

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

**SAMPLE COSTS TO ESTABLISH AN ORCHARD AND PRODUCE
GUAVAS IN SAN DIEGO COUNTY, 2007**



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SAMPLE COSTS TO ESTABLISH AN ORCHARD AND PRODUCE GUAVAS IN SAN DIEGO COUNTY, 2007

INTRODUCTION

Guava (*Psidium guajava* L.) fruit consumption and marketing in San Diego County began ~in the mid- 1990's. The guava plant grows well on the hillsides, and rarely encounters pest problem. Plant establishment period is short; often production begins in one to two years after planting. The guava plant is sensitive to frost, showing damage at about 29 °F, the same as Hass avocados. Therefore, guava production in San Diego is mostly located in the western side of the county, within about 15 miles from the coast, and on higher slopes that have good air drainage is most suitable.

There are two classes of guavas in the market: Asian guavas, consumed mainly by people of the Asian origin. The fruits are usually large in size, harvested while the peel is still green, and eaten crunchy like an apple. They are marketed mainly through the Asian specialty grocery stores and farmers' markets. Tropical guavas mainly consumed by Hispanics are picked at a slightly more mature age showing some color on the peel, and are usually eaten when slightly soft. These guavas are marketed through Hispanic specialty grocery stores and farmers' markets.

This study presents production practices and sample costs to establish an orchard and produce guavas in San Diego County. Production practices discussed in this study are those operations considered typical for the area and may not apply to every situation. The purpose of this study is to serve as a guide for making production decisions, estimating potential returns, preparing budgets and evaluating production loans. Some of the tables in the Appendix included a blank "Your Costs" column for entering and comparing your farm costs with ours.

The farm production practices or operations and cost calculations considered in this study are described in the following assumptions. For additional information or explanations of the assumptions and calculations used in this study, please contact Eta Takele, the Area Farm Management advisor, or Ramiro Lobo and Gary Bender, Farm advisors in San Diego County. This study can be accessed from the following websites: the Farm Management Website of the University of California Cooperative Extension Program for Southern California at: <http://groups.ucanr.org/farmgt>, and University of California, Department of Agricultural and Resource Economics websites at Davis at: <http://coststudies.ucdavis.edu>.

ASSUMPTIONS: CULTURAL PRACTICES AND COST CALCULATIONS

The costs and prices for material, equipment, labor wages, and contract fees in this study are for the 2007 Calendar year.

The use of trade names in this report does not constitute an endorsement or recommendation by the University of California nor is any criticism implied by omission of other similar products.

Farm Size and Crop Characteristics. This study is based on a small size orchard, about 5 acres which is considered the typical size for Guava farms in San Diego County. However, the total farm size may include production of other crops in which case, guava production may be sharing the use of long term assets with other crops. In this study, we did not have information on the total farm size and production of other crops; therefore long term asset costs may be overstated.

Guavas are perennial crops with a production life of 30 or more years (Morton, 1987). In this study, we are assuming 30 years life for the orchard (i.e. four years of establishment and 26 years production). It should also be noted that the length of the establishment period may vary based on the size of the seedling at planting, climatic suitability of the growing area and cultural practices.

Land Preparation. Guava orchard can be established on land that was previously planted to other tree crops, in which case, some of the ground preparation may not be needed for the new guava orchard. In this study, however, establishment is assumed to be on a new ground in which case all the land preparation operations are undertaken from the beginning.

A new ground preparation for orchard development includes first clearing the land from any bushes or existing weeds. It is then harrowed, and thoroughly ploughed. Tree rows are usually marked on the contour and the irrigation system installed with irrigation lines on the contour. Total ground or land preparation is estimated to cost about \$ 1,150 per acre (Table 1).

Nursery and Propagation. Guava seedlings may not reproduce the exact varieties as planted. Production may differ in yield, taste and fruit flesh color from the planted variety. Growers, however, for economic reasons, may prefer to plant seedlings as the cost of propagation is expensive and involves a complicated process with a lot of detail work and management. Besides, grafting work is best done at the nursery and not in the field after planting. In this study, we assumed that ready-to-plant seedlings are purchased from a local nursery. Hence the costs associated with nursery and propagation is included in the cost of the ready-to-plant seedlings.

Planting. Plant spacing may vary among growers ranging from 80 to 436 trees per acre. The choices depend on the topography and contour of the field. For this study, we used a 15x 15 spacing (15 feet between plants within a row and 15 feet between rows) allowing 194 plants per acre.

Flagging the field for planting is estimated to cost \$43 per acre (calculated at a rate of one minute per flag and \$13.30/hour labor wage). Holes approximately 1 cubic foot size are dug for planting. Planting will then be done after 15-20 days. Digging a hole and planting a guava tree is estimated to take 10 minutes. Most growers use contract or hired labor to perform the planting operation. Careful handling and adequate watering are necessary at planting, followed by application of compost on the surface around each plant. The application of compost is estimated to take about 5 minutes per plant. Each plant costs \$10 (\$1,940 per acre). It is assumed that 2% of the trees will be replanted in the second year.

Most growers in San Diego County plant Tropic Pink Guava variety. This cultivar is high yielding, medium to a large size, green-yellow skin and pink in the inside. It has a pleasant

aroma and delicate flavor. For more information please refer to www.crfg.org/pubs/ff/guava.html. Planting is usually done in March or April.

Training and Pruning. Regular training and pruning is essential for the young fruit bearing trees. Training reduces the height and allows obtaining an open-centered tree with strong productive branches. Training begins within four months after planting. This allows maximum production of fruit as soon as possible. Training of each tree in the first year is estimated to take approximately five minutes per plant.

Most Guava plants produce lots of suckers which will have to be removed from the trunks up to 2 feet above the ground. Since Guava fruit bearing takes place on the new growth of the mature wood, growers usually keep an eye and monitor the balance between vegetative growth and mature wood for ensuring both current and future production.

Pruning begins in the second year. It takes about ten minutes per tree in the second and third years and fifteen minutes beginning year four. Pruning is one of the mechanisms used to stabilize fruit production from year to year and is usually performed in March.

Fertilization. Leaf analysis is used to determine the amount of fertilizer needed. Fertilizer need may vary depending on climatic conditions of the area being farmed. A sample of ten leaves picked at random from 10 trees is used for leaf analysis. Leaf analysis is done beginning the third year. The annual cost of leaf analysis is approximately \$10 per acre. Leaf analysis provides information that is used to determine fertilizer need, the presence of chloride and the level of heavy metals, as well as to determine the soil pH. Soil analysis is also performed every year starting in the third year and costs around \$2 per acre.

