

A Guideline for New Businesses Looking for a Co-Packer

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Estimating the Cost of Manufacturing Your Product

1. Laying Down the Groundwork

In order to determine if you can have a profitable business you need to understand your costs and if you have sufficient and sustainable sales. When it comes to the cost to manufacture your product you only need to know approximately what it will cost to make it. This is doable using the internet and a bit of effort on your part. This is work that you will need to do for yourself because you will still be very far away from placing your first order. It's your job to generate basic cost figures with the help of the SBA, SCORE and other new business assistance organizations. A co-packer does not have the time to provide you with several cost figures without getting an actual purchase order from you soon thereafter. You should only contact a co-packer when you have a good idea of what your product should look like and roughly how much it should cost per unit. Most importantly, contact a co-packer when you are in the position to place an order. This guideline should help you to decide what your product will look like, how much they will cost you per unit and how many units you may need to buy.

When you are starting, you should be prepared to do most if not all of the groundwork yourself. The more work you farm out to others, like product supply chain, manufacturing, sales, marketing, fulfillment, bookkeeping and advertising the higher your unit costs will be. If you minimize your own contribution to the business the more likely you will have costs that are too high for your business to be profitable. In the beginning plan to do it all yourself. You will need to constantly advertise otherwise only a few potential customers will know that your company exists. Some of our customers have used Instagram and TicToc successfully to get the "word" out to potential customers and they use them often.

2. Defining Your Product

To begin constructing what your final product will look like you will need to answer several questions.

- **Where is my target audience and how much can I markup my product?**
 - **Am I selling on-line and what can I charge?**
 - **Am I selling in a brick and mortar shop and what can I charge?**
 - **Am I wholesaling to other businesses and what can I charge?**

If you are selling on-line you need to see what other similar products are being sold for. The problem with selling on a storefront like Amazon is that you will have a lot of competition, therefore you need to find creative ways to promote your product above theirs and you must do it a lot; and I mean a real lot. Amazon charges for every aspect of handling and selling your product on their on-line store. The more you do for yourself the cheaper your unit cost will be. Your markup will be low (10%-15% above all costs, including the cost of using Amazon) if you want to compete with others. If you are selling in your own shop or at a farmers' market, you will have an idea of all overhead costs and what you can sell your product for and still make a profit. Typically, your markup is 25% to 50% above costs. If you plan to lease a place your markup needs to be between 100% and 200%. At a farmers' market where costs are low, a 50% markup is decent. If you want to sell your product to other businesses (B2B) then your costs need to be lower than if you sell directly to consumers. Also, your markup should be between about 25% to 35% above your costs when selling B2B. You make your money by getting big orders. Bear in mind, if you choose to take the B2B or Amazon routes you will need to buy a lot of units to get better pricing per unit and you will make money only by selling in large volume.

- **What kind of product do I want to sell?**
 - **Do I want to sell a conventional, “certified organic”, non-GMO, Gluten-Free, Fair-Trade, Kosher or other value-added products?**
 - **Is my product a single ingredient or a blend (like a seasoning)?**
 - **What do ingredients cost?**

If you want to sell a “certified” product it will cost you a lot more than if the product is not certified. I would advise you to start your business with a conventional grade product before you consider certified products. Certified organic products cost more to manufacture and stock. USDA certified organic products are overseen by the [United States Department of Agriculture](#) through their “National Organic Program (NOP).” It is a certification administered and regulated by the U.S. government. Other countries have their own certified organic programs but they cannot legally be sold as “organic” in the USA market unless they are a US partner country in the [Organic Equivalency Arrangement](#). By definition, USDA certified organic products are automatically non-GMO because genetically modified products cannot be labeled certified organic according to USDA. A non-GMO product certified under the “[Non-GMO Project](#)” must be manufactured in an approved facility. Such products must also use certified non-GMO ingredients when manufacturing products. Similarly, Kosher certifications (circle K, circle U Pareve, star K, Kosher Alliance, Halal, etc.) are all overseen by regional or worldwide Jewish and Islamic organizations. Much like USDA Certified Organic and non-GMO, you cannot claim a product to be Kosher if the manufacturing facility and the ingredients are not also Kosher certified.

