# Pricing Produce and Products for Fair Profit Based on Cost of Production 

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## Introduction

Farmers' concern about being left with an unsold perishable harvest has existed since the first crops were sold thousands of years ago. Too often growers find themselves influenced by rumor, innuendo, and fear when it comes to pricing the crops they grow or the products they produce. Buyers may take advantage of that fear and offer to buy crops at greatly reduced prices, under the cost of production, and farmers' fear may prompt those sales. How can growers become self-sustaining? That is the question. This paper will attempt to offer solutions to increase small farm economic sustainability, especially in terms of farmers markets and sales of value-added products.

## Being Sustainable Amidst Market Forces

The popular buzzword "sustainability" is something growers need to pay closer attention to and take to heart. Ecological sustainability is important, but so is economic sustainability. Practicing economic sustainability may not be easy in some ways, but it is essential for the protection of agriculture in rural areas. Using an accurate cost of production to substantiate what you sell your products for is an essential marketing tool. As an example, in 2005, poha was sold at farmer's markets, to wholesalers, and to chefs in Kona at $\$ 7.00$ a pound. After a study to determine accurate cost of production, it was found that to grow, harvest, and handle one pound of ready-to-use poha cost $\$ 8.49$ based on $\$ 16.00$-per-hour labor. After this was published many growers raised their price to $\$ 10.00$ per pound. This caused many chefs to complain to growers and wholesalers. The complaints eventually ended and the prices were accepted as soon as customers were shown the cost-of-production study.


Certainly there are many variables, and the forces that govern market prices affect locally grown produce and products. How growers react to external forces can make the difference in profitability. Growers must also be open to change and to alternative marketing practices and options, all based on an accurate cost of production. Being economically sustainable in farming means making a profit! Profits are defined as revenues minus costs.

## Cost of Production

There are many factors that govern the cost of production both of fresh and processed products. A representative list of costs can be found on Schedule F of Form 1040 (http://www.irs.gov/pub/irs-pdf/f1040sf.pdf), which farmers must fill out for their taxes. These factors are subject to change; therefore, growers must continue to monitor these costs. Look at the difference in production costs between when gasoline was $\$ 2.00$ a gallon versus now, when it is at almost $\$ 5.00$ per gallon. In addition,

because of potential losses and production variability due to weather, disease, and pest problems, prices will vary from harvest season to season. Your price has to reflect this variability, and you have to remember your price must include a profit. Yes, there are many quality-of-life issues while living in Hawai'i, but being sustainable for your own farm and for your fellow farmers requires fair pricing and fair profit. Some growers do not rely on farm income, while the farm is the sole source of income for others. Pricing should be stable and reflect the reality of an accurate cost of production no matter what the primary income source is. Frankly, farmers who have a nonfarming source of income and price their farm product below cost of production can cause harm to those who depend on farm income and follow an accurate cost of production. Even considering all the variables of pricing and marketing, this must be kept in mind.

## Are You Paying Yourself?

This is the most common question growers forget to ask themselves when trying to figure out their costs. Many farmers may assume that they will get whatever is left over, but what if it is not enough? To be sustainable means to make a profit, even if small.

Often growers and value-added-product producers do their best to figure what it costs to grow or produce a product but forget to take into account a simple salary for the person producing that product. Whether it's a farm hand or hired help, your spouse, your child, or yourself, a salary should be paid and figured into the cost of production.


## Cost of Inputs

As mentioned, there are many variables when figuring cost of production. Labor, which includes withholding, FICA, and benefits and/or other taxes, is only the beginning. Fixed costs include the value of the land used (rent or mortgage); property taxes; and the value of capital investment, such as in establishing the orchard, building or repairing buildings, buying and maintaining vehicles, and so on. Ownership costs and production costs depend on what you produce. Also included are soil and water inputs. If you are creating value-added products, other inputs include those needed for processing, such as sugar and pectin if you're producing jelly. Many studies take market yields into account as well as management time and labor.

