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# **Budgeting Costs and Returns for Southwest Florida Citrus Production, 2004-05**



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**September 2005**

## ABSTRACT

Estimated costs and returns of growing processed-market round oranges and fresh-market seedless grapefruit in the Southwest area of Florida are presented for the tenth consecutive year. The format presented may be used by individual growers to budget costs and returns, utilizing individual data on specific groves.

Key words: citrus, budgeting, costs, round oranges, seedless grapefruit and Southwest Florida.

NOTE: Southwest Florida refers primarily to Charlotte, Collier, Glades, Hendry and Lee counties. However, the costs shown are applicable to other South Central Florida counties such as DeSoto, Okeechobee, and Sarasota counties.

The budgeted cost information presented herein is the most current available. 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, etc. The 2004-2005 budgets reflect major cost increases in all production inputs: fuel averaged a 22% increase; fertilizer products increased 15%; chemicals averaged 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 significantly affected by the three storms was the Southwest Florida citrus region. As a result of the excessive fruit loss, the 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.

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.

**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 \$11.88 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 such as Temik (\$116.94/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 the grove equipment barn and could add \$28.86 per acre; etc.

## ACKNOWLEDGEMENTS

Appreciation is extended to Mrs. Jane Wilson for typing the final draft of this manuscript.

Appreciation is also extended to the citrus growers and production managers of Southwest Florida who provided suggestions for the revision of this manuscript.

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# BUDGETING COSTS AND RETURNS FOR SOUTHWEST FLORIDA CITRUS PRODUCTION, 2004-05

Ronald P. Muraro, Fritz M. Roka, and Robert E. Rouse

## INTRODUCTION

Southwest Florida has become a major citrus production area. In 2004 citrus acreage in Southwest Florida represented over 22.6% of total state citrus acreage. Acreage in Southwest Florida increased from 72,480 in 1986 to 179,948 in 1998 then decreased to 169,386 in 2004. The 5.9% decline in acreage was primarily due to trees on sour orange rootstock that died from tristeza virus and acreage destroyed in the citrus canker eradication program. Southwest Florida refers primarily to Charlotte, Collier, Glades, Hendry and Lee counties. However, the costs shown are applicable to other South Central Florida counties such as DeSoto, Okeechobee, and Sarasota counties.

Budget analysis provides the basis for many grower decisions. Budget analysis can be used to calculate potential profits from an operation, to determine cash requirements for an operation, and to determine break-even prices. This report presents two budgets constructed from current data and provides a format for growers to analyze costs and returns from their individual records.

The 2004-2005 budgets reflect major cost increases in all production inputs: fuel averaged a 22% increase; fertilizer products increased 15%; chemicals averaged 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 significantly affected by the three storms was the Southwest Florida citrus region. As a result of the excessive fruit loss, the 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.

## METHOD OF DATA COLLECTION

The data presented here were developed by surveying custom operators, input suppliers, growers, and colleagues at both the Southwest Florida Research and Education Center and the Citrus Research and Education Center in Lake Alfred. The survey is conducted annually in February and March.

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## COSTS AND INPUTS

Costs for various production inputs are those collected from citrus growers as well as the average of the data obtained from annual custom rate, chemical, and fertilizer surveys. Grower costs are shown in the ADDENDA, Tables 1-A through 7-A. The custom rate charges are shown in Table 8-A and the various chemical and fertilizer costs are shown in Tables 9-A and 10-A in the ADDENDA. Costs of planting and maintaining reset trees through three years of age are shown in Table 13-A. Historic on-tree prices for selected citrus varieties are shown in 16-A. Although brand names are used in many of the tables in the ADDENDA, this does not imply endorsement by the University of Florida. It is merely an attempt to depict typical production practices.

All tables have a column reserved for the individual growers to insert data from a particular grove allowing a comparison of the grower's costs with those presented.

## THE GROVE SITUATION

Production practices for Southwest Florida orange and grapefruit groves are shown in Tables 1 and 2, respectively, with the times during the year when they are normally performed. There are two benefits to developing such a table for an individual grove. First, it shows what work is needed and when, so that operations can be planned well in advance. Second, it can be helpful if an annual cash flow analysis is developed to plan financing. The individual grower may benefit from developing a plan for a particular grove.

Specific production practices vary from grove to grove making it difficult to define a "typical" grove. Many combinations of practices and various tree variety combinations produce acceptable yields and returns. Although the examples represent Hamlin orange and red seedless grapefruit groves, the cost and return data are designed to be applicable to most grove situations. A grower, realtor, or land appraiser can substitute individual grove costs and expected returns into the budget format and develop a budget for a particular grove. A "your cost" column is appropriately provided for this purpose in subsequent tables.

In the following budget, above average management and cultural practices are assumed. Beyond this general assumption, the following specifics are assumed:

1. A mature (10+ years old), low volume irrigated grove;
2. Varieties are processed-market Hamlin oranges and fresh-market red seedless grapefruit;
3. Annual tree loss is 4.4 trees per acre for oranges and 3.6 trees per acre for grapefruit;
4. Trees are pulled and replaced when production falls below 50 percent of expected yield;
5. Tree density is 145 trees per acre for oranges and 119 trees per acre for grapefruit.

As a result of tree losses and replacement, the tree ages will vary. The orange and grapefruit budgets reflect the following age distributions:

Table 1.--Schedule of production practices and budget items for a Southwest Florida mature, round orange grove, 2004-05<sup>a</sup>

|  | Month |         |             |     |                     |     |     |     |         |          |     |               |
|--|-------|---------|-------------|-----|---------------------|-----|-----|-----|---------|----------|-----|---------------|
|  | Jan   | Feb     | Mar         | Apr | May                 | Jun | Jul | Aug | Sep     | Oct      | Nov | Dec           |
| <u>Total revenue:</u>                  |       |         | 20% deposit |     | 50% Partial payment |     |     |     |         |          |     | Final payment |
| Less: Pick & haul cost                 |       |         |             |     | X                   |     |     |     |         |          |     |               |
| DOC advertisement tax                  |       |         |             |     | X                   |     |     |     |         |          |     |               |
| <u>Grove expenses:</u>                 |       |         |             |     |                     |     |     |     |         |          |     |               |
| Mow                                    |       | X       |             |     |                     | X   | X   | X   |         |          | X   |               |
| Labor, general grove work, pull vines  | X     |         |             |     |                     |     |     |     | X       |          |     |               |
| Herbicide (1/2 grove acre equivalent)  |       | X       |             |     |                     | X   |     | X   |         |          |     |               |
| <u>Spray:</u>                          |       |         |             |     |                     |     |     |     |         |          |     |               |
| Dormant                                |       |         |             |     |                     |     |     |     |         |          |     |               |
| Post bloom/nutritional                 |       |         |             | X   |                     |     |     |     |         |          |     |               |
| Supplemental miticide                  |       |         |             |     |                     |     |     |     |         |          |     |               |
| Summer oil/greasy spot                 |       |         |             |     |                     |     | X   |     |         |          |     |               |
| Fall miticide                          |       |         |             |     |                     |     |     |     |         | X        |     |               |
| Fertilizer                             |       | 68# N/A |             |     | 68# N/A             |     |     |     | 68# N/A | Dolomite |     |               |
| Hedging and topping                    |       |         | Hedge       |     |                     |     |     |     |         |          |     |               |
| Brush removal/mow brush                |       |         | Mow brush   |     |                     |     |     |     |         |          |     |               |
| Tree removal                           |       | X       |             |     |                     |     |     |     |         |          |     |               |
| Young tree care                        |       |         | X           | X   |                     | X   | X   | X   |         |          |     |               |
| Microsprinkler irrigation (times/week) | 1     | 1       | 2           | 3   | 3                   | 3   | 2   | 2   | 2       | 2        | 1   | 1             |
| Miscellaneous (clean ditches)          |       | X       |             |     |                     |     |     |     |         |          |     |               |
| Grove taxes including water management |       |         |             |     |                     |     |     |     |         |          | X   |               |
| Interest expense                       |       |         |             |     |                     |     | X   |     |         |          |     |               |
| Annual principal payment on mortgage   |       |         |             |     |                     |     | X   |     |         |          |     |               |

<sup>a</sup>This is a suggested schedule of practices. Actual practices would not necessarily be done on the exact schedule shown here.

Table 2.--Schedule of production practices and budget items for a Southwest Florida mature, red seedless grapefruit grove, 2004-05<sup>a</sup>

|  | Month                 |     |               |     |         |     |     |         |     |          |     |     |
|--|-----------------------|-----|---------------|-----|---------|-----|-----|---------|-----|----------|-----|-----|
|  | Jan                   | Feb | Mar           | Apr | May     | Jun | Jul | Aug     | Sep | Oct      | Nov | Dec |
| <u>Total revenue:</u>                  | 20% deposit           |     | Final payment |     |         |     |     |         |     |          |     |     |
| Less:                                  | Pick & haul cost      | X   |               |     |         |     |     |         |     |          |     |     |
|  | DOC advertisement tax |     | X             |     |         |     |     |         |     |          |     |     |
| <u>Grove expenses:</u>                 |                       |     |               |     |         |     |     |         |     |          |     |     |
| Disc                                   |                       |     |               |     |         |     |     |         |     |          |     |     |
| Chop                                   |                       |     |               |     |         |     |     |         |     |          |     |     |
| Mow                                    |                       | X   |               |     |         | X   | X   | X       |     |          | X   |     |
| Labor, general grove work, pull vines  | X                     |     |               |     |         |     |     |         | X   |          |     |     |
| Herbicide (1/2 grove acre equivalent)  |                       |     | X             |     |         | X   |     |         |     | X        |     |     |
| <u>Spray:</u>                          |                       |     |               |     |         |     |     |         |     |          |     |     |
| Dormant                                |                       |     |               |     |         |     |     |         |     |          |     |     |
| Post bloom/nutritional                 |                       |     |               | X   |         |     |     |         |     |          |     |     |
| Supplemental miticide                  |                       |     |               |     | X       |     |     |         |     |          |     |     |
| Summer oil/greasy spot                 |                       |     |               |     |         | X   |     | X       |     |          |     |     |
| Fall miticide                          |                       |     |               |     |         |     |     |         |     | X        |     |     |
| Fertilizer                             | 50# N/A               |     |               |     | 50# N/A |     |     | 50# N/A | N/A | Dolomite |     |     |
| Hedging and topping                    |                       |     | Hedge         |     |         |     |     |         |     |          |     |     |
| Brush removal/mow brush                |                       |     | Mow brush     |     |         |     |     |         |     |          |     |     |
| Tree removal                           |                       | X   |               |     |         |     |     |         |     |          |     |     |
| Young tree care                        |                       |     | X             | X   |         | X   | X   | X       | X   |          |     |     |
| Microsprinkler irrigation (times/week) | 1                     | 1   | 2             | 3   | 3       | 3   | 2   | 2       | 2   | 2        | 1   | 1   |
| Miscellaneous (clean ditches)          |                       | X   |               |     |         |     |     |         |     |          |     |     |
| Grove taxes including water management |                       |     |               |     |         |     |     |         |     |          | X   |     |
| Interest expense                       |                       |     |               |     |         |     | X   |         |     |          |     |     |
| Annual principal payment on mortgage   |                       |     |               |     |         |     | X   |         |     |          |     |     |

<sup>a</sup>This is a suggested schedule of practices. Actual practices would not necessarily be done on the exact schedule shown here.

Hamlin Oranges

| <u>Situation</u>                   | <u>Yield<br/>Boxes/tree</u> |
|------------------------------------|-----------------------------|
| 3% pulled and reset                | 0.0                         |
| 3% 1 year old                      | 0.0                         |
| 3% 2 years old                     | 0.0                         |
| 3% 3 years old                     | 0.7                         |
| 3% 4 years old                     | 1.5                         |
| 33% 5-15 years old                 | 4.0                         |
| 3% producing 50% of expected yield | 2.2                         |
| 49% over 15 years old              | 4.3                         |

and

Red Seedless Grapefruit

| <u>Situation</u>                   | <u>Yield<br/>Boxes/tree</u> |
|------------------------------------|-----------------------------|
| 3% pulled and reset                | 0.0                         |
| 3% 1 year old                      | 0.0                         |
| 3% 2 years old                     | 0.0                         |
| 3% 3 years old                     | 0.9                         |
| 3% 4 years old                     | 1.6                         |
| 33% 5-15 years old                 | 4.0                         |
| 3% producing 50% of expected yield | 2.9                         |
| 49% over 15 years old              | 6.5                         |

Calculation of normal production per acre for Hamlin oranges and red seedless grapefruit are shown in Tables 3 and 4, respectively.

Table 3.--Calculation of normal production per tree and per acre for Hamlin oranges, 2004-05

| <u>Age of Tree</u>         | <u>Trees</u>                  |   |            | <u>No. ea.<br/>age</u> | <u>Boxes<br/>/tree</u> | <u>Total<br/>boxes</u> |              |   |              |
|----------------------------|-------------------------------|---|------------|------------------------|------------------------|------------------------|--------------|---|--------------|
|                            | <u>Total no.<br/>all ages</u> | <u>Proportion<br/>ea. age<sup>a</sup></u> | <u>No.</u> |                        |                        |                        |              |   |              |
| 3 years                    | 145                           | x   | 0.03       | =                      | 4.4                    | x                      | 0.7          | = | 3.1          |
| 4 years                    | 145                           | x   | 0.03       | =                      | 4.4                    | x                      | 1.5          | = | 6.6          |
| 5-15 years                 | 145                           | x   | 0.33       | =                      | 47.9                   | x                      | 3.9          | = | 186.8        |
| Prod. 50% of<br>exp. yield | 145                           | x   | 0.03       | =                      | 4.4                    | x                      | 2.2          | = | 9.7          |
| Over 16 years              | 145                           | x   | 0.49       | =                      | 71.0                   | x                      | 4.2          | = | <u>298.2</u> |
| <u>Total boxes</u>         |                               |   |            |                        |                        | =                      | <u>504.4</u> |   |              |

<sup>a</sup>Proportion adds up to 91 percent as 9 percent of the trees were non-bearing (pulled and reset, 1 and 2 year old trees).