FDA decides when you can label something for sale in US market as “gluten-free.” You will need to visit the FDA [guidance](#) for that information, but just because an ingredient is known not to contain gluten that reason alone is not enough if the FDA challenges your labeled claim. A gluten level of 20 ppm in a food is enough to negate the claim. Fair trade products can only be sold by companies that are Fair Trade certified through [Fair Trade International](#). Any of the above certified products can be resold by a retail store as long as they do not tamper with the packaging before selling it. They must sell the product exactly as they bought it. If your product has no special certifications “conventional” it will cost much less to manufacture and there is a greater chance of finding a wholesale source for any ingredients that are not common. As a small business you can prepare “certified organic” products yourself (under a small business exemption) as long as your annual sales do not exceed a maximum and you follow “[all of the rules](#)” for operating a certified organic handling facility. You will need to report to the USDA that you intend on doing so and you will be required to keep the same kinds of records a certified business must keep. No such “small business exemption” exists for non-GMO, Fair Trade or Kosher. You should think about whether or not you must start with a product that is certified organic, non-GMO, or fair-trade.

Food sold in the USA is overseen by the FDA. They have rules that one must follow when developing food labeling. These rules are called a “guidance” and are technically not laws but if you deviate from the guidance and you cannot give FDA a good reason that they will accept, you will have to recall your “misbranded” products and pay a fine. The FDA labeling guidance is old but still in force and can be found [here](#).

3. Getting Started

You will need to answer a lot of questions first before you can begin to cost out your product. Below, we describe how you go about deciding what kind of product you will be selling. You need to record your information into a “materials” table like the example below. As a rule of thumb, the minimum number of units that a co-packer would make for a small business or start-up is based on the largest case size or largest excess for an item or ingredient in your materials table. For example, if the smallest bulk pricing you can get for an herb is 50 pounds, and that amount will be enough to fill 200 pouches with 4 ounces per pouch, and the minimum number of pouches you can buy in bulk pricing is 1000 pouches, your

minimum will be 1000 units. Why? Because the co-packer will not stock 800 leftover pouches that they may never use again. Generally, most spice co-packers will stock the most common herbs, spices, seasonings and base ingredients but if your product contains any uncommon ingredients like asafetida, cubeb, ashwagandha, linden berries, moringa, Sichuan peppercorn or something not commonly found in the supermarket then the minimum number of units you will need to buy will likely be based on that or those ingredients. If your product is made of common ingredient(s) like black pepper, onion powder, allspice, anise, cinnamon, ancho, sage, coriander, kosher salt, cane sugar, garlic powder, thyme, etc. etc.; then it will be the largest case size of the individual container parts that will determine the minimum order size. You can determine if an ingredient is common or not by going to a few supermarkets. If they all are selling the ingredients found in your future product then it is common. Bear in mind that if your project can be made in fewer than 500 finished units, the pricing might not be just on a “per finished unit” basis but may also include a “per hour” labor fee. So, if you can bulk buy all the materials you need to make only 250 units, then instead of only a per unit cost to manufacture, the co-packer might institute an hourly labor rate plus material costs instead. It will depend on how involved the manufacturing is. For such small amounts it’s best for you make the product yourself until you can place a larger order.

