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# Budgeting Costs and Returns for Central Florida Citrus Production, 2002-03

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## ABSTRACT

Estimated costs and returns of growing round oranges in the Central Florida citrus area are presented for the twentieth consecutive year. Due to the freezes of the 1980's, the Central Florida citrus area refers primarily to Polk and Highlands counties. The format presented may be used by individual growers to budget costs and returns, utilizing individual data on specific groves.


Key words: citrus, Central Florida, budgeting, costs and returns.

NOTE: The Central Florida production area refers to Polk and Highlands counties. However, the costs presented in this report are applicable to other counties such as Hardee, Hillsborough, Lake and Orange 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. Thus, the 2002-03 budget costs reflect lower fertilizer and pesticide materials costs and increased per acre yield due to higher per acre tree densities.

The budget costs in this report represent a **custom-managed operation**. **Therefore, all equipment costs are based on the average custom rate costs, and a 10 percent handling and supervision charge is added to the material cost.**

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 $19.23 per acre; Diaprepes control could add $69.54 per acre for soil biological control application and $73.20 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 ($128.11/acre) could increase the total cultural costs per acre above the average costs shown in the comparative budgets; travel and set-up costs may vary due to size of the citrus grove and distance from grove equipment barn and could add $25.98 per acre; etc.


## ACKNOWLEDGEMENTS

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# BUDGETING COSTS AND RETURNS FOR CENTRAL FLORIDA CITRUS PRODUCTION, 2002-03

Ronald P. Muraro and W. C. Oswalt

## INTRODUCTION

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 a budget constructed from current data and serves as a format for growers to analyze costs and returns from their individual records. During the 1980's, several freezes occurred which changed the character of the Central Florida citrus production area. The December 1983 and January 1985 freezes caused extensive tree and acreage losses in the north central counties such as Lake and Orange counties. The December 1989 freeze resulted in severe tree damage and tree loss in North and Central Polk County. Thus, Central Florida in this report refers primarily to Polk and Highlands counties.

## METHOD OF DATA COLLECTION

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

## 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. Growers' costs are shown in the ADDENDA, Table 1-A through 7-A. The custom rate costs are shown in Table 8-A and the various chemical and fertilizer costs are shown in Table 9-A and 10-A in the ADDENDA. **The budget costs represent a custom-managed operation. Therefore, all equipment costs are based upon the**

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**average custom-rate costs and a 10 percent handling and supervision charge is added to the material cost.**

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. This will allow a comparison of the grower's costs with those presented.

## THE GROVE SITUATION

Production practices for a Central Florida round orange grove are shown in Table 1 with times during the year when they would likely be 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 example represents a Valencia orange grove, 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 10+ year-old, low volume-irrigated grove;
2. Variety is Valencia round orange;
3. Tree loss is 3 percent annually;
4. Trees are pulled and replaced when production falls below 50 percent of expected yield;
5. Production is for processed use;
6. Tree density is 112 trees per acre; and
7. Custom-caretaker is providing grove management.

Table 1.--Schedule of production practices and budget items for a Central Florida citrus grove, 2002-03[a]

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

[a]This is a suggested schedule of practices. Actual practices would not necessarily be done on the exact schedule shown here.

As a result of tree losses and replacement, the tree ages will vary. The budget reflects the following age distribution:

| Situation | | Yield boxes/tree |
|---|---|---|
| 3% | pulled and reset | 0.0 |
| 3% | 1 year old | 0.0 |
| 3% | 2 years old | 0.0 |
| 3% | 3 years old | 0.6 |
| 3% | 4 years old | 0.9 |
| 45% | 5-19 years old | 3.8 |
| 3% | producing 50% of expected yield | 2.8 |
| 37% | mature producing | 5.5 |

Calculation of normal production per acre is shown in Table 2. Note that the proportion-of-trees-by-age column only adds to 91 percent since 9 percent of the trees are non-bearing.

Table 2.--Calculation of normal production per acre, 2002-03

| Age of Tree | Trees | | | | | Boxes /tree | | Total boxes |
|---|---|---|---|---|---|---|---|---|
| | Total no. all ages | | Proportion ea. age[a] | | No. ea. age | | No. | |
| 3 years | 112 | x | 0.03 | = | 3.3 | x | 0.6 | = 2.0 |
| 4 years | 112 | x | 0.03 | = | 3.3 | x | 0.9 | = 3.0 |
| 5-19 years | 112 | x | 0.45 | = | 50.4 | x | 4.0 | = 201.6 |
| Prod. 50% of exp. yield | 112 | x | 0.03 | = | 3.3 | x | 2.8 | = 9.2 |
| 20 years | 112 | x | 0.37 | = | 41.8 | x | 5.5 | = 229.9 |
| | | | | | | Total boxes | | = 445.7 |

[a]Proportion adds up to 0.91 (91 percent) as 9 percent of the trees were non-bearing (pulled and reset, 1 and 2 year old trees).

## BUDGET COSTS AND RETURNS

The estimated budget costs and returns for the Central Florida grove situation are shown in Table 3. The budgeted costs represent one possible citrus production program and were selected from the costs shown in the ADDENDA tables. The gross revenue estimates are based on the projected yields in Table 3 and estimated preliminary on-tree prices for the 2002-03 season. Grove establishment and 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 3, the total revenue for processed-market Valencia oranges is estimated to be $2,105.12 per acre. Total specified costs are $825.59 and are comprised of grove care costs of $777.69, plus management cost of $48.00. Return to land and trees of $1,279.53 represents net return above variable costs. At 300 and 500 boxes per acre, respectively, the break-even price required to cover grove care costs for Valencia oranges range from $2.59 to $1.56 per box on-tree and $0.72 to $0.56 per pounds solids delivered-in.

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 to 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 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 $440 per acre ($3,750 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 4. "Delivered-in" costs include grove care costs (Table 3) plus harvesting, regulatory, and grower assessment costs. The "delivered-in" cost is presented as a cost per acre, per box, and per pound solids. Three possible budget cost scenarios are presented (Refer to Table 13-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 processed market. The third scenario represents typical costs of grove practices which have been performed for citrus grown for the fresh/processed fruit market. 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.

## HISTORICAL COST TRENDS

Annual budgets of costs and returns for mature, processed Valencia oranges in the Central Florida area have been developed and published the past four years. Estimated cost and return histories for 1998-99 through 2001-02 along with 2002-03, and a five-year average are presented in Table 5. To allow comparisons in current values, these same costs and returns, adjusted to 2003 dollars, are presented in Table 6.

Table 3.--Estimated annual per acre costs and returns for a mature, Valencia orange grove producing for the processed market, Central Florida area, 2002-03[a]

| | Item | Description | Amount | | Your cost |
|---|---|---|---|---|---|
| | | | ---------- Dollars ---------- | | |
| I. | Revenue | 446 boxes @ $4.72[b] | | 2,105.12 | |
| II. | Expenses[c] | | | | |
| | Weed control | | | | |
| | Discing | 2 times per year | 18.42 | | |
| | Mow middles | 4 times per year | 41.24 | | |
| | General grove work/sprouting, etc. | (2 labor hours per acre) | 24.70 | | |
| | Herbicide (Table 2-A, Program #1, #2 & #7) | | 136.01 | 220.37 | |
| | Spray program (Table 1-A, Programs #2, #9 & #11) | | | 154.01 | |
| | Fertilizer (Table 3-A, Program #3) | | | 148.58 | |
| | Dolomite (Table 6-A, Program #2) | | | 9.74 | |
| | Pruning (maintenance) | | | | |
| | Topping | ($372.50/hr. ÷ 10 A/hr.) ÷ 2.5 yrs. | 14.90 | | |
| | Hedging | ($341.67/hr. ÷ 10 A/hr.) ÷ 2 yrs. | 17.09 | | |
| | Mow/chop brush | ($8.78/A ÷ 2 yrs.) | 4.39 | 36.38 | |
| | Tree replacement and care (Table 12-A) | (1 through 3 years) | | | |
| | Remove trees/stack/burn | 3 trees per acre | 14.22 | | |
| | Prepare sites and plant resets | Including 3 trees per acre | 21.04 | | |
| | Supplemental fertilizer, tree wraps, maintenance, sprout, etc. | Including application | 28.05 | 63.31 | |
| | Microsprinkler irrigation (Table 7-A, Program #4) | | | 145.30 | |
| | Total grove care expenses | | | 777.69 | |
| III. | Management | $4.00 per acre per month[d] | | 48.00 | |
| IV. | Total specified costs[e] | | | 825.59 | |
| V. | Return to land, trees, and ownership | | | 1,279.53 | |
| VI. | Break-even price for total grove care expenses | | | | |