Table 4.--Calculation of normal production per tree and per acre for red seedless grapefruit, 2004-05

| Age of Tree             | Trees              |                                 |             | Boxes /tree | Total boxes |   |     |       |              |
|-------------------------|--------------------|---------------------------------|-------------|-------------|-------------|---|-----|-------|--------------|
|                         | Total no. all ages | Proportion ea. age <sup>a</sup> | No. ea. age |             |             |   |     |       |              |
| 3 years                 | 119                | x                               | 0.03        | =           | 3.6         | x | 0.9 | =     | 3.2          |
| 4 years                 | 119                | x                               | 0.03        | =           | 3.6         | x | 1.6 | =     | 5.8          |
| 5-15 years              | 119                | x                               | 0.33        | =           | 39.3        | x | 4.0 | =     | 157.2        |
| Prod. 50% of exp. yield | 119                | x                               | 0.03        | =           | 3.6         | x | 2.9 | =     | 10.4         |
| Over 16 years           | 119                | x                               | 0.49        | =           | 58.3        | x | 6.5 | =     | <u>379.0</u> |
| Total boxes             |                    |                                 |             |             |             |   | =   | 555.6 |              |

<sup>a</sup>Proportion adds up to 91 percent as 9 percent of the trees were non-bearing (pulled and reset, 1 and 2 year old trees; see page 5).

#### BUDGET COSTS AND RETURNS

The estimated budget costs and returns for the two Southwest Florida grove situations are shown in Tables 5 and 7. The budgeted costs represent one possible citrus production program and were selected from the costs shown in the ADDENDA tables. **The costs presented in the budgets represent an owner-managed citrus operation.** The gross revenue estimates are based on the projected yields in Tables 3 and 4 and estimated preliminary on-tree prices for the 2004-05 season. Alternative cost scenarios, grove reset costs, harvesting and packing charges can be found in Tables 11-A through 15-A in the ADDENDA. Also, historical on-tree prices for selected Florida citrus varieties are shown in Table 16-A of the ADDENDA.

As shown in Table 5, the total revenue for processed-market Hamlin oranges is estimated to be \$1,149.12 per acre. Total specified costs are \$881.03 and are comprised of grove care costs of \$833.03, plus management cost of \$48.00. Return to land and trees which represents net return above variable costs was \$268.09 per acre. At 350 and 550 boxes per acre, respectively, the break-even price required to cover grove care costs for Hamlin oranges range from \$2.38 to \$1.52 per box on-tree and \$0.82 to \$0.68 per pounds solids delivered-in.

In Table 7, total revenue for fresh market red seedless grapefruit is estimated to be \$7,919.85 per acre. Total specified costs are \$997.74, being comprised of grove care costs of \$949.74, plus management cost of \$48.00. Return to land, trees, and ownership or net return above variable costs is \$6,922.11. At 350 and 550 boxes per acre, respectively, the break-even price required to cover grove care costs for seedless grapefruit range from \$2.72 to \$1.73 per box on-tree and \$1.39 to \$1.18 per pound solids delivered-in for eliminations.

Ad valorem taxes, and overhead and administrative costs (such as water drainage district taxes, crop insurance, and other grower assessments) can add up to 12 percent of the total grove care costs. These costs vary from grove to grove depending on age, location, variety of fruit, etc. and should be considered in arriving at a net return to land, trees, and ownership (total return minus total costs). Harvest costs (pick, roadside, and hauling costs) also add to the total fruit cost delivered to either a processing plant or fresh fruit packinghouse. Also, average annual debt payment (principal and interest) may be as high as \$435 per acre (\$3,700 average debt per acre @ 10 percent interest amortized over 20 years) which would reduce total available cash for grove expansion or other investment.

An estimated "delivered-in" costs are shown for processed oranges in Table 6 and fresh packed red grapefruit in Table 8. "Delivered-in" costs include grove care costs (Tables 5 and 7) plus harvesting, regulatory, and grower assessment costs. The "delivered-in" costs are presented as a cost per acre, per box, and per pound solids or per carton. Three possible budget cost scenarios are presented (Refer to Tables 11-A and 12-A): 1) Low Cost Processed Cultural Program; 2) Reduced Cost Cultural Program; and 3) Typical/Historical Cultural Program. Scenarios 1 and 2 represent costs of two possible cultural programs directed toward reducing the expenditures for fruit grown primarily for the fresh/processed market. The third scenario represents typical costs of grove practices which have been performed for citrus grown for the fresh fruit market in the case of grapefruit and the processed market in the case of oranges. Modified herbicide and/or spray and fertilizer programs account for the reduced costs. NOTE: Before modifying a grove management program to reduce costs, an evaluation of the market program (processed or fresh), yield, and specific cultural problems (nutrition, disease, etc.) for the specific grove site should be made. Also, in Table 9, the total estimated F.O.B. cost for fresh packed Red grapefruit is shown. The F.O.B. costs are presented for "fresh fruit packout percentage rates" ranging from 50 percent to 100 percent.

#### HISTORICAL COST TRENDS

Annual budgets of costs and returns for mature, processed Hamlin oranges and mature fresh-market seedless grapefruit in the Southwest Florida area have been developed and published in each of the past five years. Estimated cost and return histories for 2000-01 through 2003-04 along with 2004-05, and a five-year average are presented in Tables 10 and 12. To allow comparisons in current values, these same costs and returns, adjusted to 2005 dollars, are presented in Tables 11 and 13.



Table 6.--Estimated total delivered-in cost for Southwest Florida Hamlin oranges grown for the processed market under three cultural cost programs, 2004-05

| Represents a mature (10+ years old) Southwest Florida Orange Grove | Processed Hamlin Oranges Low Cost Cultural Program One-Year Alternative   |                | Processed Hamlin Oranges Low Cost Cultural Program |                   | Fresh/Processed Hamlin Oranges Historical Cost Cultural Program |                 |                   |                |                 |
|--|---|----------------|--|-------------------|---|-----------------|-------------------|----------------|-----------------|
|  | \$/Acre   | \$/Box         | \$/P.S.  | \$/Acre           | \$/Box  | \$/P.S.         | \$/Acre           | \$/Box         | \$/P.S.         |
| Total Production/Cultural Costs                                    | \$ 735.99   | \$1.460        | \$0.2434   | \$ 833.03         | \$1.653   | \$0.2755        | \$ 954.72         | \$1.894        | \$0.3157        |
| Interest on Operating (Cultural) Costs                             | 20.24   | 0.040          | 0.0067   | 41.65             | 0.083   | 0.0138          | 47.74             | 0.095          | 0.0158          |
| Management Costs   | 48.00   | 0.095          | 0.0159   | 48.00             | 0.095   | 0.0159          | 48.00             | 0.095          | 0.0159          |
| Taxes/Regulatory Costs:  |   |                |  |                   |   |                 |                   |                |                 |
| Property Tax and Water Management District Tax                     | 64.05   | 0.127          | 0.0212   | 61.00             | 0.121   | 0.0202          | 61.00             | 0.121          | 0.0202          |
| Canker Decontamination Costs                                       | <u>6.18</u>   | <u>0.012</u>   | <u>0.0020</u>                                      | <u>4.54</u>       | <u>0.009</u>  | <u>0.0015</u>   | <u>4.54</u>       | <u>0.009</u>   | <u>0.0015</u>   |
| Total Direct Grower Costs  | \$ 874.46   | \$1.735        | \$0.2892   | \$ 988.22         | \$1.961   | \$0.3268        | \$1,116.00        | \$2.214        | \$0.3690        |
| Interest on Avg Capital Investment Costs                           | <u>321.22</u>   | <u>0.637</u>   | <u>\$0.1062</u>                                    | <u>321.22</u>     | <u>0.637</u>  | <u>0.1062</u>   | <u>321.22</u>     | <u>0.637</u>   | <u>0.1062</u>   |
| Total Grower Costs   | \$1,195.67  | \$2.372        | \$0.3954   | \$1,309.44        | \$2.598   | \$0.4330        | \$1,437.21        | \$2.852        | \$0.4753        |
| Harvesting and Assessment Costs:                                   |   |                |  |                   |   |                 |                   |                |                 |
| Pick/Spot Pick, Roadside & Haul and Canker Decontamination Costs   | 1,187.93  | 2.357          | 0.3928   | 1,187.93          | 2.357   | 0.3928          | 1,187.93          | 2.357          | 0.3928          |
| DOC Assessment   | <u>83.16</u>  | <u>0.165</u>   | <u>0.0275</u>                                      | <u>83.16</u>      | <u>0.165</u>  | <u>0.0275</u>   | <u>83.16</u>      | <u>0.165</u>   | <u>0.0275</u>   |
| Total Harvesting & Assessment Costs                                | 1,271.09  | 2.522          | 0.4203   | 1,271.09          | 2.522   | 0.4203          | 1,271.09          | 2.522          | 0.4203          |
| Total Delivered-In Cost  | <u>\$2,466.76</u>   | <u>\$4.894</u> | <u>\$0.8157</u>                                    | <u>\$2,580.52</u> | <u>\$5.120</u>  | <u>\$0.8533</u> | <u>\$2,708.30</u> | <u>\$5.374</u> | <u>\$0.8956</u> |
| P.S. = Pound Solids  | Refer to cultural program shown in Table 11-A.  |                |  |                   |   |                 |                   |                |                 |
| Yield: 504 boxes/acre @ 6.0 P.S. per box                           | Refer to cultural program shown in Table 5.   |                |  |                   |   |                 |                   |                |                 |
| 145 trees per acre   | Only summer oil sprays with oil, copper, and Agri-mek & nutritional.  |                |  |                   |   |                 |                   |                |                 |
|  | Refer to cultural program shown in Table 11-A.<br>A Fall Miticide Spray added to the cultural program shown in Table 5. |                |  |                   |   |                 |                   |                |                 |





Table 9.--Estimated F.O.B. cost for fresh market Southwest Florida Red grapefruit, 2004-05

|   | Percent Packout 50.00%<br>Box Yield Per Acre 555 |                 |                 | Percent Packout 60.00%<br>Box Yield Per Acre 555 |                 |                 | Percent Packout 70.00%<br>Box Yield Per Acre 555  |                 |                 |
|---|--|-----------------|-----------------|--|-----------------|-----------------|---|-----------------|-----------------|
|   | Per Acre   | Per Box         | Per Carton      | Per Acre   | Per Box         | Per Carton      | Per Acre  | Per Box         | Per Carton      |
| Total Production/<br>Cultural Costs                 | \$949.74   | \$4.268         | \$2.1342        | \$949.74   | \$3.557         | \$1.7785        | \$949.74  | \$3.049         | \$1.5245        |
| Interest on Operating<br>(Cultural Costs)           | 26.12  | 0.117           | 0.0587          | 26.12  | 0.098           | 0.0489          | 26.12   | 0.084           | 0.0419          |
| Management  | 48.00  | 0.216           | 0.1079          | 48.00  | 0.180           | 0.0899          | 48.00   | 0.154           | 0.0770          |
| Taxes/Regulatory                                    | 112.15   | 0.504           | 0.2520          | 112.15   | 0.420           | 0.2100          | 112.15  | 0.360           | 0.1800          |
| Interest on Average<br>Capital Investment           | 321.22   | 1.444           | 0.7218          | 321.22   | 1.203           | 0.6015          | 321.22  | 1.031           | 0.5156          |
| Harvesting (Pick, Haul, Etc.)<br>and DOC Assessment | <u>1,559.00</u>                                  | <u>7.007</u>    | <u>3.5034</u>   | <u>1,559.00</u>                                  | <u>5.839</u>    | <u>2.9195</u>   | <u>1,559.00</u>                                   | <u>5.005</u>    | <u>2.5024</u>   |
| Total Delivered-In Cost                             | \$3,016.22                                       | \$13.556        | \$6.7780        | \$3,016.22                                       | \$11.297        | \$5.6483        | \$3,016.22  | \$9.683         | \$4.8414        |
| Packing & Selling                                   | 2,047.95   | 7.380           | 3.6900          | 2,457.54   | 7.380           | 3.6900          | 2,867.13  | 7.380           | 3.6900          |
| Net Costs of Fresh<br>Eliminations <sup>a</sup>     | <u>-2,096.24</u>                                 | <u>-9.421</u>   | <u>-4.7106</u>  | <u>-1,676.99</u>                                 | <u>-6.281</u>   | <u>-3.1404</u>  | <u>-1,257.74</u>                                  | <u>-4.038</u>   | <u>-2.0188</u>  |
| Total F.O.B. Costs                                  | <u>\$2,967.93</u>                                | <u>\$11.515</u> | <u>\$5.7574</u> | <u>\$3,796.77</u>                                | <u>\$12.396</u> | <u>\$6.1979</u> | <u>\$4,625.61</u>                                 | <u>\$13.025</u> | <u>\$6.5126</u> |
|   | Percent Packout 80.00%<br>Box Yield Per Acre 555 |                 |                 | Percent Packout 90.00%<br>Box Yield Per Acre 555 |                 |                 | Percent Packout 100.00%<br>Box Yield Per Acre 555 |                 |                 |
|   | Per Acre   | Per Box         | Per Carton      | Per Acre   | Per Box         | Per Carton      | Per Acre  | Per Box         | Per Carton      |
| Total Production/<br>Cultural Costs                 | \$949.74   | \$2.668         | \$1.3339        | \$949.74   | \$2.371         | \$1.1857        | \$949.74  | \$2.134         | \$1.0671        |
| Interest on Operating<br>(Cultural) Costs           | 26.12  | 0.073           | 0.0367          | 26.12  | 0.065           | 0.0326          | 26.12   | 0.059           | 0.0293          |
| Management  | 48.00  | 0.135           | 0.0674          | 48.00  | 0.120           | 0.0599          | 48.00   | 0.108           | 0.0539          |
| Taxes/Regulatory                                    | 112.15   | 0.315           | 0.1575          | 112.15   | 0.280           | 0.1400          | 112.15  | 0.252           | 0.1260          |
| Interest on Average<br>Capital Investment           | 321.22   | 0.902           | 0.4511          | 321.22   | 0.802           | 0.4010          | 321.22  | 0.722           | 0.3609          |
| Harvesting (Pick, Haul, Etc.)<br>and DOC Assessment | <u>1,559.00</u>                                  | <u>4.379</u>    | <u>2.1896</u>   | <u>1,559.00</u>                                  | <u>3.893</u>    | <u>1.9463</u>   | <u>1,559.00</u>                                   | <u>3.503</u>    | <u>1.7517</u>   |
| Total Delivered-In Cost                             | \$3,016.22                                       | \$8.473         | \$4.2363        | \$3,016.22                                       | \$7.531         | \$3.7656        | \$3,016.22  | \$6.778         | \$3.3890        |
| Packing & Selling                                   | 3,276.72   | 7.380           | 3.6900          | 3,686.31   | 7.380           | 3.6900          | 4,095.90  | 7.380           | 3.6900          |
| Net Costs of Fresh<br>Eliminations <sup>a</sup>     | <u>-838.49</u>                                   | <u>-2.355</u>   | <u>-1.1777</u>  | <u>-419.25</u>                                   | <u>-1.047</u>   | <u>-0.5234</u>  | <u>0.00</u>                                       | <u>0.000</u>    | <u>0.0000</u>   |
| Total F.O.B. Costs                                  | <u>\$5,454.44</u>                                | <u>\$13.497</u> | <u>\$6.7486</u> | <u>\$6,283.28</u>                                | <u>\$13.864</u> | <u>\$6.9322</u> | <u>\$7,112.12</u>                                 | <u>\$14.158</u> | <u>\$7.0790</u> |

<sup>a</sup>"Net Eliminations Cost" equals the average yield of 4.70 pound solids per box times \$1.82 per pound solids less packinghouse elimination charge and cannery hauling charge of \$1.00 per box.