Guava growers in San Diego County apply CAN 17 fertilizer as a source of N nutrient. In the first year, fertilizer is applied one time per month from June to October. From the second year on, it is applied one time per month from February to October. The amount of fertilizer application increases with age of plants. Table A below provides the typical amounts of nitrogen (N) applied by age of the plant.

Table A. Pounds of N-Fertilizer Applied for Guavas Production in San Diego County

| Year | Pounds of N Per Acre | Pounds of N Per Tree |
|-------------------|---------------------------------|---------------------------------|
| 1 | 20 | 0.10 |
| 2 | 40 | 0.21 |
| 3 | 60 | 0.31 |
| 4 | 80 | 0.41 |
| Production | 100 | 0.52 |

Irrigation. Guava plants are heat tolerant, therefore would survive the dry summers in California. However, it is important to apply deep watering. The ground may be allowed to dry to a depth of several inches before watering again. Monitoring is important for lack of moisture could delay bloom and cause the fruit to drop. Table B below shows the approximate amount of

water use for irrigation by plant age. Guava is irrigated one time per week every month, except in July and August when every other week one additional irrigation is applied.

In San Diego County, the average water cost is approximately \$54.20 per Acre Inch (\$650 per Acre Foot) for water and pumping: www.sdcwa.org/manage/awmp.phtml.

Table B. Irrigation Water Application Rates for Guava Production in San Diego County

| Year | Acre Inches per Year |
|------------|-------------------------|
| Year 1 | 6 |
| Year 2 | 10 |
| Year 3 | 16 |
| Year 4 | 24 |
| Production | 24 |

Pest Managements. There are few pesticides registered in California for use in guavas. Fortunately, there are only few pests that are hazardous to the guava plant in San Diego County. Guavas grown in the more humid and tropical areas of Florida and Hawaii have more fungal and insects pests problems and therefore they must be regularly treated. For information and pesticide use permits, contact the local county agricultural commissioner's office or a *Pest Control Adviser (PCA)*. Written recommendations are required for many pesticides and are made by licensed PCAs. In addition, PCAs can be hired to monitor fields for pests and nutrition.

Insect. There are no insect pests in the farm we visited except for a little bit of whitefly (not much to require treatment). Ant control may be important. A new sugar water/boric acid bait station could be used. Overall, insect control cost is insignificant, therefore is not included in this study.

Nematodes. Root-knot nematodes can cause severe damage to the roots of young trees in sandy soils. Injury can be overcome to some degree by the use of fertilizer, drainage and irrigation. But so far there are no registered nematicides to use on Guava (Mark and Norman, 2002).

Weeds. Although individual weed species may vary from region to region within the state, predominant weed species are often grasses, sedges and pigweeds. In the first year, hand hoeing of weeds is performed one time per month in June and September which takes around one minute per plant per time. Beginning the second year, weeding is done one time a year in midsummer and is assumed to take one hour per acre. The farmers also use non-selective, post emergent herbicides. The most common herbicide applied in the San Diego orchard is Roundup (Glyphosate). Three strip sprays of Roundup at a rate of 0.5 pint per acre per treatment are applied to the trees in March, July and October beginning year 2. Spraying Roundup on the trunks of guava should be avoided.

Vertebrates. Gophers can cause major losses to tree roots and ground squirrels can cause erosion problems by tunneling through the soil. Gophers are managed with the use of poison bait (Wilco 1.8) applied every month at a rate of 2 pounds per acre per month except in October to December.

Squirell traps are placed twice a year (two traps per acre during March and October) in tunnels to trap the squirrels and growers usually drive through the orchard on ATVs for monitoring the progress. Traps are filled three times per month with bait (0.5 pound of bait each time) and labor time for filling the traps is estimated at 15 minutes per acre per time.

Harvesting, Hauling and Marketing. Since the fruit is soft, it requires considerable care during picking and handling. Picking in the study area is done by hand. For best flavor allow the fruit to moderately ripen on the tree; that is when the peel of fruit turns to yellow green. Harvesting the ripe fruit is done in 2 to 3 days interval; otherwise overripe fruit will be lost or be damaged with insect or disease infection. Once picked, the fruits if left in the sun will be spoiled. Hence the fruits are hauled to cold location or shade immediately.

Harvesting in San Diego starts at the end of October and peaks from January through March. Guava trees begin yielding small amount of fruit the second year after planting. In this study, the third year is when we begin recording fruit bearing. The annual estimated yield of Guava by age of tree is given in Table C below.

Table C. Estimated Annual Yield of Guava Production in San Diego County

| Year | Pounds per Tree | Pounds per Acre | Total Yield Cartons*per Acre |
|------------|-----------------|-----------------|------------------------------|
| 3 | 10 | 1940 | 78 |
| 4 | 30 | 5820 | 233 |
| Production | 75 | 14550 | 582 |

* A carton is 25 pounds

Harvesting is usually done through contract labor. It is estimated that 125 pounds (5 cartons) will be picked per hour. Picking costs is calculated at a rate of \$2.65 per carton. Lugs are collected and transported to onsite shade. The shed should be cold enough to temporarily store the fruit. Then the fruit is transported to a nearby local packing. Transportation and hauling costs are estimated at \$0.65 per carton.

Selling or marketing costs will include the farmer market’s daily fee, delivery and/or shipping costs, bookkeeping and other related costs. Cost figures for these activities may vary widely. We estimate an overall average fee of \$0.80 per carton for packing and marketing activities.

Labor Costs: Wage rates for both the owner and hired labor are estimated at \$14.30 per hour for machine operator and \$13.30 per hour for non-machine labor. Labor wages include payroll taxes, workman compensation and other overhead costs associated with employment benefits.

Machinery Operating and Ownership Costs: Generally, a small farm of this size will not own a lot of machinery. Our study considers only an ATV and a weed wacker. As a general principle, however machinery costs are calculated as follows:

Equipment Operating Costs: Machinery repair costs are calculated using purchase prices, annual hours of use, total hours of life, and repair coefficients formulated by the American

Society of Agricultural Engineers (ASAE). Fuel and lubrication costs are also determined by ASAE equations based on maximum PTO horsepower and fuel type. According to the data from the USDA-NASS, the average prices for on-farm delivery of diesel and gasoline were \$2.30 and \$2.80 per gallon, respectively.

The fuel, lube, and repair costs per acre for each operation are determined by multiplying the total hourly operating cost of the equipments by the number of hours per acre needed to perform the operation. Formulas for calculating equipment operating costs can be obtained from many farm management books including the one we referenced in this study (Boehlje, Michael D., and Vernon R. Eidman. 1984. *Farm Management*, John Wiley and Sons. New York, New York).

Cash Overhead Costs: Cash overhead costs consist of all cash expenses that are incurred for conducting the business of guava farming. These are costs not accounted for in the production practices of establishing and growing guavas. These costs include interest on operating capital, property taxes, office expenses, liability and property insurances, sanitation services, equipment repairs, and management.

