



Maple Syrup Costs

WHAT DOES IT REALLY COST TO PRODUCE THAT GALLON OF MAPLE SYRUP?

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Calculating your cost of maple syrup production is necessary to determine if your business is profitable. Will it remain successful – financially- over the long haul? Some can be successful environmentally, socially, and managerially but without profit it will not sustain itself in the long run.

No farm can be successful – financially - without generating a profit. Profit is what is left over after all the expenses are paid but before you pay the family, pay the principal payment on the farm, expand, and replace capital. In addition a sugaring operation needs to take a look at the balance sheet to see just who owns the operation. Do you own more of the operation or does the bank and are you making progress toward increasing net worth and paying down the loans? You also need to think about budgeting for future improvements with the sugaring operation. Maple sugaring operations also need to calculate how much money that the new vacuum system, the Steam-away or the R. O. unit will pay back and over what period of time.

The [attached Excel spreadsheets](#) provide you with a basis to determine profitability and answer those questions. The excel spreadsheets will allow you to enter only items in the gold area as those areas in black have been protected. They are listed as separate spreadsheets within one file and you can go from one spreadsheet to another by just clicking on the arrows and spreadsheet titles at the bottom of your screen. **The NUMBERS in the spreadsheets ARE FICTICIOUS. They are NOT representative of any farm. You need to put in YOUR OWN NUMBERS prior to drawing any conclusions.** I have seen costs as high as \$60/gallon but revenues of \$25/gallon so you need to put in the actual numbers from your farm to determine profitability on your farm.

Spreadsheet 1 looks at **the earnings of the sugaring operation.** The earnings is not exactly a cash flow statement nor an income statement. Cash flow statements look at all sources and uses of cash to an operation. Income statements do not calculate the family living costs. The attached earnings statement takes into consideration, not only the income and expenses, but also adjusts for depreciation, family living, and other items that affect your operation. I have also made calculations such that you can determine the income and costs (in most cases) on a per gallon and tap basis.

Income. Typically we get income from several sources: Retail and wholesale syrup, perhaps some sap sales, maybe cream and sugar sales as well as maybe some resale of supplies and equipment. In addition to the total dollars income its also good to look at the revenue per gallon of syrup, the income per tap and even to look at the % of income that takes place for each part of the maple business. To convert cream, candy and sugar sales back to gallons of syrup I used 8 lbs sugar /gallon of syrup. You may want to use a different conversion factor.

Cash expenses are listed in areas you typically would see in many of your sugar operations. Specific descriptions for each item can be inserted to provide some additional detail. Dollars are inserted and the computer program calculates the cost/gallon, the cost/tap and the percent of the total cost attributable to that expense.

Value of Donations. Although this should not be on a cash flow statement it does affect the profitability of the operation and needs to be accounted for. Every time a local charity function approaches the house we feel the twinge to provide them with a sample of Vermont Gold but in doing so we decrease our revenue. It decreases the net cash income. Thus it should be accounted for and calculated into the cost of production. I would recommend that you put in a wholesale price for these donations.

Accrual adjustments are necessary to adjust for changes in your accounts payable (bills that you owe), accounts receivable (bills that are owed to you), and inventory changes that occur between the beginning of the year and the end of the year. If accounts payable are higher at the end of the year than they were 12 months earlier then your actual expenses are higher than what the cash expenses say they are. If receivables and supplies are higher at the end of the year than at the beginning of the year then your income should be higher. These calculations make those **accrual adjustments**.

Intermediate and Long Term Assets are utilized extensively to produce maple syrup. Most of these assets will depreciate over time, thus cost the operation thousands of dollars each year. This must be accounted for via some form of depreciation allocation. For purposes of calculating true costs I would recommend using the straight line method and over the period of years you expect the item to last. This is NOT like the tax tables for IRS purposes.

Financial indicators are met to be examples. You may want to devise your own financial indicators but you should utilize some financial guide to show progress from one year to the next.

Spreadsheet 2. Projected budgets do an excellent job of looking at the future to determine if your business is going to be profitable in the future. The rise in energy prices, the change in weather patterns, changes in technology, higher interest rates, labor costs, and competition all play a factor to the success of your operation. Thus, it's wise to look at what the business will do in the future. One way to do that is to look at the past as a reference point and project out two or more years with or without changes in external and internal forces.

Spreadsheet 3. Balance Sheets are a picture of your operation at a point in time. You should complete these annually on the same date (typically Jan. 1 of each year) to determine if you are making progress toward a goal of increased net worth. The Balance sheet for agriculture is broken into six sections: Current Assets (what you own) and Liabilities (what you owe) are those items which normally last less than one year. Intermediate Assets and liabilities are items with life of 1 – 10 years – normally. Yes, tractors will last longer than 20 years but we depreciate them over 7 – 10 years. The long term Assets and liabilities typically last more than 10 years. All of these items cost money over time. The costs of buying an evaporator today should be spread out over the life of the evaporator.

We urge people to do a balance sheet for their home as well as the business and thus on the second page, we have the non-business section of the balance sheet.

Spreadsheets 4 & 5. Partial budgets are key to projecting out the benefits and costs of items that are key to the success of your business. Each purchase or change in your operation typically has added benefits, reduced costs, as well as reduced benefits and added costs. By placing the added benefits and reduced costs as positives and reduced benefits & added costs as negatives we are able to calculate the net benefit or costs of the practice change or the purchase of that piece of equipment. Partial budgets spreadsheets are good for purchases that may affect 20% or less of the balance sheet and cash flow sheet but practices such as doubling the size of the operation or increasing debt by 50% or more generally requires a comprehensive budget plan. The sheets have as titles A) tapping 10 acres or leaving it for maple Veneer and B) purchasing an R. O. unit. These are example titles, you will want to change those titles to match the change in practice planned for your operation.

No endorsement of banks, products and companies are implied. The names on the attached sheets are used as examples.

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