

BOOTSTRAPPING THE FOOD REVOLUTION



A NEW ENTREPRENEURS GUIDE TO
STARTING A HYDROPONIC FARM TO TABLE
BUSINESS

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A New Entrepreneurs Guide to Starting a Hydroponic Farm to Table Business

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The Bootstrapping Farmer

Have you ever thought about quitting your job to start your own farm? Are you stuck in a job that you aren't in love with? Do you want to do something about it but don't know how to go from where you are now to where you want to be? I've been there and I feel your pain. Fortunately, you've found just the thing that will help you get on the right track.

I found my way out, and you can too.

I've put together in this ebook the tools and steps to make your farming dreams possible. I will walk you through my journey as I went through it, but in a how-to format. I'll share the resources that I used to help build my confidence, manage fear and doubt, make smart decisions with my money, and give you the most cost efficient designs and methods to get your farm up and running. I've split it up into 10 chapters, taking it step by step so you can read and reference as you begin your own journey.

The Good News

- You don't need a lot of money to start.
- Costs to run this operation will be minimal. Everything is done initially for cost efficiency, knowing that many of us aren't starting with much other than a dream.
- I built this operation 95% by myself with hand tools, materials, a computer and 1k in monthly student debt payments.
- This can be done on less than 1 acre of land and you don't even have to own it.
- Most of the learning, planning and preparing can and should be done while you're still working a paying job.
- I outline everything I've done to this point, so you have the benefit of learning from my mistakes so you can avoid them, saving time and \$\$\$.
- I'll be sharing the most time and cost efficient ways of doing everything I've found. From learning to greenhouse design and knowing when to hire out, we discuss it.

Not Afraid to Say it

I am not special. I was an average student and an average employee my whole life. What got me to go from corporate-owned-button-pusher to where I am today started with listening to voices that told me that my negative self-talk was the only thing keeping me back from achieving the things I wanted.

So basically, unless you have a limiting physical or mental ailment, there's no reason you can't do what I'm doing now. You have to start believing in yourself. We will discuss this further, but for now, take the first action by starting to notice whenever you have that negative self-talk and **shoo it away**, starting NOW. We only have so much mental energy in a day, do not waste it on thoughts that aren't positive or productive.

So, Why Hydroponics?

This isn't your typical farm with rows and rows of corn. Why would you want to do that anyway? \$200k+ machines, destruction of the land, harsh pesticides, Monsanto owned GMO seeds and gigantic loans? No thank you. That's just asking for stress and financial despair. Anyway, that style of farming is in the past. We need to look towards the future of farming and it does not involve soil, weeding, Round-up or wasted resources. Some of the benefits:

- Hydroponics uses up to 90% less water than conventional farming (I will show you how to harvest this water so you can potentially run your farm with ZERO water bill).
- It uses only the essential nutrients for the crop you are growing, with mixes made to the exact requirements, which are readily available (no guesswork).
- Planting schedules are easier to manage and much more predictable than conventional methods.
- Several more harvests per year than conventional farming – plants also grow 30-50% faster.
- We can grow year round making it much easier to experiment with different varieties of crops.
- The particular growing method I show you involves no need for electricity, plumbing or expensive technology in the greenhouse.
- There are a great variety of vegetables (mostly any type of leafy green) and herbs you can grow, giving you many options to fit the needs of your local market.

Why I Am Doing This

This needs to be said. I believe in what I'm doing and I want to share it with as many people as possible. Our land, rivers and air are all hitting their breaking point. When we get our food from giant farms across the country, we decrease our food security, and it doesn't help our local

economies. Even though I am still reliant on fossil fuels, I still want to do my best to be part of the solution instead of a participant in the destruction. We can't make Monsanto and DuPont just go away, we need to change our actions in our everyday lives.

I was fortunate enough to be able to take the time to learn everything on my own one very small step at a time. Many of the resources I used were completely free, and it's really a matter of finding them and making sense of them individually as part of a master plan. I am hoping this ebook turns out to be something I would have wanted when I was first daydreaming about leaving my old job. There are so many people who are not satisfied with working for Company X or Corporation Y, yet the ability to get out of that really comes down to exposing yourself to the right information and taking that first step. I provide as many of these resources as I can, making it easy for you to find and keep track of.

What to Look Forward To

First we need to discuss how we go from unconfident and unsure of our own abilities to a mindset that allows for unlimited growth. You won't get anywhere if you keep telling yourself you can't do it – it's the only surefire way to remain stuck where you are. We will learn how to get organized before things even have the chance of becoming overwhelming. Then we'll look at the many benefits of owning your own business – there are many and you will hear some you may not have yet considered. Once we get in the mind right and goals clear, we will start looking at the process of how to go from an idea to your own super-efficient hydroponics operation.

Last Note

I will recommend several books and online sites for reading. By no means am I suggesting that you need to read them all start to finish. I personally find myself skimming through parts of some and reading 50% of others before the point has been made clear. You should do the same at your own discretion. Also, these are the books that I found most helpful, but I am sure there are many others that would be just as good that I haven't yet read. Keep an open mind and explore your own interests.

Squash the Fear Within and Shift Your Mindset

Clear the Chatter

In the intro, I mentioned about how we need to stop that negative self-talk. There are a few things we can do in order to develop a positive and clear focus, but let me explain a concept that when I first heard it, made something click.

Imagine an arcade game where the character has 100 hit points, and no more. After getting hit enough times, game over. Now relate this to your mental capacity in a given day, or mental hit points. After a long stressful day at work, you are drained, irritable and more susceptible to making dumb mistakes or forgetting something. In school when you had that 10 page paper due – you couldn't write all of it in one sitting, right? Our brains only have so much processing power before it either needs a nap or full nights rest.

The same thing happens when we spend our day thinking about past events, dreaming up scenarios that will never happen, or judging someone else for the way they look. I did this way too much. But eventually, I started catching myself in the act. When I did this, I was able to separate from that thought pattern. I would refocus and put it towards something more productive, saving those mental hit points.

The more we recognize those negative thought patterns, the more we can tame them. Like a sport, the more we practice, the better we get.

In addition to that, a daily meditation practice can help you clear your mind, giving you a sense of clarity that makes the day less scattered and frustrating. I now do this 15-20 minutes in the morning before I do anything else and I will never look back. It's best to try 5 minutes when first starting out, because there is going to be a whole lot of chatter you will need to tame. Stick with it and don't get frustrated, keep refocusing and let the thoughts come and go like clouds. There is no magic here and there's no gold at the end of the rainbow, but give it a month steady practice and you will start to realize the benefits.

Changing Your Mindset and How Your Thoughts Create Your Reality

A couple years ago, I spent an inordinate amount lot of time reading about all of the terrible problems in the world. I was consumed with books and websites about financial crimes, environmental destruction, government spying, etc, etc. It didn't take long for me to view the world completely different as I had only a year before that. Danger was everywhere, government overreach was everywhere things were getting worse and they were not going to get better.

Let me tell you, these things may all be true and I certainly got more educated on the problems, but nothing else positive came from it. I was draining my energy on all of the negativity and my worldview and attitude conformed to it. What was the point of trying to live out your dream when it all might come to an end soon? I eventually realized that while it is important to be aware of issues, and we should make the small changes we can, it is to our detriment if we focus on them too much.

I don't know if it came intentionally or not, but my outlook changed when I started listening to books and podcasts that had a more constructive outlook and realistic way of dealing with all of the information we put in front of ourselves. The knowledge and shift in mindset that came about from listening to more constructive and productive advice helped me to become the positive, focused and motivated person I am today.

