

## **Niche Market Pricing and Strategies for Maintaining Price Premiums**

**DeeVon Bailey, Ph.D.,**

**Professor and Interim Department Head, Department of Economics  
Utah State University**

**Ruby Ward, Ph.D.**

**Associate Professor, Department of Economics  
Utah State University**

### **Overview**

Developing products that not only add value but also increase profitability is the goal of virtually all niche food and agricultural product producers and manufacturers. Large-scale food product manufacturers often accomplish this goal through several strategies, including undertaking market research to identify relatively large segments of the market to serve as potential customers, establishing brand recognition (equity) through advertising and promotion, and establishing trademark and product protections. These strategies are typically expensive processes that require a sizable sales volume in order to be effective and profitable. Large firms have the ability to identify markets that are large enough to allow them to produce a low-cost high volume product. This strategy does not work for small niche markets, as smaller manufacturers generally have higher per-unit costs of production than larger manufacturers, which makes competition with large firms in large market segments difficult to impossible. As a result, smaller companies often find more success in identifying relatively small market niches that the larger firms ignore because they do not allow large firms to take advantage of economies of scale in production, processing, and marketing. Without making too broad a generalization, this means that large firms need to operate in large markets in order to effectively eliminate competition from smaller firms; while they also need brand equity, obtained through advertising and promotion, to effectively compete against other large firms in the large markets. This often leaves opportunities for smaller firms in food product manufacturing and marketing to compete in relatively small markets that the large firms must essentially ignore. Note that “large” and “small” are relative terms and even small market segments can be quite large to very small.

Although small firms typically will not have to compete with large firms in smaller markets, their job remains the same: defining a market for the product (could be based on consumer income, location of production, and other unique product characteristics); establishing a recognized (sometimes referred to as “differentiated”) product; and using this product to effectively compete against similar products in the market. All this needs to be done profitably, meaning the cost of developing, producing, and marketing the product needs to be less than the revenue received from sales of the product. “Niche marketing” is a term often used to describe this process.

This fact sheet will discuss price behavior and how prices change over time, strategies small producers may consider to maintain their competitiveness in a market, and how to examine the feasibility (or expected profitability) of a potential market and/or product. More information about market segments can be found in WEMC FS#2-08, “Evaluating Market Size,” while



factors to consider before entering a market with a new product are discussed in WEMC FS#3-08, “A Market-Driven Enterprise Screening Guide.” Both of these fact sheets are included in this publication.

### **Niche Market Characteristics and Price Behavior**

In general, niche markets have a few important characteristics that make their prices behave differently than in larger markets. By definition, niche markets are relatively small markets, but this does not mean that niche markets are unimportant or unprofitable. For example, there has been a tremendous amount of interest recently in developing niche beef products. There are several reasons for this interest, one of which being the fact that beef is a widely-consumed food product in the United States, and if just a small portion of the total market took interest in a specialized beef product, it could have very significant impacts on the market for that product. In 2007, retail beef sales in the U.S. totaled \$74 billion (USDA ERS, 2008). A product capturing only one one-hundredth of 1% of total retail beef sales (only one in every 10,000 sales) would have a market exceeding \$7 million annually (this figure is based on prices for conventional beef products; it would have the potential to be greater if the product sold for above average retail prices, as differentiated products typically do). In this sense, even relatively small niche markets can be important. The fact that a relatively small number of persons may make up the customers for a niche market product and that these customers are usually willing to pay above, and sometimes far above, average market prices for the product is a phenomenon in economics called “inelastic demand.” Inelastic demand means that people buying the product are not very sensitive to price, or that they will buy about the same amount of the product even as the price changes.

The less flexibility there is in the market to price (i.e. the number of people buying the product doesn't change much as prices go up and down, meaning demand for the product is inelastic), the more set the market is, so something aside from price must be used to “grow” the market. It also means that if competitors enter the same market with the same or a similar product, prices for the product might drop considerably. Having an inelastic product means that on the upside, people purchasing the product may be willing to pay a premium. However, on the downside, in order to sell a greater quantity, the price would have to decrease dramatically, or the market would need to be expanded.