Table 10.--Estimated annual per acre costs and returns and 5-year average costs and returns for a mature, Hamlin orange grove producing citrus for processed market in the Southwest Florida area, 2000-01-2004-05

| Year       | On-tree price/box <sup>a</sup> | Yield | Gross revenue | Total grove care expenses | Total specified costs <sup>c</sup> | Net return to land, trees, and ownership |
|------------|--------------------------------|-------|---------------|---------------------------|------------------------------------|--|
| 2000-01    | \$2.57                         | 504   | 1,295.28      | 769.04                    | 817.04                             | 478.14                                   |
| 2001-02    | \$2.79                         | 504   | 1,406.16      | 767.23                    | 815.23                             | 590.93                                   |
| 2002-03    | \$2.65                         | 504   | 1,335.60      | 771.03                    | 819.03                             | 516.57                                   |
| 2003-04    | \$2.11                         | 516   | 1,088.76      | 768.21                    | 816.21                             | 272.55                                   |
| 2004-05    | \$2.28 <sup>b</sup>            | 504   | 1,149.12      | 833.03                    | 881.03                             | 268.09                                   |
| 5-yr. avg. | \$2.48                         | 506   | 1,254.88      | 781.71                    | 830.71                             | 424.17                                   |

----- Dollars -----

<sup>a</sup>On-tree prices for processed oranges only as reported by the Florida Agricultural Statistics Service.

<sup>b</sup>Preliminary estimate by FASS for 2004-05 season.

<sup>c</sup>A management cost of \$4.00 per acre per month is included. Fixed costs such as taxes, debt service, and crop insurance are not included.

Table 11.--Estimated annual per acre costs and returns and 5-year average costs and returns (adjusted to 2005 dollars) for a mature, Hamlin orange grove producing citrus for processed market in the Southwest Florida area, 2000-01–2004-05

| Year       | Inflation factor index <sup>a</sup> | Adjusted on-tree price/box | Yield | Gross revenue       | Total specified costs <sup>b</sup> | Net return to land, trees, and ownership |
|------------|-------------------------------------|----------------------------|-------|---------------------|------------------------------------|--|
|            |                                     |                            |       | ----- Dollars ----- |                                    |  |
| 2000-01    | 117.9                               | \$3.03                     | 504   | 1,527.12            | 963.29                             | 563.83                                   |
| 2001-02    | 120.7                               | \$3.37                     | 504   | 1,698.48            | 983.99                             | 714.49                                   |
| 2002-03    | 114.6                               | \$3.04                     | 504   | 1,532.16            | 938.61                             | 593.55                                   |
| 2003-04    | 107.9                               | \$2.28                     | 516   | 1,176.48            | 880.69                             | 295.29                                   |
| 2004-05    | 100.0                               | \$2.28                     | 504   | 1,149.12            | 881.03                             | 268.09                                   |
| 5-yr. avg. | —                                   | \$2.80                     | 506   | 1,416.80            | 929.53                             | 487.27                                   |

<sup>a</sup>Producer price index for each year adjusted to 2005 prices (2005 = 100), with 2005 producer price index estimated to be 158.2. Producer price index for other years are: 2001 = 134.2; 2002 = 131.1; 2003 = 138.1; and 2004 = 146.7.

<sup>b</sup>A management cost of \$4.00 per acre per month is included. Fixed costs such as taxes, debt service, and crop insurance are not included. (Refer to Table 10.)

Table 12.--Estimated annual per acre costs and returns and 5-year average costs and returns for a mature, red seedless grapefruit grove producing citrus for fresh market packing in the Southwest Florida area, 2000-01-2004-05

| Year                | On-tree price/box <sup>a</sup> | Yield | Gross revenue | Total grove care expenses | Total specified costs <sup>c</sup> | Net return to land, trees, and ownership |
|---------------------|--------------------------------|-------|---------------|---------------------------|------------------------------------|--|
| ----- Dollars ----- |                                |       |               |                           |                                    |  |
| 2000-01             | \$2.28                         | 555   | 1,265.40      | 864.79                    | 912.79                             | 352.61                                   |
| 2001-02             | \$2.54                         | 555   | 1,409.70      | 874.54                    | 922.54                             | 487.16                                   |
| 2002-03             | \$2.49                         | 555   | 1,381.95      | 871.47                    | 919.47                             | 462.48                                   |
| 2003-04             | \$4.17                         | 555   | 2,314.35      | 874.29                    | 922.29                             | 1,392.06                                 |
| 2004-05             | \$14.27 <sup>b</sup>           | 555   | 7,919.85      | 949.74                    | 997.74                             | 6,922.11                                 |
| 5-yr. avg.          | \$5.15                         | 555   | 2,858.25      | 886.97                    | 934.97                             | 1,923.28                                 |

<sup>a</sup>On-tree prices for all sales methods as reported by the Florida Agricultural Statistics Service.

<sup>b</sup>Preliminary estimate by FASS for 2004-05 season.

<sup>c</sup>A management cost of \$4.00 per acre per month is included. Fixed costs such as taxes, debt service, and crop insurance are not included.

Table 13.--Estimated annual per acre costs and returns and 5-year average costs and returns (adjusted to 2005 dollars) for a mature, red seedless grapefruit grove producing citrus for fresh fruit packing in the Southwest Florida area, 2000-01-2004-05

| Year                | Inflation factor index <sup>a</sup> | Adjusted on-tree price/box | Yield | Gross revenue | Total specified costs <sup>b</sup> | Net return to land, trees, and ownership |
|---------------------|-------------------------------------|----------------------------|-------|---------------|------------------------------------|--|
| ----- Dollars ----- |                                     |                            |       |               |                                    |  |
| 2000-01             | 117.9                               | \$2.69                     | 555   | 1,492.95      | 1,076.18                           | 416.77                                   |
| 2001-02             | 120.7                               | \$3.07                     | 555   | 1,703.85      | 1,113.51                           | 590.34                                   |
| 2002-03             | 114.6                               | \$2.86                     | 555   | 1,587.30      | 1,124.31                           | 462.99                                   |
| 2003-04             | 107.9                               | \$4.50                     | 555   | 2,497.50      | 995.15                             | 1,502.35                                 |
| 2004-05             | 100.0                               | \$14.27                    | 555   | 7,919.85      | 997.74                             | 6,922.11                                 |
| 5-yr. avg.          | —                                   | \$5.48                     | 555   | 3,041.40      | 1,061.38                           | 1,980.02                                 |

<sup>a</sup>Producer price index for each year adjusted to 2005 prices (2005 = 100), with 2005 producer price index estimated to be 158.2. Producer price index for other years are: 2001 = 134.2; 2002 = 131.1; 2003 = 138.1; and 2004 = 146.7.

<sup>b</sup>A management cost of \$4.00 per acre per month is included. Fixed costs such as taxes, debt service, and crop insurance are not included. (Refer to Table 12.)

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ADDENDA: Listing of Grove Care Programs for Southwest Florida Citrus Production for Both Round Oranges and Grapefruit<sup>a</sup>

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Abbreviations for important chemicals are:

B = Boron      Fe = Iron      Mn = Manganese      Zn = Zinc  
 Cu = Copper      Mg = Magnesium      N = Nitrogen

**<sup>a</sup>The costs in the ADDENDA represent an owner managed operation. Therefore, the 10 percent handling and supervision charge added to the material cost for a custom-managed operation is not included in the costs.**

Table 1-A.--Spray programs

POST BLOOM SPRAY

| Spray Program #1 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|------------------|---|-------------------------------|------------------|---------------------------------|
|                  | Cu (50% metallic)                           | 15 lbs                        | \$21.00          | _____                           |
|                  | Zn  | 5 lbs                         | 4.15             | _____                           |
|                  | Mn  | 10 lbs                        | 3.20             | _____                           |
|                  | B   | 0.25 lb                       | 1.17             | _____                           |
|                  | Ground Application<br>(PTO driven airblast) | 125 gals                      | <u>23.80</u>     | _____                           |
|                  | Total per Application                       |                               | <u>\$53.32</u>   | =====                           |
| -----            |   |                               |                  |                                 |
| Spray Program #2 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                  | Cu (50% metallic)                           | 10 lbs                        | \$14.00          | _____                           |
|                  | Zn  | 5 lbs                         | 4.15             | _____                           |
|                  | Mn  | 10 lbs                        | 3.20             | _____                           |
|                  | Micromite 25WP                              | 1.25 lbs                      | 38.78            | _____                           |
|                  | Ground Application<br>(PTO driven airblast) | 100 gals                      | <u>24.24</u>     | _____                           |
|                  | Total per Application                       |                               | <u>\$83.37</u>   | =====                           |
| -----            |   |                               |                  |                                 |
| Spray Program #3 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                  | Cu (50% metallic)                           | 7 lbs                         | \$ 9.80          | _____                           |
|                  | Agri-Mek                                    | 10 ozs                        | 44.10            | _____                           |
|                  | Oil 97+%                                    | 3 gals                        | 6.63             | _____                           |
|                  | Ground Application<br>(PTO driven airblast) | 100 gals                      | <u>24.24</u>     | _____                           |
|                  | Total per Application                       |                               | <u>\$84.77</u>   | =====                           |
| -----            |   |                               |                  |                                 |
| Spray Program #4 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                  | Cu (50% metallic)                           | 7 lbs                         | \$ 9.80          | _____                           |
|                  | Lorsban 4EC                                 | 4 pts                         | 17.08            | _____                           |
|                  | Hystop (pH Reducer)                         | 1 pt                          | 2.30             | _____                           |
|                  | Ground Application<br>(PTO driven airblast) | 100 gals                      | <u>24.24</u>     | _____                           |
|                  | Total per Application                       |                               | <u>\$53.42</u>   | =====                           |

Table 1-A.--Spray programs (cont'd.)

POST BLOOM SPRAY (cont'd.)

| Spray Program #5                    | <u>Materials/Ingredients</u>                   | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|-------------------------------------|--|-------------------------------|------------------|---------------------------------|
|                                     | Vendex 4L                                      | 2 lbs                         | \$29.72          | _____                           |
|                                     | Cu (50% metallic)                              | 10 lbs                        | 14.00            | _____                           |
|                                     | Ground Application<br>(PTO driven airblast)    | 250 gals                      | <u>27.95</u>     | _____                           |
|                                     | Total per Application                          |                               | <u>\$71.67</u>   | =====                           |
| -----                               |  |                               |                  |                                 |
| Spray Program #6                    | <u>Materials/Ingredients</u>                   | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                                     | Micromite                                      | 1.25 lbs                      | \$38.77          | _____                           |
|                                     | Cu (50% metallic)                              | 7 lbs                         | 9.80             | _____                           |
|                                     | Oil 97+%                                       | 3 gals                        | 6.63             | _____                           |
|                                     | Ground Application<br>(PTO driven airblast)    | 250 gals                      | <u>27.95</u>     | _____                           |
|                                     | Total per Application                          |                               | <u>\$83.15</u>   | =====                           |
| -----                               |  |                               |                  |                                 |
| Spray Program #7                    | <u>Materials/Ingredients</u>                   | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                                     | Cu (50% metallic)                              | 7 lbs                         | \$ 9.80          | _____                           |
|                                     | Zn   | 5 lbs                         | 4.15             | _____                           |
|                                     | Mn   | 10 lbs                        | 3.20             | _____                           |
|                                     | B  | 0.25 lb                       | 1.17             | _____                           |
|                                     | Micromite                                      | 1.25 lbs                      | 38.78            | _____                           |
|                                     | Ground Application<br>(PTO driven airblast)    | 250 gals                      | <u>27.95</u>     | _____                           |
|                                     | Total per Application                          |                               | <u>\$85.05</u>   | =====                           |
| -----                               |  |                               |                  |                                 |
| Spray Program #8                    | <u>Materials/Ingredients</u>                   | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                                     | Vendex 4L                                      | 2 lbs                         | \$29.72          | _____                           |
|                                     | Ground Application<br>(PTO driven airblast)    | 125 gals                      | <u>23.80</u>     | _____                           |
|                                     | Total per Application                          |                               | <u>\$53.52</u>   | =====                           |
| -----                               |  |                               |                  |                                 |
| Spray Program #9<br>(Scale insects) | <u>Materials/Ingredients</u>                   | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                                     | Lorsban 4EC                                    | 5 pts                         | \$21.35          | _____                           |
|                                     | Ground Application<br>(engine driven airblast) | 500 gals                      | <u>36.60</u>     | _____                           |
|                                     | Total per Application                          |                               | <u>\$57.95</u>   | =====                           |

Table 1-A.--Spray programs (cont'd.)