Interest on Operating Capital: In this cost study, the cost of borrowing or the opportunity cost (interest on operating capital) for money used in guava production is 10% (the approximate nominal interest rate) on all operating expenses. Nominal interest rate is the current short term charge set by financial institutions for operating loans.

Property Taxes: Real estate property taxes depend on the value of the property and local zoning ordinances. For this study, we calculated property taxes at 1.0% (the rate most counties commonly charge) of the value (price) of land. For non-real estate properties, property taxes are estimated at 1.00% of the average values of the properties. Average values equal the price of the property plus salvage value divided by two. Property taxes are then divided by the number of acres to obtain the per acre costs.

Property Insurance: Property insurances are charged annually at 0.71% of the average value of the properties. Property insurances are also divided by the number of acres to obtain the per acre costs.

Liability Insurance: Liability insurance costs for accidents on the farm vary by size of farm. The cost of liability insurance for a 5- 50 acres farm is approximately \$437 per year (\$87 per acre per year).

Field Sanitation: One sanitation facility mounted on a single trailer is assumed to be sufficient for 5 acres. The rental charge for the facility is \$145 per month (29 per acre per month) and will be used throughout the year. Sanitation cost for this study is estimated at \$348 per acre per year.

Office Expense: Expenses for office supplies, telephone, fax, internet, accounting, legal fees, utilities and miscellaneous administrative expenses are estimated at \$240 per acre per year.

Investment Repair: Annual repair and maintenance costs for farm buildings, tools and water reservoir are calculated at 2% of the price (value) of the investment. For irrigation system, annual maintenance and repair costs are calculated at 5% of the cost of the system.

Management/Supervisor Salaries: Management charges are not included in this study. We suggest that growers divide the returns after all costs between management and profit as they see fit.

Non-Cash Overhead Costs: Non-cash overhead costs, also referred to as ownership or fixed costs of farm assets including equipments, farm buildings, irrigation system, and farm tools are calculated using the capital recovery method. This method captures the combined cost of depreciation and interest on capital investment. The capital recovery method of estimating depreciation and interest on capital investments is equivalent to the annual payment on a loan used to purchase the investment with the down payment equal to the discounted salvage value.

The capital recovery method of calculating depreciation and interest on investment is more complex than other methods, but more accurately represents the annual costs of ownership because it takes the time value of money into account. The formula for calculating the annual capital recovery is:

$[(\text{Purchase Price} - \text{Salvage Value}) \times \text{Capital Recovery Factor}] + (\text{Salvage Value} \times \text{Interest Rate}).$

Where:

Salvage Value is an estimate of the remaining value of the investment at the end of its useful life. In this study, remaining values for farm machinery are calculated at 10% of their purchase prices. Other investments including irrigation systems, buildings, and miscellaneous equipments (fuel tanks and pumps) are assumed to depreciate fully with no remaining values.

Capital Recovery Factor is the amortization or the repayment factor for capital investments. The factor is the discounted present value calculated using the number of years of life of the investment and the interest charge on the money incurred to purchase it. Capital recovery factors by year and interest rate can be found listed in many farm management books including the one we use in our reference (Boehlje, Michael D., and Vernon R. Eidman. 1984. *Farm Management*. John Wiley and Sons. New York, New York).

Interest Rate: For this study, interest on capital investments is calculated at 7.25% the ten year average long-run rate of return of agricultural assets to current income (USDA-ERS-Economic Research Services data).

Following are the descriptions of the farm investments used in guava production.

Equipment: Very few types of equipment are used in this study because of the small farm size and because many of the production practices are labor intensive and done on contract basis. The farm complement includes ATV, Backpack Sprayer and a Weed Wacker. The value of these farm complements is estimated at 60% of current new prices to reflect the use of a mix of old and new equipment and machines in the farm. Capital recovery costs for machinery and equipment used in this study are shown in Table 6.

Irrigation System: The irrigation system is assumed to include an on-site reservoir for storing water supplied by the local district. It also includes pumps (new 15 horsepower booster pump

lifting water to about 20-feet); a filtration station; drip irrigation lines (installed before planting); a fertilizer injector system (installed at planting). The cost of the irrigation system including installation is estimated at \$1,200 per acre (\$6,000, for a 5 acre farm).

Building: Farm building includes a small farm shade of about 2,500 square feet metal buildings and sheds built on cement. Since guava is very susceptible to warm climate, the building is equipped with a cooling system. The building cost is estimated at \$10,000 for a 5-acre farm.

Shop tools: Shop tools needed in guava production include: pruning tools, a backpack sprayer, picking clips and lug boxes. Most farms have on farm fuel tanks. In this study, we included a 100-gallon fuel tank to service the five acres enterprise. Fuel tanks are situated on a cement containment pad to meet federal, state, and county regulations.

Land rent: In many cases, especially in California the value of land is influenced by a rapid urban development in which case the price of land is driven not by its agricultural value but by the speculative value of its future use. Some cost studies exclude the land rent in which case the bottom line figure of net returns can be referred as returns to management and land.

In this study, land rent is estimated at 7.25% (the ten year average long-run rate of return of agricultural assets to current income) of \$40,000 per acre land value.

Establishment Costs: The cumulative net cash costs incurred to develop trees to a commercial production is referred to as the establishment cost (trees investment cost). The establishment period of guava tree in this study is considered to be about four years. Therefore the establishment cost is the sum of all cash costs less the returns obtained during the four year period. The establishment cost is amortized over 26 years (the expected useful life of the orchard) to determine an annual capital recovery charge (opportunity cost of the investment plus depreciation of trees). The establishment cost estimate in this study is \$8,509 per acre or \$42,545 for five acres.

Crop Returns: Harvest of guava fruit in San Diego County begins mostly in the spring, and is at a time where the fruit from other areas is at a low supply in the market. Hence, fruit prices are relatively higher than other seasons. For this study, crop value is estimated at a grower price of \$1.93 per pound or \$48.25 per carton--Los Angeles Terminal Market weighted average price for guavas from January to March for the 2005 to 2007 seasons (Table D). Gross income estimates during the establishment and production years is given in Table E below. We assumed that all the fruits are sold fresh.

Crop prices and grower returns may, however, differ depending on several factors including the variety produced, the time of selling and the supply and demand condition of the market. Returns using various scenarios of price and yield combinations are provided in Table 8. Growers may choose the scenario that best reflects their specific situation. Crop values of the establishment years are used to offset costs.

