. The per acre yields used in Tables 4 and 5 represent above average production for Hamlin oranges and grapefruit in the Southwest Florida production region. The decreased yield per acre for the “with greening” expanded budget reflects an additional 2.3% average annual tree loss for all age trees.

Break-even prices for processed Hamlin oranges are shown in Table 6 for yields ranging from 300 to 600 boxes per acre. **Without** the additional cultural management costs for citrus canker and greening, the delivered-in break-even price ranged from \$1.307 to \$0.886 per pound solids, respectively. **With** additional cultural management costs for citrus canker and greening, the delivered-in break-even price ranged from \$1.373 to \$0.891 per pound solids, respectively. Likewise, break-even prices for fresh market grapefruit are shown in Table 7 for yields ranging from 350 to 650 boxes per acre. **Without** the additional cultural management costs for citrus canker and greening, the delivered-in break-even price ranged from \$7.48 to \$5.29 per box, respectively. **With** additional cultural management costs for citrus canker and greening, the delivered-in break-even price ranged from \$9.26 to \$6.25 per box, respectively.

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

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### Reference-Source Information

Muraro, Ronald P. “Summary of 2007 Ridge and Indian River-South Florida Citrus Caretaker Custom Rate Charges.” UF/IFAS CREC Website: [www.crec.ifas.ufl.edu/Extension/Economics](http://www.crec.ifas.ufl.edu/Extension/Economics) September 2007. 5 pages.

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Muraro, Ronald P. “Summary of 2006-2007 Citrus Budgets for the Central Florida (Ridge) Citrus Production Region.” UF/IFAS CREC Website: [www.crec.ifas.ufl.edu/Extension/Economics](http://www.crec.ifas.ufl.edu/Extension/Economics) December 2007. 11 pages.

Table 1. A Listing of Estimated Comparative **Southwest Florida** Production Costs Per Acre for **Processed Oranges**, 2006-2007<sup>z</sup>

| Costs represent a mature (10+ years old)<br>Southwest Florida Orange Grove. | Processed Cultural Program |                          |
|---|----------------------------|--------------------------|
|   | Without Canker-Greening    | With Canker-Greening     |
| <b>PRODUCTION/CULTURAL COSTS<sup>v</sup></b>                                |                            |                          |
| <u>Weed Management/Control:</u>   |                            |                          |
| Mechanical Mow Middles (3 times per year)                                   | \$ 25.09                   | \$ 25.09                 |
| Chemical Mow Middles (3 times per year)                                     | 24.77                      | 24.77                    |
| General Grove Work (2 labor hours per acre)                                 | 30.88                      | 30.88                    |
| Herbicide (1/2 tree acre treated):  |                            |                          |
| Application (3 residual applications)                                       | 30.75                      | 30.75                    |
| Material  | <u>82.15</u>               | <u>82.15</u>             |
| Total Herbicide Cost  | 112.90                     | 112.90                   |
| <u>Spray/Pest Management:</u>   |                            |                          |
| Temik (33 lbs): Application   | —                          | 14.93                    |
| Material  | <u>—</u>                   | <u>98.67</u>             |
| Total Temik Cost  | —                          | 113.60                   |
| Winter-Spring #1: Application (125 GPA)                                     | —                          | 23.94                    |
| (February)      Material  | <u>—</u>                   | <u>30.99</u>             |
| Total Spring #1 Cost  | —                          | 54.93                    |
| Spring #1:      Application (125 GPA)                                       | —                          | 23.94                    |
| Material  | <u>—</u>                   | <u>34.92<sup>x</sup></u> |
| Total Spring #2 Cost  | —                          | 58.86                    |
| Summer Oil #1: Application (125 GPA)  | 23.94                      | 23.94                    |
| Material  | <u>40.54</u>               | <u>73.50</u>             |
| Total Summer Oil #1 Cost  | 64.48                      | 97.44                    |
| Summer Oil #2: Application (125 GPA)  | 23.94                      | 23.94                    |
| Material  | <u>66.67<sup>x</sup></u>   | <u>50.54</u>             |
| Total Summer Oil #2 Cost  | 90.61                      | 74.48                    |
| Fall Insecticide: Aerial Application (10 GPA)                               | —                          | 8.00                     |
| Material  | <u>—</u>                   | <u>13.03</u>             |
| Total Fall Insecticide Cost   | —                          | <u>21.03</u>             |
| Total Spray/Pest Management Costs   | 155.09                     | 420.34                   |