Example of what your table of parts should look like.								
Vendor	Item	Part #	Minimum ordering Quantity (MoQ)	Price/Unit or pound	Case Price	Shipping Cost to Oldwick, NJ 08858	Total Price	Price/Unit or lb. incl. Shipping
SKS Bottle	4oz. Plastic Jar	SJ-1004J	1 case of 450	\$1.49	\$670.50	\$67.80	\$738.30	\$1.64
American Spice Co.	Black Pepper, fine	ASC-0078F	50 lbs.	\$3.72	\$186.50	\$75.50	\$262.00	\$5.24

4. Collecting the Data that You Will Need

Many new entrepreneurs decide to market a spice blend they invented themselves or is a family recipe. Many of our customers created spice blends that their friends or families said they should sell. In the case of a blend the product will cost more than a single ingredient product because additional processing is involved. For a blend you will also need to convert your recipe into a “by weight” (ex. grams, ounces) recipe instead of “by volume” (ex. teaspoons, tablespoons and cups). Co-packers weigh out each ingredient before they add it into a blender so you will need to buy an inexpensive but reasonably accurate balance like [this](#) one to weigh each ingredient in your recipe. When you are ready for a co-packer, they will sign a Non-disclosure Agreement (NDA) to ensure that your recipe remains a secret with us. You will need to give us details about any specific ingredients you use. For example, if there is salt in your recipe, you need to tell us if it is sea salt, pink salt, kosher salt, table salt and if it is flaked, course or fine grind. It makes a difference in taste and in pricing.

You will need to price each ingredient in your parts table and since you have weights for each you can calculate what each will cost per pound of your recipe. Once you know what the cost per pound is you can determine how much it will cost per unit. To do that you need to sum the weights of all the ingredients and then divide the weight of each ingredient over that sum. That gives you a “weight fraction” for each ingredient. Weight fractions are always decimals (numbers < 1); if you get an ingredient weight fraction like 2.3 then you did something wrong. If you did your math correctly, the sum of all the weight fractions for all ingredients will equal one “1.” Let’s say you want to calculate how much ingredient is needed to make one pound of your blend; just multiply each weight fraction by 16. There are 16 ounces in a pound. The answers you get will be the number of ounces of each ingredient you will need to make a pound of your recipe. If you did the math right the sum of the ounces for all ingredients will equal 16 or close to it if you did some rounding off. You can also multiply the weight fraction of each ingredient

by the price (\$/lb.) for that ingredient. That will tell you the cost of that ingredient to make one pound of your recipe blend. Summing the costs for all ingredients will tell you the cost of your blend per pound. If you calculate that it will cost \$4.29 per pound and each unit of your final product contains 4 ozs. then it will cost \$1.07 per unit for the necessary ingredients.

$$\frac{\text{cost of ingredients}}{\text{unit}} = \frac{\text{cost of ingredients}}{\text{pound}} \times \frac{\text{ounce(s)}}{\text{unit}} \times \frac{\text{pound(s)}}{\text{ounce}} = \frac{\$4.29}{1} \times \frac{4 \text{ ounces}}{1 \text{ unit}} \times \frac{1 \text{ pound}}{16 \text{ ounces}}$$

To get an idea of the wholesale cost of herbs and spices, you need to visit websites that will sell in 50 lb. boxes or bags. Take their number and divide it in half to get an estimated wholesale cost of that ingredient. Do not use Amazon or eBay for that information; those prices are highly inflated. Here are examples of such places with that kind of information:

- <https://www.americanspice.com/spices/>
- <https://bulkfoods.com/>
- <https://www.webrestaurantstore.com/restaurant-consumables.html> (multiply price by .75 instead)
- **How do I want to present my product to consumers?**
 - **What kind container do I want to use?**
 - **What kind of labeling do I want?**
 - **Are there any government labeling requirements?**

These considerations are very important to define your product's cost and appeal. First time buyers that never tasted your product will decide based on the look of the packaging. You need to visit several websites to see what the cost of packaging is. Do not automatically assume that a co-packer will get your desired packaging for less than you can. Co-packers do not stock every type of packaging in every size and cannot get good pricing when the number of units to be made is small. If you pick a package type that a co-packer has in stock you may get a break in price but if the co-packer has to order an item for you, they will get no big price breaks if you need fewer than 5000 to 10,000 containers depending on the container.