This phenomenon can be demonstrated through graphs. For example, the relationship between price and the number of units sold in a niche market with a relatively small number of customers is shown graphically in Figure 1 on the following page. The line that is almost perpendicular is the “demand curve” for this market, and shows how much of the product can be sold in this market at each price. For instance, at Point A, eight units can be sold at a price of \$10/unit. At Point B, ten units can be sold, but at a much lower price (\$5/unit). The important point here is that price changes more than the number of the units that are sold. In this example prices dropped by 50% from \$10/unit to \$5/unit, but only 25% more units could be sold at the lower price. This means that total sales in this market will decline as the number of units sold goes up. That is, when only eight units are sold total sales are \$80 ( $\$10 * 8$  units), but when ten units are sold, total sales are only \$50 ( $\$5 * 10$  units).

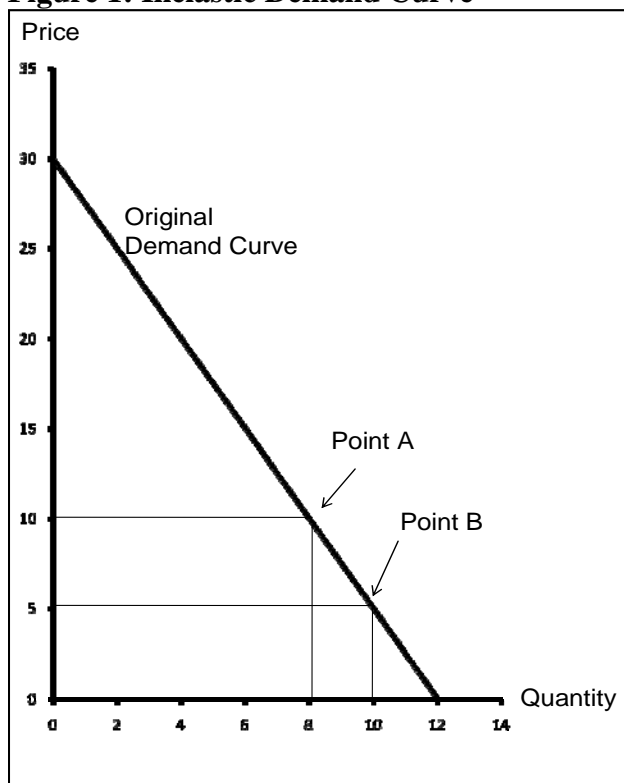
Figure 2 shows what happens when one “supply curve” is put on this graph with an intersection at Point A, and a second supply curve is added with an intersection at Point B. The graph showing customer demand and the ability and willingness of companies to supply the

amount of units demanded by customers is now complete. The supply curve intersecting Point A might represent an initial situation in this market where only one company is producing products for this niche market. The supply curve intersecting Point B might represent this market after another company enters this market with the same product. This shows that both companies face significantly lower prices when they try to compete in the same market. Prices could only stay constant at \$10/unit if demand were to increase.