You've probably heard the phrase "You are the average of the 5 people you spend the most time with." It didn't mean much to be when I first heard it, but looking back, holy cow is it true. It started with podcasts, which I listened to on my commute and at work. Some of my favorites are: *Entrepreneur on Fire*, *Tim Ferriss Show*, *Smart People Podcast*, *Bulletproof Radio*, *Joe Rogan Experience*, *Rich Roll Podcast*, *Tangentially Speaking* and *the Art of Charm*. I don't agree with everything I hear on these podcasts, but the intelligent conversations, fresh perspectives and advice from self-improvement experts influenced who I am today.

Spending a few hours every day listening to these conversations as if I was part of them allowed me to spend time with some of the most motivating and influential voices on the planet. The guests on these shows opened me up to ideas and resources that I never knew existed. In a way, this sort of opened my mind up to so many of new, positive things, and it became contagious. I would recommend finding your own podcasts which relate to your own interests and make use of dead-time, like when commuting or in place of TV.

Ingrain self-improvement and different perspectives through reading...

This is my recommended reading list for self-improvement. From overcoming fear, to changing beliefs about yourself, these books came very highly recommended. When I picked them up, I saw why. These books all have had such a positive impact on my life, I am forever grateful for these authors putting this information out into the world.

48 Laws of Power, *Robert Greene* – Any book by Robert Greene can make this list. He has a genius way of conveying his ideas about the world and how to navigate through other people's attempts to control, sway or sabotage you. It's important to not be ignorant to their intentions when it might not be so obvious what's happening. We all have our own self-interests and this book is a guide on how to analyze others behavior to correctly assess a situation and act accordingly.

The 50th Law, Robert Greene – Another Robert Greene book with coauthor 50 Cent. Regardless of your opinion of 50 Cent, this book will surprise you. If you're fearful of things in your own life, try reading 50's account and see if your fears are legitimate. Puts things in perspective.

Mindset: The New Psychology of Success, Carol Dweck – This book will explain in great detail how small changes in wording or perspective have a massive influence on outcomes. If you find yourself saying you can't do something or you don't have the smarts or ability, read this book.

Looking for a good podcast to start with? Try episode #261 on *Bulletproof Radio*. It's about techniques you can use in order to create new habits. I was able to relate to the methods the guest Robert Cooper laid out. By the end of the show, I was totally fired up.

If you have any books that you've read yourself that are in line with these goals that you think would be beneficial, I would hear you mention it in a review of this ebook.

Get Organized to Maximize Output

Organization is Crucial for Productivity

If we want to have a clear focus for the day, we need to know what needs to be done and have a set plan for doing it. Don't waste your energy thinking about all the things you could do and what can be done. It's best to focus on 1-2 key tasks to do for each day. This makes it possible to take action even if you are working a 9-5. Keeping the number of tasks few and specific allows us to get those small wins, which helps build momentum. When I was taking my first baby steps, having completed 1 goal per day motivated me enough to make a goal for the next day.

Resist psyching yourself out. Do not spend any time worrying about the myriad of things that need to happen between today and the day of your first sale. You will drive yourself into that negative and self-defeating thought pattern we need to steer clear of. Rome was not built in a day, and neither is a business. Looking back, I would have never believed I would be able to get to the point I am at today. I was only able to do so by making sure I did at least 1 thing every day, no matter how small. If you follow this, you will be surprised where you are in only 2 months from now and you will not want to stop.

In your process of getting organized, it's important to develop a personal system that works best for *you*. For me, I keep a Google Doc where I have the next 30 days planned out with the things I want to accomplish. In the early stages, I would have put something like "Read *4 Hour Work Week*" for Monday-Wednesday, and "Create budget" for Thursday and maybe I'd take Friday night to listen to some podcasts for pure entertainment knowing that even if I didn't finish everything I had planned, I still made a solid effort. I put a link to this document on my favorites bar so I easily see it and thus reminding me to keep it up to date.

This brings me to an important side point – *everything is going to take a bit longer and cost a little more than you planned*. Some days, you're just not going to have it in you. Other times, life gets in the way. You're going to even be shifting these goals around as they come up. Don't force yourself to do something only because 3 weeks ago you said you would when you know you are not quite ready for that project. This is OK, and it's a smart thing to do when done appropriately. Remind yourself, as long as you are focused on the ultimate goal, everything will come in time. Try to enjoy the process and don't get frustrated over the small things that absolutely will come up.

Additionally, when things don't go quite as planned, think of it as the universe presenting you with a challenge. How are you going to deal with it? Think of how Michael Jordan dealt with not making the high school basketball team. He didn't quit, instead he turned that adversity into a motivating force. Character is built through overcoming adversity. It's not quitting, it's driving HARDER towards your goal, knowing on the other side we will become stronger and more resilient as a result. This makes the next hurdle easier to deal with, and so on.

In addition to my 30 day goal setting, every night before bed I write all of the things I need to do for the next day on a post-it note. No matter how small it is, I write it down. If I need to call someone or have something to pick up my way home, I write it down. We want to clear that short-term memory bank for the task at hand. Trying to remember to-do items eats up those hit points.

Apps Are Your Friend

THE best tool for getting things organized is *Evernote*. I could write an entire page on this alone, but I'll simply say that this tool lets you save almost any kind of document, website, voice recording, any type of note that you have. You can even take pictures of documents, save it, and the text will be searchable! Get it, get it, get it!

I also use the app *gTasks Pro* for setting up quick reminders – one of the few things not suited for Evernote. This would be for things which are more than a day in advance that wouldn't go on the daily post-it note. There are many apps similar to this, so test some out and see what you like best.

Another Thing to Get in Order

Your diet. Hopefully you are already a bit conscious about how the food we eat impacts our mental and physical health. If I didn't eat right, I wouldn't have had nearly enough energy or willpower to do what I've done thus far. It wasn't that long ago that I used to be falling asleep in class or falling asleep at my desk at work. On top of that, I'd hardly have any willpower to do anything when I got home. I was eating way too many carbs, and especially at the wrong time of day. I don't mean to bring this guy up again, but Dave Asprey and the *Bulletproof Diet* gave me great road map on how and when to eat for maximum energy and nutrition. I started listening to his podcasts and followed some of the advice being discussed. Within days I started to notice the difference. I learned to take note of how I felt throughout the day. If I felt tired or foggy, I should consider that what I had eaten might have something to do with it. It sounds obvious now, but I really hadn't equated my physical and mental energy with specific foods I was eating to the extent that I do now.

Learn the art of getting your sh*t together through reading...

Spending this critical time on learning the art of organization, knowing which tasks to choose and how to effectively manage time will save more stress than you can possibly imagine. Entrepreneurship is very different from a 9-5. It's all up to you on how your day is spent. No one is telling you what to do, where to be or how to act. You start each day with an opportunity to make it a little better than the last. With that said, here's the list of recommended reading:

4 Hour Work Week, Tim Ferriss – I'm sure you've heard of it, and it's not really about working 4 hours a week. It's mostly about maximizing your output with a fixed amount of time, ways to get out of the corporate 9-5 trap, and so much more. While not many of his suggestions for making money enticed me, it introduced me to the term 'Lifestyle Design', which completely changed my way of thinking. When I was forming the thoughts that I might leave my job, this gave me a huge kick in the ass towards actually doing it. Tons of people have not just left their jobs, but completely changed careers due to this book.

The ONE Thing: The Surprisingly Simple Truth Behind Extraordinary Results, Gary Keller – This is one of those books that drilled into me the importance of focusing on one task at a time. This didn't come very early in the process for me, and I wish it had.