| Boxes per acre | | | | | Boxes per acre | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 300 | 350 | 400 | 450 | 500 | 300 | 350 | 400 | 450 | 500 |
| $ On-tree price per box | | | | | $ Delivered-in price per pound solids[f] | | | | |
| 2.59 | 2.22 | 1.94 | 1.73 | 1.56 | 0.72 | 0.66 | 0.62 | 0.59 | 0.56 |

[a]Although the estimated annual per acre grove costs shown in Table 3 are representative for a mature Central Florida Valencia orange grove, the grove care costs for a specific grove site may differ depending upon the grove practices performed; e.g., a Temik application would add $128.11 per acre; extensive tree loss due to blight or tristeza would double the tree replacement and care costs; travel and set-up costs may vary due to size of citrus grove and distance from grove equipment barn.

[b]On-tree price per box is preliminary; assumes price for processed oranges only.

[c]Assumes material custom applied; therefore, a 10 percent handling and supervision charge is added to material cost.

[d]Other methods to estimate a management cost--e.g., 5% of gross revenue or 10% of total grove care costs–are used in the industry. Other selected methods will give a different return to land and trees than reported here.

[e]Other cost items which are not included in the budget are ad valorem taxes and interest on grove investment. In addition to these cost items, overhead and administrative costs, such as water drainage/district taxes, crop insurance, and other grower assessments, can add up to 12 percent to the total grove care costs. These costs vary from grove to grove depending on age, location, and time of purchase or grove establishment.

[f]Assumes 6.7 pounds solids per box and $2.19 pick and haul cost per box (including canker decontamination costs) and Department of Citrus advertising assessment of $0.165 per box.

Table 4.--Estimated total delivered-in cost for Central Florida (Ridge) Valencia oranges grown for the processed market under three cultural cost programs, 2002-03

| Represents a mature (10+ years old) Central Florida (Ridge) Orange Grove | Processed Valencia Oranges Low Cost Cultural Program | | | Processed Valencia Oranges Reduced Cost Cultural Program | | | Fresh/Processed Valencia Oranges Cultural Program | | |
|---|---|---|---|---|---|---|---|---|---|
| | $/Acre | $/Box | $/P.S. | $/Acre | $/Box | $/P.S. | $/Acre | $/Box | $/P.S. |
| Total Production/Cultural Costs | $ 722.78 | $1.621 | $0.2419 | $ 777.69 | $1.744 | $0.2603 | $837.24 | $1.877 | $0.2802 |
| Interest on Operating (Cultural) Costs | 36.14 | 0.081 | 0.0121 | 38.88 | 0.087 | 0.0130 | 41.86 | 0.094 | 0.0140 |
| Management Costs | 48.00 | 0.108 | 0.0161 | 48.00 | 0.108 | 0.0161 | 48.00 | 0.108 | 0.0161 |
| Taxes/Regulatory Costs: | | | | | | | | | |
| Property Tax and Water Management Tax | 58.92 | 0.132 | 0.0197 | 58.92 | 0.132 | 0.0197 | 58.92 | 0.132 | 0.0197 |
| Canker Decontamination Costs | 4.50 | 0.010 | 0.0015 | 4.50 | 0.010 | 0.0015 | 4.50 | 0.010 | 0.0015 |
| Total Direct Grower Costs | $ 870.34 | $1.951 | $0.2913 | $ 927.99 | $2.081 | $0.3106 | $ 990.52 | $2.221 | $0.3315 |
| Interest on Average Capital Investment Costs | 377.90 | 0.847 | $0.1265 | 377.90 | 0.847 | 0.1265 | 377.90 | 0.844 | 0.1259 |
| Total Grower Costs | $1,248.24 | $2.799 | $0.4177 | $1,305.89 | $2.928 | $0.4370 | $1,368.42 | $3.064 | $0.4574 |
| Harvesting and Assessment Costs: | | | | | | | | | |
| Pick/Spot Pick, Roadside & Haul and Canker Decontamination Costs | 974.51 | 2.185 | 0.3261 | 974.51 | 2.185 | 0.3261 | 974.51 | 2.185 | 0.3261 |
| DOC Assessment | 73.59 | 0.165 | 0.0246 | 73.59 | 0.165 | 0.0246 | 73.59 | 0.165 | 0.0246 |
| Total Harvesting and Assessment Costs | 1,048.10 | 2.350 | 0.3507 | 1,048.10 | 2.350 | 0.3507 | 1,048.10 | 2.350 | 0.3507 |
| Total Delivered-In Cost | $2,296.34 | $5.149 | $0.7685 | $2,353.99 | $5.278 | $0.7878 | $2,416.52 | $5.414 | $0.8081 |
| P.S. = Pound Solids<br>Yield: 446 boxes/acre @ 6.8 P.S. per box<br>112 trees per acre | Refer to cultural program shown in Table 13-A.<br>Two summer oil sprays with oil, copper, and nutritionals. | | | Refer to cultural program shown in Table 3. | | | Refer to cultural program shown in Table 13-A.<br>A Fall Miticide Spray added to the cultural program shown in Table 3. | | |

Table 5.--Estimated annual per acre costs and returns and 5-year average costs and returns for a mature, Valencia orange grove producing citrus for processing in the Central Florida area, 1998-99–2002-03

| Year | On-tree price/box[a] | Yield | Gross revenue | Total grove care expenses | Total specified costs[f] | Net return to land, trees, and ownership |
|---|---|---|---|---|---|---|
| | | | Dollars | | | |
| 1998-99 | $5.32 | 448[c] | 2,383.36 | 770.79 | 818.79 | 1,565.11 |
| 1999-00 | $4.31 | 448[c] | 1,930.88 | 783.43 | 831.43 | 1,099.45 |
| 2000-01 | $3.70 | 436[d] | 1,613.20 | 758.85[e] | 806.85 | 806.35 |
| 2001-02 | $3.96 | 446 | 1,766.16 | 767.77 | 815.77 | 950.39 |
| 2002-03 | $4.72[b] | 446 | 2,105.12 | 777.69 | 825.59 | 1,279.53 |
| 5-yr. avg. | $4.40 | 445 | 1,958.00 | 771.74 | 819.71 | 1,138.29 |

[a]On-tree prices for processed oranges only as reported by the Florida Agricultural Statistics Service.

[b]Preliminary estimate by authors at time of printing and is not a published price.

[c]Higher per acre yield is due to increased average tree density of Valencia citrus groves in Central Florida.

[d]The severe drought affected yields for the 2000-01 season.

[e]Two summer oil sprays (one with nutritionals) were used in the 2001-02 and 2002-03 budget estimates.