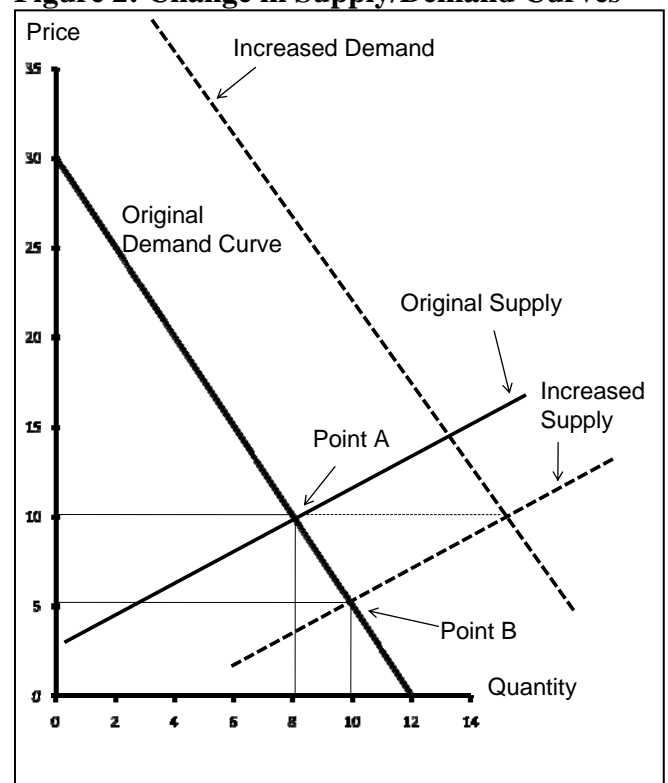
**Potential Strategies**

As niche markets tend to exhibit inelastic demand, companies engaged in niche marketing need to determine a strategy to keep competitors from entering the market, or they must continue to increase demand for their product if they wish to keep prices and sales stable and/or growing. There are numerous examples of niche markets that started small, with just a few producers and high price premiums, and then became more mainstream as additional suppliers entered the market, eventually driving the price (or price premium) down. Many organic produce items have seen the price premium over conventional produce decrease as more suppliers enter the market. Understanding this phenomenon is important as a producer examines the potential profitability of a new market or niche product, as it is important to understand that the price of the product will likely change over time, and that strategies to continue to differentiate their niche product from the products of other suppliers must be considered in advance. If the product catches on and more customers enter the market simultaneously with new suppliers, then prices and quantities may remain stable.

**Figure 1: Inelastic Demand Curve**



**Figure 2: Change in Supply/Demand Curves**



A first strategy to consider is maintaining current customers by developing customer loyalty. This is often done through product differentiation. Patents, trademarks, and branding are strategies used by large firms to maintain their price premiums as new competitors enter the market; however, the costs of these strategies usually make them infeasible for small producers. Small producers can achieve similar results through less costly options such as unique production practices (i.e. natural, organic, humane), location of production (i.e. local, state, region), story of the product or producer, etc. These strategies help to define the product as unique, and communicate to customers that even though there are close substitute products, they are not the same. Roquefort cheese is an example of a food product that is defined by both location and production practice. Roquefort cheese is aged in the Roquefort caves in France and can only be produced in those particular caves; a production practice that cannot be completely imitated.

A second strategy is to innovate to stay ahead of the curve by continuing to find new products that are valued by a niche market. This may mean looking for new varieties of produce (heirloom tomatoes, for example), a different production practice, or different packaging/processing (such as packaging pre-washed green beans in a microwavable bag for easy steaming). To pursue this strategy, it is easier to find new products that an existing customer base will value, which will eliminate the marketing costs associated with finding a new customer base.

A third potential strategy is to grow the market at a rate that keeps it ahead of new entrants. This involves finding new customers that want the product. If the awareness of the product spreads and new customers are found for the product, the new demand may keep pace with the new supply and prices would be stable. However, it must be noted that even with new customers, their pace of consumption must meet or exceed increasing supplies or else prices and/or price premiums will still decrease.

### **Analyzing Potential Profit and Risk**

To develop successful strategies, a producer needs to consider the options and examine potential profit. As with any type of planning, the future is unknown. Two types of profit analysis are break-even analysis and scenario analysis. Break-even analysis is a quick analysis to determine if a strategy or idea has merit. Scenario analysis compares the results of different scenarios and how different assumptions affect the bottom line.

#### *Break-Even Analysis*

This section will present an explanation of how to perform a preliminary break-even analysis. This type of analysis answers the questions “How much needs to be sold to break even?” and “What would the price need to be to break even?” If the quantity that would need to be sold to break even is a realistic amount, then the idea should be analyzed further. If the price that would need to be charged is unrealistic, then the idea is not feasible. These same questions can be answered using a set level of profit. An explanation of the math and formula is followed by an example to help illustrate the points. If an idea looks like it has merit after performing this initial analysis, a more detailed analysis should be undertaken (see the following section on scenario analysis).