Getting Things Done, David Allen – This is a classic among the productivity circles. If The One Thing doesn't do it for you, try this one. Or read both because developing productive patterns is really the key to success.

The Bulletproof Diet, Dave Asprey – I love how accessible this book is for people who don't have a strong basis in nutrition. It starts off a little intimidating, but it quickly changes course and gives really good advice that helped me improve my focus and daily energy level. He is a bit controversial, but I've personally found that the recommendations work. Also, the coffee recipe he pushes is delicious. I make it every morning. However, I don't buy the beans directly from him, it's unnecessarily expensive.

Why You Need to Own a Business

The Benefits Are Even Better Than You Think

There are obvious reasons like setting your own schedule, not having to report to a boss and freedom from annoying coworkers. I won't get into these, but there are other less obvious reasons that are just as important. Here are a few which resonate with me.

What's Your Value?

If you are working for someone else, consider that you've already accepted less than you are worth. If you didn't, then you wouldn't be a profitable employee. One thing that I will never miss is that meeting once a year when my boss would talk to me about my job performance. I'll admit, these meetings were generally positive. But you know, they could say whatever they wanted, because at the end of the day, their real opinion of you is represented in that bonus figure or next year's salary increase.

Never again should you be beholden to one person's opinion of your worth.

In a perfect world, employees get paid by the amount of value they bring to the table. Sometimes we think we are owed a raise just because we clocked an extra year, but did we really deserve it? This is what tends to happen in government, which operates on time scales, this would partly explain why they tend to be inefficient.

Smart companies pay based on how much value you are providing and entrepreneurship is really not all that different. So, forge your own path by asking *how can I create value to others?* Thinking in terms of value instead of merely profit gives us a much better perspective in how we can reach and attract customers that want our product. The difference in between these two approaches is also the difference between coming off like a used car salesman, or someone who is improving someone's life through a unique offering.

If you stick to the value approach, you will come up with much better ideas than if you only asked, 'how could I maximize profits?' I will share some of my own ideas on this later in regards to a hydroponic business.

Lifestyle Design

As mentioned in the previous chapter, lifestyle design was the biggest thing I got from reading the *4 Hour Work Week*. Before I had picked up this book, I only had vague ideas of what I

wanted to do. I thought, because I am working for myself, I won't care how hard I have to work, I'll do anything to have a successful business. But, what does a profitable business matter if you are more miserable than you were stuck in the office? Learn to navigate the best of both worlds. Understand that you only have so much time and energy in one day, and happiness is more important than anything else. You don't want to be nervously standing around waiting for customers to come to you when you can shape your sales approach in a way that sales are made online or ahead of time. There will even soon become a point where we will need to consider paying someone else to do our work because they can do it faster, better and/or cheaper. We want to get to a point where our time is spent only on the things that actually drive the business forward and doing the things we love.

Whoa wait, paying someone else? Wasn't this supposed to be a solo venture? Yes, absolutely – *at the beginning*. The building of any business is a grind. But as your business grows and profits become consistent, you should start following the 80/20 principle which in our application we ask – what are the 20% of things that I can do for my business that will drive 80% of my revenue or growth?? That 20% becomes the things you would then begin to focus on. Let an employee or contractor take care of the other 80%. An example of this would be paying an employee to run a farm stand every Saturday while you are out building relationships, learning more about your niche and finding new sales channels. I know the thought of hiring an employee can be scary and complex sounding at this stage, but remember, we are a ways off from here at this point. By the time we get there, we would have already tackled so many hurdles, hiring an employee will seem like just another thing to do.

Lifestyle design is built into the process I will layout in later posts, as you will see. But hopefully already you are starting to understand why the reading lists provided are important. We need to be able to see things through the proper lens in order to envision where we want to be 3-5 years from now so we can start to make it a reality.

Taxes

I know, I know, not a fun subject but stick with me for a minute, this is where one of the best benefits comes into play.

Consider that, in owning your own business, you can keep 100% of the profits without being subject to federal income tax, if you reinvest into your business. Why give away 10-40% (higher profit, higher tax), when you can instead take all of your net profits, and reinvest them into expanding your venture? You can even use this money to start a complimentary off-shoot or invest it in physical assets like rental properties.

For example, if you make \$50k in net profit in 1 year and take it all as income, it will be taxed at 25%. That's 25% of your profits taken away by Uncle Sam and 25% less cash to put to use. But, if instead you reinvest that \$50k, you get to use all of it and Uncle Sam doesn't get to touch it.

\$50k growing at 5% for 20 years compounded annually = \$132,664.89

\$37.5k (\$50k taxed at 25%) growing at 5% for 20 years compounded annually = \$99,498.66

See where I am going with this?

Deductions

There are TONS of write-offs you can take that a salaried employee cannot. A write-off is a business related expense that you can deduct from your taxable income (that \$50k). I write off a portion of my mortgage, vehicle expenses, and electric bills, to name a few.

If you don't do it right at the beginning, you will eventually want to find a good accountant who will help guide you through maximizing your tax returns. Trust me, doing this right can bring you a lot of your own money back to you.

OK, that's as far as I'll go with taxes and deductions, but aren't you glad you learned that?

Immerse yourself in the benefits of owning a business and reaching your customers through reading...

Small Time Operator, Bernard B. Kamoroff – This book is packed full of information on things you should consider while starting and running a business. It has excellent summary level information on almost everything to be aware of without getting caught up in too much detail.

Anything from Seth Godin. He's written a lot of books, and while I've only had the chance to read a few, I read his blog daily. He's a true genius when it comes to getting you in the right mindset regarding business and marketing in 2015. This is a very different world than it was 20 years ago. Many of the ideas and tactics that made our parents successful no longer apply. Pick one book that interests you the most and I'm confident you will become a follower. Seth should definitely spend some time being 1 of the 5 people you spend most of your time with.

The Lean Start Up, Eric Ries – While the content isn't about starting a hydroponics business, it teaches you the principles of starting a lean business. There are many approaches to test ideas before you go buying a whole bunch of inventory or getting yourself into a big purchase that you can't easily get out of. The ideas presented in this book will get you thinking in ways that could save you from some costly mistakes.

Financial Planning and Quick Number\$

Get a Plan, Man

What follows from this point will become much more intuitive if we are both coming at this after having been exposed to the ideas in the recommended reading. Lean start-up principles, lifestyle design, organization and being able to let go of those negative thoughts are all tools which will help us understand and improve upon what is laid out in this chapter. No need to have read everything yet, but the more the better.

Also, disclaimer: These are my thoughts and ideas which have been learned through trial and error. You might have better ones, take them and run with it.

By now, you should be feeling pretty excited about the challenge ahead. However, none of this is going to be possible without a solid financial plan. Everyone's circumstances will be different, and I will do my best to lay out a variety of options that should be available to you in order to get this business off the ground.

I'll assume that you have at least one source of income. If not, at least a rich uncle (kidding). We don't need a ton of money to start, but we do need to take inventory of what money is coming in, and what is going out.

My favorite tool for keeping track of expenses is *Mint.com*. I'll start off by saying this is a very reliable and secure website, I've had no problems with it up to this point. It's also free. After signing up, it will ask you for your information on your credit cards, bank account, auto payments, – basically any money that is moving in and out of your virtual piggy bank. As long as you have all of your accounts in there, it will automatically log and organize every dollar that comes in or out. You can set up budgets for individual categories like groceries, gas and rent. Start setting budget goals and start to think about what you will have to do to meet them.