[f]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 6.--Estimated annual per acre costs and returns and 5-year average costs and returns (adjusted to 2003 dollars) for a mature, Valencia orange grove producing citrus for processing in the Central Florida area, 1998-99–2002-03

| Year | Inflation factor index[a] | Adjusted on-tree price/box | Yield | Gross revenue | Total specified costs[b] | Net return to land, trees, and ownership |
|---|---|---|---|---|---|---|
| | | | | Dollars | | |
| 1998-99 | 109.6 | $5.83 | 448 | 2,611.84 | 897.39 | 1,714.45 |
| 1999-00 | 103.7 | $4.47 | 448 | 2,002.56 | 862.19 | 1,140.37 |
| 2000-01 | 102.5 | $3.79 | 436 | 1,652.44 | 827.02 | 825.42 |
| 2001-02 | 105.0 | $4.16 | 446 | 1,855.36 | 856.56 | 998.80 |
| 2002-03 | 100.0 | $4.72 | 446 | 2,105.12 | 825.59 | 1,279.53 |
| 5-yr. avg. | – | $4.59 | 445 | 2,042.55 | 853.75 | 1,188.80 |

[a]Producer price index for each year adjusted to 2003 prices (2003 = 100), with 2003 producer price index estimated to be 137.6. Producer price index for other years are: 1999 = 125.5; 2000 = 132.7; 2001 = 134.2; and 2002 = 131.1.

[b]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 5.)

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ADDENDA: Listing of Grove Care Programs for Central Florida Citrus Production for Both Round Oranges and Grapefruit[a]



Abbreviations for important chemicals are:

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

[a]The costs in the ADDENDA represent a custom managed operation. Therefore, all equipment costs are based upon the average custom rate costs and a 10 percent handling and supervision charge is added to the material cost.

Table 1-A.--Spray programs

POST BLOOM SPRAY

| Spray Program #1 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Oil 97+% | 5 gals | $12.40 | _____ |
| | Cu (50% metallic) | 10 lbs | 14.00 | _____ |
| | Zn | 5 lbs | 4.35 | _____ |
| | Mn | 10 lbs | 3.40 | _____ |
| | Ground Application (PTO driven airblast) | 150 gals | 25.21 | _____ |
| | Total per Application | | $59.36 | _____ |

| Spray Program #2 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (Scab/melanose) | Cu (50% metallic) | 10 lbs | $14.00 | _____ |
| | Zn | 5 lbs | 4.35 | _____ |
| | Mn | 10 lbs | 3.40 | _____ |
| | Micromite 25WP | 1.25 lbs | 42.93 | _____ |
| | Ground Application (PTO driven airblast) | 150 gals | 25.21 | _____ |
| | Total per Application | | $89.89 | _____ |

| Spray Program #3 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Cu (50% metallic) | 15 lbs | $21.00 | _____ |
| | Ethion | 6 pts | 27.84 | _____ |
| | Ground Application (engine driven airblast) | 250 gals | 28.65 | _____ |
| | Total per Application | | $77.49 | _____ |

| Spray Program #4 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Vendex 50WP | 2 lbs | $32.72 | _____ |
| | Zn | 5 lbs | 4.35 | _____ |
| | Mn | 10 lbs | 3.40 | _____ |
| | Ground Application (PTO driven airblast) | 150 gals | 25.21 | _____ |
| | Total per Application | | $65.68 | _____ |

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

POST BLOOM SPRAY (cont'd.)

| Spray Program #5 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (Scale insects) | Lorsban 4EC | 5 pts | $28.40 | _____ |
| | Ground Application (engine driven airblast) | 500 gals | 34.21 | _____ |
| | Total per Application | | $62.61 | _____ |

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SUMMER SPRAY

| Spray Program #6 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Oil 97+% | 5 gals | $12.40 | _____ |
| | Cu (50% material) | 7 lbs | 9.80 | _____ |
| | Ethion | 6.0 pts | 27.84 | _____ |
| | Ground Application (PTO driven airblast) | 250 gals | 28.80 | _____ |
| | Total per Application | | $78.84 | _____ |

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| Spray Program #7 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Oil 97+% | 5 gals | $12.40 | _____ |
| | Ethion | 5 pts | 23.20 | _____ |
| | Ground Application (engine driven airblast) | 500 gals | 34.21 | _____ |
| | Total per Application | | $69.81 | _____ |

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| Spray Program #8 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Oil 97+% | 5 gals | $12.40 | _____ |
| | Agri-Mek | 10 ozs | 51.90 | _____ |
| | Cu (50% material) | 7 lbs | 9.80 | _____ |
| | Ground Application (engine driven airblast) | 250 gals | 28.65 | _____ |
| | Total per Application | | $102.75 | _____ |

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

SUMMER SPRAY (cont'd.)

| Spray Program #9 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Oil 97+% | 5 gals | $12.40 | _____ |
| | Micromite | 1.25 lbs | 42.93 | _____ |
| | Cu (50% material) | 7 lbs | 9.80 | _____ |
| | Ground Application (PTO driven airblast) | 250 gals | 28.80 | _____ |
| | Total per Application | | $93.93 | _____ |

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| Spray Program #10 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Oil 97+% | 7 gals | $17.36 | _____ |
| | Ground Application (engine driven airblast) | 250 gals | 28.65 | _____ |
| | Total per Application | | $46.01 | _____ |

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| Spray Program #11 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Cu (50% metallic) | 7 lbs | $ 9.80 | _____ |
| | Oil 97+% | 5 gals | 12.40 | _____ |
| | Zn | 5 lbs | 4.35 | _____ |
| | Mn | 10 lbs | 3.40 | _____ |
| | B | 0.25 lbs | 1.33 | _____ |
| | Ground Application (PTO driven airblast) | 250 gals | 28.80 | _____ |
| | Total per Application | | $60.08 | _____ |

FALL SPRAY

| Spray Program #12 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Kelthane MF | 6 pts | $28.08 | _____ |
| | Spray Buffer | 1 pt | 2.03 | _____ |
| | Ground Application (PTO driven airblast) | 150 gals | 25.21 | _____ |
| | Total per Application | | $55.32 | _____ |

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

FALL SPRAY (cont'd.)

| Spray Program #13 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Vendex 50WP | 2 lbs | $32.72 | _____ |
| | Ground Application (engine driven airblast) | 150 gals | 26.83 | _____ |
| | Total per Application | | $59.55 | _____ |

| Spray Program #14 | Materials/Ingredients | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Thiolux (Sulfur) | 15 lbs | $11.10 | _____ |
| | Ground Application (PTO driven airblast) | 150 gals | 25.21 | _____ |
| | Total per Application | | $36.31 | _____ |

Table 2-A.--Herbicide

| Herbicide Program #1 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Strip/band) | Solicam 80 DF | 3 lbs | $24.87 | _____ |
| | Karmex WP | 4 lbs | 8.12 | _____ |
| | Roundup Ultra Max | 2 qts | 12.10 | _____ |
| | Ground Application (1 time) | | 13.81 | _____ |
| | Total for 1 Application | | $58.90 | _____ |

| Herbicide Program #2 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Strip/band) | Mandate | 2 pts | $24.83 | _____ |
| | Direx 4L | 3 qts | 7.14 | _____ |
| | Roundup Ultra Max | 2 qts | 12.10 | _____ |
| | Ground Application (1 time) | | 13.81 | _____ |
| | Total for 1 Application | | $57.88 | _____ |

| Herbicide Program #3 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Strip/band) | Karmex WP | 4 lbs | $ 8.12 | _____ |
| | Roundup Ultra Max | 2 qts | 12.10 | _____ |
| | Ground Application (1 time) | | 13.81 | _____ |
| | Total for 1 Application | | $34.03 | _____ |

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

| Herbicide Program #4 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Strip/band) | Roundup Ultra Max | 2 qts | $12.10 | _____ |
| | Ammonium Sulfate | 17 lbs | 1.32 | _____ |
| | Ground Application (1 time) | | 13.81 | _____ |
| | Total for 1 Application | | $27.83 | _____ |

| Herbicide Program #5 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Strip/band) | Roundup Ultra Max | 2 qts | $12.10 | _____ |
| | Princep (Caliber 90) | 4 lbs | 6.60 | _____ |
| | Ground Application (1 time) | | 13.81 | _____ |
| | Total for 1 Application | | $32.51 | _____ |

| Herbicide Program #6 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Strip/band) | Direx 4L | 3 qts | $ 7.14 | _____ |
| | Solicam | 3 lbs | 24.87 | _____ |
| | Roundup Ultra Max | 2 qts | 12.10 | _____ |
| | Ground Application (1 time) | | 13.81 | _____ |
| | Total for 1 Application | | $57.92 | _____ |

| Herbicide Program #7 | Materials | Amount/ Treated Acre | Cost/ Grove Acre[a] | Your Cost/ Grove Acre |
|---|---|---|---|---|
| (Spot herbicide for grass/brush regrowth under trees.) | Roundup Ultra Max | 2 qts | $12.10 | _____ |
| | Ground Application (1 time) | 15 gals | 7.13 | _____ |
| | Total for 1 Application | | $19.23 | _____ |

[a]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 grove surface is being treated.