SUMMER SPRAY

| Spray Program #10 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|-------------------|---|-------------------------------|------------------|---------------------------------|
|                   | Oil 97+%                                    | 10 gals                       | \$22.10          | _____                           |
|                   | Cu (50% copper)                             | 7 lbs                         | 9.80             | _____                           |
|                   | Ground Application<br>(PTO driven airblast) | 250 gals                      | <u>27.95</u>     | _____                           |
|                   | Total per Application                       |                               | <u>\$59.85</u>   | =====                           |
| -----             |   |                               |                  |                                 |
| Spray Program #11 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                   | Cu (50% metallic)                           | 7 lbs                         | \$ 9.80          | _____                           |
|                   | Oil 97+%                                    | 5 gals                        | 11.05            | _____                           |
|                   | Zn  | 5 lbs                         | 4.15             | _____                           |
|                   | Mn  | 10 lbs                        | 3.20             | _____                           |
|                   | B   | 0.25 lb                       | 1.17             | _____                           |
|                   | Ground Application<br>(PTO driven airblast) | 125 gals                      | <u>23.80</u>     | _____                           |
|                   | Total per Application                       |                               | <u>\$53.17</u>   | =====                           |
| -----             |   |                               |                  |                                 |
| Spray Program #12 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                   | Cu (50% metallic)                           | 7 lbs                         | \$ 9.80          | _____                           |
|                   | Oil 97+%                                    | 5 gals                        | 11.05            | _____                           |
|                   | Agri-Mek                                    | 10 ozs                        | 44.10            | _____                           |
|                   | Ground Application<br>(PTO driven airblast) | 250 gals                      | <u>27.95</u>     | _____                           |
|                   | Total per Application                       |                               | <u>\$92.90</u>   | =====                           |
| -----             |   |                               |                  |                                 |
| Spray Program #13 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|                   | Enable                                      | 8 oz                          | \$14.40          | _____                           |
|                   | Oil 97+%                                    | 5 gals                        | 11.05            | _____                           |
|                   | Micromite                                   | 1.25 lbs                      | 38.77            | _____                           |
|                   | Ground Application<br>(PTO driven airblast) | 125 gals                      | <u>23.80</u>     | _____                           |
|                   | Total per Application                       |                               | <u>\$88.02</u>   | =====                           |
| -----             |   |                               |                  |                                 |

Table 1-A.--Spray programs (cont'd.)

SUMMER SPRAY (cont'd.)

| Spray Program #14 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|-------------------|---|-------------------------------|------------------|---------------------------------|
|                   | Cu (50% metallic)                           | 7 lbs                         | \$ 9.80          | _____                           |
|                   | Oil 97+%                                    | 5 gals                        | 11.05            | _____                           |
|                   | Ground Application<br>(PTO driven airblast) | 125 gals                      | <u>23.80</u>     | _____                           |
|                   | Total per Application                       |                               | <u>\$44.65</u>   | =====                           |

FALL SPRAY

| Spray Program #15 | <u>Materials/Ingredients</u>                | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|-------------------|---|-------------------------------|------------------|---------------------------------|
|                   | Agri-Mek                                    | 5 ozs                         | \$22.05          | _____                           |
|                   | Ground Application<br>(PTO driven airblast) | 125 gals                      | <u>23.80</u>     | _____                           |
|                   | Total per Application                       |                               | <u>\$45.85</u>   | =====                           |

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| Spray Program #16 | <u>Materials/Ingredients</u> | <u>Amount</u><br><u>/Acre</u> | <u>Cost/Acre</u> | <u>Your</u><br><u>Cost/Acre</u> |
|-------------------|------------------------------|-------------------------------|------------------|---------------------------------|
|                   | Vendex 4L                    | 2 lbs                         | \$29.72          | _____                           |
|                   | Aerial Application           | 15 GPA                        | <u>8.82</u>      | _____                           |
|                   | Total per Application        |                               | <u>\$38.54</u>   | =====                           |

Table 2-A.--Herbicide

| Herbicide Program #1<br>(Strip/band) | <u>Materials</u>               | <u>Amount/</u><br><u>Treated Acre</u> | <u>Cost/</u><br><u>Grove Acre<sup>a</sup></u> | <u>Your Cost/</u><br><u>Grove Acre</u> |
|--------------------------------------|--------------------------------|---------------------------------------|---|--|
|                                      | Solicam 80DF                   | 3 lbs                                 | \$21.36                                       | _____                                  |
|                                      | Karmex WP                      | 4 lbs                                 | 7.74  | _____                                  |
|                                      | Roundup Ultra Max              | 2 qts                                 | 7.28  | _____                                  |
|                                      | Ground Application<br>(1 time) |                                       | <u>9.06</u>                                   | _____                                  |
|                                      | Total for 1 Application        |                                       | <u>\$45.44</u>                                | =====                                  |

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| Herbicide Program #2<br>(Strip/band) | <u>Materials</u>               | <u>Amount/</u><br><u>Treated Acre</u> | <u>Cost/</u><br><u>Grove Acre<sup>a</sup></u> | <u>Your Cost/</u><br><u>Grove Acre</u> |
|--------------------------------------|--------------------------------|---------------------------------------|---|--|
|                                      | Surflan A80 DF                 | 2 qts                                 | \$20.42                                       | _____                                  |
|                                      | Simazine 4L                    | 4 qts                                 | 6.84  | _____                                  |
|                                      | Roundup Ultra Max              | 2 qts                                 | 7.28  | _____                                  |
|                                      | Ground Application<br>(1 time) |                                       | <u>9.06</u>                                   | _____                                  |
|                                      | Total for 1 Application        |                                       | <u>\$43.60</u>                                | =====                                  |

<sup>a</sup>With respect to herbicide materials, Amount Per Grove Acre does not equal Amount Per Treated Acre shown on the label. Only a strip or band is being treated. In this report, it is assumed that only one-half of a surface acre is being treated.

Table 2-A.--Herbicide (cont'd.)

| Herbicide Program #3 | <u>Materials</u>               | <u>Amount/<br/>Treated Acre</u> | <u>Cost/<br/>Grove Acre<sup>a</sup></u> | <u>Your Cost/<br/>Grove Acre</u> |
|----------------------|--------------------------------|---------------------------------|---|----------------------------------|
| (Strip/band)         | Karmex WP                      | 4 lbs                           | \$ 7.74                                 | _____                            |
|                      | Roundup Ultra Max              | 2 qts                           | 7.28                                    | _____                            |
|                      | Ground Application<br>(1 time) |                                 | <u>9.06</u>                             | _____                            |
|                      | Total for 1 Application        |                                 | <u>\$33.14</u>                          | =====                            |
| -----                |                                |                                 |   |                                  |
| Herbicide Program #4 | <u>Materials</u>               | <u>Amount/<br/>Treated Acre</u> | <u>Cost/<br/>Grove Acre<sup>a</sup></u> | <u>Your Cost/<br/>Grove Acre</u> |
| (Strip/band)         | Solicam 80DF                   | 8 lbs                           | \$62.68                                 | _____                            |
|                      | Simazine 4L                    | 4 qts                           | 6.84                                    | _____                            |
|                      | Roundup Ultra Max              | 2 pts                           | 3.64                                    | _____                            |
|                      | Ground Application<br>(1 time) |                                 | <u>9.06</u>                             | _____                            |
|                      | Total for 1 Application        |                                 | <u>\$82.22</u>                          | =====                            |
| -----                |                                |                                 |   |                                  |
| Herbicide Program #5 | <u>Materials</u>               | <u>Amount/<br/>Treated Acre</u> | <u>Cost/<br/>Grove Acre<sup>a</sup></u> | <u>Your Cost/<br/>Grove Acre</u> |
| (Strip/band)         | Roundup Ultra Max              | 4 qts                           | \$ 7.28                                 | _____                            |
|                      | Ground Application<br>(1 time) |                                 | <u>9.06</u>                             | _____                            |
|                      | Total for 1 Application        |                                 | <u>\$16.34</u>                          | =====                            |
| -----                |                                |                                 |   |                                  |
| Herbicide Program #6 | <u>Materials</u>               | <u>Amount/<br/>Treated Acre</u> | <u>Cost/<br/>Grove Acre<sup>a</sup></u> | <u>Your Cost/<br/>Grove Acre</u> |
| (Strip/band)         | Krovar I                       | 5 lbs                           | \$28.45                                 | _____                            |
|                      | Roundup Ultra Max              | 2 qts                           | 7.28                                    | _____                            |
|                      | Ground Application<br>(1 time) |                                 | <u>9.06</u>                             | _____                            |
|                      | Total for 1 Application        |                                 | <u>\$44.79</u>                          | =====                            |
| -----                |                                |                                 |   |                                  |
| Herbicide Program #7 | <u>Materials</u>               | <u>Amount/<br/>Treated Acre</u> | <u>Cost/<br/>Grove Acre<sup>a</sup></u> | <u>Your Cost/<br/>Grove Acre</u> |
| (Strip/band)         | Princep (Caliber 90)           | 4 lbs                           | \$ 6.58                                 | _____                            |
|                      | Hyvar X                        | 6 lbs                           | 56.79                                   | _____                            |
|                      | Adjuvant (Surfactant)          | 2 pts                           | 3.03                                    | _____                            |
|                      | Ground Application<br>(1 time) |                                 | <u>9.06</u>                             | _____                            |
|                      | Total for 1 Application        |                                 | <u>\$75.46</u>                          | =====                            |

Table 2-A.--Herbicide (cont'd.)

| Herbicide Program #                       | Materials                      | Amount/<br>Treated Acre | Cost/<br>Grove Acre <sup>a</sup> | Your Cost/<br>Grove Acre |
|---|--------------------------------|-------------------------|----------------------------------|--------------------------|
| Herbicide Program #8<br>(Strip/band)      | Roundup Ultra Max              | 2 qts                   | \$ 7.28                          | _____                    |
|   | Princep (Caliber 90)           | 4 lbs                   | 6.58                             | _____                    |
|   | Ground Application<br>(1 time) |                         | <u>9.06</u>                      | _____                    |
|   | Total for 1 Application        |                         | <u>\$22.92</u>                   | =====                    |
| -----                                     |                                |                         |                                  |                          |
| Herbicide Program #9<br>(Strip/band)      | Materials                      | Amount/<br>Treated Acre | Cost/<br>Grove Acre <sup>a</sup> | Your Cost/<br>Grove Acre |
|   | Direx 4L                       | 3 qts                   | \$ 6.21                          | _____                    |
|   | Solicam                        | 3 lbs                   | 21.36                            | _____                    |
|   | Adjuvant (Surfactant)          | 1 qt                    | 3.04                             | _____                    |
|   | Ground Application<br>(1 time) |                         | <u>9.06</u>                      | _____                    |
| Total for 1 Application                   |                                | <u>\$39.67</u>          | =====                            |                          |
| -----                                     |                                |                         |                                  |                          |
| Herbicide Program #10<br>(Chemical mow)   | Materials                      | Amount/<br>Treated Acre | Cost/<br>Grove Acre <sup>a</sup> | Your Cost/<br>Grove Acre |
|   | Roundup Ultra                  | 1 pt                    | \$1.82                           | _____                    |
|   | Ground Application<br>(1 time) |                         | <u>3.07</u>                      | _____                    |
| Total for 1 Application                   |                                | <u>\$4.89</u>           | =====                            |                          |
| -----                                     |                                |                         |                                  |                          |
| Herbicide Program #11<br>(Chemical mow)   | Materials                      | Amount/<br>Treated Acre | Cost/<br>Grove Acre <sup>a</sup> | Your Cost/<br>Grove Acre |
|   | Roundup Ultra                  | 1.5 pts                 | \$2.73                           | _____                    |
|   | Ground Application<br>(1 time) |                         | <u>3.07</u>                      | _____                    |
| Total for 1 Application                   |                                | <u>\$5.80</u>           | =====                            |                          |
| -----                                     |                                |                         |                                  |                          |
| Herbicide Program #12<br>(Spot treatment) | Materials                      | Amount/<br>Treated Acre | Cost/<br>Grove Acre <sup>a</sup> | Your Cost/<br>Grove Acre |
|   | Roundup Ultra                  | 2 qts                   | \$ 7.28                          | _____                    |
|   | Ground Application<br>(1 time) |                         | <u>4.60</u>                      | _____                    |
| Total for 1 Application                   |                                | <u>\$11.88</u>          | =====                            |                          |
| -----                                     |                                |                         |                                  |                          |

Table 3-A.--Dry fertilizer

| Program #1       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
|------------------|--------------------------------------|-------------------------|------------------|---------------------------|
| (125 lbs N/Acre) | 12-2-12-2.4 MgO                      | 1042 lbs                | \$105.25         | _____                     |
|                  | Application                          | 3 times                 | <u>16.59</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$121.84</u>  | =====                     |
| -----            |                                      |                         |                  |                           |
| Program #2       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
| (150 lbs N/Acre) | 15-2-15-2.4 MgO                      | 1000 lbs                | \$113.00         | _____                     |
|                  | Application                          | 3 times                 | <u>16.59</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$129.59</u>  | =====                     |
| -----            |                                      |                         |                  |                           |
| Program #3       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
| (180 lbs N/Acre) | 15-2-15-2.4 MgO                      | 1200 lbs                | \$135.60         | _____                     |
|                  | Application                          | 3 times                 | <u>16.59</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$152.19</u>  | =====                     |
| -----            |                                      |                         |                  |                           |
| Program #4       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
| (204 lbs N/Acre) | 17-4-17-2.4 MgO                      | 1200 lbs                | \$142.80         | _____                     |
|                  | Application                          | 3 times                 | <u>16.59</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$159.39</u>  | =====                     |
| -----            |                                      |                         |                  |                           |
| Program #5       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
| (225 lbs N/Acre) | 15-2-15-2.4 MgO                      | 1500 lbs                | \$169.50         | _____                     |
|                  | Application                          | 3 times                 | <u>16.59</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$186.09</u>  | =====                     |
| -----            |                                      |                         |                  |                           |

Table 4-A.--Liquid fertilizer (Double boom application)

| Program #1       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
|------------------|--------------------------------------|-------------------------|------------------|---------------------------|
| (180 lbs N/Acre) | 10-0-10                              | 1800 lbs                | \$151.85         | _____                     |
|                  | Double Boom Custom Application       | 3 times                 | <u>37.65</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$189.50</u>  | =====                     |
| -----            |                                      |                         |                  |                           |
| Program #2       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
| (180 lbs N/Acre) | 10-2-10                              | 1800 lbs                | \$160.20         | _____                     |
|                  | Double Boom Custom Application       | 3 times                 | <u>37.65</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$197.85</u>  | =====                     |
| -----            |                                      |                         |                  |                           |
| Program #3       | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
| (180 lbs N/Acre) | 10-0-10                              | 1800 lbs                | \$151.85         | _____                     |
|                  | Solicam 80DF                         | 3 lbs                   | 21.36            | _____                     |
|                  | Karmex WP                            | 4 lbs                   | 7.74             | _____                     |
|                  | Double Boom Custom Application       | 3 times                 | <u>37.65</u>     | _____                     |
|                  | Total for 3 Applications             |                         | <u>\$217.95</u>  | =====                     |
|                  | *Treated acre--one application       |                         |                  |                           |