We need to prepare for the day when we are ready to leave our 9-5. Starting this process now will help us ease the burden as we make incremental sacrifices in areas where we maybe spend a little too much. For me, I quickly realized I was spending way too much on lunch at work. It's damn expensive going to Panera or Saladworks every day. Hey, maybe this is the real reason I decided to start growing my own produce.

My personal approach was to get my expenses down to as little as possible, making small improvements every month. I knew I would have a fixed amount of expenses each month that I would need to cover while I was building the business without the support of a paycheck. Cutting back a little bit each month helps normalize our new penny-pinching ways.

I used to be terrified at the thought of that paycheck coming to an end. It took me a while to get over this anxiety, but one day it hit me. It seems so simple now, but I had this realization come

over me that said “enough of this, just put 12 months expenses aside and spend ZERO more mental energy worrying about it.” I decided from then on that’s what I would do and I did not look back.

The Fork in the Road

Given that everyone’s situation will be different, let’s attack this from what I would think is a worst case scenario that should give us a baseline for most people’s circumstances.

Worst case scenario: Your fresh out of school or your current pay sucks and saving any meaningful amount of money isn’t going to happen.

I feel for you, but don’t despair, we’ll make this work. Let me tell you my story and hopefully you will use the advice I throw in as a guide to make this happen for you.

I was living in a Philadelphia apartment when this process began. Right after setting up my Mint.com account, I knew I would be able to save a small bit of money after my usual expenses, however, I needed to save even more due to my student loans. I was terrified at the thought of quitting my job with such a large amount of debt hanging over me. So, you know what I did? I moved in with Mom and Dad. That’s right, I was that guy living in the basement for 13 months and 1 week in order to save enough money and focus on building on some vague sense of what I wanted to do. It ended up being a blessing because it meant an extra hour commute each day to work, where I had the more time to absorb podcasts and audio books.

I didn’t have to pay rent, do laundry, and some of my meals were taken care of. Also, I didn’t have any friends nearby to distract me from my daily goals and it kept me much more focused (sometimes out of pure boredom). If you want to save a little more money to build that cushion, get a roommate, or get another roommate, or do what I did. Any sacrifice you make here will solidify the goal at hand that much more.

An additional note on the above – I chose to take 13 months to save money and develop my idea, but it does not need to take you that long. I am giving you those 13 months of idea building right here. I doubt it should take you anywhere near that amount of time to have exposed yourself to the necessary information to get going. I wasted tons of time on ideas that I now look back on as being completely unrealistic or ideas that ended up not being my path. Having the plan laid out for you is going to save you a lot of time and mental anguish.

In conjunction with this new venture, I also knew I wanted to buy a house with a good property for this idea to work at its maximum efficiency. This means I also had to save up to cover the down payment. 10 months into my stay with my new ‘roommates’, I closed on my dream property in rural NC. My total out-of-pocket expenses with the down payment was about \$7k. I continued to work for 3 months after purchasing my house so I could collect on some work bonuses. Those 3 months were tough, but again, it only motivated me more.

If you're wondering how that's even possible to only be out \$7k on 193k mortgage, it's because I negotiated that the seller cover \$5k in closing costs. Also, I took advantage of a 3% down mortgage loan offer from Fannie & Freddie (even 0% down is available from USDA). It's really 2006 all over again... but this can be to your benefit.

Let's be clear though, you do NOT need to buy a house with property like I did. Find rentable land as close to you as possible. In most areas, this won't cost more than a few hundred bucks a month. Remember, we don't need much land, just space for the greenhouses and if there's no accessible electric, get a portable generator for running a water pump from your rain collector. The greenhouse design I lay out for you can be taken apart and moved if need be.

In those 13 months, I saved enough to cover my student loans for a year, covered the down payment on my house, and even had a little extra for filling in all the new extra space.

Savings

The day I left my job, I had \$10k in my bank account, \$8k in stocks ready to be sold and \$22k from my 401k, net of taxes and early withdraw penalty (I wanted to put that money to WORK). I knew I only really needed that \$17k at a minimum to get to the point where I could start bringing in some cash. Add \$12k for 12 months of student loans and I needed about \$30k to feel comfortable about my situation for a whole year. Thankfully for me, my wife who had a job was able to cover the mortgage, groceries and bills.

Remember, we don't have to do this all at once. It's best to start saving money now, begin practicing, and build as much as you can as you continue to work your current job.

Get a Loan, If You Must

I don't expect everyone to have this luxury of savings, so getting a business loan for what you will need to get going is completely reasonable. If you have decent credit and walk into a bank with a business plan, you can definitely get funded. Alternatively, thanks to the internet there are lots of peer-to-peer resources popping up that can help fund your venture. Lendingclub.com is one, but there are others. I have not used this, so if you are going to go down this route, do the proper research before committing to anything.

Credit Cards

Another alternative are 0% interest credit cards. There are quite a few out there that offer 0% interest on all of your purchases for the first 12-15 months. Is it a little bit riskier? Of course, but 12-15 months before you start having to pay interest on anything you need to get your farm going isn't all that bad of an idea if the other options don't work for you. Open 3 of these with a 5k credit line, and you now have access to most of the credit you need to buy everything to build

your first greenhouse and start bringing in cash. Check out nerdwallet.com to see what might be available for you.

Peer-to-Peer

If you can't save, get traditional bank loan, and your credit sucks, we STILL have options. Look for an investor. It's not a massive sum of money we are talking here, it's possible that with enough passion behind your plans, someone will be willing to finance your start. *Kickstarter* is an also option, but I am personally not a fan of asking all of your Facebook friends for a handout when I know you can do it on your own. If you do choose to do a *Kickstarter*, absolutely offer something in return down the line, it will greatly increase your chances of getting it funded. Selling the idea with passion and offering 20% off all future purchases for a \$500 donation is one good example.

Buy Yourself Some Time

If you've been a reliable worker for your current company, ask to work from home part-time. I was able to do this for the last 3 months leading up to my last day. I would spend 2 weeks at the new house and then 2 weeks back in the office. Getting that paycheck while you start is a huge plus. However, the only reason I was able to do it was because they trusted in the fact that I would not simply disappear and pile work onto others. Sure, I did spend half my day outside working on various projects, but I did make sure to stay on top of all my responsibilities.

If you have a good relationship with your boss and there is mutual trust, be up front about your plans, they just might support you for a little while.

Get your money right through reading...

I could list lots of great resources here, but I understand many of us are not well versed in finance, so I won't go crazy. However, I can easily make this one recommendation to start you off.

The Total Money Makeover: Classic Edition: A Proven Plan for Financial Fitness, Dave Ramsey
Dave Ramsey is one guy I can definitely recommend as an excellent resource in putting your financial situation in perspective and taking action. He's full of tips and advice to get you on track with whatever your financial goals are – in our case funding a business. In addition to his books, he has a top 10 podcast in the Business section and I would suggest you check that out as well. The episodes aren't too long or complex, they are perfect for a short walk, drive or even listening while you brew your morning coffee.

Laying the Groundwork and Getting Practice

Practice? Yes, I'm Talkin Bout Practice

Now that we've got the right mindset and our financial plan is coming together, it's time to talk about dipping our toes into the wonderful world of hydroponics.

So, say you want jump into hydroponics but have zero experience with it? Not a problem. Remember, everyone in this industry started from where you are right now. Yes, its been around for a while, but information sharing, technology and conventional farming failures are allowing it to rapidly increase in use. This is especially true in regards to vertical farming.

We are going to want to start small and practice a bit before we start going to a commercial-scale. Starting small allows us to gain a bit of experience in seed germination, raft building and lays the groundwork for getting the systems in place for when we decide to start taking it to market. Also, since most of the time is spent on the build, once our seeds are put into germination trays, we can go back to immersing ourselves in the information outlined in previous sections.