Table 3-A.--Dry fertilizer

| Program #1 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (162 lbs N/Acre) | 12-2-12-2.4 MgO | 1350 lbs | $ 109.35 | _____ |
| | Application | 3 times | 26.13 | _____ |
| | Total for 3 Applications | | $135.48 | _____ |

| Program #2 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (180 lbs N/Acre) | 16-0-16-4 MgO | 1125 lbs | $ 108.00 | _____ |
| | Application | 3 times | 26.13 | _____ |
| | Total for 3 Applications | | $134.13 | _____ |

| Program #3 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (204 lbs N/Acre) | 16-0-16-4 MgO | 1275 lbs | $122.40 | _____ |
| | Application | 3 times | 26.13 | _____ |
| | Total for 3 Applications | | $148.53 | _____ |

| Program #4 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (225 lbs N/Acre) | 15-2-15-2.4 MgO | 1500 lbs | $136.50 | _____ |
| | Application | 3 times | 26.13 | _____ |
| | Total for 3 Applications | | $162.63 | _____ |

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

| Program #1 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (180 lbs N/Acre) | 10-0-10 | 1800 lbs | $ 111.60 | _____ |
| | Double Boom Application | 3 times | 43.50 | _____ |
| | Total for 3 Applications | | $155.10 | _____ |

| Program #2 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (180 lbs N/Acre) | 10-2-10 | 1800 lbs | $ 117.00 | _____ |
| | Double Boom Application | 3 times | 43.50 | _____ |
| | Total for 3 Applications | | $160.50 | _____ |

| Program #3 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (180 lbs N/Acre) | 10-0-10 | 1800 lbs | $ 111.60 | _____ |
| | Solicam 80 DF | 3 lbs* | 24.87 | _____ |
| | Karmex WP | 4 lbs* | 8.12 | _____ |
| | Double Boom Application | 3 times | 43.50 | _____ |
| | Total for 3 Applications | | $188.09 | _____ |

*Treated acre (one herbicide application)

Table 5-A.--Nematicides

| Program #1 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Temik 15G | 33 lbs | $113.85 | _____ |
| | Application | | 14.26 | _____ |
| | Total per Application | | $128.11 | _____ |

| Program #2 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| | Temik 15G | 17 lbs | $ 58.65 | _____ |
| | Application | | 14.26 | _____ |
| | Total per Application | | $ 72.91 | _____ |

Table 6-A.--Soil amendment

| Program #1 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (Every 3 years) | Dolomite (Delivered) | 1 ton | $30.14 | _____ |
| | Application | 1 time | 8.80 | _____ |
| | Total for 1 Application | | $38.94 | _____ |
| | (Average 1/3 Ton Applied/Yr) | | $12.98 | _____ |

| Program #2 | Analysis/Material Applied | Amount /Acre | Cost/Acre | Your Cost/Acre |
|---|---|---|---|---|
| (Every 4 years) | Dolomite (Delivered) | 1 ton | $30.14 | _____ |
| | Application | 1 time | 8.80 | _____ |
| | Total for 1 Application | | $38.94 | _____ |
| | (Average 1/4 Ton Applied/Yr) | | $ 9.74 | _____ |

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

PERMANENT OVERHEAD

| | Program #1 | Your Cost/Acre | Program #2 | Your Cost/Acre |
|---|---|---|---|---|
| Operating | (Electric) $103.60 | _____ | (Diesel) $ 84.15 | _____ |
| Maintenance of System | 41.83 | _____ | 43.88 | _____ |
| Total Cash Expenses | $145.43 | _____ | $128.03 | _____ |
| Fixed Depreciation Expense | 55.73 | _____ | 59.54 | _____ |
| Total Cash and Fixed Expenses | $201.16 | _____ | $187.57 | _____ |

MICROSPRINKLER

| | Program #3 | Your Cost/Acre | Program #4 | Your Cost/Acre |
|---|---|---|---|---|
| Operating | (Electric) $ 49.87 | _____ | (Diesel) $ 41.98 | _____ |
| Maintenance of System | 45.75 | _____ | 46.76 | _____ |
| Total Cash Expenses | $ 95.62 | _____ | $ 88.74 | _____ |
| Fixed Depreciation Expense | 52.94 | _____ | 56.56 | _____ |
| Total Cash and Fixed Expenses | $148.56 | _____ | $145.30 | _____ |

Table 8-A.-- A listing of 2003 custom rates reported by thirty Ridge citrus caretakers

| Grove Practice | Unit | Range of Rate Reported | | Average Rate[y] | Comments |
|---|---|---|---|---|---|
| CULTIVATION AND EQUIPMENT: | | | | | |
| Hand Hoe/Hand Labor | Hour | $10.00- | $15.00 | $12.35 | Plus transportation |
| Mechanic Labor | Hour | 25.00- | 42.50 | 31.85 | Includes truck |
| Rotovate | Hour | 28.00- | 45.00 | 35.69 | |
| Disc 7' | Hour | 26.00- | 35.00 | 30.09 | |
| Disc 7' | Acre | 8.00- | 12.00 | 10.00 | One-way discing |
| Disc 9'-10' | Hour | 28.00- | 40.00 | 33.00 | |
| Disc 9'-10' | Acre | 8.00- | 11.25 | 9.21 | One-way discing |
| Chop | Hour | 26.70- | 40.00 | 31.43 | |
| Chop | Acre | 7.00- | 10.00 | 8.68 | |
| Mow 5'-7' | Hour | 28.00- | 35.00 | 30.17 | |
| Mow 9'-12' | Hour | 32.00- | 36.50 | 35.33 | 3 data points |
| Mow 5'-7' | Acre | 8.50- | 11.25 | 10.31 | |
| Mow 9'-12' | Acre | 9.50- | 13.50 | 10.91 | |
| Mow 15'-16' | Acre | 10.00- | 12.50 | 11.25 | |
| Herbicide[z] (Strip/Band--Single Boom) | Hour | 26.40- | 33.00 | 29.48 | Plus materials |
| Herbicide[z] (Strip/Band--Single Boom) | Acre | 11.50- | 15.00 | 13.98 | Plus materials |
| Herbicide[z] (Strip/Band--Double Boom) | Acre | 12.50- | 15.70 | 13.81 | Plus materials; Avg. $36.50/hour |
| Herbicide (Piggy Back Appl.) | Acre | 12.50- | 17.50 | 14.50 | Plus materials |
| Herbicide[z] (Chemical Mow) | Acre | 5.00- | 9.25 | 7.32 | Plus materials |
| Temik[z] | Acre | 13.00- | 15.00 | 14.26 | Plus materials |
| Plow | Hour | 30.00- | 35.00 | 33.38 | |
| Deviner | Hour | — | — | 30.00 | |
| Bush Hog | Hour | 28.00- | 41.00 | 34.23 | One reporting $13.00/acre |
| Pickup Truck with Driver | Hour | 22.50- | 35.00 | 26.37 | Average miles/year/pickup: 27,353 |
| Flatbed Transport Truck with Driver | Hour | 28.00- | 40.00 | 33.03 | Average miles/year: 27,639; Avg. $17.83/hour without driver |
| Low-Boy Transport | Hour | 50.00- | 55.00 | 52.25 | One reporting $75.00/trip |
| Tractor with Driver | Hour | 25.00- | 32.50 | 27.88 | |
| Water/Supply Truck | Hour | 25.00- | 34.25 | 29.38 | |