Table 5-A.--Nematicides

| Program #1 | <u>Analysis/Material<br/>Applied</u> | <u>Amount<br/>/Acre</u> | <u>Cost/Acre</u> | <u>Your<br/>Cost/Acre</u> |
|------------|--------------------------------------|-------------------------|------------------|---------------------------|
|            | Temik 15G                            | 33 lbs                  | \$105.60         | _____                     |
|            | Application                          |                         | <u>11.34</u>     | _____                     |
|            | Total per Application                |                         | <u>\$116.94</u>  | =====                     |
| -----      |                                      |                         |                  |                           |

Table 6-A.--Soil amendment

| Program #1      | Analysis/Material<br>Applied | Amount<br>/Acre | Cost/Acre      | Your<br>Cost/Acre |
|-----------------|------------------------------|-----------------|----------------|-------------------|
| (Every 3 years) | Dolomite (Delivered)         | 1 ton           | \$36.05        | _____             |
|                 | Application                  | 1 time          | <u>7.61</u>    | _____             |
|                 | Total for 1 Application      |                 | <u>\$43.66</u> | =====             |
|                 | (Average 1/3 Ton Applied/Yr) |                 | <u>\$14.56</u> | =====             |
| -----           |                              |                 |                |                   |
| Program #2      | Analysis/Material<br>Applied | Amount<br>/Acre | Cost/Acre      | Your<br>Cost/Acre |
| (Every year)    | Dolomite (Delivered)         | 1000 lbs        | \$18.03        | _____             |
|                 | Application                  |                 | <u>7.61</u>    | _____             |
|                 | Total per Application        |                 | <u>\$25.64</u> | =====             |

Table 7-A.--Irrigation--annual cost per acre

| <u>DRIP</u>   | <u>Program #1</u>      | Your<br>Cost/Acre | <u>Program #2</u>    | Your<br>Cost/Acre |
|---|------------------------|-------------------|----------------------|-------------------|
| Operating   | (Electric)<br>\$ 62.10 | _____             | (Diesel)<br>\$ 55.87 | _____             |
| Maintenance of System                               | <u>44.04</u>           | _____             | <u>43.82</u>         | _____             |
| Total Cash Expenses                                 | \$106.14               | _____             | \$ 99.69             | _____             |
| Fixed Depreciation Expense                          | <u>42.35</u>           | _____             | <u>45.25</u>         | _____             |
| Total Cash and Fixed Expenses                       | <u>\$148.49</u>        | =====             | <u>\$144.94</u>      | =====             |
| <br><u>MICROSPRINKLER</u>                           | <br><u>Program #3</u>  | Your<br>Cost/Acre | <u>Program #4</u>    | Your<br>Cost/Acre |
| Operating   | (Electric)<br>\$ 70.60 | _____             | (Diesel)<br>\$ 59.44 | _____             |
| Maintenance of System                               | <u>49.08</u>           | _____             | <u>50.17</u>         | _____             |
| Total Cash Expenses                                 | \$119.68               | _____             | \$109.61             | _____             |
| Fixed Depreciation Expense                          | <u>52.94</u>           | _____             | <u>56.56</u>         | _____             |
| Total Cash and Fixed Expenses                       | <u>\$172.62</u>        | =====             | <u>\$166.17</u>      | =====             |
| <br><u>DRAINAGE DITCH ANNUAL COSTS</u>              |                        |                   | <u>Program #5</u>    | Your<br>Cost/Acre |
| Ditches/Canals Maintenance (\$45.17/acre ÷ 3 years) |                        |                   | \$15.06              | _____             |
| Weed Control in Ditches/Canals                      |                        |                   | 14.19                | _____             |
| Water Control: In/Out of Ditches and Canals         |                        |                   | <u>13.21</u>         | _____             |
| Total   |                        |                   | <u>\$42.36</u>       | =====             |

Table 8-A.--A listing of 2005 custom rates reported by sixteen Indian River and South Florida citrus caretakers

| Grove Practice                                  | Unit  | Range of Rate  |         | Average           | Comments  |
|---|---|--|---------|-------------------|---|
|   |   | Reported   |         | Rate <sup>y</sup> |   |
| <b>CULTIVATION AND EQUIPMENT:</b>               |   |  |         |                   |   |
| Labor   | Hour  | \$ 9.50-   | \$17.50 | \$13.56           | Plus transportation and equipment                             |
| Mechanic Labor                                  | Hour  | 30.00-   | 50.00   | 39.56             | Labor and service truck                                       |
| Rotovate  | Hour  | 33.00-   | 40.00   | 37.75             |   |
| Disc 7-8'                                       | Hour  | 27.50-   | 38.50   | 33.00             |   |
| Disc 10-12'                                     | Hour  | 32.00-   | 40.00   | 35.84             |   |
| Mow: 7-8'                                       | Hour  | 27.50-   | 35.00   | 31.14             |   |
| 9-10'   | Hour  | 31.00-   | 38.50   | 33.97             |   |
| 9-10'   | Acre  | 9.00-  | 11.00   | 9.97              |   |
| 15-16'  | Hour  | 35.00-   | 41.25   | 39.85             | \$9.00/acre   |
| V-Mower   | Hour  | 33.00-   | 35.00   | 34.34             |   |
| Herbicide <sup>z</sup> (Strip/Band–Single Boom) | Hour  | 30.00-   | 32.00   | 31.33             | Plus materials  |
| Herbicide <sup>z</sup> (Strip/Band–Single Boom) | Acre  | 13.00-   | 13.75   | 13.39             | Plus materials; \$35.00/hour                                  |
| Herbicide <sup>z</sup> (Strip/Band–Double Boom) | Acre  | 12.00-   | 14.00   | 12.75             | Plus materials  |
| Herbicide <sup>z</sup> (Chemical Mow)           | Acre  | 2.50-  | 3.50    | 3.07              | Plus materials  |
| Temik <sup>z</sup>                              | Acre  | 10.50-   | 12.50   | 11.34             | Plus materials  |
| Plow  | Hour  | 32.50-   | 38.50   | 34.67             |   |
| Backhoe   | Hour  | 45.00-   | 47.50   | 45.70             |   |
| Middle Buster                                   | Hour  | —  | —       | 38.50             | With tractor and driver                                       |
| Mound Builder                                   | Hour  | 31.00-   | 38.50   | 34.84             | With tractor and driver                                       |
| Grader Blade                                    | Hour  | 28.00-   | 38.50   | 33.60             | Tractor/blade and driver                                      |
| Water Truck with Driver                         | Hour  | 30.00-   | 35.00   | 32.75             |   |
| Pickup Truck with Driver                        | Hour  | 28.00-   | 35.00   | 31.67             | Average miles traveled per year: Pick-up truck – 21,298 miles |
| Flatbed/Transport Truck with Driver             | Hour  | 35.00-   | 50.00   | 45.00             |   |
| Tractor with Driver                             | Hour  | 28.00-   | 35.00   | 31.69             |   |
| ATV with Driver                                 | Hour  | 20.00-   | 25.00   | 23.25             |   |
| <b>SPRAYING:<sup>z</sup></b>                    |   |  |         |                   |   |
| <b>PTO AIR BLAST SPRAYER</b>                    |   |  |         |                   |   |
| 1,000 Gallon Tank                               |   |  |         |                   |   |
| with Electronic Sensing                         |   |  |         |                   |   |
|   |   | Low  | High    | Average           | 500 Gallon Tank<br>Average                                    |
| 500 GPA   | Acre  | —  | —       | 38.00             | 39.00   |
| 250 GPA   | Acre  | 29.00-   | 36.00   | 32.92             | 29.00   |
| 125 GPA   | Acre  | 25.00-   | 29.00   | 28.03             | 27.00   |
| Curtec (25 GPA)                                 | Acre  | —  | —       | 22.00             |   |
| Aerial  | Fixed Wing:   | \$ 5.13/acre @ 5 gallons per acre  |         |                   |   |
| Aerial  | Fixed Wing:   | \$ 7.17/acre @ 10 gallons per acre      Bell Helicopter: \$20.00/acre @ 10 GPA |         |                   |   |
| Aerial  | Fixed Wing:   | \$ 8.82/acre @ 15 gallons per acre   |         |                   |   |
| Aerial  | Fixed Wing:   | \$ 11.25/acre @ 20 gallons per acre  |         |                   |   |
|   | Hand Sprayer (500 gallon tank) with tractor and 2 workers – | \$45.00/hour   |         |                   |   |
| <b>FERTILIZING:<sup>z</sup></b>                 |   |  |         |                   |   |
| Liquid Boom Application: Double Boom            | Acre  | 12.00-   | 13.40   | 12.55             |   |
| Dry (Bulk)                                      | Acre  | 7.00-  | 8.75    | 7.90              | Average with VRT: \$10.38/acre                                |
| Lime or Dolomite                                | Acre  | 7.50-  | 8.75    | 7.90              |   |
| Fertilize Young Trees: <sup>z</sup> Hand Spread | Hour  | 9.50-  | 17.50   | 13.56             | Plus transportation and materials; 15¢/tree                   |
| Fert. Spreader                                  | Average:  | \$7.25/acre; \$26.00/hour  |         |                   | Plus materials  |

(OVER)

Table 8-A.--A listing of 2005 custom rates reported by sixteen Indian River and South Florida citrus caretakers (cont'd.)

| Grove Practice   | Unit       | Range of Rate Reported  |          | Average Rate <sup>y</sup> | Comments   |
|--|------------|---|----------|---------------------------|--|
| <b>IRRIGATION:</b>   |            |   |          |                           |  |
| Ditch Mower  | Hour       | \$32.00-  | \$44.50  | \$ 36.20                  |  |
| Water Furrow Disc  | Hour       | 30.00-  | 38.50    | 34.67                     |  |
| Water Furrow Cleaner   | Hour       | 35.00-  | 38.50    | 36.34                     |  |
| Water Furrow Shaper (Non-Laser Control)  | Hour       | —   | —        | 65.00                     |  |
| Water Furrow Shaper (Laser Control)  | Hour       | —   | —        | 80.00                     |  |
| Rotary Ditcher or Auger  | Hour       | 33.00-  | 38.50    | 35.50                     |  |
| Microsprinkler/Drip Irrigation Maintenance   | Acre/Month | 3.50-   | 4.75     | 4.25                      | Check & repair system; parts extra                             |
| <b>REMOVING TREES:</b>   |            |   |          |                           |  |
| Front-end Loader   | Hour       | \$50.00-  | \$65.00  | \$56.79                   | Avg. range 3-15 trees per hour                                 |
| Tree Shearing (Cutting Tree at Ground Level)   | Hour       | 50.00-  | 65.00    | 56.25                     | Avg. range 5-20 trees per hour                                 |
| Prepare Site for Replanting  | Tree       | \$0.25 - \$1.00   |          |                           |  |
| <b>PRUNING:</b>  |            |   |          |                           |  |
| <b>Hedging:</b>  |            |   |          |                           |  |
| Single Side (Tractor Mounted)  | Hour       | \$ —  | \$ —     | \$ 55.00                  |  |
| Double Side (Tractor Pulled)   | Hour       | —   | —        | 65.00                     |  |
| Double Side (Self Propelled)   | Hour       | 250.00-   | 265.00   | 257.50                    | 8 to 20 A/H depending on wood size; \$14/A annual cut          |
| Double Side Rotary (Self Propelled) <sup>x</sup>   | Hour       | —   | —        | 185.00                    | 5 to 15 A/H bed tops only; add 25% for furrows only            |
| <b>Topping:</b>  |            |   |          |                           |  |
| Double Sided Topper (Self Propelled)   | Hour       | 265.00-   | 285.00   | 275.00                    | Avg. 8-15 ac depending on wood size type of cut;\$30/acre      |
| Topping Self Propelled   | Hour       | —   | —        | 150.00                    |  |
| Limb Lifter/Tree Skirt Trimmer   | Acre       | —   | —        | 14.00                     | 3 to 5 acres/hour  |
| Limb Lifter/Tree Skirt Trimmer (Double Sided Rotary)   | Hour       | —   | —        | 120.00                    | 6 to 20 acres/hour   |
| <b>Removing Brush:</b>   |            |   |          |                           |  |
| Haul Brush out of Grove (Front-End Loader)   | Hour       | 55.00-  | 65.00    | 59.25                     |  |
| Mow/Chop Brush   | Hour       | 32.00-  | 40.00    | 34.60                     |  |
| <b>OTHER CUSTOM RATES:</b>   |            |   |          |                           |  |
| Install Tree Wraps   |            | 15¢-50¢/tree depending on type of wrap and number of trees; Annual maintenance cost: 35¢/tree |          |                           |  |
| Plant Trees (Solid Set)  | Tree       | \$ 0.90-  | \$ 1.75  | \$ 1.32                   | Varies as to density   |
| Plant Trees (Resets)   | Tree       | 2.00-   | 2.50     | 2.17                      | Varies as to the number of resets                              |
| Travel/Setup Charge  | Hour       | —   | —        | 22.62                     |  |
| <b>Grove Management Charge/Month:</b>  |            |   |          |                           |  |
| Supervising Grove Care Operations  | Acre       | 3.00-   | 7.50     | 5.15                      | In addition to caretaking charges                              |
| Handling Fruit Marketing   |            | \$0.10-\$0.25/box – For Supervising and Marketing fruit                                       |          |                           |  |
| Supervising/Handling Chemicals/Fertilizer  |            | 5% to 15% of materials cost   |          |                           |  |
| <b>Charge for personnel to oversee harvesting operations and coordinate harvest in different blocks/groves and keeping of harvesting labor compliance records.</b> |            |   |          |                           |  |
|  | Box        | \$ 0.05-  | \$ 0.25  | \$ 0.15                   |  |
| Consulting   | Hour       | \$125.00-   | \$200.00 | \$150.00                  | Horticultural Evaluation and/or Financial Analysis/prospectus. |
| Total Reported Acreage Provided Grove Service to:  | Acre       | 1,000-  | 14,000   | 4,870                     | Total acres reporting: 48,700                                  |

<sup>z</sup>Plus materials. Caretakers reporting rates include labor, tractor and sprayer; supply truck included by most caretakers.

<sup>y</sup>Calculated by dividing the total number of caretakers reporting a grove practice rate into the sum reported. Unless otherwise stated, labor included with all charges.