You may be wondering, if this is so and easy, why isn't everyone doing this method? I see 3 reasons for this. First, the patent on this method recently expired, so it wasn't a commercial option until recently. Second, it isn't the most efficient as far as maximizing output for greenhouse space. This becomes very important when you spend 30k on a high-tech greenhouse and need to maximize plant production. Third, many operations start out with investor's cash or a huge amount of financing thinking that a high-tech greenhouse is the only way to go.

Our goal is to avoid getting ourselves into a pile of debt. Such a large and technical structure only complicates things for us, and it's not necessary to put out a great product. A lot of money can be spent on all kinds of monitoring systems and pumps to scale things for mass production. This is irrelevant to us because we won't be selling to Costco.

There's also no need to add all of that extra cost and labor by re-spacing your plants several times throughout the process with this method. In fact, this method does not allow for re-spacing. This is why we trade-off a bit on efficiency of greenhouse space and plant output. Considering the barriers to entry that arise by trying to maximize output in an expensive greenhouse, the trade-off is an easy one.

The only way this works on a bootstrapping budget is if we keep things at its lowest cost, and up-most simplicity. The good news is that this method can still be scaled up to be a profitable venture, and that's exactly what we will be doing.

So, what is this method I speak of?

Simply known as the Kratky method, it is a non-circulating (the nutrient solution sits in a pool), suspended pot (net pots or grow grips are placed into a foam board with holes) growing style that is as set-it and forget-it as you can possibly get.

I will now point you to Dr. Kratky's own research paper where you will find everything you need to know about this design. Search '*A Suspended Net-Pot, Non-Circulating Hydroponic Method for Commercial Production of Leafy, Romaine, and Semi-Head Lettuce*' on the internet. Familiarize yourself with the process and what will need to be done.

The YouTube channel of *mhpgardener* has lots of great videos, including an excellent demonstration on the Kratky method titled '*The Kratky Method & Floating Raft Hydroponics*'. I would recommend taking a look at it.

Building Your First Raft

Now it's time to build that first raft so we can begin to see the magically simplistic method in action. You can make the tank any length and width you want, but keep in mind, most lumber and foam boards are most easily accessible in 8' lengths, so I would suggest by making your first tank 8'x4'.

You will need:

- (3) 8' x 6" x 2" lumber found at your local lumber supply or big box store such as Lowes or Home Depot. This means 8 foot long, 6 inches wide, and 2 inches thick. However, and don't get confused, but you will find the actual measurements of that board to be 8' x 5 1/2" x 1.5". Do not worry about this, as this is widely known and assumed when referring to an 8' x 6" x 2" board.

- 2 1/2" Deck screws. Surprisingly, I found Amazon to be a bit cheaper than Home Depot or Lowes. Make sure you get deck screws so they will not rust in an outdoor environment and are made to be drilled into wood. Tip – pre-drill your holes for the screws, it makes life much easier.

- 6 mil black construction film. In putting this info together, was flabbergasted that Amazon was about half the price as my local Lowes. Guess I could have saved a bit of money myself on that one...

- 8' x 4' foam insulation board found at your local lumber supply or big box store. You can get either 1/2" or 3/4" inch thickness. I prefer the 1/2" thick board because it's a little cheaper and I feel as it gives a little bit more air space for the young roots. I also prefer a reflective or white color as we want to maximize light reflection in the greenhouse.

- 1 7/8" arbored hole saw and a 7/8" arbored hole saw (making 2" and 1" holes, respectively). I am listing 2 because we will want to experiment with different crops requiring different hole sizes. For example, cilantro would be best in a 1" hole and broccoli we would want a 2" hole. If

you are wondering what arbored means here, it's simply that you can easily insert the hole saw into a drill without the need of buying a mandrel.

- Grow grips or net pots in 1" and 2" sizes. I personally am a fan of the grow grips, even though net pots the most commonly used. Grow Grips are a newer product that can be reused over and over and without the hassle of needing media to hold the plant in place.

- Staple gun and staples to secure the black film.

- Saw, hand or electric, to cut one of the 8' boards in half. If you don't have a saw yet, Home Depot or Lowes can cut it for you.

- Drill for the screws. Additionally, a 3/16" drill bit will give you the perfect hole size when pre-drilling for screws.

Nutrient Solutions

We have a variety of options here. For now, you may want to start small with a liquid formula designed specifically for whatever crop you want to start with. I suggest starting out with lettuce because of the amount of varieties available and their ability to handle a wide range of temperatures. Find a variety that is best suited for your climate and season.

The liquid formulas are great for small hobbyists as you only need to shake, measure and pour in the tank. Alternatively, you can get a small bag of a dry complete mix while testing things out. However, once you start scaling up your operation, you will definitely want to mix your own formulas. Lettuce for example, you need 3 raw materials, magnesium sulfate (Epsom salts), Chem-grow 8-15-36 and calcium nitrate. I purchase all of mine from hydro-gardens.com.

Cover That Tank!

I've seen at least 5 videos of people talking about they learned this mistake the hard way. Think about it – as the roots grow, they drink the solution which gets lower and lower, promoting the air zone and deeper root growth. But, if you have your rafts outside and it rains, your tank is going to fill up with water drowning and suffocating your roots!

You can cover your tank easily with only a few parts. For now, I'll tell you how to do this on a small practice scale, and later when we build our first greenhouse, we are going to scale it up a bit (with some extra important features). Items for a single raft cover:

- (4) 10' x 1/2" PVC Pipes found at your local big box store.

- Poly greenhouse film. The cheaper construction plastic is not what we want here, as most of them will block the UV rays that we want to hit the plants. We need a width that spans at least the length of our PVC pipe.

- Snap Clamps for 1/2" PVC Pipe.

- 1/2" pipe ties.

Installation should become pretty obvious. We want to create a mini hoop house. First install the pipe ties on each side. We have 4 PVC pipes so we want 1 on each end of the 8 ft length and 2 others at equal distant spacing for a total of 4 pipe ties on each side. Slide and bend the PVC pipes into these ties and screw secure. Cover with plastic, trim to size, and secure the plastic with the snap clamps. All done. Easy peasy.

Start Your Seedlings

First, let me say that while most seedlings are started in a very similar manner, there are some nuances such as time and temperature which are very dependent the crop you are growing. I much prefer to start my seeds in either a perlite and vermiculite 50/50 mix, or simply in small-sized expanded shale due. Perlite and vermiculite can be found online or at most garden stores. Home Depot and Lowes should carry it during the growing season. Expanded shale can be a little tricky to find locally, but I do prefer it over anything else since it can be reused over and over again. If you can't find expanded shale in your area, Amazon does offer it for a what-other-option-do-you-have price (although it's not terrible).

There are other options like Rockwool cubes, but you can only use these once making it a bit pricey. Once we scale way up we should then consider this as an option as we get more concerned about time efficiency. These cubes can be placed directly in net pots when it's time to transplant, saving you the hassle of sorting out the seedlings to be put in Grow Grips or other media.

Start by putting either one of these media into a 1020 tray without drain holes. Find a container similar to a small Gatorade bottle and drill a small hole in the bottom of it. Fill the bottle up with purified* or rain water with a few drops of nutrient solution (do not overdo it here, the seeds have some nutrition already packed in them and you can definitely over fertilize at this stage). Keep the cap on and place it in the 1020 tray. The water will empty out up to the point of the hole on the bottom, and with the media, it will wick up the water to the seeds perfectly.