Table 1. A Listing of Estimated Comparative **Southwest Florida** Production Costs Per Acre for **Processed Oranges**, 2006-2007 (cont'd.)<sup>z</sup>

| Costs represent a mature (10+ years old) Southwest Florida Orange Grove.                                | Processed Cultural Program |                          |
|---|----------------------------|--------------------------|
|   | Without Canker-Greening    | With Canker-Greening     |
| Field Inspections for Citrus Greening (4 inspections @ \$22.73)   | —                          | 90.92                    |
| Mandatory Citrus Canker Decontamination Costs   | 29.35                      | 29.35                    |
| Fertilizer (Bulk):4 Applications  | 26.28                      | 26.28                    |
| Material (17-4-17-2.4MgO @ 220 lbs N)   | <u>209.32</u>              | <u>209.32</u>            |
| Total Fertilizer Cost   | 235.60                     | 235.60                   |
| Dolomite (one ton applied every 3 yrs) – Material/Application   | 14.76                      | 14.76                    |
| Pruning <sup>w</sup> : Topping (\$28.92/A ÷ 2.5 yrs)  | 11.97                      | 11.97                    |
| Hedging (\$27.33/A ÷ 2 yrs)   | 13.67                      | 13.67                    |
| Chop/Mow Brush after Hedging (\$11.99/A ÷ 2 yrs)  | <u>6.00</u>                | <u>6.00</u>              |
| Total Pruning Cost  | 31.64                      | 31.64                    |
| Tree Replacement – 1 thru 3 years of age<br>(4 trees/acre without greening; 7 trees/acre with greening) |                            |                          |
| Remove Trees: Pull, Stack & Burn<br>(Clip-Shear & Front End Loader)                                     | 25.44                      | 37.10                    |
| Prepare Site and Plant Tree (includes reset trees)  | 57.72                      | 94.50                    |
| Supplemental Fertilizer, Sprays, Sprout, etc.<br>(Trees 1-3 years old)                                  | <u>50.16</u>               | <u>114.80</u>            |
| Total Tree Replacement Cost   | 133.32                     | 246.40                   |
| Irrigation: Microsprinkler System <sup>v</sup>  | 186.70                     | 186.70                   |
| Clean Ditches (Weed Control)  | 18.56                      | 18.56                    |
| Ditch and Canal Maintenance   | 17.48                      | 17.48                    |
| Water Control (Pump water in/out of Ditches<br>and Canals)  | <u>16.72</u>               | <u>16.72</u>             |
| Total Irrigation Cost   | <u>239.46</u>              | <u>239.46</u>            |
| <b>IRRIGATED PROCESSED FRUIT PRODUCTION COSTS</b>   | <b><u>\$1,032.86</u></b>   | <b><u>\$1,502.11</u></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 Southwest Florida Citrus Production” and may not represent your particular grove situation in Southwest Florida.

Source: Ronald P. Muraro, University of Florida-IFAS, Citrus Research and Education Center, Lake Alfred, FL, December 2007.

Table 2. A Listing of Estimated Comparative **Southwest Florida** Production Costs Per Acre for **Fresh Market Grapefruit, 2006-2007<sup>z</sup>**