The cheapest way to package is with a bag or pouch. You need to consider the material of construction, if there is a see-through window and if you want the bag or pouch to have a resealable zip or be pre-printed. If you want pre-printing your co-packer will probably have to get a minimum of 1000 pieces and possibly more depending on the supplier. If it is not pre-printed the pouch or bag will need to get labeled. If the bag or pouch is not stocked by the co-packer the minimum quantity that can be ordered is usually between 500-1000 pieces but can be more if the bag/pouch is small. You need to see what companies charge for bags and pouches. Here are some places to look:

- <https://www.stockbagdepot.com/>
- <https://www.packplus.com/>
- <https://www.northatlanticbags.com/>

If you use a jar (jars have wide openings and bottles have narrow openings), you need to consider if you want a glass or plastic jar. If you will need to ship your finished product a long distance, glass jars are much heavier than plastic jars and shipping costs will be much greater. If you use a jar of some kind you will also need a cap and a label. There are generally two kinds of caps available namely, plastic and metal caps; and each can come in different configurations such as solid caps or if there are built-in flaps or even a movable open-closed dial in the cap. For any particular jar, glass or plastic, there will be many more kinds of plastic caps to choose from than there are metal caps. In fact, if you want and find a metal cap to fit your desired jar, that cap will not be available in many colors and if you decide to go one jar size

larger or smaller, a metal cap that fits will likely no longer be available. Also, if you use a metal cap for your product you will need a plastic sifter to go under the cap if you want customers to be able to shake your product from the jar onto their food. Metal caps are generally more expensive than plastic caps and adding a sifter will add material and labor costs to manufacture your product. Plastic caps are the most cost-effective way to go in any case. Much like pouches, if your co-packer does not stock the jar you want your minimum can be over 500 units minimum order quantity (MoQ). Here are some places to take a look at some of the jars and caps for price and MoQ.

- <https://www.oberk.com/>
- <https://www.berlinpackaging.com/>
- <https://www.sks-bottle.com/>

If you use a metal container (tin or canister) it will cost more than a glass or plastic jar and there are fewer sizes to choose from. Metal tins can come with or without a window in the lid. Generally, the only time metal tins get to be similar in price to glass or plastic jars is when you order very large quantities like 10,000 pieces or get them from overseas in bulk. Also, you may need to buy the container separately from the lid. Most distributors sell containers that way. Unfortunately, a case of containers is never the same amount as a case of lids. You will need to buy several cases of containers to use up a case of lids. You can look at the websites above for jars to see the prices of tins. Here are some places to get pricing for tins.

- <https://www.berlinpackaging.com/tins/>
- <https://www.sks-bottle.com/>
- https://www.sav-onbags.com/Cylinder-Tins_c_54.html

Your container may also need a label. The cost of the label will depend on its size, the material of construction (paper, BOPP, mylar, linen, foil, kraft, etc.) and its shape. The cost and the method of adding a label has a lot to do with the shape and size of the label and the container it goes on. Some containers require a hand application and others can be done by machine. Generally, pouches and round jars can be done by machine. Square or odd-shaped containers and many flat tins may need to be done by hand. Odd shaped labels may also need to be manually applied. To get an idea of the cost of labels take a look at the following websites. Note: You will need to look at the container specification to see what sized label is the largest you can use. You can call the container company for that information if it isn't on-line.