**Note – Brita filtered water does not count as purified. It does a lousy job even for your drinking water and your plants won't appreciate it either. If you don't want to rely on rain water, get a Berkey filter. It is well worth the up-front cost, regardless if you use it for hydroponics or not. It will last you years and years, providing you with the best water for your drinking and cooking. It does not waste any water like a reverse osmosis system and there is nothing to install.*

For a great video on the seed germination method discussed above, check out a YouTube video from the guys at *Bright Agrotech* titled '*Seed Starting Wicking Bed*'.

As I mentioned before temperature and light requirements depend on the crop. This information is easily accessible online with a quick google search or the reading the seed packet instructions. One thing you will eventually need for when the weather starts to get cold is a seedling heat mat. This will give your seeds the best chance for germination when ambient temperatures are below their ideal range.

Tip – I found nearly all of the materials required are cheapest on online compared to the big box hardware stores. Amazon was perfect for me since I just had to click and then wait for it to arrive. No driving around wasting time and no forgetting supplies after I've left the store. I also have an Amazon Visa card that gives me 3% back on all purchases with them. This adds up to some nice rewards, so you might consider doing the same. Also, if you don't yet have Amazon Prime, I think it is well worth the cost. Many people don't realize is that you can share your prime membership with your whole family. My wife, her mom, my parents and my brother's family all benefit from 1 purchase of a Prime membership, while still using their own accounts.

Transplanting

After your seedlings have developed their first set of true leaves, it is time to get them into the rafts. Do this by carefully by putting your hand under the rock media and separating out each of the seedlings. Pick the strongest looking ones for transplant. Following the raft construction directions from Dr. Kratky, place in the Grow Grip or net pot in a hole in the raft. Fill your tank, add the nutrient solution as outlined by Dr. Kratky, and wait for magic to happen!

**Note that each crop requires different amounts of time for germination and transplant. Use the resources outlined below or an internet search to determine when the ideal time to transplant is.*

Pests

You may find that once your plants get going, bugs have snacked on some of your plants. This isn't a big deal when you're first starting out, but once you begin to market your produce, this can start to be a problem.

When you get to the point of selling, it's time to dive into what is called Integrated Pest Management.

We may need some organic sprays to help us out. Sometimes something as simple as spraying a bit of soapy water on the plants can keep away harmful insects. The pests you will have to deal with will depend on your specific climate/region/etc. Evaluate the particular issues you are seeing and start researching the best ways to tackle the specific problem you are having. Again, this isn't something we want to worry about right now, we have enough on our plate. Just keep it in mind as something we will eventually need to deal with.

Get to know the Kratky method and seed propagation through reading...

A Suspended Net-Pot, Non-Circulating Hydroponic Method for Commercial Production of Leafy, Romaine, and Semi-Head Lettuce, B. A. Kratky – This was my bible when I first started. Everything you need to know to get started and the science behind it.

The New Seed-Starter's Handbook, Nancy Bubel – The art of propagating seeds has not changed much throughout the years. This is a very well-respected go to guide on starting all kinds of crops. My personal favorite.

Hydroponic Food Production – A Definitive Guidebook, Howard M. Resh – The title explains it all. While this book has a bit more detail than you need to know, it's important to see all the possibilities of hydroponics. There are many ways to do hydroponics and you should be aware of them. I did not choose any of the methods in this book however because the one I describe is the lowest cost and easiest to begin with. Maybe one day after the business grows you will want to change your approach, but for now, we are limited on time, experience and money as bootstrapping solopreneurs.

YouTube is also your friend here. There are hundreds of videos on the Kratky methods and people's own hobby designs. Immerse yourself.

Design for Workflow

Design for Efficiency and Scale

For me, this was the best part.

I had just bought a new home and had 3 months before I moved in to tinker around with ideas about how I wanted the layout of this project to come together. I had recently read a few books on Permaculture, which is an amazing system of strategic planning to nurture an ecosystem that can produce in abundance. It's really an incredible study I had once considered pursuing as my new career, but economics got in the way. Permaculture allows nature to do its thing, with the guiding hand of planning and planting, but it takes several years to develop in a way where you could consider making any profit from it. Regardless, that time was not wasted. I walked away with knowing the principle of 'zones', which influenced all of this planning of my new property. Let me explain this concept to you the best way I can.

Imagine you are planning a garden and you want 10 garden boxes, a couple of rows of corn, tomatoes and cucumbers. If you put that garden all the way at the end of your property, say 2 acres away, how convenient is it for you to get to that area? Every time you want to go out to the garden, you have to intentionally decide you are going to go out and walk the 2 acres to get there. In reality, you will be visiting that garden a lot less than you would if you put that garden right up against your house on the way to the mailbox. If the garden was in a spot you passed every day, your chances of noticing a bug eating your tomatoes, or weeds overtaking your new transplants is much higher, and you are likely to address the issue before it's too late.

It boils down to this:

We want to design our operation in a way that makes everything close, accessible and easy to maintain while keeping an eye towards the future.

If we are harvesting water off of a structure, we want to make sure we can run a hose long enough to get to the Kratky rafts. If we have a separate room for seedlings, we want to keep it within walking distance of the greenhouses so we don't need to spend time loading them onto a vehicle. We also want to have a place where we can keep tools and nutrients close by, and maybe even a little area for relaxing and enjoying the work we have done. If you are renting land off of your primary residence, consider spending some money on a mountable tool box for your truck.

And yes, you will need a truck. I reluctantly sold my car, and if you are serious about your business, you will need to do the same.

From this point, keep in mind that everyone's situations is going to be a little different. Maybe not everything is ideal for now, but once we bring in profits, we will look to improve our systems to increase our efficiency and lower costs even further.

The ideal situation would be to have your business and home on the same property. It will end up saving you a lot of time that you can use to work on building up your business and spending more time with family, friends or hobbies.

Learn about the wonders of Permaculture and thinking in 'zones' through reading...

Sepp Holzer's Permaculture, Sepp Holzer – Not directly related to anything we need to know for a hydroponics business, but it's a quick read and it's amazing how this guy works with nature to create a sustainable farm with a fraction of the work it would take by conventional means. I wanted to get a book on Permaculture on this list in case you haven't heard of it. It's cool stuff and will convince you that we do NOT need Monsanto to make 'improvements' to feed everyone on the planet.

Permits & Business Formation – Get Good with the Law

If you are like me, the mere mention of permits, zoning and the different governmental departments we have to deal with makes your eyes glaze over and puts you into an immediate daydream.

Trust me, it was much easier than I thought.

Every county in the country is going to be a little different, so I'll only give you the basics on what you need to know so that you can find out exactly what you need to do.

Zoning

The first thing we need to be conscious of is zoning. This is important because every county has certain areas which they have designated for specific uses. For example, if you are looking to purchase a home in a sub-division (you know, the suburbs with the houses that all look the same) you're likely to have zoning restrictions. I mean, it makes sense. If you bought a home in a quiet residential area, would you like it if all of a sudden your neighbor built a space for local bands to come practice their riffs? No, you would not. So with this in mind, they place restrictions on the types of businesses you can operate and the kinds of livestock you can keep. Sad to say, but some areas even restrict collecting rainwater.

The more rural you are, the less likely you are to have any restrictions. Before you buy property or get into any type of rental contract, check what the zoning ordinances are by asking the realtor, calling your local planning & inspections or researching it online. It's really only a 5 minute check that is absolutely vital.

Permits

We'll likely need a building permit for that greenhouse.