| Costs represent a mature (10+ years old)<br>Southwest Florida Grapefruit Grove. | Fresh Market Cultural Program |                      |
|---|-------------------------------|----------------------|
|   | Without Canker-Greening       | With Canker-Greening |
| <b>PRODUCTION/CULTURAL COSTS<sup>v</sup></b>                                    |                               |                      |
| <u>Weed Management/Control:</u>   |                               |                      |
| Mechanical Mow Middles (3 times per year)                                       | \$ 25.09                      | \$ 25.09             |
| Chemical Mow Middles (3 times per year)   | 24.77                         | 24.77                |
| General Grove Work (2 labor hours per acre)                                     | 30.88                         | 30.88                |
| Herbicide (1/2 tree acre treated):  |                               |                      |
| Application (3 residual applications)   | 30.75                         | 30.75                |
| Material  | <u>82.15</u>                  | <u>82.15</u>         |
| Total Herbicide Cost  | 112.90                        | 112.90               |
| <u>Spray/Pest Management:</u>   |                               |                      |
| Temik (33 lbs): Application   | —                             | 14.93                |
| Material  | <u>—</u>                      | <u>98.67</u>         |
| Total Temik Cost  | —                             | 113.60               |
| Winter-Spring #1: Application (125 GPA)   | —                             | 23.94                |
| (February)      Material  | <u>—</u>                      | <u>30.99</u>         |
| Total Spring #1 Cost  | —                             | 54.93                |
| Winter Spring #2: Application (125 GPA)   | 23.94                         | 23.94                |
| (Nutritional)    Material   | <u>34.92</u>                  | <u>34.92</u>         |
| Total Spring #2 Cost  | 58.86                         | 58.86                |
| Spring #3:      Application (125 GPA) @ 2-Times & 3-Times                       | 47.88                         | 71.82                |
| Material  | <u>28.80</u>                  | <u>43.20</u>         |
| Total Spring #3 Cost  | 76.68                         | 115.02               |
| Late Spring #4: Application (125 GPA)   | —                             | 23.94                |
| Material  | <u>—</u>                      | <u>45.01</u>         |
| Total Late Spring #4 Cost   | —                             | 68.95                |
| Summer Oil #1: Application (125 GPA)  | 23.94                         | 23.94                |
| Material  | <u>45.01</u>                  | <u>73.50</u>         |
| Total Summer Oil #1 Cost  | 68.95                         | 97.44                |
| Summer Oil #2: Application (PTO – 125 GPA)                                      | 23.94                         | 23.94                |
| Material  | <u>50.54<sup>x</sup></u>      | <u>50.54</u>         |
| Total Summer Oil #2 Cost  | 74.48                         | 74.48                |
| Fall Insecticide: Aerial Application (10 GPA)                                   | 8.00                          | 8.00                 |
| Material  | <u>32.98</u>                  | <u>46.01</u>         |
| Total Fall Insecticide Cost   | <u>40.98</u>                  | <u>54.01</u>         |
| Total Spray/Pest Management Costs   | 319.95                        | 637.29               |

Table 2 A Listing of Estimated Comparative **Southwest Florida** Production Costs Per Acre for **Fresh Market Grapefruit**, 2006-2007 (cont'd.)<sup>z</sup>

| Costs represent a mature (10+ years old)<br>Southwest Florida Grapefruit Grove.                                  | Fresh Market Cultural Program |                          |
|--|-------------------------------|--------------------------|
|  | Without Canker-Greening       | With Canker-Greening     |
| Field Inspections for Citrus Greening (4 inspections @ \$22.73)  | —                             | 90.92                    |
| Clean Blocks Before Certification and Harvesting   | —                             | 31.08                    |
| Inspection Before “Canker Free” Certification<br>(2 inspections @ \$22.73)                                       | —                             | 45.46                    |
| Mandatory Citrus Canker Decontamination Costs  | 29.35                         | 29.35                    |
| Fertilizer (Bulk):4 Applications   | 26.28                         | 26.28                    |
| Material (15-2-15-2.4MgO @ 160 lbs N)  | <u>152.24</u>                 | <u>152.24</u>            |
| Total Fertilizer Cost  | 178.52                        | 178.52                   |
| Dolomite (one ton applied every 3 yrs) – Material/Application  | 14.76                         | 14.76                    |
| Pruning <sup>w</sup> : Topping (\$28.92/A ÷ 2.5 yrs)   | 11.97                         | 11.97                    |
| Hedging (\$27.33/A ÷ 2 yrs)  | 13.67                         | 13.67                    |
| Chop/Mow Brush after Hedging (\$11.99/A ÷ 2 yrs)   | 6.00                          | 6.00                     |
| Raise Skirts of Trees (\$15.75/A ÷ 2 yrs)  | <u>7.88</u>                   | <u>7.88</u>              |
| Total Pruning Cost   | 39.52                         | 39.52                    |
| Tree Replacement – 1 thru 3 years of age<br>( <b>3 trees/acre without greening; 6 trees/acre with greening</b> ) |                               |                          |
| Remove Trees: Pull, Stack & Burn<br>(Clip-Shear & Front End Loader)  | 19.08                         | 31.80                    |
| Prepare Site and Plant Tree (includes reset trees)   | 43.29                         | 81.00                    |
| Supplemental Fertilizer, Sprays, Sprout, etc.<br>(Trees 1-3 years old)   | <u>37.62</u>                  | <u>98.40</u>             |
| Total Tree Replacement Cost  | 99.99                         | 211.20                   |
| Irrigation: Microsprinkler System <sup>y</sup>   | 186.70                        | 186.70                   |
| Clean Ditches (Weed Control)   | 18.56                         | 18.56                    |
| Ditch and Canal Maintenance  | 17.48                         | 17.48                    |
| Water Control (Pump water in/out of Ditches<br>and Canals)   | <u>16.72</u>                  | <u>16.72</u>             |
| Total Irrigation Cost  | <u>239.46</u>                 | <u>239.46</u>            |
| <b>IRRIGATED FRESH FRUIT PRODUCTION COSTS</b>  | <b><u>\$1,115.19</u></b>      | <b><u>\$1,711.20</u></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 Southwest Florida Citrus Production” and may not represent your particular grove situation in Southwest Florida.