It is important to understand how to use the formulas for break-even analysis, as well as the logic behind them. It is equally important to see the relationships in the formula and insights that can be gained from understanding the formula. Profit can be calculated simply as:

$$(1) \quad \text{Revenue-TVC-FC=Profit}$$

This formula shows that starting with the amount received for selling the product (revenue) and subtracting the cost of producing the product (variable and fixed costs) results in profit. Notice that there are two kinds of costs: variable and fixed. Variable costs (VC) are costs that come directly from producing each unit of the product, like seeds, and so will change depending on the quantity produced. Fixed costs (FC) are costs that will be incurred regardless of how many units are produced, like rent for land. These costs are also referred to as overhead.

Another way to write this equation is:

$$(2) \quad (\text{Price*Q})-(\text{VC*Q})-\text{FC}=\text{Profit}$$

This means the amount received for each unit sold (price), multiplied by the number of units sold (quantity, or Q), equals revenue. Variable cost is the costs per unit; multiplying VC by the number of units sold gives total variable cost (TVC). Profit is found by subtracting TVC and (FC) from revenue. Insight on how to increase profit can be found just by looking at the equation. To increase profit, the options are to either increase revenue or decrease costs. Decreasing costs is pretty straightforward, but how can revenue be increased?

- Sell more to existing customers. This will increase quantity, and therefore increase profit.
- Find more customers to sell to. This will also increase the quantity sold.
- Find a sales outlet that will increase the per-unit price. For example, selling at a farmers' market may allow a producer to charge a higher price than the commercial or retail price.

Without even working with numbers, asking if any of the above options are possible can often provide insight. The following example of tomato production shows how to perform a break-even analysis and some other analyses using the formulas discussed above.

### *Tomato Example*

Table 1 on the following page shows a sample production budget for a tomato operation, which will be used to show how Equations (1) and (2) can be used. Table 2 builds on Equations (1) and (2) to demonstrate how these formulas can be rearranged to perform a break-even analysis.

To calculate profit, take equation (2) and substitute numbers from Table 1, where price is \$0.24/lb, variable costs are \$0.07/lb and \$0.06/lb, fixed costs are \$565, and the quantity sold was 20,000 pounds (this is found by dividing the revenue amount of \$4,800 by the per-unit price, \$0.24). Line 1 of Table 2 shows that pre-tax profit is found to be \$1,635 (taxes will be discussed later).



**Table 1: Example Tomato Production Budget**

Cost/Income	Total	Per unit (pound)
<b>Revenue</b>	<b>\$ 4,800</b>	<b>\$ 0.24</b>
<b>Expenses</b>		
Inputs	\$ 1,400	\$ 0.07
Labor	\$ 1,200	\$ 0.06
Overhead	\$ 565	\$ 0.03
<b>Total Expenses</b>	<b>\$ 3,165</b>	<b>\$ 0.16</b>
<b>Net Income before taxes</b>	<b>\$ 1,635</b>	<b>\$ 0.08</b>
Income taxes	\$ 605	\$ 0.03
<b>Net Income</b>	<b>\$ 1,030</b>	<b>\$ 0.05</b>

**Table 2: Equations for Break-Even Analysis**

Line	To solve for:	Need to know:	Equation
1	<b>Profit</b>	Quantity Price Variable costs Fixed costs	$(\text{Price} \times Q) - (\text{VC} \times Q) - \text{FC} = \text{Profit}$ $(\$0.24 \times 20,000) - (\$0.06 + \$0.07) \times 20,000 - \$565 = \$1,635$
2	<b>Break-Even Point</b>	Price Variable costs Fixed costs	$(\text{Price} - \text{VC}) \times Q - \text{FC} = 0$ $(\$0.24/\text{lb} - \$0.13/\text{lb}) \times Q - \$565 = 0$
3	<b>Break-Even Quantity</b>	Price Variable costs Fixed costs	$\frac{\text{FC}}{(\text{Price} - \text{VC})} = Q$ $\frac{\$565}{(\$0.24/\text{lb} - \$0.13/\text{lb})} = 5,136 \text{ lbs}$
4	<b>Quantity that must be sold to earn a target profit</b>	Price Variable costs Fixed costs Desired profit	$\frac{(\text{FC} + \text{Profit})}{(\text{Price} - \text{VC})} = Q$ $\frac{(\$565 + \$1635)}{(\$0.24/\text{lb} - \$0.13/\text{lb})} = 20,000 \text{ lbs}$
5	<b>Quantity that must be sold to earn a target profit, including taxes</b>	Price Variable costs Fixed costs Desired profit Tax amount	$\frac{(\text{FC} + \frac{\text{Profit}}{1 - \text{Tax rate}})}{(\text{Price} - \text{VC})} = Q$ $\frac{(\$565 + \frac{\$6500}{1 - 0.37})}{(\$0.24/\text{lb} - \$0.13/\text{lb})} = 98,931 \text{ lbs}$