Table D. Los Angeles Terminal Market Prices for Guavas (January-March, 2005-2007), Percentage of Crop Harvested and Marketed, and Weighted Average Price

| Month | Price (\$/lb) | | | Average Price (\$/lb) | Percentage Share of Crop Marketed | Weighted Average Price (\$/lb) |
|--------------|---------------|------|------|-----------------------|-----------------------------------|--------------------------------|
| | 2005 | 2006 | 2007 | | | |
| January | 2.24 | 1.71 | 1.68 | 1.88 | 50 | 0.94 |
| February | 2.50 | 1.66 | 1.73 | 1.96 | 30 | 0.59 |
| March | 2.56 | 1.71 | 1.73 | 2.00 | 20 | 0.40 |
| Total | | | | | 100 | 1.93 |

Table E. Estimated Annual Yield and Gross Income of Guava Production in San Diego County, 2007

| Year | Total Yield (Carton per Acre) | Gross Income (\$ per Acre) |
|-------------------|----------------------------------|-------------------------------|
| 3 | 78 | 3,764 |
| 4 | 233 | 11,242 |
| Production | 582 | 28,082 |

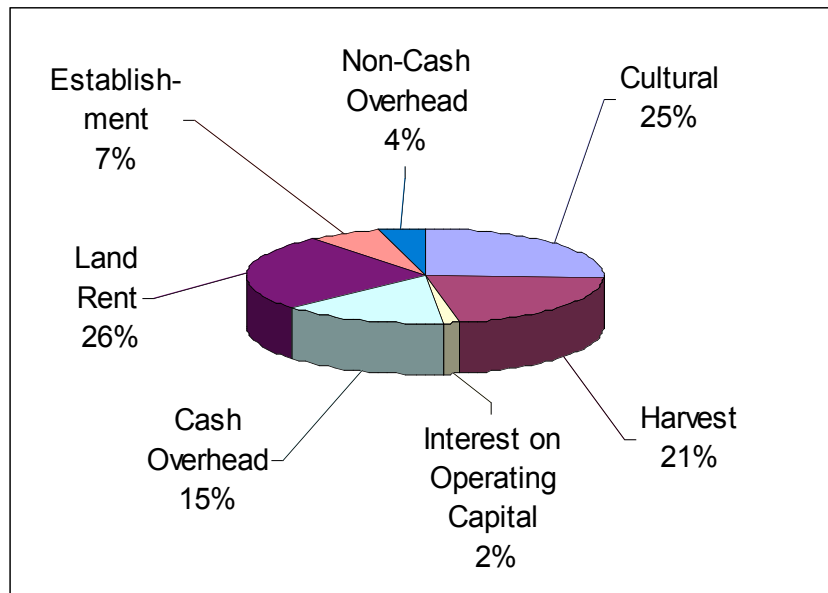
SUMMARY

Guava orchard establishment and production costs in this study are based on the most common or typical operations expressed by growers and farm advisors in San Diego County of California, but can vary depending upon management and cultural practices. Growers should adjust our costs in areas where they differ from us.

Our estimate of the total accumulated net cash costs of the first four years of a guava orchard establishment in San Diego County is \$8,509 per acre (Table 1). The annual production cost including harvesting (assuming 582 cartons per acre yield) is \$11,120 per acre or \$19.11 per carton. The production costs are presented in several tables. Table 2 shows costs by category; Table 3 by type of operation and Table 4 by type of production input. Due to rounding, the totals may not be exactly the same in all tables.

Figure 1 presents the proportion of production costs by category. It includes about 25% in cultural costs (such as pruning, pest control, fertilization, and irrigation), 21% harvest (picking, transport and hauling, and packing and marketing); 15% in cash overhead costs (liability insurance, leaf analysis, soil analysis, sanitation fee, office expenses, property taxes, property insurance and investment repairs); 26% in land rent 4% in non-cash overhead or annual ownership costs of equipments, buildings, tools, and irrigation system and 2% in interest on operating capital The amortization or the distribution of the tree establishment cost during the production period account for 7%.

Figure 1. Proportion of Guavas Production Costs in San Diego County, 2007



PROFIT ANALYSIS

To analyze profitability, we calculated the break-even level (cost per carton) as well as the gross and economic margins (Tables 6 and 7). A break-even level is calculated as the cost of production per acre divided by yield per acre. The market price less the break-even level (costs per carton) provides the margin of profit. Gross margin (gross returns less cash costs) is what growers often refer to as profit if there is no debt on the farming operation. It approximates the return to management and investment. If we deduct depreciation, it also approximates the taxable income of the investment. Economic profit or the net returns above all total costs including management can be zero or positive. A zero economic profit should not be alarming if all costs including the owners' labor and management are included in the production cost.

The break-even price for our production year yield assumption of 582 cartons per acre is \$19.11 per carton. The gross margin estimate using the same yield level and an average price of \$48.25 per carton is \$21,005 per acre. In this study, we did not calculate the economic returns because we did not include management charge. Information was not available for it.

Crop yield and prices received by growers may vary. Therefore, we provided break-even levels, gross margins and returns to management and profit calculated at various prices and yield levels (Table 8) for growers to pick the best scenario that best fits their situation.

ACKNOWLEDGEMENTS

The authors thank the growers in San Diego County who have been the main source of information for this study. We also thank those who participated in the review of this study and appreciate the secondary sources (research papers) that enhanced our understanding of the guava production.