Source: Ronald P. Muraro, University of Florida-IFAS, Citrus Research and Education Center, Lake Alfred, FL, December 2007.

<sup>y</sup>Southwest Florida production area refers to those counties in the Florida Agricultural Statistics Service “Southern Production Area.” However, the costs shown are applicable to other South Central Florida counties such as DeSoto and Sarasota counties.

Where **equipment use** or **application** is listed (mowing, spray and herbicide application, etc.), the costs include a charge for equipment repairs, maintenance, labor and overhead management charges/costs. The exception are costs items such as hedging and topping where average custom charges are used. A **management charge** for equipment supervision and fruit marketing is not included. Management charges/costs could be based on a monthly charge (\$3 to \$6/acre) or percentage of gross sales. In addition to these charges, a harvesting supervision cost (10¢ 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 and are estimated in the expanded Tables 4 and 5.

The budget costs in this report represent an **owner-managed operation** for the production of oranges for processing and grapefruit for the fresh market. Therefore, the **10 percent handling and supervision charge** added to the material cost for a custom-managed operation is **not included** in the costs.

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 \$10.26 per acre; Diaprepes control could add \$93.18 per acre for each foliar application; extensive tree loss due to blight, tristeza, or citrus greening could substantially increase the tree replacement and care costs; travel and set-up costs may vary due to size of the citrus grove and distance from grove equipment barn and could add \$36.08 per acre; etc.

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

<sup>w</sup>Per acre costs shown in parenthesis are for 2007.

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

|   | <u>Microsprinkler</u> | <u>Drip</u>     |
|---|-----------------------|-----------------|
| Variable Operating Expense (Diesel)*                          | \$ 73.24              | \$ 70.08        |
| Fixed-Variable Expense (annual maintenance repairs to system) | <u>56.90</u>          | <u>49.70</u>    |
| Total Cash Expenses**   | \$130.14              | \$119.78        |
| Fixed-Depreciation Expense                                    | <u>56.56</u>          | <u>45.25</u>    |
| Total Cash and Fixed Expense                                  | <u>\$186.70</u>       | <u>\$165.03</u> |

\* Adjusted for higher fuel costs.

\*\* Where applies, there may be an additional cost of \$16.72 per acre for water control in/out of ditches and canals plus \$18.56 per acre for ditch and canal maintenance plus \$17.48 for weed control in ditches and canals.

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Source: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, FL, December 2007.

Table 3. Additional Costs for Managing Citrus Canker and Citrus Greening – 2007

|   | Oranges for Juice Processing | Grapefruit for Fresh Market |
|---|------------------------------|-----------------------------|
|   | ----- \$/Acre -----          |                             |
| <u>Citrus Canker</u>                                  |                              |                             |
| Copper Spray Costs (Additional Materials)             | 15.12                        | 45.36                       |
| Clean Blocks Before Certification and Harvesting      | —                            | 31.08                       |
| Grove Inspections Before “Canker Free” Certification  | —                            | 45.46<br>(2 inspections)    |
| Mandatory Citrus Canker Decontamination Costs         | <u>29.35</u>                 | <u>29.35</u>                |
| Total Additional Costs for Citrus Canker              | 44.47                        | 151.25                      |
| <u>Citrus Greening (control psylla)</u>               |                              |                             |
| Temik (Application & Materials)                       | 118.54                       | 118.54                      |
| Spray Costs (Application & Materials)                 | 132.10                       | 172.87                      |
| Field Inspections for Identifying Trees with Greening | 90.92<br>(4 inspections)     | 90.92<br>(4 inspections)    |
| Total Additional Costs for Citrus Greening            | 341.55                       | 382.32                      |
| Total Additional Costs for Citrus Canker and Greening | <u>386.02</u>                | <u>533.57</u>               |

Source: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, FL, December 2007.