*Break-Even Point*

In most cases, it will be helpful to figure out how many units (in this case, pounds of tomatoes) need to be sold to “break even”, or cover costs. To do this, Equation (2) is set to zero, as one of the conditions of a break-even point is zero profit (this equation is shown on the Line 2 of Table 2). The price of the product less the variable cost is the profit margin per unit (profit margin per pound of tomatoes). In the example, tomatoes sell for \$0.24 per pound. There are \$0.13 cents in costs per pound (\$0.06 + \$0.07), which leaves \$0.11 per pound (\$0.24 – \$0.13) as the profit margin. Since the break-even quantity is what needs to be calculated, the equation in the second line of Table 2 can be rearranged to solve for quantity, which is shown in the third line of Table 2. Solving for quantity shows that at a sale price of \$0.24 per pound, 5,136 pounds of tomatoes would need to be sold to cover costs.

### *Solving for Profit*

If a certain profit level is desired, the same formula can be used with a slight modification. Just add any profit desired to the fixed costs. This is shown in Line 4 of Table 2. In order to reach the profit goal of \$1,635, a total of 20,000 pounds of tomatoes needs to be grown and sold at \$0.24 per pound. This is a nice formula to use to give an idea of how large the enterprise will need to be. After using this formula, look at markets and production facilities and ask, “Is it possible to produce and sell this many units?” If the answer is yes, then investigate further. If the answer is no, then this may not be a good idea. Another way to ask the question is, “How many customers would need to purchase the product in order to sell this many units?”

### *Taxes*

Often, an owner cannot withdraw the entire amount of profit from a business. Profits must be used to pay taxes, reinvest in the growing business, make principal payments, and cover withdrawals. Below are formulas that can be used to analyze this issue. The first thing required is a tax rate. Most states have around 7-8% income tax rates. Self-employment tax is around 15%, and federal income tax is 10% (or higher). Using a federal tax rate of 15% gives a tax rate of 37%. If this is a side business, the rate should reflect what the owner pays on the last dollar earned, rather than an average rate. For example, the owner normally can use deductions and exemptions to shield some income from taxes, but after that they are probably paying close to the above rates.

Take the after-tax profit needed and divide it by one minus the tax rate (1-0.37, in this case) to get the pre-tax income needed. If \$5,000 is needed for consumption for the family, \$1,000 for the business to buy new machinery, and \$500 to pay on a loan, then a total of \$6,500 is needed after taxes. To figure how much is needed before taxes, take \$6,500 and divide it by (1-0.37). This gives \$10,317.

Line 5 of Table 2 shows the calculation for the quantity of tomatoes that must be sold when taking the desired profit discussed above and taxes into consideration. If \$10,317 is needed in profit before taxes, putting this figure into the formula shows that 98,931 pounds of tomatoes would need to be sold to achieve this pre-tax profit.

If this amount is higher than what can be produced, the idea is not feasible. If this is the case, either the idea should not be pursued further, or other ways to increase per-unit profit should be explored. Often, even small changes in price can lead to larger changes in net income. One possibility is to find new markets in which to sell the product (farmers’ markets, roadside stands, etc.) that will allow for an increase in the price per unit. When looking at other alternatives, it is important to make sure that any changes in the cost are included. For example, if selling at a farmers’ market instead of selling commercially, the cost of getting a booth at the market, the time involved with setting up for and attending the market, and the cost of transporting the product to the market should be considered.

