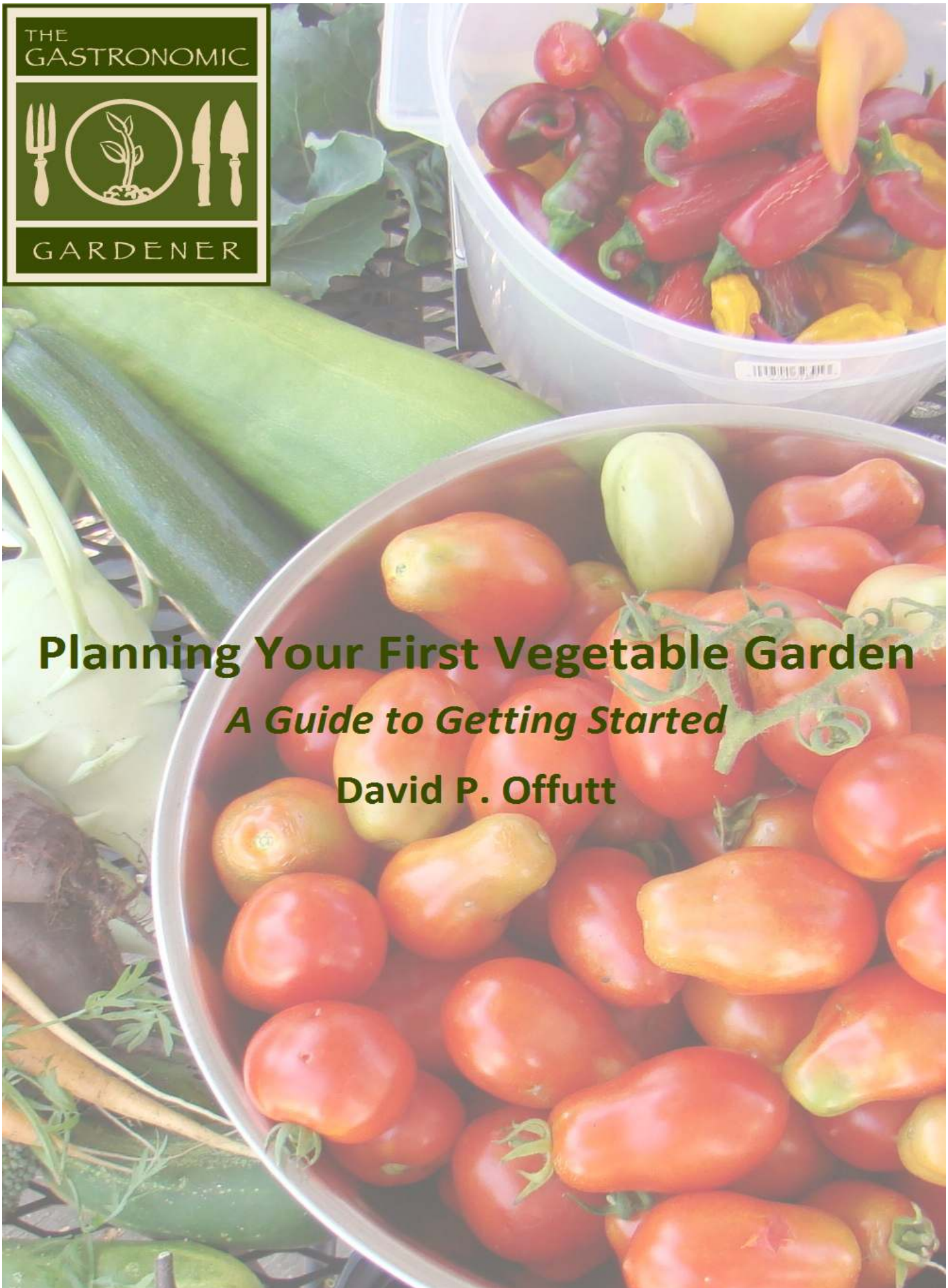

Planning Your First Vegetable Garden

A Guide to Getting Started

David P. Offutt

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Forward

I am glad you downloaded this book! This is the first in a series of free books designed with the beginner in mind. When I was getting started in vegetable gardening, I had many questions so I did a great deal of reading, along with more than my share of trial and error experimentation. This book hopefully spares you some of the "growing pains" and jumps starts you to success!

Someone once said there is nothing new in the world, and in gardening I think it is for the most part true. Techniques come and go into fashion, compost is king, and there are many ways to be successful.