<sup>x</sup>Low acres is for 2 years regrowth hedging; high acres is for annual maintenance hedging.

Source: Ronald P. Muraro, Extension Farm Management Economist, Lake Alfred CREC, July 2005.

Table 9-A.--2005 summary of average chemical price estimates

| Item                             | Unit    | Average Price | Your Price (2005) |
|----------------------------------|---------|---------------|-------------------|
| <u>Fungicides:</u>               |         |               |                   |
| Abound EC                        | gal.    | 218.12        | _____             |
| Aliette 80WP                     | lb.     | 11.59         | _____             |
| Basic Copper Sulfate             | lb.     | 1.40          | _____             |
| Copper (Kocide 101)              | lb.     | 1.80          | _____             |
| Copper (Kocide 2000)             | lb.     | 2.33          | _____             |
| Copper (Champ II Flowable)       | gal.    | 22.55         | _____             |
| Cuprofix Disperss                | lb.     | 1.75          | _____             |
| Nu-Cop 50 DF                     | lb.     | 1.88          | _____             |
| Enable                           | gal.    | 57.55         | _____             |
| Gem 25                           | 40 ozs. | 120.59        | _____             |
| Headline EC                      | gal.    | 206.13        | _____             |
| Oil - 435 or 455                 | gal.    | 2.21          | _____             |
| Oil - 470 (Bio-lever)            | gal.    | 2.46          | _____             |
| Ridomil Gold EC                  | gal.    | 649.15        | _____             |
| Safe-T-Oil                       | gal.    | 3.15          | _____             |
| Topsin                           | lb.     | 14.08         | _____             |
| <u>Insecticides/Nematicides:</u> |         |               |                   |
| Admire 2F                        | gal.    | 520.28        | _____             |
| Agri-Mek (0.15EC)                | gal.    | 563.52        | _____             |
| Award Fire Ant Bait              | lb.     | 9.01          | _____             |
| Bio-Vector                       | gal.    | 412.50        | _____             |
| Carbaryl 4L                      | gal.    | 27.25         | _____             |
| Carbaryl 80S                     | lb.     | 4.47          | _____             |
| Chlorpyrifos 4E                  | gal.    | 57.26         | _____             |
| Danitol                          | gal.    | 147.58        | _____             |
| Guthion 2L                       | gal.    | 32.48         | _____             |
| Guthion 50WP                     | lb.     | 10.07         | _____             |
| Imidan 70W (Diaprepes)           | lb.     | 8.25          | _____             |
| Lorsban 4EC                      | gal.    | 34.15         | _____             |
| Lorsban 15G                      | lb.     | 1.72          | _____             |
| Malathion 5 EC                   | gal.    | 25.18         | _____             |
| Micromite 80 WG                  | gal.    | 87.95         | _____             |
| Microthiol                       | lb.     | 0.70          | _____             |
| Nexter 75WP                      | lb.     | 89.56         | _____             |
| Provado 1.6 F (nursery)          | gal.    | 417.75        | _____             |
| Sevin 80S                        | lb.     | 5.17          | _____             |
| Sevin XLR                        | gal.    | 30.96         | _____             |
| Spintor 2 S C                    | gal.    | 492.50        | _____             |
| Sulphur 6F                       | gal.    | 4.00          | _____             |
| Temik 15G                        | lb.     | 3.20          | _____             |
| Vendex 50W                       | lb.     | 14.86         | _____             |
| Vydate                           | gal.    | 56.28         | _____             |

Table 9-A.--2005 summary of average chemical price estimates (cont'd.)

| Item                          | Unit          | Average Price | Your Price (2005) |
|-------------------------------|---------------|---------------|-------------------|
| <u>Herbicides:</u>            |               |               |                   |
| Aqua Master                   | gal.          | 48.39         | _____             |
| Diuron 4L                     | gal.          | 16.04         | _____             |
| Direx 4L                      | gal.          | 16.50         | _____             |
| Direx 80 DF                   | lb.           | 3.87          | _____             |
| Fusilade DX 2E                | gal.          | 131.14        | _____             |
| <b><u>Glyphosate:</u></b>     |               |               |                   |
| Glyphomax Plus                | gal.          | 18.22         | _____             |
| Roundup (Original)            | gal.          | 23.60         | _____             |
| Roundup - Ultra Max           | gal.          | 29.12         | _____             |
| Roundup Weather Max           | gal.          | 50.16         | _____             |
| Roundup Original Max          | gal.          | 43.50         | _____             |
| Touchdown                     | gal.          | 37.05         | _____             |
| Gramoxone E (Paraquat)        | gal.          | 37.53         | _____             |
| Hyvar X 80 WP                 | lb.           | 18.93         | _____             |
| Karmex 80 DF                  | lb.           | 3.87          | _____             |
| Krovar I                      | lb.           | 11.38         | _____             |
| Landmaster II                 | gal.          | 18.66         | _____             |
| Mandate 2E                    | gal.          | 166.09        | _____             |
| Pendimax                      | gal.          | 24.37         | _____             |
| Poast Plus 1.0 EC             | gal.          | 52.50         | _____             |
| Princep (Caliber 90)          | lb.           | 3.29          | _____             |
| Princep 4L                    | gal.          | 14.51         | _____             |
| Prowl                         | gal.          | 22.12         | _____             |
| Simazine 90 DF                | lb.           | 2.80          | _____             |
| Simazine 4L                   | gal.          | 13.66         | _____             |
| Solicam 80 DF                 | lb.           | 14.24         | _____             |
| Simtrol                       |               | 19.00         | _____             |
| Surflan                       | gal.          | 81.64         | _____             |
| <u>Growth Regulators:</u>     |               |               |                   |
| Citrus Fix                    | gal.          | 494.00        | _____             |
| Pro-Gibb 3.91%                | 20 oz. bottle | 33.16         | _____             |
| Tree-Hold                     | gal.          | 79.17         | _____             |
| <u>Other Spray Materials:</u> |               |               |                   |
| Borates (15%)                 | lb.           | 0.70          | _____             |
| Manganese (32%)               | lb.           | 0.32          | _____             |
| Zinc (78%)                    | lb.           | 0.83          | _____             |
| Adjuvant (Surfactant)         | gal.          | 23.59         | _____             |

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

Table 10-A.--2005 summary of average fertilizer price estimates

| Item                                  | Unit | Average Price | Your Price (2005) |
|---------------------------------------|------|---------------|-------------------|
| <u>FERTILIZER (FOB Price @ Plant)</u> |      |               |                   |
|                                       |      | \$            |                   |
| <u>Dry Mix (Bulk)</u>                 |      |               |                   |
| 17-0-17-3 <sub>Mg</sub>               | ton  | 238.82        | _____             |
| 17-4-17-2.4 <sub>Mg</sub>             | ton  | 243.35        | _____             |
| 16-0-16                               | ton  | 218.35        | _____             |
| 16-0-16-4 <sub>Mg</sub>               | ton  | 239.49        | _____             |
| 16-2-16-3 <sub>Mg</sub>               | ton  | 240.45        | _____             |
| 15-2-15-2.4 <sub>Mg</sub>             | ton  | 224.47        | _____             |
| 12-2-12-2.4 <sub>Mg</sub>             | ton  | 201.02        | _____             |
| 8-8-8 w/minors*                       | ton  | 182.90        | _____             |
| 8-4-8 w/minors*                       | ton  | 170.29        | _____             |
| 8-2-8 w/minors*                       | ton  | 162.12        | _____             |
| 6-6-6 w/minors*                       | ton  | 159.99        | _____             |
| <u>Liquid Mix (Bulk)</u>              |      |               |                   |
| 8-2-8                                 | ton  | 151.53        | _____             |
| 8-4-8                                 | ton  | 159.73        | _____             |
| 9-3-9                                 | ton  | 166.33        | _____             |
| 9-4-9                                 | ton  | 172.47        | _____             |
| 10-0-10                               | ton  | 166.62        | _____             |
| 10-2-10                               | ton  | 176.25        | _____             |
| 12-0-6                                | ton  | 166.89        | _____             |
| 12-3-6                                | ton  | 180.25        | _____             |
| 7-0-0-6 (Magnesium Nitrate)           | ton  | 218.00        | _____             |

\*With organic nitrogen, the price averaged 25% higher.

Table 10-A.--2005 summary of average fertilizer price estimates (cont'd.)

| Item   | Unit | Average Price | Your Price (2005) |
|--|------|---------------|-------------------|
| <u>Other Fertilizer Materials (Bulk)</u>                           |      |               |                   |
| Ammonium Nitrate (21% N Liquid)                                    | ton  | 179.88        | _____             |
| Ammonium Nitrate (33.5% N Dry)                                     | ton  | 259.38        | _____             |
| Ammonium Sulfate (21% N)   | ton  | 152.94        | _____             |
| Calcium Nitrate (19% Ca, 15.5% N)                                  | ton  | 288.13        | _____             |
| Dolomite (at mine--49% CaCO <sub>3</sub> , 36% MgCO <sub>3</sub> ) | ton  | 19.75         | _____             |
| Muriate of Potash (60% K <sub>2</sub> O)                           | ton  | 242.29        | _____             |
| Potassium Nitrate (14% N; 46% K <sub>2</sub> O)                    | ton  | 453.57        | _____             |
| Sul-Po-Mag (SPM--21.9% K <sub>2</sub> O)                           | ton  | 202.43        | _____             |
| Super Phosphate (20% P <sub>2</sub> O <sub>5</sub> )               | ton  | 214.25        | _____             |
| Triple Superphosphate (48% P <sub>2</sub> O <sub>5</sub> )         | ton  | 242.92        | _____             |
| Average Delivery Cost  | ton  | 14.32         | _____             |
| <u>Foliar Macronutrients</u>                                       |      |               |                   |
| Phos Might 0-22-20   | gal. | 24.29         | _____             |
| Nutriphite Magnum 2-40-16  | gal. | 35.00         | _____             |
| MKP (0-52-34) (Mono-Potassium Phosphate)                           | lb.  | 0.80          | _____             |
| RSA ActaPhos 0-28-25   | gal. | 18.00         | _____             |
| Peter's 20-20-20 Foliar  | lb.  | 0.54          | _____             |
| MZF  | gal. | 6.53          | _____             |
| <u>Slow Release Nitrogen (SRN)</u>                                 |      |               |                   |
| <u>CitriBlen</u>   |      |               |                   |
| 15-3-19  | ton  | 245.15        | _____             |
| 17-5-12  | ton  | 237.50        | _____             |
| 18-6-11  | ton  | 243.80        | _____             |
| Sulfur Coated Urea (SCU)   | ton  | 586.80        | _____             |
| Agriform 20-10-5 (500 tablets/box)                                 | box  | 40.00         | _____             |

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

Table 11-A.--A listing of estimated comparative Southwest Florida citrus production costs per acre for oranges, 2004-2005<sup>z</sup>

| Costs represent a mature (10+ years old)<br>Southwest Florida Orange Grove.         | Low Cost Processed                       | Processed and Reduced          | Typical/Historical              |
|---|--|--------------------------------|---------------------------------|
|   | Cultural Program<br>One-Year Alternative | Fresh Cost<br>Cultural Program | Fresh Fruit<br>Cultural Program |
| <b>PRODUCTION/CULTURAL COSTS:<sup>y</sup></b>                                       |  |                                |                                 |
| Weed Management/Control:  |  |                                |                                 |
| Mechanical Mow Middles (3 times per year)   | \$ 22.91                                 | \$ 22.91                       | \$22.91                         |
| Chemical Mow Middles (2 times per year)   | 9.78                                     | 9.78                           | 9.78                            |
| General Grove Work (2 labor hours per acre)   | 27.12                                    | 27.12                          | 27.12                           |
| Herbicide (1/2 tree acre treated):  |  |                                |                                 |
| Application (4 glyphosate or 3 residual applications)                               | \$29.12                                  | \$ 27.18                       | \$27.18                         |
| Material  | <u>36.24</u>                             | <u>85.97</u>                   | <u>85.97</u>                    |
| Total Herbicide Cost  | 65.36                                    | 113.15                         | 113.15                          |
| Spray   |  |                                |                                 |
| Post Bloom: Application (125 GPA)   | —  | —                              | 23.80                           |
| Material  | —  | —                              | <u>29.52</u>                    |
| Total Post Bloom Cost   | —  | —                              | 53.32                           |
| Summer Oil #1: Application (125 GPA)  | —  | 23.80                          | 23.80                           |
| Material  | —  | <u>64.22</u>                   | <u>64.22</u>                    |
| Total Summer Oil #1 Cost  | —  | 88.02                          | 88.02                           |
| Summer Oil #2: Application (PTO -- 125 GPA)   | 23.80                                    | 23.80                          | 23.80                           |
| Material  | <u>68.14<sup>x</sup></u>                 | <u>29.37<sup>w</sup></u>       | <u>20.85</u>                    |
| Total Summer Oil #2 Cost  | 91.94                                    | 53.17                          | 44.65                           |
| Fertilizer (Bulk): 3 Applications   | 16.59                                    | 16.59                          | 16.59                           |
| Material (17-4-17-2.4 MgO @ 204 lbs N per acre)                                     | <u>142.80</u>                            | <u>142.80</u>                  | <u>142.80</u>                   |
| Total Fertilizer Cost   | 159.39                                   | 159.39                         | 159.39                          |
| Dolomite (one ton applied every 3 years)  |  |                                |                                 |
| Material/Application  | 14.56                                    | 14.56                          | 14.56                           |
| Pruning:  |  |                                |                                 |
| Topping (\$27.50/A ÷ 2.5 yrs) <sup>v</sup>  | 11.00                                    | 11.00                          | 11.00                           |
| Hedging (\$25.75/A ÷ 2 yrs) <sup>v</sup>  | 12.88                                    | 12.88                          | 12.88                           |
| Chop/Mow Brush after Hedging (\$8.99/A ÷ 2 yrs) <sup>v</sup>                        | <u>4.50</u>                              | <u>4.50</u>                    | <u>4.50</u>                     |
| Total Pruning Cost  | 28.38                                    | 28.38                          | 28.38                           |
| Tree Replacement — 1 thru 3 years of age: (4 trees/acre)                            |  |                                |                                 |
| Remove Trees: Pull, Stack & Burn 4 Trees with Front-end Loader                      | 20.32                                    | 20.32                          | 20.32                           |
| Prepare Site & Plant Tree (Includes 4 reset trees)                                  | 47.88                                    | 47.88                          | 47.88                           |
| Supplemental Fertilizer, Tree Wraps Maintenance, Sprout, Etc. (Trees 1-3 years old) | <u>39.72</u>                             | <u>39.72</u>                   | <u>39.72</u>                    |
| Total Tree Replacement Cost   | 107.92                                   | 107.92                         | 107.92                          |
| Irrigation: Microsprinkler System <sup>u</sup>                                      |  |                                |                                 |
| Clean Ditches (Weed Control)  | 166.17                                   | 166.17                         | 166.17                          |
| Ditch and Canal Maintenance   | 14.19                                    | 14.19                          | 14.19                           |
| Water Control (Pump water in/out of Ditches and Canals)                             | 15.06                                    | 15.06                          | 15.06                           |
| Total Irrigation Cost   | <u>13.21</u>                             | <u>13.21</u>                   | <u>13.21</u>                    |
| Total Irrigation Cost   | 208.63                                   | 208.63                         | 208.63                          |
| <b>IRRIGATED PROCESSED FRUIT PRODUCTION COSTS</b>                                   |  |                                |                                 |
| Supplemental Post Bloom:  |  |                                |                                 |
| Application (250 GPA)   |  | 27.95                          | 27.95                           |
| Material  |  | <u>55.20</u>                   | <u>55.20</u>                    |
| Total Supplemental Post Bloom Cost  |  | 83.15                          | 83.15                           |
| Fall Miticide Spray: Aerial Application (15 GPA)                                    |  | 8.82                           | 8.82                            |
| Material  |  | <u>29.72</u>                   | <u>29.72</u>                    |
| Total Fall Miticide Cost  |  | 38.54                          | 38.54                           |
| <b>IRRIGATED FRESH FRUIT PRODUCTION COSTS</b>                                       |  |                                |                                 |
|   |  | <u>\$954.72</u>                | <u>\$999.52</u>                 |

<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.