### **Analyzing Different Scenarios**

Before pursuing different options or strategies it is important to look at various scenarios to understand the potential profit and losses. This usually includes looking at how changes in prices, costs, and quantities of each option affect the overall profit. Since there are a lot of unknowns, estimates or guesses are used for some costs, how many customers there might be, etc. By examining how changes in these variables affect profit, a better understanding of the

risks and potential profit can be seen, leading to more informed decisions as to which strategies should be pursued. Because this process involves numerous calculations, it is easier to use a spreadsheet where a few numbers can be changed with the results calculated by the computer. It is important to look at not just an option, but how different assumptions affect the profitability and risk of the option. Often, small percentage changes in price will have larger percentage changes in net income. Conversely, the effect of potential increases in costs of production, such as fuel costs, can also be explored. For the example below, a spreadsheet was created in Excel to assist in figuring the effect of percent changes in revenue and costs on net income (profit). The first step is to create a base scenario, and then look at the changes from changing different assumptions.

### Creating the Base Scenario

The first step in creating the base scenario is to determine revenue (price \* quantity) and various expenses (costs). The numbers in the green cells of Figure 3 can be changed to reflect the current business situation. This can be done a couple of ways, the first of which is to put the total revenue received over the course of a year in the revenue section, and then add in the cost of inputs, labor and overhead. The second option for reflecting the current business situation is to use average amounts rather than total amounts. For example, if a garden center knew that normally for every \$100 in plants sold to a customer, the cost of the plants to the garden center is \$50, while labor costs are \$15. These numbers would go in the green cells. The overhead would be the average cost per \$100 in sales. Depending on the situation, one of the two approaches will be easier. For start-up costs, it is possible to include the whole amount the first year if recouping those costs the first year is the goal of the enterprise. Or a set amount can be included for each year, spreading those costs over a few years. For example, if a loan was used to cover the start-up costs, then the loan payments could be included in the overhead. An average overhead cost of \$20 per \$100 in sales is used for this example. Figure 3 shows what the base scenario would look like based in the numbers just described. Figure 3 also shows the cell locations of the numbers discussed above in the Excel spreadsheet, while Figure 4 shows the Excel formulas that were used to create this scenario analysis. A similar spreadsheet can be made in Excel using these formulas and cell locations, and the examples provided can be used to double-check that the formulas have been input correctly. Note that a tax rate of 37.3% has been used.

**Figure 3: Base Scenario**

	A	B	C	D	E	F
1				% change	New Result	
2	Revenue		\$ 100.00		\$ 100.00	
3						
4	Expenses					
5	Inputs		\$ 50.00		\$ 50.00	
6	Labor		\$ 15.00		\$ 15.00	
7	Overhead		\$ 20.00		\$ 20.00	
8	Total Expenses		\$ 85.00		\$ 85.00	
9						
10	Net Income before taxes		\$ 15.00		\$ 15.00	Percent change in net income
11	Income taxes	37.3%	\$ 5.60		\$ 5.60	
12	Net Income		\$ 9.41		\$ 9.41	0%



**Figure 4: Base Scenario with Formula References**

			% change	New Result	
Revenue		\$ 100.00		=+C2*(1+D2)	
<b>Expenses</b>					
Inputs		\$ 50.00		=+C5*(1+D5)	
Labor		\$ 15.00		=+C6*(1+D6)	
Overhead		\$ 20.00		=+C7*(1+D7)	
<b>Total Expenses</b>		=SUM(C5:C7)		=SUM(E5:E7)	
<b>Net Income before taxes</b>		=+C2-C8		=+E2-E8	<b>Percent change in net income</b>
Income taxes	37.3%	=+C10*B11		=+E10*B11	
<b>Net Income</b>		=+C10-C11		=+E10-E11	=+(E12-C12)/C12

*Changing the Assumptions*

Once the numbers with the green background are correct, the numbers in yellow can be changed to see how the bottom line changes based on different assumptions. In other words, it will show examples of how much net income will change when other factors of production, such as revenue, changes. To see how this works, a few different situations are given below using the same situation as described above. The following are three example situations.

- 1. Volume of sales increase by 10% (Figure 5).** In this case both revenue and the cost of labor and inputs would increase by 10%. So 10% would be typed into the yellow cells for those three things, resulting in net income increases from \$9.41 to \$11.60, a 23% increase.