TABLE I. SAMPLE COSTS PER ACRE TO ESTABLISH A GUAVA ORCHARD IN SAN DIEGO COUNTY, 2007

| Operations | 1st | 2nd | 3rd | 4th |
|---|--------------------|--------------|---------------|---------------|
| | Cost per acre (\$) | | | |
| LAND PREPARATION: | | | | |
| Bush and weed removal | 300 | | | |
| Root Removal | 400 | | | |
| Rip Soil | 250 | | | |
| Ploughing | 200 | | | |
| TOTAL LAND PREPARATION COSTS | 1150 | | | |
| PRE-PLANT AND PLANT: | | | | |
| Flag Field | 43 | | | |
| Guava Plants (194 plants/acre, 2% replacement in yr.2, \$10 per Plant) | 1940 | 40 | | |
| Hole Digging and Planting | 430 | 9 | | |
| Compost Application | 215 | 4 | | |
| TOTAL PRE-PLANT AND PLANT COSTS | 2628 | 53 | | |
| CULTURAL: | | | | |
| Irrigate (1x/week every month, an extra irrigation every other week in July and August) | 681 | 830 | 1155 | 1591 |
| Fertilizer CAN 17 (1x/month from Feb.-Oct. in yr.2 on and 1x/month from June-Oct in yr.1) | 21 | 42 | 64 | 85 |
| Training and Pruning | 215 | 430 | 430 | 645 |
| Weed Control-Weeding | 86 | 32 | 32 | 32 |
| Weed Control-Roundup | | 46 | 46 | 46 |
| Gopher Control | 248 | 319 | 319 | 319 |
| Squirrel Control | 109 | 109 | 109 | 109 |
| TOTAL CULTURAL COSTS | 1360 | 1808 | 2155 | 2827 |
| HARVEST: | | | | |
| Picking | | | 207 | 617 |
| Transport and Hauling | | | 51 | 151 |
| Packing & Marketing | | | 62 | 186 |
| TOTAL HARVEST COSTS | | | 320 | 954 |
| Interest on operating Capital @10% | 397 | 104 | 121 | 161 |
| TOTAL OPERATING COSTS/ACRE | 5535 | 1965 | 2596 | 3942 |
| CASH OVERHEAD: | | | | |
| Office Expense | 240 | 240 | 240 | 240 |
| Liability Insurance | 87 | 87 | 87 | 87 |
| Interest-Cash Overhead costs | 75 | 75 | 76 | 76 |
| Interest- Establishent costs | | 711 | 1137 | 1293 |
| Leaf Analysis | | | 10 | 10 |
| Soil Analysis | | | 2 | 2 |
| Field Sanitation | 348 | 348 | 348 | 348 |
| Property Taxes | 421 | 421 | 421 | 421 |
| Property Insurance | 300 | 301 | 301 | 301 |
| Investment Repairs | 106 | 106 | 106 | 106 |
| TOTAL CASH OVERHEAD COSTS | 1577 | 2289 | 2727 | 2883 |
| TOTAL CASH COSTS/ACRE | 7112 | 4254 | 5323 | 6825 |
| Harvested Guava (in Carton) | 0 | 0 | 78 | 233 |
| Revenue from Sale @ \$48.25/Carton | 0 | 0 | 3764 | 11242 |
| NET CASH COSTS | 7112 | 4254 | 1560 | -4417 |
| ACCUMULATED NET CASH COSTS | 7112 | 11366 | 12926 | 8509 |
| NON-CASH OVERHEAD: | | | | |
| Fuel Tanks & Pumps | 17 | 17 | 17 | 17 |
| Irrigation System | 99 | 99 | 99 | 99 |
| Land | 2900 | 2900 | 2900 | 2900 |
| Shop Buildings | 165 | 165 | 165 | 165 |
| Shop Tools | 10 | 10 | 10 | 10 |
| Equipment | 95 | 116 | 116 | 116 |
| TOTAL NON-CASH OVERHEAD COSTS | 3286 | 3307 | 3307 | 3307 |
| TOTAL COSTS/ACRE | 10398 | 7561 | 8630 | 10132 |
| Harvested Guava (in Carton) | 0 | 0 | 78 | 233 |
| Revenue from Sale @ \$48.25/Carton | 0 | 0 | 3764 | 11242 |
| NET COSTS | 10398 | 7561 | 4867 | -1110 |
| CUMULATIVE COSTS FOR ONE ACRE | 10398 | 17959 | 22826 | 21716 |
| CUMULATIVE COSTS FOR FIVE ACRES | 51991 | 89797 | 114132 | 108582 |

TABLE 2. COSTS PER ACRE BY CATEGORY TO PRODUCE GUAVAS IN SAN DIEGO COUNTY, 2007

| Operation | Operation | Cash and Labor Costs per Acre (\$) | | | | | Total Cost | Your Cost |
|--|--------------------|------------------------------------|----------------------|------------------|-------------|--------------|------------|-----------|
| | Time (Hrs/Ac) | Labor Cost | Fuel, Lube & Repairs | Material Cost | Custom/Rent | | | |
| CULTURAL: | | | | | | | | |
| Irrigate | 13.00 | 223 | 65 | 1303 | 0 | 1591 | | |
| Fertilizer CAN 17 | 0.00 | 0 | 0 | 106 | 0 | 106 | | |
| Pruning | 48.50 | 645 | 0 | 0 | 0 | 645 | | |
| Weed Control-Weeding | 1.00 | 17 | 15 | 0 | 0 | 32 | | |
| Weed Control-Roundup | 3.00 | 40 | 0 | 6 | 0 | 46 | | |
| Gopher Control | 9.00 | 120 | 0 | 200 | 0 | 320 | | |
| Squirrel Control | 1.50 | 26 | 8 | 75 | 0 | 109 | | |
| TOTAL CULTURAL COSTS | | 1071 | 88 | 1690 | 0 | 2849 | | |
| HARVEST: | | | | | | | | |
| Picking | 0 | 0 | 0 | 0 | 1542 | 1542 | | |
| Transport and Hauling | 0 | 0 | 0 | 0 | 378 | 378 | | |
| Packing & Marketing | 0 | 0 | 0 | 0 | 466 | 466 | | |
| TOTAL HARVEST COSTS | | 0 | 0 | 0 | 2386 | 2386 | | |
| Interest on operating capital @ 10.00% | | | | | | 175 | | |
| TOTAL OPERATING COSTS/ACRE | | 1071 | 88 | 1690 | 2386 | 5410 | | |
| CASH OVERHEAD: | | | | | | | | |
| Office Expense | | | | | | 240 | | |
| Liability Insurance | | | | | | 87 | | |
| Interest-Cash Overhead Cost | | | | | | 79 | | |
| Leaf Analysis | | | | | | 10 | | |
| Soil Analysis | | | | | | 2 | | |
| Field Sanitation | | | | | | 348 | | |
| Property Taxes | | | | | | 464 | | |
| Property Insurance | | | | | | 331 | | |
| Investment Repairs | | | | | | 106 | | |
| TOTAL CASH OVERHEAD COSTS | | | | | | 1667 | | |
| TOTAL CASH COSTS/ACRE | | | | | | 7077 | | |
| NON-CASH OVERHEAD: | | | | | | | | |
| | Per Producing Acre | | | Capital Recovery | | | | |
| Fuel Tanks & Pumps | 200 | | | 17 | | 17 | | |
| Irrigation System | 1200 | | | 99 | | 99 | | |
| Land | 40000 | | | 2900 | | 2900 | | |
| Shop Buildings | 2000 | | | 165 | | 165 | | |
| Shop Tools | 120 | | | 10 | | 10 | | |
| Establishment Cost | 8509 | | | 736 | | 736 | | |
| Equipment | 1052 | | | 116 | | 116 | | |
| TOTAL NON-CASH OVERHEAD COSTS | | 53081 | | 4043 | | 4043 | | |
| TOTAL COSTS/ACRE | | | | | | 11120 | | |

