

Setting Your Price

File C5-17

Setting the price for your product is a strange concept for agricultural producers. They are used to producing commodities where the price is dictated to them (price takers). Profit is determined by being able to produce it for less than that price.

Setting the price for your product should take into account three factors. Start with the cost of producing and marketing your product. It is important to confirm that your price will cover your costs. The cost of production provides you with a minimum or floor price for your product. If you cannot cover your costs, you should not produce the product.

Another factor is what the buyer is willing to pay for the product. This provides you with the maximum price you can set for your product. The third factor is the price of competing products.

Based on Cost of Production

The cost of producing a product is not a fixed number but varies depending on the amount produced. As production increases, fixed costs are spread over more units of production, reducing the cost per unit. In addition to just covering costs, you may want the cost of production to include a predetermined profit level or a return on investment in the business.

Breakeven Selling Price

The first step in using this approach is to compute the [Breakeven Selling Price](#) (Information File C5-202, www.extension.iastate.edu/agdm/wholefarm/pdf/c5-202.pdf) needed to cover the cost of producing and marketing the product. This provides you with the absolute minimum price you need for your product.

Breakeven Sales Volume

Another way of looking at the breakeven analysis is to pick a selling price at which you believe you can sell your product and then calculate how much product you need to produce and sell to break even.

This is computing the [Breakeven Sales Volume](#), (Information File C5-201, www.extension.iastate.edu/agdm/wholefarm/pdf/c5-201.pdf)

Cost plus Profit Pricing

The cost plus profit approach involves adding a predetermined profit per unit to the cost of production to compute sale price. Example 1 shows the new sale price if a profit of \$5 per unit is desired.

Example 1. Cost plus profit pricing

Breakeven Sale Price		Profit per Unit		New Sale Price
\$7	plus	\$5	equals	\$12
\$9	plus	\$5	equals	\$14
\$10	plus	\$5	equals	\$15
\$15	plus	\$5	equals	\$20

Target Return Pricing

The target return approach involves computing a target rate of return on your investment in the business and adding this to the sale price. Assume there is \$5,000 invested in your business of which \$3,000 is borrowed from the bank. Your equity is \$2,000. If you want a predetermined return on your equity, you will need to include it in your selling price.

If you plan to produce and sell 25 units, the sale price is \$22 if only a 10% return on equity is required. However, price increases to \$34 if a 25% return is desired.

Assume that you sell your product for \$30. An equity return of \$16 per unit means that the total equity return is \$400 ($\$16 \times 25 = \400 .) This will create a rate of return on equity of 20%.

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Example 2. Target Return Pricing

<u>Equity</u>		<u>Rate of Return on Equity</u>		<u>Required Equity Return</u>
\$2,000	multiplied by	10%	equals	\$200
\$2,000	multiplied by	15%	equals	\$300
\$2,000	multiplied by	20%	equals	\$400
\$2,000	multiplied by	25%	equals	\$500

<u>Equity Return</u>		<u>Sales Volume</u>		<u>Equity Return per Unit</u>
\$200	divided by	25	equals	\$8
\$300	divided by	25	equals	\$12
\$400	divided by	25	equals	\$16
\$500	divided by	25	equals	\$20

<u>Breakeven Sale Price</u>		<u>Equity Return per Unit</u>		<u>New Sale Price</u>
\$14	plus	\$8	equals	\$22
\$14	plus	\$12	equals	\$26
\$14	plus	\$16	equals	\$30
\$14	plus	\$20	equals	\$34

Based on Perceived Buyer Value

With this approach, price is based on the perceived value of the product in the eyes of the buyer. To use this method, segment the market to identify the type of buyer who will value the product the most. For example, teenagers value video games more than retired people. The market segment that values your product the most is your target market on which you want to focus your marketing and promotional efforts. So it is important to identify the target market for your product.

People in the target market will make the decision of whether to purchase your product. If the price is too high, they will not buy it. However, if the price is too low, you are foregoing revenue that the buyer is willing to provide. Actually, the amount of your product that you can sell will change due to changes in your selling price. At a high price you will sell less and you will sell more at a low price. This is the

basic concept of [Demand](#) (Information File C5-204, www.extension.iastate.edu/agdm/wholefarm/pdf/c5-204.pdf). Unfortunately, demand is difficult to quantify. At best you may just have a vague idea of the demand for your product.

Type of Buyer

Pricing decisions vary depending on whether you are selling to the ultimate consumer of the product or you are selling an ingredient to a processor or manufacturer of the consumer product.

Intermediaries such as manufacturers are more particular buyers. They are looking for specific attributes and know what they are willing to pay for them. Also, competitor's prices are more important in the purchasing decision of intermediaries because of the volume involved. So your pricing decision will be more dependent on the price levels of competitors.

