
Pricing Product¹

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Introduction

Setting prices can be a difficult task even for experienced firms. If prices are set too low, potential profit may be lost, or worse, product may be sold for less than the cost of production. Conversely, setting prices too high may result in lost sales and dumped product. Not surprisingly, prices that growers receive are often too low rather than too high. A few signs of prices being too low are:

- Gross profits are getting smaller on the same or rising sales volume.
- Net profit is decreasing, especially if sales are increasing.
- Your prices are less than your competitors’.
- You get very few complaints about price or customers buy without asking price, haggling over price, or ask what is/is not included in price.
- Prices have not been changed over along time, especially if expenses have risen.

Prices can be based either on your firm’s cost-of-production or on the market. With the cost-of-production method, prices are based on expenses, labor, and desired profit. With the market method, prices are set according to what other companies charge or what the market will bear. While the cost-of-production method is best for long-term health of a firm, most firms use a combination of both methods. For example, with some crops you may not be able to charge the calculated prices and have to rely on the market price. In such cases, you must decide whether or not to grow the crops.

Record Keeping

The first step in cost accounting is to keep records. Considering the extreme time constraints of the typical grower during the production season, record keeping should be as convenient and simple as possible. Another person should be designated as the record keeper if possible, allowing the owner/grower to focus on other tasks. Below are the areas that need good records to be more accurate in establishing a correct price.

1. *Cultural* – planting dates, pest problems, spacing, and other cultural considerations.

¹ Adopted from “Pricing Specialty Cuts” by John M. Dole, Department of Horticulture and Landscape Architecture, Oklahoma State University, Stillwater, Oklahoma and Vicki Stamback, Bear Creek Farms, Stillwater Oklahoma

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2. *Chemical* – chemical applications, date of applications, rates used, applicator’s name. Contact your local cooperative Extension Service or chemical supplier for more information on chemical application rules.
3. *Environmental* – weather conditions, temperature.
4. *Production* – include notes on quality as well as quantity.
5. *Financial* – all expenses and sales figures.
6. *Postharvest* – notes and trials on harvesting and storage.

Calculating Costs

The following is one system for helping you to determine what you need to charge for your products. Use the enclosed worksheet (Worksheet 1 for annual crops, Worksheet 2 for perennial crops) or adapt the system as needed for your operation. This system is intended only to give you a rough idea of what you need to charge. Contact your county Extension office to learn about other methods which may give you more in-depth information.

The following system focuses on two types of expenses, allocated costs and unallocated costs. Allocated costs are those which you can specifically attribute to a particular crop. Unallocated costs include all other costs that are not directly attributed to a specific crop, including most or all of the expenses listed in Table 1.

For the beginning producer, the only allocated expense may be seed or plug costs. As the producer becomes more experienced and improves record keeping, more expenses can be allocated to specific crops. This will allow a more accurate comparison among crops and allow you to determine which ones are most profitable. For example, tomatoes are more labor intensive than direct seeded carrots and determining the amount of labor needed for each crop will allow you to allocate the labor costs to each crop. Thus, the allocated costs for tomatoes and carrots would then reflect the difference in labor, allowing you to set more accurate prices.

Points 1 through 4 below are related to worksheets used in calculating price.

1. **Allocated costs:** costs which vary directly with the crop being grown, which mainly include plant/seed costs, but also **any other** expense directly attributable to a specific crop.
2. **Unallocated costs:** costs which are not directly attributable to specific crops, which generally include any or all of the expenses listed in Table 1.

Dividing unallocated costs among crops: (this section is only done once for all crops)

Total size of useable production area (ft²)

Total unallocated costs (\$) ÷ size of production area (ft²) = cost for each ft² of useable production area (\$/ft²).

3. Estimated production per crop:

Annuals (Worksheet 1): total number of pounds.

Perennials (Worksheet 2): total number of pounds over life of crops ÷ number of years in production.

Use actual production records of yield (3a) or estimate production from literature and multiply by 0.65 to take into account for loss (3b)

4. Calculations for specific crops:

Area (ft²) used for each crop × unallocated cost per ft² (\$/ft²) = portion of unallocated costs for each crop (\$).

Expenses for each crop (\$) ÷ total yield (pound) = \$/lb. This is a 'break even' point. A 'profit' will be made if the product is sold for greater than this point.