Table 12-A.--A listing of estimated comparative Southwest Florida citrus production costs per acre for grapefruit, 2004-05<sup>z</sup>

| Costs represent a mature (10+ years old)<br>Southwest Florida Red Grapefruit Grove.    | Low Cost Processed                       | Processed and Reduced          | Typical/Historical              |
|--|--|--------------------------------|---------------------------------|
|  | Cultural Program<br>One-Year Alternative | Fresh Cost<br>Cultural Program | Fresh Fruit<br>Cultural Program |
| <b>PRODUCTION/CULTURAL COSTS:<sup>y</sup></b>  |  |                                |                                 |
| Weed Management/Control:   |  |                                |                                 |
| Mechanical Mow Middles (3 times per year)  | \$ 22.91                                 | \$ 22.91                       | \$22.91                         |
| Chemical Mow Middles (2 times per year)  | 9.78                                     | 9.78                           | 9.78                            |
| General Grove Work (2 labor hours per acre)  | 27.12                                    | 27.12                          | 27.12                           |
| Herbicide (1/2 tree acre treated):   |  |                                |                                 |
| Application (4 glyphosate or 3 residual applications)                                  | \$29.12                                  | \$27.18                        | \$27.18                         |
| Material   | <u>36.24</u>                             | <u>85.97</u>                   | <u>85.97</u>                    |
| Total Herbicide Cost   | 65.36                                    | 113.15                         | 113.15                          |
| Spray  |  |                                |                                 |
| Post Bloom: Application (125 GPA)  | —  | —                              | 23.80                           |
| Material   | —  | —                              | <u>29.52</u>                    |
| Total Post Bloom Cost  | —  | —                              | 53.32                           |
| Summer Oil #1: Application (125 GPA)   | —  | 23.80                          | 23.80                           |
| Material   | —  | <u>64.22</u>                   | <u>64.22</u>                    |
| Total Summer Oil #1 Cost   | —  | 88.02                          | 88.02                           |
| Summer Oil #2: Application (PTO -- 125 GPA)  | 23.80                                    | 23.80                          | 23.80                           |
| Material   | <u>68.14<sup>x</sup></u>                 | <u>29.37<sup>w</sup></u>       | <u>20.85</u>                    |
| Total Summer Oil #2 Cost   | 91.94                                    | 53.17                          | 44.65                           |
| Fertilizer (Bulk): 3 Applications  | 16.59                                    | 16.59                          | 16.59                           |
| Material (15-2-15-2.4 MgO @ 180 lbs N<br>and @150 lbs N)                               | <u>135.60</u>                            | <u>113.00</u>                  | <u>113.00</u>                   |
| Total Fertilizer Cost  | 152.19                                   | 129.59                         | 129.59                          |
| Dolomite (one ton applied every 3 years)   |  |                                |                                 |
| Material/Application   | 14.56                                    | 14.56                          | 14.56                           |
| Pruning: Topping (\$27.50/A ÷ 2.5 yrs) <sup>v</sup>                                    | 11.00                                    | 11.00                          | 11.00                           |
| Hedging (\$25.75/A ÷ 2 yrs) <sup>v</sup>   | 12.88                                    | 12.88                          | 12.88                           |
| Chop/Mow Brush after Hedging (\$8.99/A ÷ 2 yrs) <sup>v</sup>                           | 4.50                                     | 4.50                           | 4.50                            |
| Raise Skirts of Trees (\$14.00 ÷ 2 yrs) <sup>v</sup>                                   | —  | <u>7.00</u>                    | <u>7.00</u>                     |
| Total Pruning Cost   | 28.38                                    | 35.38                          | 35.38                           |
| Tree Replacement — 1 thru 3 years of age: (3 trees/acre)                               |  |                                |                                 |
| Remove Trees: Pull, Stack & Burn 3 Trees with<br>Front-end Loader                      | 15.24                                    | 15.24                          | 15.24                           |
| Prepare Site & Plant Tree (Includes 3 reset trees)                                     | 35.91                                    | 35.91                          | 35.91                           |
| Supplemental Fertilizer, Tree Wraps Maintenance,<br>Sprout, Etc. (Trees 1-3 years old) | <u>29.79</u>                             | <u>29.79</u>                   | <u>29.79</u>                    |
| Total Tree Replacement Cost  | 80.94                                    | 80.94                          | 80.94                           |
| Irrigation: Microsprinkler System <sup>u</sup>   | 166.17                                   | 166.17                         | 166.17                          |
| Clean Ditches (Weed Control)   | 14.19                                    | 14.19                          | 14.19                           |
| Ditch and Canal Maintenance  | 15.06                                    | 15.06                          | 15.06                           |
| Water Control (Pump water in/out of Ditches and<br>Canals)                             | <u>13.21</u>                             | <u>13.21</u>                   | <u>13.21</u>                    |
| Total Irrigation Cost  | <u>208.63</u>                            | <u>208.63</u>                  | 208.63                          |
| <b>IRRIGATED PROCESSED FRUIT PRODUCTION COSTS</b>                                      | <b><u>\$701.81</u></b>                   | <b><u>\$783.25</u></b>         |                                 |
| Supplemental Post Bloom Spray:   |  |                                |                                 |
| Application (250 GPA)  |  | 27.95                          | 27.95                           |
| Material   |  | <u>55.20</u>                   | <u>55.20</u>                    |
| Total Supplemental Post Bloom Cost   |  | 83.15                          | 83.15                           |
| Fall Miticide Spray: Aerial Application (15 GPA)                                       |  | 8.82                           | 8.82                            |
| Material   |  | <u>29.72</u>                   | <u>29.72</u>                    |
| Total Fall Miticide Cost   |  | <u>38.54</u>                   | <u>38.54</u>                    |
| <b>IRRIGATED FRESH FRUIT PRODUCTION COSTS</b>  |  | <b><u>\$904.94</u></b>         | <b><u>\$949.74</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.

Table 13-A.--Estimated cost of planting and maintaining a reset citrus tree through three years of age, Southwest Florida area, August 2005

|   | Resets/Replacement Trees Per Acre |              |              |              |              |              |
|---|-----------------------------------|--------------|--------------|--------------|--------------|--------------|
|   | 1-2                               | 3-5          | 6-10         | 11-25        | 26+          |              |
|   | ----- \$ Cost Per Tree -----      |              |              |              |              |              |
| Tree Removal                                    | 6.67                              | 5.34         | 4.45         | 3.56         | 2.67         |              |
| <u>Plant Reset Tree</u>                         |                                   |              |              |              |              |              |
| Tree Cost (Container Tree)                      | 4.50                              | 4.50         | 4.35         | 4.35         | 4.35         |              |
| Plant Tree and First Watering (Custom Charge)   | <u>2.93</u>                       | <u>2.55</u>  | <u>2.17</u>  | <u>1.84</u>  | <u>1.57</u>  |              |
| Total Planting Costs                            | 7.43                              | 7.05         | 6.52         | 6.19         | 5.92         |              |
| <u>Site Preparation<sup>a</sup></u>             |                                   |              |              |              |              |              |
| Rotovate  | 2.65                              | 2.31         | 1.96         | 1.67         | 1.42         |              |
| Re-Build Beds                                   | <u>3.00</u>                       | <u>2.61</u>  | <u>2.22</u>  | <u>1.89</u>  | <u>1.60</u>  |              |
| Total Site Preparation                          | 5.65                              | 4.92         | 4.18         | 3.56         | 3.02         |              |
| Total Planting and Site Preparation Costs       | 13.08                             | 11.97        | 10.70        | 9.75         | 8.94         |              |
| =====   |                                   |              |              |              |              |              |
| <u>Supplemental Maintenance</u>                 | Year #1                           | 4.13         | 3.82         | 3.59         | 3.39         | 3.19         |
| (Trees 1-3 years old)                           | Year #2                           | 3.79         | 3.39         | 2.96         | 2.59         | 2.27         |
| (Fertilizer, Tree Wraps, Sprout, etc.)          | Year #3                           | <u>3.07</u>  | <u>2.73</u>  | <u>2.34</u>  | <u>2.01</u>  | <u>1.73</u>  |
| Total Supplemental Maintenance Costs            |                                   | 10.99        | 9.94         | 8.89         | 7.99         | 7.19         |
| =====   |                                   |              |              |              |              |              |
| <u>Summary of Tree Replacement Costs</u>        |                                   | 1            | 3            | 6            | 6            | 6            |
| Tree Removal Costs                              |                                   | 6.67         | 5.34         | 4.45         | 3.56         | 2.67         |
| Planting and Tree Removal Costs                 |                                   | 13.08        | 11.97        | 10.70        | 9.75         | 8.94         |
| Supplemental Maintenance Costs (Years 1 thru 3) |                                   | <u>10.99</u> | <u>9.93</u>  | <u>8.90</u>  | <u>7.99</u>  | <u>7.19</u>  |
| Total Three-Year Cumulative Costs               |                                   | <u>30.74</u> | <u>27.24</u> | <u>24.05</u> | <u>21.30</u> | <u>18.80</u> |

<sup>a</sup>Site preparation for bedded citrus grove. Fumigate planting site would cost approximately \$2.50 per tree.

Source: Ronald P. Muraro, Farm Management Economist, CREC, Lake Alfred, FL, August 2005.

Table 14-A.-- Estimated average picking, roadsiding and hauling charges for Florida citrus, 2004-05

|                              | Fresh Fruit   |         | Processed Fruit |         |
|------------------------------|---------------|---------|-----------------|---------|
|                              | Range         | Average | Range           | Average |
|                              | \$/Box        | \$/Box  | \$/Box          | \$/Box  |
| <u>Picking Charges:</u>      |               |         |                 |         |
| Early and Mid-Season Oranges | 0.70 - 1.75   | 0.954   | 0.65 - 1.05     | 0.829   |
| Valencia Oranges             | 0.70 - 1.25   | 0.938   | 0.65 - 1.25     | 0.870   |
| Pink/Red Grapefruit          | 0.60 - 1.25   | 0.739   | 0.55 - 1.25     | 0.669   |
| White/Marsh Grapefruit       | 0.60 - 1.25   | 0.744   | 0.55 - 1.25     | 0.667   |
| Temples/Tangelos             | 0.85 - 1.65   | 1.163   | 0.80 - 1.50     | 1.043   |
| Tangerines                   | 1.25 - 2.00   | 1.529   | 1.00 - 1.70     | 1.204   |
| Add for Spot Picking         | 0.10 - 0.50   | 0.314   | —               | —       |
|                              | Fresh Fruit   |         | Processed Fruit |         |
|                              | Range         | Average | Range           | Average |
|                              | \$/Box        | \$/Box  | \$/Box          | \$/Box  |
| <u>Roadsiding Charges:</u>   |               |         |                 |         |
| Early and Mid-Season Oranges | 0.60 - 1.15   | 0.895   | 0.65 - 1.17     | 0.817   |
| Valencia Oranges             | 0.67 - 1.12   | 0.899   | 0.65 - 1.17     | 0.836   |
| Pink/Red Grapefruit          | 0.65 - 1.03   | 0.840   | 0.65 - 1.20     | 0.796   |
| White/Marsh Grapefruit       | 0.65 - 1.03   | 0.854   | 0.65 - 1.20     | 0.789   |
| Temples/Tangelos             | 0.70 - 1.35   | 1.003   | 0.75 - 1.23     | 0.890   |
| Tangerines                   | 0.75 - 1.35   | 1.095   | 0.85 - 1.70     | 1.054   |
|                              | Fresh Fruit   |         | Processed Fruit |         |
|                              | All Varieties |         | All Varieties   |         |
|                              | \$/Box        |         | \$/Box          |         |
| <u>Hauling Charges:</u>      |               |         |                 |         |
| 0 - 30 miles                 | 0.417         |         | 0.393           |         |
| 31 - 50 miles                | 0.512         |         | 0.464           |         |
| 51 - 80 miles                | 0.573         |         | 0.515           |         |
| 81 - 100 miles               | 0.640         |         | 0.632           |         |
| 100 + miles                  | 0.746         |         | 0.728           |         |

Table 15-A.--Estimated Average Packing Charges for Florida Citrus, 2004-05<sup>a</sup>

|                                     | Domestic<br>Grapefruit | Export<br>Grapefruit | Oranges | Temples/<br>Tangelos | Tangerines |
|-------------------------------------|------------------------|----------------------|---------|----------------------|------------|
|                                     | ----- \$/Carton -----  |                      |         |                      |            |
| Total Packing Charge <sup>b</sup>   | 3.835                  | 4.245                | 4.192   | 4.495                | 5.056      |
|                                     | ----- \$/Box -----     |                      |         |                      |            |
| Drenching Charge                    | 0.178                  | 0.178                | 0.186   | 0.186                | 0.186      |
| Packinghouse Elimination<br>Charges | 0.594                  | 0.594                | 0.571   | 0.571                | 0.571      |
| Hauling Charges for<br>Eliminations | 0.425                  | 0.425                | 0.410   | 0.410                | 0.410      |

<sup>a</sup>Packing charges represents a total of nine citrus packinghouses from both the Indian River and Interior production regions.