Consumers are generally less sophisticated in their purchasing decisions. They are more likely to respond to the emotions of the moment. They are less sure of the value of product attributes and are easier to influence as to their value.

So pricing decisions, along with the promotion program, will differ depending on whether you are selling to an intermediary or the ultimate consumer.

Price as Indicator of Quality

In certain circumstances, consumers believe that price is an indicator of the quality of a product. This is more common when consumers have no other way of determining quality. So, in some situations, raising the price may lead to increased sales. However, when information on product features and brand are taken into account, the perception of quality based on price goes away.

Based on the Price of Competitor's Products

The cost of producing and marketing a product provides the minimum price you should charge for your product. Conversely, the demand or perceived value of the product in the eyes of the buyer provides the maximum price you can charge. The actual price you charge within this range will often be dictated by the price of competitor's products.

The importance of the price of competitor's products depends on whether you are producing a Commodity or a Differentiated Product. See Information File C5-203, [Commodities Versus Differentiated Products](http://www.extension.iastate.edu/agdm/wholefarm/pdf/c5-203.pdf), www.extension.iastate.edu/agdm/wholefarm/pdf/c5-203.pdf. Commodities, where every unit of production is the same, are highly influenced by the prices of competitors because buyers see no difference between your product and those of competitors. However, the degree to which you convince buyers that your product is unique or different from those of competitors will influence the degree to which competitor's prices will impact your sales. Differentiation can be expressed in the attributes of the product itself or the services provided with the product.

The first level of competition you will experience is directly from competitors producing the same type of product as your own. For example, if you produce organic milk, your direct competitors are other organic milk producers. The price charged by direct competitors will have an important impact on the price you can charge for your organic milk. However, you can lessen the impact by differentiating your organic milk from the competition.

The second level of competition is from substitute products. For example, the price you charge for your grass-fed beef is influenced by the price of corn-fed beef. Once again, the more you can differentiate your grass-fed beef from corn-fed beef, the less impact the corn-fed beef price will have on your pricing decision.

Value Pricing

Buyers make an evaluation of your product by comparing it to competitors' products. This evaluation is based on quality and price. In this instance, quality is defined as how closely the product meets the needs of the buyer.

Quality doesn't need to be real, it can be imagined. Will you really have more fun if you drink one brand of soft drink versus another? Whether the difference is real or imagined is immaterial. The only thing that counts is that the buyer believes it is different.

However, price is also an important factor in a buyer's decision. Buyers prefer a low priced product to a high priced product. So buyers informally take both of these factors into account when evaluating a buying decision by determining a product's value. Value is computed by dividing the product's quality by its price as shown in the formula.

$$\text{Value} = \frac{\text{Quality}}{\text{Price}}$$

Buyers use this informal calculation to compare products. Buyers purchase the product with the highest value. In other words, buyers purchase the product that provides the most quality per dollar spent.

Example 3. Value of Differentiated Products or Commodities

Differentiated Product				Commodity			
Product	Price	Quality	Value	Product	Price	Quality	Value
1	\$4	3	.75	1	\$4	5	1.25
2	5	5	1.00	2	5	5	1.00
3	6	8	1.33	3	6	5	.83
4	9	9	1.00	4	9	5	.45

An example of using value to choose among four differentiated products is shown in Example 3. As price increases, quality increases also. However, the product that provides the most value (most quality per dollar spent) is product number three with a value of 1.33. Therefore, a buyer will purchase number three.

However, another buyer may make a different assessment of quality and therefore choose a different product. Because quality is a subjective assessment, companies try to influence the buyer's perception of quality. The buyer's assessment of quality is only relevant at the time of purchase.

The other example is for a commodity product. By definition, commodity products are identical to each other. So the quality is the same for all products. The product with the lowest price is the one with the highest value. In this example, it is product number one with a value of 1.25. This is why lowering cost per unit is so important for commodity producers because having a low sale price is critical to a buyer's purchase decision.

New Product Pricing Strategies

Pricing a new product that you are introducing to the market provides additional advantages and challenges. Educating the buyers on what your product is and why they want to purchase it is important. However, pricing your product when the buyer is just learning about your product and before you have competitors (at least not yet) is unique. Two strategies you may want to employ are discussed below.

Skimming

If you are bringing a new product to a target market, a price skimming strategy may be employed. With this strategy the price is set high with the intention of selling to a relatively small portion of your target market – just those high end users who are willing to pay a premium price for your product. Although you don't sell a large quantity of product, your profit margin on each unit is large. A danger of using the skimming strategy is that competitors will enter the market and undercut your price.

A skimming strategy works best where your buyers are relatively insensitive to the price level. In other words, demand is inelastic. It also works best in situations where fixed costs are relatively small because fixed costs are only spread over a small number of units.

Skimming is sometimes used during the business start-up phase where only a small quantity of the product is produced. As production is ramped-up, the price can be lowered to expand the number of buyers.