If you are going to build any structures, including our easy to build greenhouse, you might need a permit for it. In my area, this applies if any side of the structure is at least 12 feet long. How they come up with that, I don't know. You can look online at your county's website to see what applies in your area. Personally, I've found these websites to be a little confusing. As you know, government isn't always the best or easiest to deal with, so I recommend simply calling your local planning & inspections office and asking them what forms you need to fill out and what the fees are. My fee was \$90 per application, so if you think you might want to build a couple additional greenhouses in the future, throw them all on there to save you some time and money. Also, keep in mind that they don't like you building near septic tanks, so plan around it.

Next thing you will want to do is to check with your local department of agriculture to see if you need any permits to sell produce. In many cases, you will find there's nothing to do here, as was the case for me.

If you want to process your produce in any way, like making a salad mix or turning your cucumbers into cucumber soup, you will likely need to hook up with a local kitchen or commissary. Start by calling your local health department for any points of consideration as you plan. We will touch on this again a bit later.

Forming a Business Entity

When you are ready to sell to the market, you will want to get yourself a tax ID and set up your business structure. This isn't all that difficult. A tax ID, also known as an EIN, can be obtained online in only a few minutes. It would be best to set up as an LLC rather than a sole proprietor since we will be selling food. If something were to go terribly awry and a customer gets harmed from something you sold them, there is much more protection available to you. The key difference being that your personal assets are not put at risk with an LLC. It isn't always rock solid, but it is much safer overall.

No suggested reading here...

Just do your due diligence, take an afternoon, find out everything you need to do, and take notes. Most importantly, be polite with everyone you deal with in your local government. Lack of good communication could cause your paperwork to be held up. The nicer you are, the more likely they will be willing to walk you through the process.

Water Collection

First you will need to make sure this is legal in your area. It's crazy I have to even say that, but its true, collecting water in some parts of the country is illegal.

IBC Totes are the best.

If you have any structure nearby that you can collect rainwater off of, you should do that. Look on Craigslist for food grade IBC totes which we will use to store the collected water. The totes are easily hooked up to a pump so we can draw the water to our Kratky tanks.

Search the video tutorial titled '*Rainwater Collection System*' from YouTube member *LDS Prepper*. I used this when putting together my IBC totes. Note that he gives several options for connecting 2 totes together. I used the method of drilling a hole in the top of the bottom tote and using a uniseal to make the hole water tight. This made the project a breeze. Uniseals are awesome.

All of the parts required are shown in the video. Try and design this using the same principles, but with your own design best suited for your set up. I got a little confused as to what was needed for the bottom IBC tote water outlet, so I've listed those parts to make it a bit easier for you. Also, make sure you buy all Schedule 40 PVC. There are 3 common types of PVC, Schedule 80, Schedule 40 and CPVC, which are all different and not interchangeable.

Put as many of these around the property as you need. Attach a short hose from the IBC tote going to a water pump, which will then pump your water through the pump outlet into your long hose. I bought the 1500 GPH portable utility pump from Harbor Freight and it is mighty powerful for the price.

Greenhouse Rain Gutter

Another good method to collect water is to tape a channel to the sides of your greenhouse. Common J-Channel sold at the big box stores would work fine. Make sure the tape you buy is strong and applicable for outdoor use. Tape from the top edge of the J-Channel so water does not get behind the channel.

Have the channel extend a foot past the greenhouse, and then put a rain barrel or IBC tote at each end. If you are doing this on the 6 ft tunnel, you will have to bury the rain barrel a bit into the ground to make it low enough for the water to fall into. For a video showing this great, low cost alternative to other expensive greenhouse gutter systems, search '*How to make a cheap simple and easy polytunnel gutter water collecting device*' from *allotmentdiary* on YouTube.

You can stick your short hose into the barrel and draw as you need to your tanks. Be careful not to completely drain the tank and have the pump run dry.

Climate Considerations

The big advantage of growing leafy greens is that they can withstand a wide range of temperatures. Lettuce for example, has heat and cold tolerant varieties. With just a few minutes of research, you'll know exactly what kind to grow depending on your season and climate.

During intense summer heat, we may need to throw a shade cloth on top of our greenhouse to keep it cool and reduce the solar radiation. In the frigid winter, we can consider adding another layer of greenhouse film. Check out the YouTube video titled 'Wiggle Wire & Double Layer Greenhouses' from Dr. Nate Storey at Bright Agrotech if you live in an especially cold environment.

Get a clear idea of what needs to be done through reading... That Johnny Seeds PDF. I probably read this 10 times before I picked up a tool so I didn't forget anything or waste materials.

Increase the Value of your Product

"Now, you know it's up to you whether or not you want to just do the bare minimum. Or... well, like Brian, for example, has thirty-seven pieces of flair."

– Office Space

We are going to spend the rest of this chapter looking at ways to maximize the price we get for our greens, so we can definitely do better in this regard if we are savvy enough.

****To download a Production & Income Estimator, absolutely free, please visit my website at bootstrappingthefoodrevolution.com.***

Let's assume for a minute that you chose to grow nothing but a few lettuce varieties. What are your options to get that to market? You can sell this yourself at a farmers market, to a grocery store or even sell from a stand at your home. There is nothing wrong with these this and many people do it all the time.

We Can Do Better

I can buy an 11 oz package of organic mixed greens, spinach or kale at my local grocery chain for \$4.99. If we convert this a per lb basis, it would be \$7.27. Now, keep in mind that this is the grocery store retail price, and they are most likely going to offer us a bit less than half of that at the wholesale price. We really don't want to go down this route at this point. You will likely need more greenhouses than you want in order to produce enough that you can 1) fill their demand 2) bring in enough income to make it worth your while. You also put a lot of pressure on yourself to put out a perfect product with high packaging costs, so let's put this option on hold for a while.

We want to approach this as if you don't have the time or money to build a lot of these greenhouses right off the bat, so let's look at better ways to maximize the value of our produce.

Restaurants

A great way to start to learn about your local demand would be to reach out to your local restaurants to see if they could use could use any leafy greens that aren't readily available but able to be grown in our system. Ask what they would be looking for, how much they would need and at what cost they would pay for it. Try and have a little research done before hand on general pricing on different greens and herbs so you can hold a conversation without looking like you don't know what you're doing. It's best to listen, nod and say you will get back to them

with your best pricing terms and ability to supply this product. Don't commit to anything at this point, but go back, do research on the required growing conditions and see if it will work in your system. If not, look to offer similar alternatives. Many quality restaurants also love microgreens, so ask about them. They are relatively easy to grow and are a nice value add for a good profit. Be careful though, the prices that restaurants offer are also not at full retail.

Farmers Market – with a Twist

If you don't want to lose your weekends to standing at a table at the farmers market (lifestyle design in action here), cut a deal with another seller at the market for a % of the sales. Find a seller who isn't selling the same thing you are, but maybe a complimentary item, like tomatoes. They love it when you can add more value to their stand. You will get a much better deal than at a grocery store, without the strict requirements and consistent expectations of perfect produce. You will also not need to package each item individually saving you a whole lot of time and money. You lose a bit on price, but gain a lot in time.

Deliver It

One option I find attractive is having an online store set up with an inventory of your expected production. Allow people to sign up to pre-order your produce for a weekly delivery. This allows your customer to save time at the chain store and helps them better plan their weekly meals. It would also be a great idea to make some relationships with other farmers to incorporate their items in your store, which adds even more value to your service. Other farmers will love this because they get to have another sales channel. The best part, all of your sales are done without you having to stand in 1 spot for 6 hours a day, and at full retail. Advertise on a billboard and your selling/marketing effort could mostly take care of itself. It's a win win win.