**Figure 5: Volume of Sales Increase by 10%**

			% change	New Result	
Revenue		\$ 100.00	10%	\$ 110.00	
<b>Expenses</b>					
Inputs		\$ 50.00	10%	\$ 55.00	
Labor		\$ 15.00	10%	\$ 16.50	
Overhead		\$ 20.00		\$ 20.00	
<b>Total Expenses</b>		\$ 85.00		\$ 91.50	
<b>Net Income before taxes</b>		\$ 15.00		\$ 18.50	<b>Percent change in net income</b>
Income taxes	37.3%	\$ 5.60		\$ 6.90	
<b>Net Income</b>		\$ 9.41		\$ 11.60	23%

2. **Prices increase by 10%, but nothing else changes (Figure 6).** This may arise if the owner decides to increase prices under the assumption that the same volume can still be sold. Type 10% in the top yellow box corresponding to revenue and clear all the other boxes. The result is that revenue increases by \$10 to \$110 and net income increases by 67%.

**Figure 6: Prices Increase 10%, Everything Else Constant**

			% change	New Result	
<b>Revenue</b>		<b>\$ 100.00</b>	10%	<b>\$ 110.00</b>	
<b>Expenses</b>					
Inputs		\$ 50.00		\$ 50.00	
Labor		\$ 15.00		\$ 15.00	
Overhead		\$ 20.00		\$ 20.00	
<b>Total Expenses</b>		<b>\$ 85.00</b>		<b>\$ 85.00</b>	
<b>Net Income before taxes</b>		<b>\$ 15.00</b>		<b>\$ 25.00</b>	<b>Percent change in net income</b>
Income taxes	37.3%	\$ 5.60		\$ 9.33	
<b>Net Income</b>		<b>\$ 9.41</b>		<b>\$ 15.68</b>	<b>67%</b>

3. **Costs of inputs rise by 10% (Figure 7).** This might be due to higher gas prices or something else. Leave all the yellow cells blank except for the one for inputs. In the yellow cell for inputs type 10%. The result is that net income would go down by a third (33%).

**Figure 7: Cost of Inputs Increases 10%**

			% change	New Result	
<b>Revenue</b>		<b>\$ 100.00</b>		<b>\$ 100.00</b>	
<b>Expenses</b>					
Inputs		\$ 50.00	10%	\$ 55.00	
Labor		\$ 15.00		\$ 15.00	
Overhead		\$ 20.00		\$ 20.00	
<b>Total Expenses</b>		<b>\$ 85.00</b>		<b>\$ 90.00</b>	
<b>Net Income before taxes</b>		<b>\$ 15.00</b>		<b>\$ 10.00</b>	<b>Percent change in net income</b>
Income taxes	37.3%	\$ 5.60		\$ 3.73	
<b>Net Income</b>		<b>\$ 9.41</b>		<b>\$ 6.27</b>	<b>-33%</b>

### *Cautions and Limitations*

The scenario analysis tool is meant to provide a quick overview of the potential risks and profits; it is not meant to be the end of the analysis. If something is really sensitive (results change dramatically with small changes in assumptions), a more detailed analysis may need to be conducted. It is also important to be realistic and include all costs. If a big increase in volume is considered, it may also increase overhead due to a need for different equipment. Graphing or creating a table of the results of different changes in assumptions can be useful to compare the scenarios side by side. For example, different assumptions on the price that would be received and expected profit could be graphed.

## Conclusions

Niche markets by definition have unique characteristics that can affect the price of the product and price premiums over time. Under good conditions this means that the prices can be quite high, but small changes in the supply of the product can cause much larger decreases in price. So over time, as more suppliers enter the market, price premiums usually go down. Strategies that small producers might consider include product differentiation, which helps a product to maintain its unique quality even as other suppliers enter the market, growing the market by continuing to find new customers at an equal or greater rate than the supply expands, so that price premiums can still be earned, and continuing to innovate to develop products niche markets may find compelling. Regardless of the strategies or ideas that are pursued, it is important to look at potential profitability and how different assumptions affect the profitability of the product.

## References

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