TABLE 3. COSTS PER ACRE BY OPERATION TO PRODUCE GUAVAS IN SAN DIEGO COUNTY, 2007

| OPERATION | Operation Time Hrs/A | Labor Cost | Material Cost | Custom/ Rent Cost | Costs/Acre (\$) | | | | Operating Interest Cost | Total Cost | Your Cost | |
|--------------------------------------|-------------------------|-------------|---------------|----------------------|-------------------------|-------------|-----------------------|--------------------------------------|-------------------------|------------|-----------|---|
| | | | | | Equipment | | Capital Recovery Cost | Cash Overhead (Tax & Insurance) Cost | | | | Operating (Fuel, Lubricant & Repair) Cost |
| | | | | | | | | | | | | |
| CULTURAL: | | | | | | | | | | | | |
| Irrigate | 13.00 | 223 | 1303 | 0 | 85.09 | 4.58 | 65 | 85 | 1766 | | | |
| Fertilizer CAN17 | 0.00 | 0 | 106 | 0 | 0.00 | 0.00 | 0 | 6 | 112 | | | |
| Pruning | 48.50 | 645 | 0 | 0 | 0.00 | 0.00 | 0 | 32 | 677 | | | |
| Weed Control-Weeding | 1.00 | 17 | 0 | 0 | 20.81 | 0.87 | 15 | 2 | 56 | | | |
| Weed Control-Roundup | 3.00 | 40 | 6 | 0 | 0.00 | 0.00 | 0 | 2 | 48 | | | |
| Gopher Control | 9.00 | 120 | 200 | 0 | 0.00 | 0.00 | 0 | 21 | 341 | | | |
| Squirrel Control | 1.50 | 26 | 75 | 0 | 9.82 | 0.53 | 8 | 6 | 125 | | | |
| TOTAL CULTURAL | 76 | 1071 | 1690 | 0 | 116 | 6 | 88 | 154 | 3125 | | | |
| HARVEST: | | | | | | | | | | | | |
| Picking | | | | 1542 | | | | 13 | 1555 | | | |
| Transport and Hauling | | | | 378 | | | | 3 | 381 | | | |
| Packing & Marketing | | | | 466 | | | | 4 | 470 | | | |
| TOTAL HARVEST | 0 | 0 | 0 | 2386 | 0 | 0 | 0 | 20 | 2406 | | | |
| TOTAL OPERATING | 76 | 1071 | 1690 | 2386 | 115.71 | 5.97 | 88 | 174 | 5531 | | | |
| CASH OVERHEAD: | | | | | | | | | | | | |
| Office Expense | | | | | | | | | 240 | | | |
| Liability Insurance | | | | | | | | | 87 | | | |
| Interest-Cash Overhead Cost | | | | | | | | | 79 | | | |
| Leaf Analysis | | | | | | | | | 10 | | | |
| Soil Analysis | | | | | | | | | 2 | | | |
| Field Sanitation | | | | | | | | | 348 | | | |
| Investment Property Tax | | | | | | | | | 460 | | | |
| Investment Property Insurance | | | | | | | | | 329 | | | |
| Investment Repairs | | | | | | | | | 106 | | | |
| TOTAL CASH OVERHEAD COSTS | | | | | | | | | 1661 | | | |
| NON-CASH OVERHEAD: | | | | | | | | | | | | |
| | Unit Price | | | | Capital Recovery | | | | | | | |
| | \$/Acre | | | | Per Year (\$) | | | | | | | |
| Fuel Tanks & Pumps | 200 | | | | 17 | | | | 17 | | | |
| Irrigation System | 1200 | | | | 99 | | | | 99 | | | |
| Land | 40000 | | | | 2900 | | | | 2900 | | | |
| Shop Buildings | 2000 | | | | 165 | | | | 165 | | | |
| Shop Tools | 120 | | | | 10 | | | | 10 | | | |
| Establishment Cost | 8509 | | | | 736 | | | | 736 | | | |
| TOTAL NON-CASH OVERHEAD COSTS | | | | | | | | | 3927 | | | |
| TOTAL COSTS/ACRE | | | | | | | | | 11119 | | | |

TABLE 4. COSTS AND RETURNS PER ACRE TO PRODUCE GUAVAS IN SAN DIEGO COUNTY, 2007

| | Quantity/Acre | Unit | Price or Cost/Unit | Value or Cost/Acre | Your Cost |
|--|---------------|------|--------------------|--------------------|-----------|
| GROSS RETURNS | | | | | |
| Yield and Total Revenue | 582 | Crtm | 48.25 | 28081.5 | |
| TOTAL GROSS RETURNS FOR GUAVA | | | | 28082 | |
| OPERATING COSTS: | | | | | |
| Water: | | | | | |
| Water - Pumped | 24.04 | AcIn | 54.20 | 1303 | |
| Fertilizer: | | | | | |
| Fertilizer CAN 17 | 587.97 | lbs | 0.18 | 106 | |
| Herbicide: | | | | | |
| Roundup | 1.5 | pint | 4.15 | 6 | |
| Contract: | | | | | |
| Picking | 582 | crtm | 2.65 | 1542 | |
| Transport and Hauling | 582 | crtm | 0.65 | 378 | |
| Packing & Marketing | 582 | crtm | 0.80 | 466 | |
| Rodenticide: | | | | | |
| Wilco 1.8 Gopher | 18 | lbs | 11.09 | 200 | |
| Squerris Traps | 4 | acre | 15.00 | 60 | |
| Squirrel Bait | 3 | lbs | 5.00 | 15 | |
| Labor (machine) | 18.0 | nrs | 14.50 | 260 | |
| Labor (non-machine) | 60.5 | hrs | 13.30 | 805 | |
| Fuel- Gasoline | 20.91 | gal | 2.80 | 59 | |
| Fuel- Diesel | 5.5 | gal | 2.30 | 13 | |
| Lube | | | | 11 | |
| Machinery Repair | | | | 5 | |
| Interest on operating Capital @ 10% | | | | 175 | |
| TOTAL OPERATING COSTS/ACRE | | | | 5409 | |
| NET RETURNS ABOVE OPERATING COSTS/ACRE | | | | 22673 | |
| CASH OVERHEAD: | | | | | |
| Office Expense | | | | 240 | |
| Liability Insurance | | | | 87 | |
| Interest-Cash Overhead Cost | | | | 79 | |
| Leaf Analysis | | | | 10 | |
| Soil Analysis | | | | 2 | |
| Field Sanitation | | | | 348 | |
| Property Taxes | | | | 464 | |
| Property Insurance | | | | 331 | |
| Investment Repairs | | | | 106 | |
| TOTAL CASH OVERHEAD COSTS | | | | 1667 | |
| TOTAL CASH COSTS/ACRE | | | | 7076 | |
| NET RETURNS ABOVE TOTAL CASH COSTS/ACRE | | | | 21005 | |
| NON-CASH OVERHEAD COSTS (CAPITAL RECOVERY): | | | | | |
| Fuel Tanks & Pumps | | | | 17 | |
| Irrigation System | | | | 99 | |
| Land | | | | 2900 | |
| Shop Buildings | | | | 165 | |
| Shop Tools | | | | 10 | |
| Establishment Cost | | | | 736 | |
| Equipment | | | | 116 | |
| TOTAL NON-CASH OVERHEAD COSTS/ACRE | | | | 4044 | |
| TOTAL COSTS/ACRE | | | | 11120 | |
| NET RETURNS ABOVE TOTAL COSTS | | | | 16961 | |