Note: if owner's salary and all expenses are not included in unallocated costs, and the crop is sold at or below calculated \$/crop, then the owner is working for free and no money will be able to invest into the business.

Table 1. Possible expenses (unallocated costs) for crop production.

Labor including wages, benefits, workers compensation, payroll taxes, etc (hired help and owner's salary)

Plant materials (seed, plugs, liners, bulbs, corms, etc)

General production materials including fertilizer, stakes, netting, pesticides, container media, flat, etc

Equipment including, tractors, rototillers, attachments, hand tools, etc

Upkeep and repair of equipment, buildings, vehicles, etc

Depreciation for buildings and equipment

Utilities, including electricity, gas or propane, water, sewer, garbage collection, etc

Office expenses, including telephone, paper, envelopes, stamps, paper clips, etc

Accountant fees, lawyer fees

Land expenses (mortgage, property taxes)

Insurance, including property, life, disability, liability, and vehicle

Shipping expenses including vehicle, mail, packaging, etc

Interest on business loans

Marketing expenses, including advertisements, business cards, etc

Miscellaneous expenses including association fees, publications, etc.

Worksheet 1: Calculating Costs for Annual Crops

1. _____ Allocated costs per crop (\$)

2. _____ Total unallocated costs (for the year)

_____ Total size of usable production area (ft²)

$$\frac{\text{Unallocated costs (\$)}}{\text{Area (ft}^2\text{)}} \div \frac{\text{_____}}{\text{Area (ft}^2\text{)}} = \frac{\text{_____}}{\text{\$/ft}^2}$$

3. To estimate crop production use either 3a for crops on which you already have production records or 3b for new crops.

3a. _____ Total number of pounds per crop

3b. _____ Estimated number of pounds per 100ft row

$$\frac{\text{_____}}{\text{No of lbs/100ft row}} \div \frac{\text{_____} \times 0.65}{\text{\# of ft in production}} = \frac{\text{_____}}{\text{pounds per crop}}$$

$$\frac{\text{_____}}{\text{Area (ft}^2\text{)}} \times \frac{\text{_____}}{\text{Unallocated cost (\$/ft}^2\text{)}} = \frac{\text{_____}}{\text{Total unallocated cost (\$)}}$$

$$\frac{\text{_____}}{\text{Total unallocated cost (\$)}} + \frac{\text{_____}}{\text{Allocated cost (\$)}} = \frac{\text{_____}}{\text{Total crop cost (\$)}}$$

$$\frac{\text{_____}}{\text{Total crop cost (\$)}} \div \frac{\text{_____}}{\text{pounds per crop (3a or 3b)}} = \frac{\text{_____}}{\text{Cost per pound (\$)}}$$

$$\frac{\text{_____}}{\text{Sell price (\$)}} - \frac{\text{_____}}{\text{Cost per pound (\$)}} = \frac{\text{_____}}{\text{Profit (\$)}}$$

Worksheet 2: Calculating Costs for Perennial Crops

1. _____ Allocated costs per crop (\$)
 _____ Number of years from planting to removal
 _____ ÷ _____ = _____
 Allocated costs (\$) Years \$/year

2. _____ Total unallocated costs (for the year)
 _____ Total size of usable production area (ft²)
 _____ ÷ _____ = _____
 Unallocated costs (\$) Area (ft²) Unallocated costs \$/ ft²

3. To estimate crop production, use either 3a for crops on which you already have production records or 3b for new crops.

3a. _____ Total number of pounds per crop (yield)
 _____ Number of years from planting to removal
 _____ ÷ _____ = _____
 Yield Years Yield/year

3b. _____ Total number of pounds per plant or ft² (for one year)
 _____ Number of plants or ft²
 _____ x _____ x 0.65 = _____
 lbs/plant or ft² No of plants or ft² pounds per crop/year

4. _____ x _____ = _____
 Area (ft²) Unallocated cost (\$/ft²) Total unallocated cost (\$)
 _____ + _____ = _____
 Total unallocated cost (\$) Allocated cost (\$) Total crop cost (\$)
 _____ ÷ _____ = _____
 Total crop cost (\$) pounds per crop (3a or 3b) Cost per pound (\$)
 _____ - _____ = _____
 Sell price (\$) Cost per pound (\$) Profit (\$)