



FOOD PRODUCTION

Steps to Scaling Up a Food Product

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Introduction

So, you have an incredible product. Now what? Nailing a recipe is just one step in the product development journey.

When you are ready to start selling the product, there are several considerations. How safe is the product? What is the shelf life? How much and how fast do you want to scale? What type of packaging will you use? Are you creating a brand? Will the brand cover just this product or other products too?

Making great food is not the only part of making a great food product. Let's demystify some of the steps.

From home kitchen to commercial kitchen

Often the first part of scaling up is growing from making a small batch in your home kitchen to making larger batches in a commercial kitchen. There is no magic sales threshold for moving from one space to the next. But if your production is projected to be in the high hundreds to thousands, it is likely time to upgrade to a larger kitchen. Some products may not be permitted to be sold if processed

in your home, so operating out of a commercial kitchen may be required from the beginning.

Equipment considerations

Two major factors when you move into a commercial kitchen are scaling your formula and equipment changes. Likely your home oven can fit only a few sheet pans. When you move to a larger oven in a commercial kitchen, are you going to keep sheet pans and bake more at a time? Or are you going to increase the pan size?





If increasing the pan size, how will that impact your baking time? Or perhaps you are moving from cooking on your gas range to a steam-jacketed kettle. With more surface area being heated, will your product cook or thicken faster? Are you driving off more moisture? Does it change the cook times or order of addition?

Ingredient considerations

Likewise, when scaling your recipe, you may find that it is now unsustainable to crack eggs by hand - you might need to start buying frozen or liquid whole eggs. At the very least, you will have to weigh your current eggs to find the equivalent weight. But for all of your ingredients it will become easier to weigh them in bulk than to weigh them out volumetrically. This is called creating a formula. When you move from volumetrically measured ingredients to ingredients measured by weight you can organize the formula by weight and percentage to make it easier to increase or decrease the total yield with a bit of simple math.

The obvious next step is to test everything in your new environment. Are brownies made in a 9x13 at home baked for the same amount of time as a full sheet pan in a commercial kitchen? What if you are making a switch from electric to gas oven or vice versa? Will that impact baking times and temperatures? By changing the equipment, and potentially the ingredients, when you move to the next scale, you may need to do some testing to get back to your gold standard product that was produced in your home kitchen. Or perhaps what you generate in the new environment will be even better!

Implications of using a commercial kitchen

Logistics of a commercial kitchen, especially if it is shared, can become complicated. When looking for the right space for you, do not base it only on price. Understand if they allow you to store ingredients on site and how much space is allowed for that. Additionally, it is important to understand how scheduling works and the hours that the space is currently available and how

often you will be able to book it. It is also common that commercial kitchens will require that you have liability insurance for your business before booking with them. Make sure that you know what is required before you commit to a space. If you decide to build your own space, understand the regulations and what is required of an inspected space. Although this may be the right next step for you and your business, it is not without its challenges.

From commercial kitchen to co-manufacturer

Perhaps you are ready to be more hands off with your business and instead it is time for you to scale up to a co-manufacturer. This is a big step and requires a lot of management of moving pieces, but it is necessary if you need to meet a production scale that outpaces what you can do on your own.



One initial step will be finding a co-manufacturer that has available capacity and the right processing capabilities for your product. This requires you to know how your product is inspected (USDA or FDA), how it will be sold (frozen, refrigerated or ambient), what type of packaging you plan to use and have an estimated volume of product that you will need to produce in the next year. These are questions that will come up in early conversations with a co-manufacturer. Each co-manufacturer is highly specialized in what they do, so it may seem like a perfect fit —but you need to dig into specifics. They might produce cookies, but after talking to them, you may realize that they only do bulk or individually packaged or tray cookies. You may find that they have a minimum yearly volume of a million units/year. You may find that they have capacity on their retort can line but not their retort pouch line — are you willing to change your packaging format? To meet these minimum volumes, you may need to be prepared to fund a large run before having steady revenue.

Commercial Ingredients

You will need to have all commercial-grade ingredients. No more runs to a membership warehouse; something



you can buy a pallet of, if necessary. Commercial ingredient companies are vast; it's likely that you can find what you need. But it will require a lot of management and potentially more testing as you decide which specific ingredient is the right one. This process is also helped if you are in conversation with a co-manufacturer already. Perhaps they will have in-house ingredients that you can purchase from them rather than forming new relationships with suppliers. Be warned, though: Accurate volume projections will become important for these conversations.

Commercial Equipment

Another big change impacting this scale up phase is that all of the processing equipment is going to be very different. Automation and precision are the name of the game, which decreases flexibility and requires more rigid parameters for equipment use. If the format of your product is very similar to what the co-manufacturer is already doing, they will likely be able to collaborate with you on options. However, if you have a very distinct or unique product, you will need to be the expert on what is required and why. Additionally, there may be a need to purchase large pieces of equipment. Even if just slightly changing the packaging format, it will require change parts that will cost a few thousand dollars and will come out of your pocket.

Many successful food entrepreneurs will state that a good deal of luck is involved in their success stories. All of the pieces have to fall into place at the right time for there to be capacity on a line, and room on a store shelf, and a market need ready to be filled that all align with the new product. Behind all of those stars aligning are the logistics of how much volume you will build in case the product flies off the shelves, which

distribution center and trucking company will be used, how to scale to a regional and then national level, and how to maintain quality in the midst of it all. Food entrepreneurship is not a get-rich-quick scheme. Plenty of successful entrepreneurs have reached the level of national distribution and found that management of the brand was too much for their lives and were unable to find anyone to buy out their company. Or have scaled too quickly and found themselves playing with big numbers, going in and out of accounts without the capital to stabilize against any of the inevitable issues that arise in entrepreneurship.

Conclusion

- Many opportunities exist for entering the food market.
 - There are small-scale options, such as farmers markets and catering.
 - Larger-scale options, such as getting on the grocery store shelf nationwide.
 - There are also lots of other markets to explore, selling into institutions, at a local co-op or cafe, or trade shows.
- Explore options and market test each step of the way to make sure that a larger scale is the right next step for you.
- Becoming a food entrepreneur requires more than just being able to make good food. Business and marketing acumen, salesmanship and a willingness to learn about food regulations are needed.
- Every success story looks different and has a different path. One of the best things you can do is connect with other food entrepreneurs and learn from each other about the joys and trials of food entrepreneurship.

To know more:

<https://ag.purdue.edu/department/foodsci/home-based-vendors.html>

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