<sup>b</sup>Total Packing Charge includes the following items:

1. Materials including mesh/plastic bags, labels/Price Lookup Codes (PLUs), etc.
2. Includes supervisor/foreman labor, grading, palletizing, shipping and general labor. Includes payroll taxes, workers' compensation, ground insurance, etc.
3. Other direct packing costs include: fruit treating; power, lights and water; repairs 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 (payroll taxes, w/comp); packinghouse and general manager; office supplies; telephone; etc.
6. Selling Expenses which include sales salaries, travel, telephone and telegraph and brokerage fees.
7. Special assessments include such items as: advertising taxes; inspection fees; a Florida Citrus Packers tax; and a Citrus Administrative Committee (CAC) tax.

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

Table 16-A.--Historic prices<sup>a</sup> for selected citrus varieties

| Crop year            | Variety   |                                     |                   |            |          |                                  |           |
|----------------------|---|-------------------------------------|-------------------|------------|----------|----------------------------------|-----------|
|                      | Early <sup>b</sup> and<br>mid <sup>c</sup> -season<br>oranges | Late season<br>oranges <sup>d</sup> | Temple<br>oranges | All        |          | Seedless grapefruit <sup>e</sup> |           |
|                      |   |                                     |                   | Tangerines | Tangelos | (white)                          | (colored) |
| 1961-62              | \$1.93  | \$1.81                              | \$2.17            | \$2.04     | \$3.36   | \$0.68                           | \$0.86    |
| 1962-63              | 2.17  | 3.50                                | 3.09              | 3.02       | 4.66     | 1.29                             | 1.81      |
| 1963-64              | 4.43  | 4.45                                | 4.45              | 3.18       | 4.83     | 2.24                             | 2.54      |
| 1964-65              | 2.57  | 2.28                                | 2.77              | 2.68       | 4.00     | 1.51                             | 1.82      |
| 1965-66              | 1.44  | 1.79                                | 1.80              | 2.14       | 2.85     | 1.39                             | 1.64      |
| 1966-67              | 0.81  | 1.08                                | 0.88              | 1.06       | 1.64     | 0.73                             | 0.94      |
| 1967-68              | 1.86  | 2.28                                | 2.79              | 4.29       | 3.22     | 2.05                             | 2.48      |
| 1968-69              | 1.56  | 1.83                                | 2.22              | 2.55       | 2.47     | 0.98                             | 1.15      |
| 1969-70              | 1.15  | 1.13                                | 1.47              | 2.23       | 1.13     | 1.72                             | 1.92      |
| 1970-71              | 1.10  | 1.91                                | 1.91              | 1.88       | 1.04     | 1.89                             | 2.15      |
| 1971-72              | 1.98  | 2.11                                | 1.95              | 2.97       | 1.69     | 2.27                             | 2.69      |
| 1972-73              | 1.43  | 1.71                                | 1.95              | 2.37       | 1.39     | 2.06                             | 2.53      |
| 1973-74              | 1.38  | 1.59                                | 1.64              | 2.82       | 1.25     | 1.58                             | 2.12      |
| 1974-75              | 1.46  | 1.82                                | 1.68              | 3.05       | 1.45     | 1.55                             | 2.59      |
| 1975-76              | 1.69  | 1.88                                | 1.79              | 3.02       | 1.42     | 1.29                             | 2.23      |
| 1976-77              | 1.89  | 2.63                                | 2.16              | 3.29       | 1.42     | 1.49                             | 2.04      |
| 1977-78              | 3.90  | 4.40                                | 3.92              | 4.79       | 3.29     | 1.47                             | 2.09      |
| 1978-79              | 4.44  | 4.95                                | 4.89              | 4.99       | 3.90     | 2.21                             | 3.13      |
| 1979-80              | 3.59  | 3.89                                | 2.89              | 4.25       | 2.87     | 3.12                             | 3.80      |
| 1980-81              | 3.67  | 4.63                                | 4.21              | 5.45       | 3.92     | 3.46                             | 4.22      |
| 1981-82              | 4.27  | 4.29                                | 4.01              | 6.23       | 3.58     | 1.92                             | 2.80      |
| 1982-83              | 4.88  | 5.41                                | 3.99              | 7.57       | 4.37     | 1.51                             | 3.20      |
| 1983-84              | 5.09  | 6.72                                | 5.34              | 5.93       | 4.28     | 2.08                             | 4.05      |
| 1984-85              | 7.30  | 6.88                                | 5.59              | 15.91      | 7.08     | 3.02                             | 4.84      |
| 1985-86              | 3.92  | 3.97                                | 3.01              | 12.69      | 4.06     | 3.56                             | 4.98      |
| 1986-87              | 4.56  | 6.02                                | 3.60              | 10.92      | 3.72     | 4.45                             | 5.80      |
| 1987-88              | 6.72  | 8.73                                | 5.69              | 12.99      | 5.58     | 5.35                             | 5.93      |
| 1988-89              | 6.63  | 8.41                                | 5.46              | 12.64      | 6.31     | 4.33                             | 4.71      |
| 1989-90              | 6.01  | 6.53                                | 5.64              | 15.28      | 5.10     | 5.21                             | 6.30      |
| 1990-91              | 5.38  | 6.58                                | 6.31              | 17.10      | 6.11     | 4.59                             | 6.85      |
| 1991-92              | 5.44  | 6.65                                | 6.51              | 18.00      | 7.16     | 6.46                             | 6.87      |
| 1992-93              | 3.23  | 3.88                                | 2.99              | 13.75      | 3.31     | 2.22                             | 3.11      |
| 1993-94              | 3.76  | 4.61                                | 2.73              | 9.83       | 2.38     | 3.23                             | 3.38      |
| 1994-95              | 3.25  | 4.41                                | 3.47              | 11.98      | 2.64     | 2.58                             | 1.66      |
| 1995-96              | 3.62  | 5.57                                | 4.44              | 12.59      | 3.63     | 2.14                             | 1.77      |
| 1996-97              | 3.18  | 4.07                                | 3.22              | 7.99       | 2.19     | 1.12                             | 1.91      |
| 1997-98              | 2.81  | 4.88                                | 3.07              | 8.49       | 1.66     | 0.93                             | 1.50      |
| 1998-99              | 4.35  | 5.58                                | 5.12              | 12.07      | 4.53     | 1.95                             | 2.65      |
| 1999-00              | 3.19  | 4.33                                | 2.55              | 6.67       | 2.52     | 3.87                             | 3.36      |
| 2000-01              | 2.60  | 4.02                                | 2.05              | 6.40       | 1.27     | 2.07                             | 2.28      |
| 2001-02              | 2.88  | 4.20                                | 2.19              | 7.81       | 2.47     | 1.96                             | 2.54      |
| 2002-03              | 2.62  | 3.85                                | 2.01              | 8.40       | 2.60     | 1.59                             | 2.79      |
| 2003-04              | 2.20  | 3.64                                | 1.07              | 7.46       | 7.48     | 1.88                             | 3.28      |
| 2004-05 <sup>f</sup> | 2.56  | 4.34                                | 2.48              | 12.02      | 2.45     | 11.95                            | 13.65     |

<sup>a</sup>On-tree average price per box (1-3/5 bushel box equivalent) for all methods of sale minus pick and haul charges.

<sup>b</sup>Navel and Hamlin    <sup>c</sup>Parson Brown and Pineapple    <sup>d</sup>Valencia    <sup>e</sup>Marsh (white) or pink    <sup>f</sup>Preliminary

Source: Florida Agricultural Statistics Service.

Table 17-A.--Debt which can be supported per \$1,000.00 annual payment capacity

| Loan term (years) | Interest rate paid on the loan |        |        |        |       |       |       |                    |       |       |       |       |       |       |       |
|-------------------|--------------------------------|--------|--------|--------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|-------|-------|
|                   | 8.0%                           | 8.5%   | 9.0%   | 9.5%   | 10.0% | 10.5% | 11.0% | 11.5%              | 12.0% | 12.5% | 13.0% | 13.5% | 14.0% | 14.5% | 15.0% |
| 1                 | 926                            | 922    | 917    | 913    | 909   | 905   | 901   | 897                | 893   | 889   | 885   | 881   | 877   | 873   | 870   |
| 2                 | 1,783                          | 1,771  | 1,759  | 1,747  | 1,754 | 1,724 | 1,713 | 1,701              | 1,690 | 1,679 | 1,668 | 1,657 | 1,647 | 1,636 | 1,626 |
| 3                 | 2,577                          | 2,554  | 2,531  | 2,509  | 2,487 | 2,465 | 2,444 | 2,423              | 2,402 | 2,381 | 2,361 | 2,341 | 2,322 | 2,302 | 2,283 |
| 4                 | 3,312                          | 3,276  | 3,240  | 3,204  | 3,170 | 3,136 | 3,102 | 3,070              | 3,037 | 3,006 | 2,974 | 2,944 | 2,914 | 2,884 | 2,855 |
| 5                 | 3,993                          | 3,941  | 3,890  | 3,840  | 3,791 | 3,743 | 3,696 | 3,650              | 3,605 | 3,561 | 3,517 | 3,475 | 3,433 | 3,392 | 3,352 |
| 6                 | 4,623                          | 4,554  | 4,486  | 4,420  | 4,355 | 4,292 | 4,230 | 4,170              | 4,111 | 4,054 | 3,998 | 3,942 | 3,889 | 3,836 | 3,784 |
| 7                 | 5,206                          | 5,119  | 5,033  | 4,950  | 4,868 | 4,789 | 4,712 | 4,640              | 4,564 | 4,492 | 4,423 | 4,355 | 4,288 | 4,224 | 4,160 |
| 8                 | 5,747                          | 5,639  | 5,535  | 5,433  | 5,335 | 5,239 | 5,146 | 5,056              | 4,968 | 4,882 | 4,799 | 4,718 | 4,639 | 4,562 | 4,487 |
| 9                 | 6,247                          | 6,119  | 5,995  | 5,875  | 5,759 | 5,646 | 5,537 | 5,431              | 5,328 | 5,228 | 5,132 | 5,038 | 4,946 | 4,858 | 4,772 |
| 10                | 6,710                          | 6,561  | 6,418  | 6,279  | 6,145 | 6,015 | 5,889 | 5,768              | 5,650 | 5,536 | 5,426 | 5,319 | 5,216 | 5,116 | 5,019 |
| 11                | 7,139                          | 6,969  | 6,805  | 6,647  | 6,495 | 6,348 | 6,207 | 6,070              | 5,938 | 5,810 | 5,687 | 5,568 | 5,453 | 5,341 | 5,234 |
| 12                | 7,536                          | 7,345  | 7,161  | 6,984  | 6,814 | 6,650 | 6,492 | 6,341              | 6,194 | 6,054 | 5,918 | 5,787 | 5,660 | 5,538 | 5,421 |
| 13                | 7,904                          | 7,691  | 7,487  | 7,291  | 7,103 | 6,923 | 6,750 | 6,583              | 6,424 | 6,270 | 6,122 | 5,979 | 5,842 | 5,710 | 5,583 |
| 14                | 8,244                          | 8,010  | 7,786  | 7,572  | 7,367 | 7,170 | 6,982 | 6,801              | 6,628 | 6,462 | 6,302 | 6,149 | 6,002 | 5,861 | 5,724 |
| 15                | 8,559                          | 8,304  | 8,061  | 7,828  | 7,606 | 7,394 | 7,191 | 6,997 <sup>a</sup> | 6,811 | 6,633 | 6,462 | 6,299 | 6,142 | 5,992 | 5,847 |
| 16                | 8,851                          | 8,576  | 8,313  | 8,062  | 7,824 | 7,596 | 7,379 | 7,172              | 6,974 | 6,785 | 6,604 | 6,431 | 6,265 | 6,106 | 5,954 |
| 17                | 9,122                          | 8,825  | 8,543  | 8,276  | 8,022 | 7,779 | 7,549 | 7,329              | 7,119 | 6,920 | 6,729 | 6,547 | 6,373 | 6,207 | 6,048 |
| 18                | 9,372                          | 9,056  | 8,756  | 8,471  | 8,201 | 7,945 | 7,702 | 7,470              | 7,250 | 7,040 | 6,840 | 6,649 | 6,467 | 6,294 | 6,128 |
| 19                | 9,603                          | 9,268  | 8,950  | 8,650  | 8,365 | 8,095 | 7,839 | 7,596              | 7,366 | 7,146 | 6,938 | 6,739 | 6,551 | 6,370 | 6,198 |
| 20                | 9,818                          | 9,463  | 9,129  | 8,812  | 8,514 | 8,231 | 7,963 | 7,710 <sup>a</sup> | 7,469 | 7,241 | 7,025 | 6,819 | 6,623 | 6,437 | 6,259 |
| 25                | 10,675                         | 10,234 | 9,823  | 9,438  | 9,077 | 8,739 | 8,422 | 8,123              | 7,843 | 7,579 | 7,330 | 7,095 | 6,873 | 6,663 | 6,464 |
| 30                | 11,258                         | 10,747 | 10,274 | 9,835  | 9,427 | 9,047 | 8,688 | 8,364              | 8,055 | 7,766 | 7,496 | 7,242 | 7,003 | 6,778 | 6,566 |
| 35                | 11,655                         | 11,088 | 10,567 | 10,087 | 9,644 | 9,234 | 8,855 | 8,503              | 8,175 | 7,870 | 7,586 | 7,320 | 7,070 | 6,836 | 6,617 |
| 40                | 11,925                         | 11,315 | 10,757 | 10,247 | 9,779 | 9,348 | 8,951 | 8,587              | 8,244 | 7,928 | 7,634 | 7,361 | 7,105 | 6,866 | 6,642 |

<sup>a</sup>Example. Assumes a \$10,000 after tax income at 11.5% interest rate and a 15-year term mortgage, the total debt which can be supported is \$69,970 (\$6,997 x 10). At 11.5% interest rate and a 20-year term mortgage, the total debt which can be supported is \$77,100 (\$7,710 x 10).