## Setting Prices (30-30-30)

Once you figure your cost of production based on your farm inputs, external labor, depreciation of land or equipment, and your labor, you need to decide on your base price or lowest selling price to wholesalers or consumers at a farmers market. Many companies as well as individual producers have a number of pricing strategies depending on different variables. These variables include asking yourself how many others are selling what you're trying to sell. Competitive intelligence does play a part. Generally, if you're the only one selling an item or at least the only one selling it in the off-season, your produce can command a better price. You must always be on the lookout for something that enables you to take advantage of an opportunity.

Table 1 provides a general overview of produce rices the authors have observed for Hawai‘i in 2012. Prices continually fluctuate, and there is no quick fix for determining what you should charge a wholesaler or chef or grocer or retail customer at a farmers market. You do not want to put all your fruit in one basket, and as with diversity in growing, having different prices for different sales channels helps you to become sustainable. However, it does not pay to sell for less than what your crops cost you to grow, harvest, and transport. Buyers will always try

Creating Opportunities: In Taiwan, one farmer decided to flood his field, which caused the lychee flowers to abort and re-grow a month later. Thus he was able to market his lychee at $2 / 3$ more than other growers, as he was the only one who had them to sell a month after everyone else. A few years later, when all the farmers were doing this, our first farmer decided not to flood the field and thus had the first lychee of the season. In Hawai'i we don't have the ability to flood our fruit tree fields, but we can use other methods. Some growers use protective fruit wrappings on their lychee that, in addition to protecting the fruit from birds and other pests, have the added advantage of lengthening the growing cycle, which produces much sweeter fruit. The bags also promote even coloring on the fruit. Instead of the usual $\$ 3.00 / \mathrm{lb}$. wholesale, one farmer who did this received $\$ 4.50 / \mathrm{lb}$.
to buy for less, and farmers must hold firm. Often if you show a buyer what it cost you to produce, they are more than willing to accept your price, as they generally work on a $30 \%$ markup. Wholesalers sell to grocery stores at a $30 \%$ markup, and grocery stores then sell to the public at an additional $30 \%$ markup.

Growers are the only ones who do not usually work at a $30 \%$ markup from their cost of production, and to some extent this is a disadvantage. Large farms selling fresh products to supermarkets only receive about $\$ 0.18$ out of each dollar of the supermarket price (Schnepf 2009). Small farms need a higher rate of return, though, because they do not have the same economy of scale.

Fresh products are perishable, and growers cannot afford to lose product in which there is an investment in cost of production and time. Yet growers also don't want to be forced into selling for too low a price or below the cost of production. Some growers are insecure in their ability to sell or to make a profit from their crops, but they need to look at the financial and marketing tools that can help them to become more sustainable. Low and managed costs of production and competitive pricing are essential to profitability.

## Farmers Markets

At farmers markets, growers should be able to sell at a price the same as or greater than at grocery stores, and

Table 1. Representative 2012 produce prices per pound

| Commodity | Price to <br> wholesaler | Wholesale price <br> to chef or grocer | Grocer's selling price/ <br> farmers market selling price |
| :--- | :---: | :---: | :---: |
| Oranges | $\$ 0.70$ | $\$ 0.90$ | $\$ 1.29$ |
| Avocados (no name), limes, Meyer lemons, <br> bananas (most) | $\$ 1.00$ | $\$ 1.30$ | $\$ 1.69$ |
| Avocados (branded varieties) | $\$ 1.35$ | $\$ 1.75$ | $\$ 2.28$ |
| Jaboticaba | $\$ 2.00$ | $\$ 2.60$ | $\$ 3.39$ |
| Guava, carambola, mango | $\$ 2.50$ | $\$ 3.25$ | $\$ 4.22$ |
| Misc. | $\$ 3.00$ | $\$ 3.90$ | $\$ 5.07$ |
| Longan, rambutan, lychee, loquat | $\$ 3.50$ | $\$ 4.55$ | $\$ 5.90$ |
| Misc. | $\$ 4.00$ | $\$ 5.20$ | $\$ 6.76$ |
| Kumquats | $\$ 5.00$ | $\$ 6.50$ | $\$ 8.45$ |
| Figs | $\$ 7.00$ | $\$ 9.00$ | $\$ 11.70$ |


consumers should understand that a farmers market is there in order to provide fresher, higher-quality produce, often in a more diverse selection than at the grocery store. Growers are often worried that they will have too much left over at the end of the market and therefore may be tempted to drop prices, sometimes even selling under the actual cost of production. This is not sustainable! There is a popular joke about a lottery-winning farmer who, when asked by the media what he would do with his winnings, replied, "Keep farming till it's gone." Still, some farmers are very successful in establishing sustainable pricing that is based on cost of production.