SPRAYING[z]:

| | | AIR BLAST SPRAYER | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Engine Driven 1,000 gallon tank | | | Avg 500 gal tank | PTO Powered 1,000 gallon tank | | | Avg 500 gal tank | Average with Electronic Sensing Technology |
| 500 GPA | Acre | 35.00- | 35.25 | 35.08 | 34.21 | 25.00 - | 35.00 | 31.30 | 30.19 | $32.60/acre |
| 250 GPA | Acre | 25.00- | 35.00 | 30.88 | 28.65 | 25.00 - | 32.00 | 28.80 | 27.30 | $29.75/acre |
| 125 GPA | Acre | — | — | — | — | 21.00 - | 27.00 | 23.13 | 21.53 | $27.50/acre |
| 100 GPA | Acre | — | — | — | — | 20.00 - | 23.00 | 21.33 | 19.71 | $23.50/acre |
| 50 GPA | Acre | — | — | — | — | 15.00 - | 20.00 | 18.83 | — | $20.00/acre |
| Aerial (Bell-47 Helicopter) | $10.00 @ 5 GPA; $15.00 @ 10 GPA; $17.50 @ 15 GPA; $22.00 @ 20 GPA | | | | | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| FERTILIZE AND SOIL AMENDMENTS:[z] | | | | | |
| Inject Liquid Fertilizer into Irrigation System | Hour | $25.00- | $35.00 | $31.03 | Truck plus labor |
| Inject Liquid Fertilizer into Irrigation System | Acre | 1.50- | 3.50 | 2.69 | Average $58.06/irrigation injection hookup |
| Liquid Boom Application: | | | | | |
| Double Boom | Acre | 12.00- | 15.00 | 13.86 | Average $17.50/acre single boom |
| Dry (Bulk) | Acre | 7.00- | 10.50 | 8.71 | Average $30.20/hour |
| Lime or Dolomite | Acre | 7.50- | 10.75 | 8.80 | |
| Lime or Dolomite | Ton | 7.00- | 10.50 | 8.03 | |
| Fertilize Young Trees:[z] Hand Spread | Hour | 10.00- | 15.00 | 12.35 | Plus transportation and materials |
| Fert. Spreader | Hour | 27.50- | 35.00 | 30.50 | Plus materials; average $7.76/acre |
| IRRIGATION: | | | | | |
| Microsprinkler | Avg. $3.48/acre; Avg. $37.50/month; Avg. $18.00/trip | | | | Start/stop and supervision |
| Microsprinkler | Hour | 25.00- | 35.00 | 27.60 | Start/stop and supervision; truck and driver |
| ATV with Driver | Hour | 17.00- | 25.00 | 21.82 | Check/repair microsprinkler irrigation system-plus materials |
| Ring Young Trees: Hand Labor | Hour | 10.00- | 15.00 | 12.35 | Plus transportation |
| Mechanical | Hour | 24.20- | 28.50 | 25.93 | Labor plus equipment |
| REMOVING TREES: | | | | | |
| Tree Shearing (Cutting Tree at Ground Level) | Hour | $50.00- | $65.00 | $60.17 | Avg. trees sheared: 5 to 20 trees/hour |
| Front-end Loader | Hour | 50.00- | 60.00 | 54.19 | Average trees removed: 5 to 15 trees/hour |
| Bulldozer | Hour | — | — | 50.00 | |
| Front-end Loader with Tree Spade | Hour | — | — | 65.00 | |

(OVER)

Table 8-A.-- A listing of 2003 custom rates reported by thirty Ridge citrus caretakers (cont'd.)

| Grove Practice | Unit | Range of Rate Reported | | Average Rate[y] | Comments |
|---|---|---|---|---|---|
| PRUNING: | | | | | |
| Power Saw with Operator | Hour | $ 17.00- | $ 25.00 | $ 20.50 | Plus transportation |
| Limb Lifter/Tree Skirt Trimmer (Double Sided) | Hour | — | — | 200.00 | Cover 9-18 acres one pass |
| Hedging: | | | | | |
| Single Side (Tractor Mounted) | Hour | 75.00- | 80.00 | 76.67 | Cover 2-5 acres/hour |
| Double Side (Tractor Pulled) | Hour | 80.00- | 100.00 | 86.88 | Cover 3-5 acres/hour |
| Double Side (Tractor Mounted) | Hour | 200.00- | 220.00 | 210.00 | |
| Double Side (Self Propelled)[x] | Hour | 325.00- | 360.00 | 341.67 | Cover 10-25 acres/hour depending on wood size |
| Double Side (Self Propelled)[x] | Hour | 250.00- | 300.00 | 287.50 | Cover 4-12 acres/hour depending on wood size |
| Topping: | | | | | |
| Tractor Mounted | Hour | 195.00- | 200.00 | 196.67 | |
| Tractor Pulled | Hour | — | — | 100.00 | Cover 1-3 acres/hour |
| Self Propelled | Hour | 365.00- | 380.00 | 372.50 | Cover 5-10 acres/hr (Roof Top); 5-20 acres/hr (Flat Top) |
| Double Boom (Self Propelled) | Hour | — | — | 550.00 | Cover 2-12 acres/hr (Roof Top); 15-30 acres/hr (Flat Top) |
| Removing Brush: | | | | | |
| Haul Brush out of Grove | Hour | 35.00- | 40.50 | 37.10 | Tractor-trailer/truck, driver plus 1 person; plus 2 people |
| Front-end Loader (Push Brush) | Hour | 46.40- | 60.00 | 53.72 | 2-10 acres/hour |
| Chop/Mow Brush | Hour | 27.90- | 37.50 | 33.42 | 3-6 acres/hour; Averaged $11.31/acre |
| COLD PROTECTION: | | | | | |
| Mechanical (Bank and Unbank) | Hour | $ — | $ — | $ 23.43 | |
| Install Wraps | Each | 0.24 | 0.50 | 0.34 | |
| OTHER CUSTOM RATES: | | | | | |
| Plant Resets | Per Tree | $ 1.75- | $ 3.00 | $ 2.38 | Stake, plant and first watering |
| Solid Set Planting | Per Tree | 1.00- | 1.75 | 1.29 | Stake, plant and first watering |
| Travel/Setup Charge | Hour | — | — | 27.00 | Average for those reporting; One reporting $100.00 |
| Grove Management Charge/Month: | | | | | |
| Supervising Grove Care Operations | Acre | 1.50- | 5.50 | 2.88 | In addition to caretaking charges; 6% equipment labor |
| Handling Fruit Marketing | Box | 0.10- | 0.25 | 0.15 | charge; $50/acre annually |
| Supervising/Handling Chemicals/Fertilizer | 10% to 25% of materials cost | | | | |
| Charge for personnel to oversee harvesting operations and coordinate harvest in different blocks/groves and keeping of harvesting labor compliance record. | 10¢/box to 18¢/box; average 16¢/box | | | | |
| Consulting | Cultural Management/Horticultural Evaluation - $50/hr to $100/hr<br>Financial Analysis Prospectus - $150/hr | | | | |
| Total Reported Acreage Provided Grove Service to: | Acre | 350- | 14,415 | 2,639 | Total acres reporting: 62,709 |

[z] Plus materials. Caretakers reporting rates include labor, tractor and sprayer; supply truck included by most caretakers.
[y] 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.
[x] 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, June 2003.