Table 4. Estimated Total Delivered-in Cost for **Southwest Florida Hamlin Oranges** Grown for the **Processed Juice Market Without and With** Citrus Canker and Greening, 2006-07

| Represents a mature (10+ years old)<br>Southwest Florida Orange Grove | Processed Cultural Program<br><b>Without Canker-Greening<br/>and Resetting-Tree Replacement</b> |                |                 | Processed Cultural Program<br><b>With Canker-Greening<br/>and Resetting-Tree Replacement</b> |                |                 |
|---|---|----------------|-----------------|--|----------------|-----------------|
|   | \$/Acre   | \$/Box         | \$/P.S.         | \$/Acre  | \$/Box         | \$/P.S.         |
| Total Production/Cultural Costs                                       | \$1,032.86  | \$2.029        | \$0.3382        | \$1,502.11   | \$3.280        | \$0.5466        |
| Interest on Operating (Cultural) Costs                                | 51.64   | 0.101          | 0.0169          | 75.11  | 0.164          | 0.0273          |
| Management Costs  | 48.00   | 0.094          | 0.0157          | 48.00  | 0.105          | 0.0175          |
| Taxes/Regulatory Costs:   |   |                |                 |  |                |                 |
| Property Tax/Water Management Tax                                     | <u>61.00</u>  | <u>0.120</u>   | <u>0.0200</u>   | <u>61.00</u>   | <u>0.133</u>   | <u>0.0222</u>   |
| Total Direct Grower Costs   | \$1,193.50  | \$2.345        | \$0.3908        | \$1,686.22   | \$3.682        | \$0.6136        |
| Interest on Average Capital Investment Costs                          | <u>321.22</u>   | <u>0.631</u>   | <u>0.1052</u>   | <u>321.22</u>  | <u>0.701</u>   | <u>0.1169</u>   |
| Total Grower Costs  | \$1,514.72  | \$2.976        | \$0.4960        | \$2,007.43   | \$4.383        | \$0.7305        |
| Harvesting and Assessment Costs:                                      |   |                |                 |  |                |                 |
| Pick/Spot Pick, Roadside & Haul and<br>Canker Decontamination         | 1,308.13  | 2.570          | 0.4283          | 1,177.06   | 2.570          | 0.4283          |
| DOC Assessment  | <u>111.98</u>   | <u>0.220</u>   | <u>0.0367</u>   | <u>100.76</u>  | <u>0.220</u>   | <u>0.0367</u>   |
| Total Harvesting and Assessment Costs                                 | 1,420.11  | 2.790          | 0.4650          | 1,277.82   | 2.790          | 0.4650          |
| Total Delivered-In Cost   | <u>\$2,934.83</u>   | <u>\$5.766</u> | <u>\$0.9610</u> | <u>\$3,285.25</u>  | <u>\$7.173</u> | <u>\$1.1955</u> |
| P.S. = Pound Solids   | Refer to cultural program shown in<br>Table 1.  |                |                 | Refer to cultural program shown in<br>Table 1.   |                |                 |
| 145 trees per acre  | Yield: 509 boxes/acre; 6.0 P.S./box   |                |                 | Yield: 458 boxes/acre; 6.0 P.S./box  |                |                 |

Source: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, FL, December 2007.

Table 5. Estimated Total Delivered-in Cost for **Southwest Florida Grapefruit** Grown for the **Fresh Fruit Market Without** and **With** Citrus Canker and Greening, 2006-07