This book is a collection of ideas and suggestions that will help you be successful in your own way.

Once you start eating your own-grown produce I believe you'll be hooked, and I hope you pass that passion along to someone else. However, I'm getting ahead of myself. Let's get started!

Part I - Location

When planning your gardens' location there are primary things to consider that will help maximize your enjoyment and vegetable production. They are light, access to water, competition, size, and ease of access.

Light

Vegetables gardens in particular need light; a lot of light. What does this mean? Ideally, vegetables should receive six (6) hours of direct sunlight per day. Here in my garden that means a southern exposure. The sun does not travel directly east to west going straight overhead. It gets closest to traveling directly east to west and being directly overhead at noon on the Summer Solstice – around June 21st but leading up to that date and after that, the sun tracks south with the lowest southern elevation occurring about December 21st on, that's right, the Winter Solstice. A southern exposure for your garden ensures the maximum amount of light.

What? You don't have full direct sunlight but rather partial or dappled sunlight – perhaps a bit of shade? Don't worry, you can still grow herbs, leafy vegetables (lettuce, spinach and chard) as well as root crops including beets and potatoes. You may not have great success with heat loving plants such as tomatoes and peppers, but you do not have to forgo growing vegetables!

By the way, for our friends who garden below the equator – flip the dates and the direction and proceed!

Access to Water

Access to water is important. Seems like an obvious statement. You'll need to get water to your garden whether that is by hose, irrigation lines, or bucket brigade. The further your garden is from a water supply the more difficult it will be to ensure success. Even a garden in the best location will fail without access to water.

Competition

Plants effectively drink from the soil, absorbing the moisture, minerals and trace elements they need for good health. On a small scale, this is why gardeners pull weeds; not because weeds are "bad plants" but because they consume the resources that the desirable vegetables need. It is not just about aesthetics or how good the garden looks, the more weeds, the fewer nutrients are available for your crops. Trees and shrubs near your garden also compete for resources. Their root systems can grow and stretch out far beyond the plants circumference. You may not be able to eliminate the competition but you want to minimize the impact.

Size

Now you've determined where the best place to put the garden, you need to figure out how big to make it. My suggestion is, if you are just starting out, start small.

Let me repeat that, start small!

Using the intensive gardening techniques we will discuss later, you will be able to grow far more produce that you might expect. You can always expand a garden but it is difficult to reduce one that started out too large.

Another reason to starting small is maintaining your enthusiasm. There is a danger of burnout if you jump in with both feet, unaware of the effort in terms of time and energy to maintain your garden; and plant an oversized garden. Burnout is a very real problem for new gardeners. Start small, see if this is for you and then increase your garden as your experience grows.

What is small you ask? A four by eight foot bed can provide a surprising amount of produce. I started with that size more than ten years ago. I started growing tomatoes and some herbs and got hooked. Today my vegetable garden is still under 200 square feet and yet in 2012 it yielded 335 pounds (152 kg) of produce. Not bad! That number will only go up as I improve my techniques.

Ease of access

The final point I want to make is, if possible put your garden where you can see it. Besides being immensely satisfying to be able to step out the door and gather some produce that will grace your dinner table in mere minutes (it does not get any fresher!); having the garden near the house makes it much more likely you will tend to it as is needed to make it thrive. I realize for some people this may not be possible, but if you can manage it, I highly recommend it.

I speak from personal experience, my first attempt at a "serious" garden was located about two miles from my house, and while it was mildly successful, it was a nuisance to have to get in the car and drive over there (not to mention gasoline use or wear and tear on the car). It also meant I was less likely to get out into the garden on a daily basis. After a long day at work, and an hour commute I wasn't always keen to go meander through the garden seeing what there is to see, pick, water, or weed. While some folks do well renting a community plot and the discipline that entails, I'm a firm believer in the closer the better, and if you can look out your door or window and see it, that is best.

That close proximity usually means good access to water whether is it from rain harvested from the roof or the hosepipe from the side of the house.

So there you have it. Pick a spot that has plenty of light, is not in competition with trees or shrubs, is big enough to grow into and is close to the house.

Part II - Choosing a Garden Style

Great! You have picked out your location, now let's consider of what type of garden to put in.

There are many styles of vegetable gardens. In the "old days" row gardens were common and you still see them today, particularly where there is plenty of space to put under cultivation. Also popular are raised beds. A particular type of raised bed, Square Foot Gardens™ made popular by Mel Bartholomew in his series of books and television programs dating back to the 1970's are enjoying a bit of a renaissance today. While I am not a complete convert to this style, Bartholemew certainly has many useful ideas that I have adopted. They just make sense, and I like things that make sense.