Table 9-A.--2003 summary of average chemical price estimates

| Item | | Unit | Average Price | Your Price (2003) |
|---|---|---|---|---|
| Fungicides: | Abound | gal. | 235.00 | _____ |
| | Aliette 80WP | lb. | 9.96 | _____ |
| | Basic Copper Sulfate (53%) | lb. | 1.27 | _____ |
| | Copper (50%) (Kocide 101) | lb. | 1.96 | _____ |
| | Carbamate 76WP | lb. | 3.13 | _____ |
| | Enable 2F | 40 oz. | 56.40 | _____ |
| | Headline | gal. | 220.00 | _____ |
| | Nu-Cop 50DF | lb. | 1.80 | _____ |
| | Oil - 435 or 455 | gal. | 2.25 | _____ |
| | Ridomil Gold Granular | lb. | 5.35 | _____ |
| | Ridomil Gold EC | gal. | 604.15 | _____ |
| Insecticides/Nematicides: | | | | |
| | Admire 2F | gal. | 522.50 | _____ |
| | Agri-Mek (0.15EC) | gal. | 604.00 | _____ |
| | Bacillus thuringienses | gal. | 9.92 | _____ |
| | Comite 6.55 EC | gal. | 80.95 | _____ |
| | Danitol | gal. | 141.67 | _____ |
| | Ethion | gal. | 33.75 | _____ |
| | Guthion 50WP | lb. | 9.78 | _____ |
| | Kelthane MF | gal. | 34.00 | _____ |
| | Lorsban 4EC | gal. | 41.25 | _____ |
| | Lorsban 15G | lb. | 1.76 | _____ |
| | Malathion 5 EC | gal. | 20.09 | _____ |
| | Micromite 25WP | lb. | 31.22 | _____ |
| | Microthiol 80DF | lb. | 0.67 | _____ |
| | Nexter WP | lb. | 100.44 | _____ |
| | Sevin 80S | lb. | 4.57 | _____ |
| | Sevin XLR | gal. | 25.93 | _____ |
| | Sulphur 6F | gal. | 2.65 | _____ |
| | Temik 15G | lb. | 3.14 | _____ |
| | Thiolux 80 DF | lb. | 0.67 | _____ |
| | Vendex 50W | lb. | 14.88 | _____ |

Table 9-A.--2003 summary of average chemical price estimates (cont'd.)

| Item | | Unit | Average Price | Your Price (2003) |
|---|---|---|---|---|
| Herbicides: | Direx 4L | gal. | 17.24 | _____ |
| | Direx 80 DF | lb. | 3.49 | _____ |
| | Fusilade DX | gal. | 123.57 | _____ |
| | Gramoxone (Paraquat) | gal. | 33.65 | _____ |
| | Hyvar X | lb. | 18.19 | _____ |
| | Karmex | lb. | 3.69 | _____ |
| | Krovar I | lb. | 10.68 | _____ |
| | Mandate 2E | gal. | 180.63 | _____ |
| | Poast Plus 1.0 EC | gal. | 53.97 | _____ |
| | Princep (Caliber 90) | lb. | 3.00 | _____ |
| | Princep 4L | gal. | 13.71 | _____ |
| | Rodeo (30 gal drum) | gal. | 72.69 | _____ |
| | Roundup (30 gal drum) | gal. | 27.75 | _____ |
| | Roundup Ultra Max | gal. | 44.00 | _____ |
| | Simazine 90 DF | lb. | 2.72 | _____ |
| | Simazine 4L | gal. | 13.00 | _____ |
| | Solicam 80 DF | lb. | 15.08 | _____ |
| | Surflan AS | gal. | 70.73 | _____ |
| | Touchdown | gal. | 35.67 | _____ |
| Growth Regulators: | | | | |
| | Citrus Fix | gal. | 284.48 | _____ |
| | Pro-Gibb 3.91% | 32 oz. bottle | 37.56 | _____ |
| Other Spray Materials: | | | | |
| | Borates (15%) | lb. | 0.74 | _____ |
| | Manganese (32%) | lb. | 0.31 | _____ |
| | Zinc (78%) | lb. | 0.79 | _____ |
| | Nutritional Spray Mix: | | | |
| | Dyna Gold MZF | gal. | 6.41 | _____ |

SOURCE: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, Florida, August 2003.

Table 10-A.--2003 summary of average fertilizer price estimates

| Item | Unit | Average Price | Your Price (2003) |
|---|---|---|---|
| FERTILIZER (FOB Price @ Plant) | | | |
| | | $ | |
| Dry Mix (Bulk) | | | |
| 17-0-17-3$_{Mg}$ | ton | 177.44 | _____ |
| 17-4-17-2.4$_{Mg}$ | ton | 180.46 | _____ |
| 16-0-16 | ton | 166.08 | _____ |
| 16-0-16-4$_{Mg}$ | ton | 174.36 | _____ |
| 16-2-16-3$_{Mg}$ | ton | 175.82 | _____ |
| 15-2-15-2.4$_{Mg}$ | ton | 165.26 | _____ |
| 12-2-12-2.4$_{Mg}$ | ton | 147.78 | _____ |
| 8-8-8 w/minors* | ton | 145.30 | _____ |
| 8-4-8 w/minors* | ton | 128.44 | _____ |
| 8-2-8 w/minors* | ton | 126.26 | _____ |
| 6-6-6 w/minors* | ton | 127.03 | _____ |
| Liquid Mix (Bulk) | | | |
| 8-2-8 | ton | 112.48 | _____ |
| 8-4-8 | ton | 107.08 | _____ |
| 9-3-9 | ton | 109.54 | _____ |
| 9-4-9 | ton | 124.19 | _____ |
| 10-0-10 | ton | 111.81 | _____ |
| 10-2-10 | ton | 118.71 | _____ |
| 12-0-6 | ton | 110.49 | _____ |
| 12-3-6 | ton | 108.41 | _____ |

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

Table 10-A.--2003 summary of average fertilizer price estimates (cont'd.)

| Item | Unit | Average Price | Your Price (2003) |
|---|---|---|---|
| Other Fertilizer Materials (Bulk) | | | |
| Ammonium Nitrate (21% N Liquid) | ton | 124.75 | _____ |
| Ammonium Nitrate (33.5% N Dry) | ton | 187.38 | _____ |
| Ammonium Sulfate (21% N) | ton | 101.67 | _____ |
| Calcium Nitrate (19% Ca, 15.5% N) | ton | 207.69 | _____ |
| Dolomite (at mine–49% $CaCO_3$, 36% $MgCO_3$) | ton | 16.49 | _____ |
| Muriate of Potash (60% $K_2O$) | ton | 162.02 | _____ |
| Potassium Nitrate (14% N; 46% $K_2O$) | ton | 373.26 | _____ |
| Sul-Po-Mag (SPM--21.9% $K_2O$) | ton | 162.50 | _____ |
| Super Phosphate (20% $P_2O_5$) | ton | 143.31 | _____ |
| Triple Superphosphate (48% $P_2O_5$) | ton | 172.94 | _____ |
| Urea | ton | 373.26 | _____ |
| Average Delivery Cost | ton | 12.00 | _____ |
| Foliar Macronutrients | | | |
| N-Sure 28-0-0 (72% SRN)** | gal. | 6.39 | _____ |
| Phos Might 0-22-20 | gal. | 21.87 | _____ |
| Nutriphite 0-28-26 | gal. | 26.67 | _____ |
| MKP (0-52-34) (Mono-Potassium Phosphate) | lb. | 0.65 | _____ |
| DKP (0-18-20) (Di-Potassium Phosphate) | gal. | 2.50 | _____ |

**SRN, Slow Release Nitrogen

SOURCE: Ronald P. Muraro, Extension Farm Management Economist, University of Florida, IFAS, CREC, Lake Alfred, Florida, August 2003.