- <https://www.labelvalue.com/labels.html?find=primera-primera-lx400-primera-lx400-lx400-27061&sid=02ZjoUkDI2>
- <https://www.onlinelabels.com/materials/inkjet-roll-labels>
- <https://www.printrunner.com/roll-label-printing.html>
- <https://www.onlinelabels.com/materials/inkjet-roll-labels>

If your container is a jar (glass or plastic) or a tin you will need to have a tamper resistant shrink band added to the container so that the contents are protected from tampering. Normally, jar or tin container companies will let you know on-line what sized tamper-resistant shrink band you need for the container you want to use. Again, you can call the company and ask what size they recommend for the container that interests you. Companies that sell tamper-resistant shrink bands include:

- <https://www.tricobraun.com/>
- <https://www.sks-bottle.com/>

You need to know that a co-packer will charge you for things that you do not charge yourself for, including manufacturing costs (labor, overhead, boxes, printing & setup fees, etc.), shipping and their markup. If

you are thinking your total final cost per unit for a barbecue seasoning will be about \$1.00 for 2.5 oz. in a labeled plastic jar with sifter cap, shrink wrapped, and box by the dozen and you only want 120-240 units (10 to 20 boxes) made, no co-packer will do it for you. Prices like \$1.00 per unit require you to supply all raw materials, the manufacturing to be simple and straightforward and your order has to be very large. Manufacturing costs will vary with the order size and your product's unit size. Larger units just cost more to make than smaller units. Manufacturing costs will vary by the number of unit operations (manufacturing steps). Filling a preprinted pouch with pink Himalayan salt is easier to do than assembling a doughnut making kit complete with instructions, batter dispenser, packaged batter pre-mix and several packaged flavored sugar toppings packaged in a large tin. When you make a large number of a single product, say 100,000 units, then a fully automated system could be involved. If you make a small number, like 2500, then it is impractical to use full automation. In that case, a semi-automated process is employed and will incur more labor costs. But small sized items, 1 oz. to 4 ozs., you are probably looking at 75¢ to \$2.00 in unit cost to manufacture. For larger items, 6 ozs. to 1 lb., you are more in the \$1.50 to \$3.50 range per unit. Then there is profit. Depending on the number of units made an 25% to 50% markup is reasonable.

5. You Are Ready

There you have it. Now you have the tools to begin estimating your unit production cost. Doing your own cost estimation will do three things for you; first, it will give you a number to work with, second, it will immerse you into what you need to know about how your product is made and third, you can gauge if the pricing is fair. You will have more control over your business if you understand what is involved in the manufacturing process of your product. There is one more advantage to doing your own costing. A co-packer will know within the first 10 minutes of conversation if you have any understanding of what's involved in manufacturing your product. If you come across as someone who has little knowledge in the details involved to make your product, you are probably thinking it should cost very little to make anyway. If that is what comes across to the co-packer, they will not be willing to spend much time talking to you much less costing your product(s) out. Be prepared if a co-packer asks you, "What price range are you looking at per unit?" or "How big is your first order?" If you can't answer they know you are not serious.

6. Things You Should Not Do (This will be blunt.)

- Co-packers generally make their money on volume (number of units). But, we are less interested in packing 50 units each for 30 SKUs. We are more interested in packing 300 units each for 5 SKUs. The former will cost you a lot more than the latter even though both are 1500 units total.
- Don't ask for scenario pricing for each SKU you want packed. Settle on what you want the product to be, know about how much per unit is reasonable and get a price. Changing the type of packaging, the type of ingredients, and other construction components several times to hone in on the lowest pricing is wasting a co-packer's time if you aren't placing an order that day.
- Don't be unprepared. Be ready to answer all of their questions. Don't be afraid to tell them what your target price or price range per unit is. Only people with no idea of the cost are afraid to offer a number for fear they will accidentally overprice themselves.
- Be serious. If you think you will call 5 co-packers to get 5 estimates and choose the lowest, don't expect a lot of cooperation. Fishing for prices, because you can't be bothered to do your own estimates, will not appeal to a co-packer's sense of your inquiry's seriousness. As a rule of life, don't waste someone's time if you think what you want them to do for you is a waste of your own time. Remember, the process of developing your own cost estimates is self-educational. You will be better off with the knowledge you gain by investigating what is involved to make your product.