Penetration Pricing

Penetration pricing is the opposite of skimming. Penetration pricing involves setting your price low so you can penetrate your target market with a large number of sales and garner a large market share. Once market share is captured, price may be increased. An advantage of penetration pricing is that it will make the industry less attractive to competitors.

Penetration pricing works well when the buyer is sensitive to price. In other words, demand is elastic. It is also a good strategy if your cost of production involves high fixed costs because these costs can be spread over many units creating economies of scale. Although this strategy might appear to work for small, value-added enterprises, few will have the infrastructure and size to operate at economies of scale.

Markup Pricing by Intermediaries

The price you set for your product may not be the price paid by the consumer; the consumer's price may be much higher. If you plan to use intermediaries such as distributors, wholesalers and retailers to distribute and market your product, they will mark up the price to cover their costs.

Assume you price your product at \$20 per unit. A wholesaler may add \$5 to the price to cover its costs. So the price to the retailer is \$25. Assuming the retailer also charges a markup of \$5, the sale price to the consumer is \$30.

Markup is often stated as a percentage. For example, a wholesaler's markup may be 20%. However, the actual size of the 20% markup will differ depending on whether the percentage is based on the purchase price or the selling price. For example, a markup of 20% on a product the wholesaler buys for \$10 is \$2 ($20\% \times \$10$) for a sale price of \$12. However, if markup is figured as a percentage of sale price, the sale price is now \$12.50 ($\$12.50 \times 20\% = \2.50 markup) ($\$10 + \$2.50 = \$12.50$). Although basing markup on purchase price is easier to compute, both methods are used in the industry.

Table 1 shows the percentage markup (based on purchase price) that generates the same dollar markup as the corresponding percentage markup (based on selling price). As shown on the following page, a 19% markup based on purchase price generates the same dollar markup as a 16% markup based on selling price.

Table 1. Percentage markups based on purchase price and selling price that result in the same dollar markup.

Markup as a Percent of:		
Purchase Price	Selling Price	Difference
5.3%	5.0%	0.3%
6.4%	6.0%	0.4%
7.5%	7.0%	0.5%
8.7%	8.0%	0.7%
9.9%	9.0%	0.9%
11.1%	10.0%	1.1%
12.4%	11.0%	1.4%
13.6%	12.0%	1.6%
14.9%	13.0%	1.9%
16.3%	14.0%	2.3%
17.6%	15.0%	2.6%
19.0%	16.0%	3.0%
20.5%	17.0%	3.5%
22.0%	18.0%	4.0%
23.5%	19.0%	4.5%
25.0%	20.0%	5.0%
26.6%	21.0%	5.6%
28.2%	22.0%	6.2%
29.9%	23.0%	6.9%
31.6%	24.0%	7.6%
33.3%	25.0%	8.3%
35.1%	26.0%	9.1%
37.0%	27.0%	10.0%
38.9%	28.0%	10.9%
40.8%	29.0%	11.8%
42.9%	30.0%	12.9%
44.9%	31.0%	13.9%
47.1%	32.0%	15.1%
49.3%	33.0%	16.3%
51.5%	34.0%	17.5%
53.8%	35.0%	18.8%
56.3%	36.0%	20.3%
58.7%	37.0%	21.7%
61.3%	38.0%	23.3%
63.9%	39.0%	24.9%
66.7%	40.0%	26.7%

For example, 19% of a purchase price of \$10.00 is \$1.90 ($\$10 \times 19\% = \1.90). So the selling price is \$11.90 ($\$10.00 + \$1.90 = \11.90). If the markup is based on selling price, 16% of \$11.90 is \$1.90 ($\$11.90 \times 16\% = \1.90). So the selling price is \$11.90 ($\$10.00 + \$1.90 = \11.90).

Note in the table that the percentage difference between purchase price percentage markup and the selling price percentage markup gets larger as the markup gets larger. Therefore, the gain or penalty from mistaking how the intermediary is computing markup gets more significant.

$$\text{Markup (based on selling price)} = \frac{\text{purchase price}}{1 - \text{selling price markup decimal}}$$

Computing markup based on selling price is difficult when you don't know the selling price. A formula for computing selling price markup based on purchase price is shown above. First, convert the percentage markup based on selling price to a decimal number (e.g. 16% = .16). Then use the formula. Using the earlier example; $\text{markup} = \$10 / (1 - .16)$ so $\text{markup} = \$10 / .84$, or $\text{markup} = \$1.90$.

Summary

Setting the price for your product or service is a critical decision for business success. The product and its price are the linkages between the buyer and your business. The price is the source of the funds flowing into your business.

The minimum price you can charge for your product is the cost of producing and marketing it. The most you can charge is what the buyer is willing to pay for it. You need to set your price somewhere in this range. The price of this product, when offered for sale by competitors, will influence where you set your price within this range.

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