Table 11-A.--Cost for establishing, planting and maintaining a citrus grove through four years of age, North Florida area

| | | Cost Per Acre | |
|---|---|---|---|
| | | Range | Average |
| | | $ | $ |
| Land Cost [1] | | 2,500-4,500 | 3,450 |
| Land Preparation (clearing, disking, leveling) | | 275- 700[2] | 350 |
| Soil Amendments: Dolomite 1 ton | | | 35 |
| Super Phosphate, 400 lbs. | | | 30 |
| Cover Crop | | 9- 16 | 12 |
| Irrigation System: Microsprinkler -- with Well[3] | | 850-1,650 | 1,350 |
| -- without Well | | 525-1,250 | 975 |
| Water Permits, Environmental Studies, and Engineering: | Cost | 35- 80 | 50 |
| | Time in Months | 3- 8 | 6 |
| Percent Land Utilization: Planted to Citrus | | 90%- 97% | 95% |
| Roads and Service Areas | | 3%- 10% | 5% |

| | North Florida | | | |
|---|---|---|---|---|
| | Year | | | |
| | 1 | 2 | 3 | 4 |
| Solidset Planted Trees[4] | ---------- Cost Per Tree ---------- | | | |
| Microsprinkler Irrigation and Ditch Maintenance | $0.37 | $0.45 | $0.55 | $0.65 |
| Fertilize Tree | 0.25 | 0.40 | 0.55 | 0.57 |
| Supplemental Fertilization thru Irrigation | 0.15 | 0.20 | 0.25 | 0.29 |
| Spray | 0.42 | 0.55 | 0.65 | 0.75 |
| Insulated Tree Wrap (annual maintenance) | 0.25 | 0.25 | 0.25 | 0.00 |
| Sprouting (labor) | 0.20 | 0.20 | 0.00 | 0.00 |
| Cultivation/Mowing | 0.40 | 0.40 | 0.40 | 0.40 |
| Herbicide | 0.45 | 0.45 | 0.45 | 0.45 |
| Ridomil/Aliette | 0.35 | 0.35 | 0.00 | 0.00 |
| Miscellaneous | 0.43 | 0.49 | 0.47 | 0.47 |
| Total Cost Per Year | $3.27 | $3.74 | $3.57 | $3.58 |
| Reset Trees (annual additional grove care costs) | $2.13 | $2.47 | $1.84 | -- |
| Cost of Planting Trees[5] | Solidset = $6.75 | | Reset = $8.05 | |

[1]Land cost will vary from one county to another as well as from one parcel to another.

[2]Includes fumigation cost of $330 per acre.

[3]Irrigation costs include distribution system, power unit and well (where indicated.) The higher cost ranges reported also included a cost for fertigation equipment.

[4]The per tree costs shown are applicable for tree densities of 145 to 165 trees per acre. The per tree costs should be decreased for higher density plantings and increased for lower density plantings; e.g., at 200 trees per acre decrease costs by 15%; at 115 trees per acre increase costs by 15%.

[5]Tree cost (bare root) = $3.25; stake, plant, and water tree = $1.25 (solidset) and $2.55 (resets); and insulated tree wrap = $2.25.

Source: Ronald P. Muraro, Farm Management Economist, CREC, Lake Alfred, FL, March 1990.

Table 12-A.--Estimated cost of planting and maintaining a reset citrus tree through three years of age, December 2000

| | Number of Resets/Replacement Trees Per Acre | | | | |
|---|---|---|---|---|---|
| | 1-2 | 3-5 | 6-10 | 11-25 | 26+ |
| | ---------- Cost Per Tree ---------- | | | | |
| Year #1: | $ | $ | $ | $ | $ |
| Tree Removal | 5.73 | 4.98 | 3.98 | 3.22 | 2.57 |
| Tree Cost (Container Tree) | 4.50 | 4.50 | 4.35 | 4.25 | 4.25 |
| Site Preparation[a] | 5.40 | 4.68 | 3.97 | 3.67 | 2.88 |
| Plant Tree and First Watering | 3.28 | 2.40 | 2.08 | 1.74 | 1.31 |
| Total Planting Cost | 13.18 | 11.58 | 10.40 | 9.66 | 8.44 |
| Supplemental Fertilization — 4 Times (Application & Materials) | 1.28 | 1.11 | 1.02 | 0.93 | 0.85 |
| Supplemental Spraying (Application & Materials)[b] | 0.48 | 0.41 | 0.38 | 0.35 | 0.32 |
| Spot Herbicide (Application & Materials) | 0.21 | 0.18 | 0.16 | 0.14 | 0.13 |
| Tree Wrap (Corrugated) | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Sprouting/Pruning | 0.41 | 0.41 | 0.38 | 0.38 | 0.34 |
| Miscellaneous | 0.17 | 0.16 | 0.15 | 0.14 | 0.13 |
| Supervision & Overhead | 0.27 | 0.25 | 0.23 | 0.22 | 0.21 |
| Total Tree Care Cost Year #1 | 3.82 | 3.52 | 3.32 | 3.16 | 2.98 |
| Total Cost Year #1 | 22.73 | 20.08 | 17.70 | 16.04 | 13.99 |
| Year #2: | | | | | |
| Supplemental Fertilization — 3 Times (Application & Materials) | 1.72 | 1.53 | 1.34 | 1.13 | 1.03 |
| Supplemental Spraying (Application & Materials)[b] | 0.55 | 0.49 | 0.43 | 0.36 | 0.33 |
| Spot Herbicide (Application & Materials) | 0.20 | 0.18 | 0.16 | 0.14 | 0.13 |
| Sprouting/Pruning | 0.49 | 0.49 | 0.41 | 0.41 | 0.37 |
| Miscellaneous | 0.15 | 0.13 | 0.12 | 0.10 | 0.09 |
| Supervision & Overhead | 0.23 | 0.20 | 0.18 | 0.16 | 0.15 |
| Total Cost Year #2 | 3.34 | 3.02 | 2.64 | 2.30 | 2.10 |
| Year #3: | | | | | |
| Supplemental Fertilization — 3 Times (Application & Materials) | 2.34 | 2.09 | 1.79 | 1.53 | 1.30 |
| Miscellaneous | 0.12 | 0.10 | 0.09 | 0.08 | 0.06 |
| Supervision & Overhead | 0.18 | 0.16 | 0.14 | 0.12 | 0.10 |
| Total Cost Year #3[b] | 2.64 | 2.35 | 2.02 | 1.73 | 1.46 |
| Total Three-Year Cumulative Costs | 28.71 | 25.45 | 22.36 | 20.07 | 17.55 |

[a]Site preparation for bedded citrus grove; cost of root removal, rotovating/leveling tree planting site. Fumigate planting site would cost approximately $2.50 per tree.

[b]Additional spray costs may be incurred if leafminer is a problem.

SOURCE: Ronald P. Muraro, Farm Management Economist, CREC, Lake Alfred, FL, December 2000.

Table 13-A.–A listing of estimated comparative Central Florida (Ridge) citrus production costs per acre for 2002-2003[z]