One way to truly make it farm-to-table is to rent out space in a kitchen to create fresh salads, soups, etc. Deliver these to the same people who prepay on a weekly basis, providing them individual lunches they can take with them to work. This is a great way to get that produce for above retail, but it does require a bit more effort.

Mix It Up

A great way to increase the value of your varieties of lettuce would be to create your own salad mixes. Sell them in any of the channels previously listed. Market it as local and more fresh than the mass-produced organic items. Be aware that in order to create and package salad mixes, you may have to work in conjunction with a commissary or rent out a local restaurant's kitchen for a few hours. The health department does not want you to do this at your home or in the greenhouse. Basically, you are allowed '1 cut' to harvest the produce out of the ground (or off the raft), but multiple cuts is considered processing, and now we are jumping into health department territory. Consider hiring out this step to someone who is already working in the kitchen in the off-peak hours.

Food Trucks

One of the best new customers for us growers are food trucks, especially for us who start out very small. This might be your first option after building the first greenhouse. They seem to always be looking for unique varieties of hard to find produce, so see what you can offer them.

My Secret

So I guess it time for me to spill the beans of how I am now going about creating the most value while maximizing my profits. I can't offer you all this advice and not tell you what my current approach is. So let's get into it...

I fell in love with the Kratky method for 3 main reasons – it was easy grow, it was the cheap to get started, and it did not require maintenance after setting in the raft. This gave me extra time I would not otherwise have had, so I knew I could do more. I also had a lot of time between when I started formulating my ideas and when I would actually start building my first greenhouse. I had the idea of growing my own produce and using it as the base for making salads, soups and smoothies from a food truck. With this, I am able to take out all of the middle men and used up resources along the way to go from raft to salad to table in only a few hours. This, in my opinion, is the coming food revolution. My \$2 head of lettuce can now go into making 2 salads selling for \$7.50 each. Keeping the rest of the salad ingredients very high quality (grass-fed meat, non-GMO, no round-up) allows me to sell to a niche market for a high profit. People will love this value that you can provide for them. Having customers pre-order online up to a week an advance (to midnight the night before) tells me exactly what needs to be done in the morning. Only delivering along main business routes in the area allows me to make deliveries, pre-paid, in less than 2 hours. The food is fresh and the profits are even fresher.

So how did I afford a food truck? We'll call it sweat equity for the most part (note that you don't have to build one yourself – you can rent a ready-to-operate one these days.)

I found a beautiful little trailer on Craigslist, a 1976 Argosy Airstream. It was in really good shape (considering) when I bought it, but getting it from that point to a permitted mobile kitchen was still going to be a lot of work. I paid \$5,200 cash for the trailer not really knowing what it would turn into.

I ended up putting another \$10k into it, which included new tires, axles, flooring and all of the restaurant grade equipment I needed including a freezer, 2 small refrigerators, a stove, triple wash sink and prep sink. I also designed it so I can go 'off-grid' for multiple hours. A nice inverter and 2 deep cycle batteries would let me run this thing in the middle of the woods for 2.5 hours, no problem. With this system, I can easily incorporate solar panels anytime I want to. I would have liked to buy all of these items used to save on cost, but given the 26" wide door and

my goals for an off-grid set up, I had specific needs, so only the stove was purchased used. The ability to go off-grid was just a fun project for me and was absolutely not necessary.

I re-did all of the plumbing, using YouTube as my teacher the whole way. I had access to my 'roommates' tools since I was living with them at the time. I did all of the manual labor on the weekends and the planning and learning during my 9-5. I re-did most of the electric, including installing the inverter and batteries myself, but honestly, this was a bad idea in the long run. Things didn't work right away and I ended up taking it to a shop for them to finish the job. If I could go back, I would have paid someone the \$1k to do the electric work. I spent hours and hours learning about electric and it still wasn't done completely right. On top of that, I could've seriously hurt myself. Lesson learned – there are times to save \$ by doing the work yourself, and then there are times to pay a professional. Electric work is absolutely one of them.

I did not bother painting the outside all pretty. Why would I? It's not going to leave my property very often and a nice paint job is pricey and time-consuming. I've been back and forth with the health department over the course of several months now to work towards becoming NC's first 'self-contained' mobile food unit. Self-contained meaning that I would not have to take my produce to a commissary or certified kitchen to make the meals I wanted. So far it's been quite the process, as it's new to everybody involved. Laws are being updated in many local municipalities to help food trucks navigate laws that never had them in mind, so I'm one of the first to have the opportunity to do this.

I would love to see many of these come about. It truly can be a solo operation, providing the cleanest, healthiest freshest food possible on a daily basis.

Learn to market your farm produce through reading...

The Market Gardener: A Successful Grower's Handbook for Small-scale Organic Farming, Jean-Martin Fortier – Full of good tips on how to market your produce from a few people who have been doing it successfully.

Managing Your Profits & Time Wisely

Fight Your Inner MC Hammer

Once money starts coming into the business, we need to be prepared for what to do with it. It's never too soon to put some thought into what we should be doing with our profits. If your operation becomes as large as you want it, you want to have the flexibility to put your money to work in ways that don't have to be directly related to hydroponics. Of course, at the beginning, we will want to take some of our profits and use it to build the next greenhouse. Soon we will want to buy some tools to make things a bit more time efficient or improve the quality even more. But after a while, you won't need to be scaling so much. You might soon have an employee doing much of the grunt work while you sit back and guide your business forward and in new directions.

Remember what we learned in the *4 Hour Work Week*, we want to do only the things that we are most passionate about. Hopefully you will already be doing that for the most part, but you also want to free up some time to do even more things that you love. Set some time each week for reflection, note taking and evaluating what you can be doing better, or something new you would like to try. Also consider ways to leverage the assets you currently have.

Maybe with your newly acquired expertise you want to teach a class on hydroponics? Maybe you decide you now have the tools to build hobby greenhouses for others using the design we went over. I know when I get some more time, I am going to build a hobby sized aquaponics system because I want fresh, clean fish for my wife and I.

If you feel you aren't yet savvy in investing your money properly, talk to a financial planner. Be careful though, many of these people work off of commissions and may just want you to invest in their products. Dividend paying stocks are generally safe, and you are bringing in some passive income through the dividend, which is important. Which brings us up to my next point...

Building Passive Income

What's passive income? It's basically money that comes in to you as profits that you aren't spending all of your time working for. Most of the work is done up front and then you get to (mostly) sit back and enjoy the benefits. Many business owners choose to invest their profits into properties. Not only does this shield your profits from income tax, there are additional tax breaks you get when owning property. Many of the people going this route then chose to hire a management company to take care of most, if not all of the details in regards to managing tenets, repairs and paperwork.

The possibilities are endless, and it really comes down to your own interests. Do your own research and find something that is right for you.

Think differently about your money through reading...

Rich Dad Poor Dad, Robert T. Kiyosaki – Hugely popular book. He gives good advice on do's and don'ts when it comes to debt and financing. From this book, you'll get another lens to view your own situation. There are tons of similar books out there, so find one that attracts you.

Final Note

I want to thank you for taking the time to read through this. I hope it inspired you to take at least some small action towards living out a better life and making a better future for us all. I will update this ebook as best I can through the feedback I get, and as I continue to evolve and develop my own business. Mistakes will never stop being made, but remember, the reason we make mistakes is through the effort of doing things we aren't comfortable with, and that's how we grow into something more than who we were just the day before.

For extra resources and the latest updates, please visit my website at bootstrappingthefoodrevolution.com.

Thank you so much for reading.

Good luck!!!