## Consumers

It's never easy to explain to a longtime customer why you raised prices or to a potential new customer why your prices are more than those at the farmers market stall next door. It's simply something that has to be done. Putting yourself in the customer's shoes can be an effective way of learning to better express the need for your operation to become sustainable. Explaining the difference in the quality of your produce compared to that of competitors, for instance that your lychee grew in protective wrapping, which makes it sweeter, goes a long way when justifying prices.

## Marketing Tips

Convincing customers that they should be paying more than a flea market price, or the same as or more than prices at the local grocery store, is not easy in today's economic environment. How to do this is the question that needs to be asked. It helps to look at a broader range of factors and also to utilize "buzzwords." For example,
we may say, "It may cost $\$ 1.50$ more a pound for local mangos, but do you want yours fresh or jet-lagged?" "Do you like your bananas tree-ripened or stuck in a container and artificially ripened with ethylene gas?" Using the "carbon footprint" story about the energy used to drive the produce from your farm to a farmers market versus shipping it in from Peru or California sometimes helps explain why buying your product is preferable, even if it costs more than at the store. Explaining the increased costs of fertilizer and other farm supplies in Hawai'i can also help to explain the selling price.

The difference in labor costs in Hawai'i as compared to other places where labor is generally cheaper, such as Brazil, Thailand, or China, makes a big difference in figuring your accurate costs. Knowing your cost of production is essential. For a grower to sell six lemons for $\$ 1.00$ when it costs $\$ 0.34$ to produce one (based on $\$ 12.00$-per-hour labor) is simply not sustainable. Explaining this or having a sign to help customers understand pricing often makes the difference in a sale to customers trying to decide on the extra cost. Of course, marketing a special variety, growing technique, or packaging is equally important.

## Quality

An essential component of a successful farming operation is repeat customers. The best way to ensure this is by producing a consistent product of the highest possible quality at price that offers you a fair profit. Growers may not get a second chance to make a first impression with a customer. Packaging that highlights the quality of the product and protects it from injury, and handling practices that keep it from exposure to direct sunlight

and excessive heat and cold are essential. The State of Hawai'i has quality and grading standards for a wide variety of commodities, and following these or creating even stronger farm-specific quality control and grading standards for your product will lead to a more sustainable operation.

Quality sells; it may cost more, but for some people quality is more important than cost. Your packaging and postharvest care of fresh produce must reflect this commitment to quality. Consistency of quality from week to week is crucial, as is consistent supply during harvest season. This dependability in terms of quality and supply will gain recognition and develop a strong following of return customers.

## Attitudes

There will always be those shoppers who expect discounts for a wide range of reasons, kama'ainas and seniors, for example. How and whether growers offer such discounts is a personal choice. These, too, should be based on cost of production plus some markup as profit.

Many people who visit a farmers market expect it to be a flea market for cheap seconds or imports. Many will attempt to bargain down the price, a common practice in many markets around the world. Some will accept explanations on cost of production, yet others will not rest at trying to break your price point.

As a seller of an agricultural commodity, you will encounter a wide range of definitions of and attitudes about sustainability. Just remember that profitability is the bottom line and the key to sustainability. Learning how to explain this to customers is perhaps, the most important operation a farmer can undertake.


## Conclusions

- Keep careful records of your costs of production.
- The price should cover costs of production and making a profit.
- Keep records of what sells and for what price.
- Vary the price to sell more by having different prices for different grades of fruit and customers.
- Charge a price that gives you a profit-undercharging doesn't help anybody.
- Your price may vary from week to week or throughout the harvest season.


## Acknowledgements

James Hollyer and PingSun Leung of the College of Tropical Agriculture and Human Resources are gratefully acknowledged for their thoughtful reviews of this publication.

## Resources

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