| **Costs represent a mature (10+ years old) Central Florida (Ridge) Orange Grove.** | Low Cost Processed Cultural Program | | Processed and Reduced Fresh Cost Cultural Program | | Typical/Historical Fresh Fruit Cultural Program | |
|---|---|---|---|---|---|---|
| PRODUCTION/CULTURAL COSTS:[y] | | | | | | |
| Weed Management/Control: | | | | | | |
| Discing (2 times per year) | | $ 18.42 | | $ 18.42 | | $ 18.42 |
| Mechanical Mow Middles (4 times per year) | | 41.24 | | 41.24 | | 41.24 |
| General Grove Work (2 labor hours per acre) | | 24.70 | | 24.70 | | 24.70 |
| Herbicide (1/2 tree acre treated): | | | | | | |
| Application (3 applications) | $27.62 | | $27.62 | | $27.62 | |
| Material | 63.79 | | 89.16 | | 89.16 | |
| Spot Treatment (Material/application) | 19.23 | | 19.23 | | 19.23 | |
| Total Herbicide Cost | | 110.64 | | 136.01 | | 136.01 |
| Spray: | | | | | | |
| Summer Oil #1 (Processed @ 250 GPA) or | | | | | | |
| Post Bloom (Fresh @ 150 GPA): | | | | | | |
| Application | 28.80 | | 28.80 | | 25.21 | |
| Material | 50.04 | | 65.13 | | 64.68 | |
| Total Summer Oil #1 or Post Bloom Cost | | 78.84 | | 93.93 | | 89.89 |
| Summer Oil #2: Application (PTO – 250 GPA) | 28.80 | | 28.80 | | 28.80 | |
| Material | 31.28[x] | | 31.28[x] | | 74.10 | |
| Total Summer Oil #2 Cost | | 60.08 | | 60.08 | | 102.90 |
| Supplemental Fall Miticide: | | | | | | |
| Application (PTO – 150 GPA) | — | | — | | 25.21 | |
| Material | — | | — | | 11.10 | |
| Total Supplemental Fall Miticide Cost | | — | | — | | 36.31 |
| Fertilizer (Bulk): 3 Applications | 26.13 | | 26.18 | | 26.18 | |
| Material (16-0-16-4 MgO @ 180 lbs N per acre and 204 lbs N per acre) | 108.00 | | 122.40 | | 122.40 | |
| Total Fertilizer Cost | | 134.13 | | 148.58 | | 148.58 |
| Dolomite (one ton applied every 4 years) | | | | | | |
| Material/Application | | 9.74 | | 9.74 | | 9.74 |
| Pruning: Topping ($37.25/A ÷ 2.5 yrs)[w] | 14.90 | | 14.90 | | 14.90 | |
| Hedging ($34.17/A ÷ 2 yrs)[w] | 17.09 | | 17.09 | | 17.09 | |
| Chop/Mow Brush after Hedging ($8.78/A÷2 yrs)[w] | 4.39 | | 4.39 | | 4.39 | |
| Total Pruning Cost | | 36.38 | | 36.38 | | 36.38 |
| Tree Replacement--1 thru 3 years of age: (4 trees/acre) | | | | | | |
| Remove Trees: Pull, Stack & Burn 4 Trees with Front-end Loader | 14.22 | | 14.22 | | 14.22 | |
| Prepare Site & Plant Tree (Includes 4 reset trees) | 21.04 | | 21.04 | | 21.04 | |
| Supplemental Fertilizer, Tree Wraps Maintenance, Sprout, Etc. (Trees 1-3 years old) | 28.05 | | 28.05 | | 28.05 | |
| Total Tree Replacement Cost | | 63.31 | | 63.31 | | 63.31 |
| Irrigation: Microsprinkler System[v] | | 145.30 | | 145.30 | | 145.30 |
| IRRIGATED PROCESSED FRUIT PRODUCTION COSTS | | $722.78 | | $777.69 | | |
| Fall Miticide: Application (150 GPA) | | | 26.83 | | 26.83 | |
| Material | | | 32.72 | | 32.72 | |
| Total Fall Miticide Cost | | | | 59.55 | | 59.55 |
| IRRIGATED FRESH FRUIT PRODUCTION COSTS | | | | $837.24 | | $912.33 |

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

SOURCE: Ronald P. Muraro, University of Florida-IFAS, Citrus Research and Education Center, Lake Alfred, FL, August 2003.

Table 14-A.–Estimated average picking, roadsiding and hauling charges for Florida citrus, 2002-03

| | Fresh Fruit | | Processed Fruit | |
|---|---|---|---|---|
| | Range | Average | Range | Average |
| | $/Box | $/Box | $/Box | $/Box |
| Picking Charges: | | | | |
| Early and Mid-Season Oranges | 0.72 - 0.90 | 0.814 | 0.75 - 0.90 | 0.806 |
| Valencia Oranges | 0.79 - 0.90 | 0.835 | 0.76 - 0.90 | 0.810 |
| Pink/Red Grapefruit | 0.60 - 0.80 | 0.692 | 0.55 - 0.75 | 0.625 |
| White/Marsh Grapefruit | 0.60 - 0.77 | 0.668 | 0.50 - 0.75 | 0.600 |
| Temples/Tangelos | 0.85 - 0.90 | 0.883 | 0.85 - 0.90 | 0.860 |
| Tangerines | 1.35 - 1.91 | 1.600 | – | – |

| | Fresh Fruit | | Processed Fruit | |
|---|---|---|---|---|
| | Range | Average | Range | Average |
| | $/Box | $/Box | $/Box | $/Box |
| Roadsiding Charges: | | | | |
| Early and Mid-Season Oranges | 0.75 - 1.03 | 0.882 | 0.70 - 0.96 | 0.838 |
| Valencia Oranges | 0.75 - 1.08 | 0.910 | 0.70 - 0.96 | 0.851 |
| Pink/Red Grapefruit | 0.75 - 0.85 | 0.792 | 0.75 - 0.77 | 0.758 |
| White/Marsh Grapefruit | 0.75 - 0.81 | 0.778 | 0.75 - 0.77 | 0.758 |
| Temples/Tangelos | 0.90 - 0.95 | 0.927 | 0.76 - 0.90 | 0.850 |
| Tangerines | 1.12 - 1.21 | 1.177 | – | – |

| | Fresh Fruit | Processed Fruit |
|---|---|---|
| | All Varieties | All Varieties |
| | $/Box | $/Box |
| Hauling Charges: | | |
| 0 - 30 miles | 0.408 | 0.384 |
| 31 - 50 miles | 0.445 | 0.433 |
| 51 - 80 miles | 0.517 | 0.498 |
| 81 - 100 miles | 0.575 | 0.551 |
| 100 + miles | 0.663 | 0.625 |

Table 15-A.–Estimated average packing charges for Florida citrus, 2002-03

| | Domestic Grapefruit | Export Grapefruit | Oranges | Temples/ Tangelos | Tangerines |
|---|---|---|---|---|---|
| | ---------- | ---------- | $/Carton | ---------- | ---------- |
| Total Packing Charge[a] | 3.544 | 3.992 | 3.731 | 4.214 | 4.733 |
| | ---------- | ---------- | $/Box | ---------- | ---------- |
| Drenching Charge | 0.170 | 0.168 | 0.178 | 0.178 | 0.178 |
| Packinghouse Elimination Charges | 0.566 | 0.588 | 0.600 | 0.600 | 0.633 |
| Hauling Charge for Eliminations | 0.388 | 0.368 | 0.404 | 0.434 | 0.434 |

[a]Total Packing Charge includes the following items:

1. Materials including mesh/plastic bags, labels/PLUs, etc.
2. Includes supervisor/foreman labor, grading, palletizing, shipping and general labor. Includes payroll taxes (FICA), workers' compensation, ground insurance, etc.
3. Other direct packing costs include: fruit treating; power, lights and water; repair maintenance; miscellaneous supplies; etc.
4. Indirect packing costs include such items as: insurance-fire and casualty; taxes and licenses, depreciation and rent.
5. G&A costs include: office personnel (FICA, w/comp); packinghouse and general manager; office supplies; telephone; etc.
6. Special assessments include such items as: advertising taxes, inspection fees, Florida Citrus Packers; CAC.

NOTE: Packing charges represent a total of nine citrus packinghouses from both the Indian River and Interior production regions.

Table 16-A.--Historic prices[a] for selected citrus varieties

| Crop year | Variety | | | | | | |
|---|---|---|---|---|---|---|---|
| | Early[b] and mid[c]-season oranges | Late season oranges[d] | Temple oranges | All Tangerines | Tangelos | Seedless grapefruit[e] | |
| | | | | | | (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[f] | 2.46 | 3.99 | 2.28 | 7.69 | 2.37 | 1.95 | 2.17 |

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

[b]Navel and Hamlin [c]Parson Brown and Pineapple [d]Valencia [e]Marsh (white) or pink [f]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[a] | 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[a] | 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 | 8,868 | 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 |

[a]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).