Table 5. MONTHLY CASH COSTS PER ACRE TO PRODUCE GUAVAS IN SAN DIEGO COUNTY, 2007

| | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC | TOTAL |
|-----------------------------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|
| Beginning Jan 07 | | | | | | | | | | | | | |
| Ending Dec 07 | | | | | | | | | | | | | |
| Cultural: | | | | | | | | | | | | | |
| Irrigate | 122 | 122 | 122 | 122 | 122 | 122 | 183 | 183 | 122 | 122 | 122 | 122 | 1591 |
| Fertilizer CAN 17 | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | | | 106 |
| Pruning | | | | | | | 645 | | | | | | 645 |
| Weed Control-Weeding | | | | | | | 32 | | | | | | 32 |
| Weed Control-Roundup | | | 15 | | | | 15 | | | 15 | | | 46 |
| Gopher Control | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | | | | 319 |
| Squirrel Control | | | 54 | | | | | | | 54 | | | 109 |
| TOTAL CULTURAL COSTS | 157 | 169 | 238 | 169 | 169 | 169 | 922 | 230 | 169 | 203 | 122 | 122 | 2848 |
| Harvest Costs: | | | | | | | | | | | | | |
| Picking | | | | | | | | | | | | 1542 | 1542 |
| Transport and Hauling | | | | | | | | | | | | 378 | 378 |
| Packing & Marketing | | | | | | | | | | | | 466 | 466 |
| TOTAL HARVEST COSTS | | | | | | | | | | | | 2386 | 2386 |
| Interest on oper. capital | 1 | 3 | 5 | 6 | 8 | 9 | 17 | 19 | 20 | 22 | 23 | 44 | 175 |
| TOTAL OPERATING COSTS/ACRE | 158 | 172 | 243 | 175 | 177 | 178 | 939 | 249 | 189 | 225 | 145 | 2552 | 5409 |
| OVERHEAD: | | | | | | | | | | | | | |
| Office Expense | | | 240 | | | | | | | | | | 240 |
| Liability Insurance | | | 87 | | | | | | | | | | 87 |
| Interest-Cash Overhead Cost | | | 80 | | | | | | | | | | 80 |
| Leaf Analysis | | | 10 | | | | | | | | | | 10 |
| Soil Analysis | | | | | | | | | 2 | | | | 2 |
| Field Sanitation | | | 348 | | | | | | | | | | 348 |
| Property Taxes | | | | 232 | | | | | | | 232 | | 464 |
| Property Insurance | | | | 166 | | | | | | | 166 | | 331 |
| Investment Repairs | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 106 |
| TOTAL CASH OVERHEAD COSTS | 9 | 9 | 774 | 407 | 9 | 9 | 9 | 9 | 11 | 9 | 407 | 9 | 1668 |
| TOTAL CASH COSTS/ACRE | 167 | 181 | 1017 | 582 | 186 | 187 | 948 | 258 | 200 | 234 | 552 | 2561 | 7077 |

TABLE 6. BREAK-EVEN PRICE (\$ PER CARTON) ESTIMATES FOR GUAVA PRODUCTION IN SAN DIEGO COUNTY, 2007

| Break-Even Prices (\$ per Carton) to Cover Costs Using our Yield Assumption | | | | | |
|---|--------------------|--|---------------|--|----------------|
| Yield (Carton/acre) | Operating Costs | | Cash Costs | | Total Costs |
| 582 | 9.29 | | 12.16 | | 19.10 |

TABLE 7. BREAK-EVEN YIELD (CARTON PER ACRE) ESTIMATES FOR GUAVA PRODUCTION IN SAN DIEGO COUNTY, 2007

| Break-Even Yields (Carton per Acre) to Cover Costs Using our Price Assumption | | | | | |
|---|--------------------|--|---------------|--|----------------|
| Price (\$/Carton) | Operating Costs | | Cash Costs | | Total Costs |
| 48.25 | 112 | | 147 | | 230 |

TABLE 8. RANGE ANALYSIS: ANALYSIS OF COSTS AND RETURNS FOR PRODUCING GUAVAS AT VARYING YIELDS AND PRICES IN SAN DIEGO COUNTY, 2007