| Represents a mature (10+ years old)<br>Southwest Florida Grapefruit Grove | Fresh Market Cultural Program<br><b>Without Canker-Greening<br/>and Resetting-Tree Replacement</b> |                |                 | Fresh Market Cultural Program<br><b>With Canker-Greening<br/>and Resetting-Tree Replacement</b> |                |                 |
|---|--|----------------|-----------------|---|----------------|-----------------|
|   | \$/Acre  | \$/Box         | \$/Carton       | \$/Acre   | \$/Box         | \$/Carton       |
| Total Production/Cultural Costs   | \$1,115.19   | \$2.013        | \$1.0065        | \$1,711.20  | \$3.528        | \$1.7641        |
| Interest on Operating (Cultural) Costs                                    | 55.76  | 0.101          | 0.0503          | 85.56   | 0.176          | 0.0882          |
| Management Costs  | 48.00  | 0.087          | 0.0433          | 48.00   | 0.099          | 0.0495          |
| Taxes/Regulatory Costs:   |  |                |                 |   |                |                 |
| Property Tax/Water Management Tax   | 61.00  | 0.110          | 0.0551          | 61.00   | 0.126          | 0.0629          |
| Fly Protocol Cost   | <u>56.65</u>   | <u>0.102</u>   | <u>0.0477</u>   | <u>56.65</u>  | <u>0.117</u>   | <u>0.0477</u>   |
| Total Direct Grower Costs   | \$1,336.60   | \$2.413        | \$1.2029        | \$1,962.41  | \$4.046        | \$2.0124        |
| Interest on Average Capital Investment Costs                              | <u>321.22</u>  | <u>0.580</u>   | <u>0.2899</u>   | <u>321.22</u>   | <u>0.662</u>   | <u>0.3311</u>   |
| Total Grower Costs  | \$1,657.81   | \$2.992        | \$1.4928        | \$2,283.62  | \$4.708        | \$2.3436        |
| Harvesting and Assessment Costs:  |  |                |                 |   |                |                 |
| Pick/Spot Pick, Roadside & Haul and<br>Canker Decontamination             | 1,323.51   | 2.389          | 1.1945          | 1,158.67  | 2.389          | 1.1945          |
| DOC Assessment  | <u>193.90</u>  | <u>0.350</u>   | <u>0.1750</u>   | <u>169.75</u>   | <u>0.350</u>   | <u>0.1750</u>   |
| Total Harvesting and Assessment Costs                                     | 1,517.41   | 2.739          | 1.3695          | 1,328.42  | 2.739          | 1.3695          |
| Total Delivered-In Cost   | <u>\$3,175.22</u>  | <u>\$5.731</u> | <u>\$2.8623</u> | <u>\$3,612.04</u>   | <u>\$7.447</u> | <u>\$3.7131</u> |
| Two cartons per box   | Refer to cultural program shown in<br>Table 2.   |                |                 | Refer to cultural program shown in<br>Table 2.  |                |                 |
| 119 trees per acre  | Assumes 100% packout<br>Yield: 554 boxes/acre  |                |                 | Assumes 100% packout<br>Yield: 485 boxes/acre   |                |                 |

Source: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, FL, December 2007.

Table 6. Break-even Price for Processed Hamlin Oranges in Southwest Florida, 2006-07

| Boxes Per Acre                                   |         |         |         |         |         |         |
|--|---------|---------|---------|---------|---------|---------|
| 300  | 350     | 400     | 450     | 500     | 550     | 600     |
| Delivered-in Price Per Pound Solids <sup>a</sup> |         |         |         |         |         |         |
| <b>Without Canker-Greening</b>                   |         |         |         |         |         |         |
| \$1.307  | \$1.186 | \$1.096 | \$1.026 | \$0.970 | \$0.924 | \$0.886 |
| <b>With Canker-Greening</b>                      |         |         |         |         |         |         |
| \$1.580  | \$1.421 | \$1.301 | \$1.208 | \$1.134 | \$1.073 | \$1.023 |

<sup>a</sup>Assumes 6.0 pounds solids per box.

Table 7. Break-even Price for Fresh Market Grapefruit in Southwest Florida, 2006-07

| Boxes Per Acre                 |        |        |        |        |        |        |
|--------------------------------|--------|--------|--------|--------|--------|--------|
| 350                            | 400    | 450    | 500    | 550    | 600    | 650    |
| Delivered-in Price Per Box     |        |        |        |        |        |        |
| <b>Without Canker-Greening</b> |        |        |        |        |        |        |
| \$7.48                         | \$6.88 | \$6.42 | \$6.05 | \$5.75 | \$5.50 | \$5.29 |
| <b>With Canker-Greening</b>    |        |        |        |        |        |        |
| \$9.26                         | \$8.45 | \$7.81 | \$7.31 | \$6.89 | \$6.55 | \$6.25 |