| TABLE 8. RANGE ANALYSIS: ANALYSIS OF COSTS AND RETURNS FOR PRODUCING GUAVAS AT VARYING YIELDS AND PRICES IN SAN DIEGO COUNTY, 2007 | | | | | | | | |
|--|------|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Total harvest cost (\$/Carton) | 4.10 | | | | | | | |
| | | Yield (Carton/Acre) | | | | | | |
| | | 407 | 466 | 524 | 582 | 640 | 698 | 757 |
| OPERATING COSTS/ACRE: | | | | | | | | |
| Cultural Costs (\$) | | 2849 | 2849 | 2849 | 2849 | 2849 | 2849 | 2849 |
| Harvest Cost (\$) | | 1670 | 1909 | 2148 | 2386 | 2625 | 2863 | 3102 |
| Interest on Operating Capital (\$) | | 151 | 159 | 167 | 175 | 183 | 191 | 199 |
| TOTAL OPERATING COSTS/ACRE (\$) | | 4670 | 4917 | 5164 | 5410 | 5657 | 5903 | 6150 |
| TOTAL OPERATING COSTS/CARTON (\$) | | 11.46 | 10.56 | 9.86 | 9.30 | 8.84 | 8.45 | 8.13 |
| CASH OVERHEAD COSTS/ACRE (\$) | | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 |
| TOTAL CASH COSTS/ACRE (\$) | | 6338 | 6584 | 6831 | 7078 | 7324 | 7571 | 7817 |
| TOTAL CASH COSTS/CARTON (\$) | | 15.56 | 14.14 | 13.04 | 12.16 | 11.44 | 10.84 | 10.33 |
| NON-CASH OVERHEAD COSTS/ACRE (\$) | | 4043 | 4043 | 4043 | 4043 | 4043 | 4043 | 4043 |
| TOTAL COSTS/ACRE (\$) | | 10381 | 10627 | 10874 | 11121 | 11367 | 11614 | 11860 |
| TOTAL COSTS/CARTON(\$) | | 25.48 | 22.83 | 20.76 | 19.11 | 17.76 | 16.63 | 15.68 |
| NET RETURNS PER ACRE ABOVE OPERATING COSTS FOR GUAVAS IN SAN DIEGO COUNTY, 2007 | | | | | | | | |
| | | Yield (Carton/Acre) | | | | | | |
| | | 407 | 466 | 524 | 582 | 640 | 698 | 757 |
| Price (\$/Carton) | | | | | | | | |
| 33.77 | | 9088 | 10806 | 12525 | 14244 | 15963 | 17682 | 19400 |
| 38.60 | | 11055 | 13055 | 15055 | 17055 | 19055 | 21055 | 23055 |
| 43.42 | | 13019 | 15299 | 17580 | 19860 | 22141 | 24421 | 26702 |
| 48.25 | | 14987 | 17548 | 20110 | 22671 | 25233 | 27794 | 30356 |
| 53.08 | | 16954 | 19797 | 22640 | 25482 | 28325 | 31168 | 34010 |
| 57.90 | | 18918 | 22041 | 25164 | 28288 | 31411 | 34534 | 37657 |
| 62.72 | | 20882 | 24285 | 27689 | 31093 | 34497 | 37900 | 41304 |
| NET RETURNS PER ACRE ABOVE CASH COSTS FOR GUAVAS IN SAN DIEGO COUNTY, 2007 | | | | | | | | |
| | | Yield (Carton/Acre) | | | | | | |
| | | 407 | 466 | 524 | 582 | 640 | 698 | 757 |
| Price (\$/Carton) | | | | | | | | |
| 33.77 | | 7420 | 9139 | 10858 | 12577 | 14295 | 16014 | 17733 |
| 38.60 | | 9388 | 11958 | 14026 | 16145 | 18264 | 20383 | 22502 |
| 43.42 | | 11352 | 14032 | 16112 | 18193 | 20473 | 22754 | 25034 |
| 48.25 | | 13319 | 16181 | 18442 | 21004 | 23565 | 26127 | 28688 |
| 53.08 | | 15287 | 18130 | 20972 | 23815 | 26658 | 29500 | 32343 |
| 57.90 | | 17251 | 20374 | 23497 | 26620 | 29743 | 32867 | 35990 |
| 62.72 | | 19214 | 22618 | 26022 | 29425 | 32829 | 36233 | 39636 |
| NET RETURNS PER ACRE ABOVE TOTAL COSTS FOR GUAVAS IN SAN DIEGO COUNTY, 2007 | | | | | | | | |
| | | Yield (Carton/Acre) | | | | | | |
| | | 407 | 466 | 524 | 582 | 640 | 698 | 757 |
| Price (\$/Carton) | | | | | | | | |
| 33.77 | | 3377 | 5096 | 6815 | 8534 | 10252 | 11971 | 13690 |
| 38.60 | | 5345 | 7345 | 9345 | 11345 | 13345 | 15344 | 17344 |
| 43.42 | | 7309 | 9589 | 11869 | 14150 | 16430 | 18711 | 20991 |
| 48.25 | | 9276 | 11838 | 14399 | 16961 | 19522 | 22084 | 24645 |
| 53.08 | | 11244 | 14087 | 16929 | 19772 | 22615 | 25457 | 28300 |
| 57.90 | | 13208 | 16331 | 19454 | 22577 | 25700 | 28824 | 31947 |
| 62.72 | | 15171 | 18575 | 21979 | 25382 | 28786 | 32190 | 35593 |

**TABLE 9. WHOLE FARM EQUIPMENT, INVESTMENT, AND BUSINESS OVERHEAD COSTS
BASED ON A 5-ACRE GUAVA ORCHARD IN SAN DIEGO COUNTY, 2007**

| EQUIPMENTS | | | | | | | |
|-----------------------------------|------------------------|------------------------|-----------------------------|---------------------------------|---------------------------------|----------------|------------------------|
| Year | Description | Price | Life (Year) | Capital Recovery | Cash Overhead Costs (\$) | | |
| | | | | | Insurance | Taxes | Total |
| 2007 | ATV4WD | 4500 | 7 | 791 | 18 | 25 | 834 |
| 2007 | Weed Wacker | 760 | 5 | 173 | 3 | 4 | 180 |
| TOTAL COST | | 5260 | | 964 | 21 | 29 | 1014 |
| 60% OF THE EQUIPMENT COSTS | | 3156 | | 578 | 13 | 17 | 608 |
| INVESTMENTS | | | | | | | |
| Description | Price | Life (Year) | Capital Recovery | Cash Overhead Costs (\$) | | | Total |
| | | | | Insurance | Taxes | Repairs | |
| Establishment Costs | 42545 | 26 | 3681 | 152 | 213 | 0 | 4046 |
| Fuel Tanks & Pumps | 1000 | 30 | 83 | 4 | 5 | 20 | 112 |
| Irrigation System | 6000 | 30 | 496 | 21 | 30 | 300 | 847 |
| Land | 200000 | 30 | 14500 | 1428 | 2000 | 0 | 17928 |
| Shop Buildings | 10000 | 30 | 826 | 36 | 50 | 200 | 1112 |
| Shop Tools | 600 | 30 | 50 | 2 | 3 | 12 | 67 |
| TOTAL INVESTMENT COSTS | | 260145 | | 19636 | 1643 | 2301 | 532 |
| BUSINESS OVERHEAD | | | | | | | |
| Description | Units/ Farm | Unit | | Price/ Units | | | Total Costs |
| Field Sanitation | 5 | acre | | 348 | | | 1740 |
| Interest - Cash Overhead | 5 | acre | | 80 | | | 400 |
| Leaf Analysis | 5 | acre | | 10 | | | 50 |
| Soil Analysis | 5 | acre | | 2 | | | 10 |
| Liability Insurance | 5 | acre | | 87 | | | 435 |
| Office Expenses | 5 | acre | | 240 | | | 1200 |

| Table 10. HOURLY COSTS FOR EQUIPMENT USED TO PRODUCE GUAVAS IN SAN DIEGO COUNTY, 2007 | | | | | | | | | | | |
|--|--------------------|---------------|---------------------------|--------------------------|--------------|--------------|---------------------------|------------------|--------------|-------------------|--|
| | | | | | | | | | | | |
| | | | Cost per hour (\$) | | | | | | | | |
| | | Actual | Capital | Cash overhea cost | | | Operating expenses | | | Total cost | |
| | | Hours | Recovery | Insurance | Taxes | Total | Repairs | Fuel& | Total | | |
| Year | Description | Used | | | | | Lube | operating | | | |
| 2007 | ATV 4WD | 79.70 | 5.95 | 0.13 | 0.19 | 0.32 | 0.33 | 4.22 | 4.55 | 10.82 | |
| 2007 | Weed Wacker | 5.50 | 18.92 | 0.33 | 0.46 | 0.79 | 0.02 | 13.22 | 13.24 | 32.95 | |

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