Container gardens can also be highly effective. They are appropriate for people with limited space to garden. A particular type of container is a "self-watering" container or a sub irrigated planter or a "SIP."

Let's talk about these styles in more detail. Before we get started, I want to point out that this is not an exhaustive list and each of these methods do work, given proper care and consideration. What is important for you is to choose what method will be right for you!

Row gardens

Row gardens are decidedly old school. In the past, you would map out a garden, till up or turn the whole area, use string to mark out the rows and plant your rows of tomatoes, corn, beans, radishes etc. Most of the produce consumed in this country is grown using this method. It does work, and is possibly best for growing on a large scale. There are however, some issues with it.

Firstly, a row garden requires a lot of space. Way more space than I have in my limited yard. It also goes against my advice mention in Part I to "start small."

While you can do it all by hand, a tiller or a tractor makes things much easier. I do not have either.

When you water, it's hard to not water the paths between the rows as well. That is a waste. The same also goes for any fertilizer you might broadcast.

If you have half an acre or more to put under cultivation, a tiller/tractor (or a young, strong back!), and do not mind wasting water or fertilizer, want to spend more time than needed gardening and really want to put in a row garden, go ahead. But it is not for me.

Raised beds

I firmly believe raised beds are the best method for a personal vegetable garden, and there are several ways to make them.

A raised bed garden has the planting area raised above the walking area. If made narrow enough, you never need to step into the bed itself. This helps keep the soil loose and easily worked. Raised beds are easier to water and fertilize directly, and because soil is never compacted, it is easy to pull weeds. They are also great for small yards as almost any shape came be formed, though square and rectangular are most common.

You can start out as if you are going to make a row garden, then using a shovel, dig out the paths tossing the soil up onto where you want the beds. Be sure to make the beds no more than four (4) feet wide. This way you can reach the center of the beds from either side. The difference in depth between the bottom of the path and the top of the bed can be significant – 18" or more.

I made this is the type of garden my first year of “serious gardening”, and it worked pretty well. The beds did have a crown to them, that is, there was a curve from the sides to the top so there was some portion that could not be seeded. Some erosion was evident after heavy rains when the beds would crumble into the paths. Not a big deal but avoidable.

Boxed Raised beds

A raised bed in a box is useful for a few reasons, you can use the whole bed, there are no “sides” that are hard to plant, it can be installed over a lawn with no tilling or sod removal; it’s easy to reach into, and you don’t use ground soil so weeds are reduced. They are easy to plant and weed. If made the right size, there is no chance for walking in the growing beds so soil compaction is never a problem.

A disadvantage is once they are in place they can be difficult to move. Of course an in-ground garden can just be raked and planted in grass seed should you decide to give up on your vegetables. The boxes however would need to be disassembled should you desire to stop gardening.

Raised boxed beds are my garden style of choice. Along with…Squarefoot™ gardens

Mel Bartholomew's Squarefoot garden uses a particular kind of raised bed. As I mentioned before, he has written multiple books and had a TV program on PBS for years. His system works, no doubt about it. But he has very particular aspects and dimensions that I feel are a bit inhibiting and can be improved on. For example – his beds only have six inches of soil, are made up of a very specific mix "Mel's Mix"™ and according to him "must have a grid or they are not a Squarefoot garden." Very well. It does work, I followed his directions to the letter in the 2011 growing season and did pretty well. However, I believed I could make small adjustments and improve upon his system *for my situation*. And the results last year bore that out.

The changes I've made include:

- make the beds deeper than 6" - I've gone with 8" for most and 16" for the deep potato and carrot bed

- don't worry about five kinds of manure / compost – do the best you can and have more than one

having a single crop per square is fine but I prefer 3-4 contiguous squares of the same veggie

- I don't bother with flowers in my raised beds, I'm growing veggies here!

- While he makes a big deal out of having the grid, I'll only mark off different growing areas

Container Gardens

Container gardens are an excellent choice for those people who wish to grow some vegetables but may lack the room for a full size garden. Folks in townhouses or apartments with balconies can manage to grow some produce given the right conditions. The same considerations for a general garden apply here as well. You need good light, good soil and good drainage. I'm pretty sure someone who has a balcony on the north side of an apartment building would have a very difficult time growing sun loving peppers and tomatoes though lettuce may grow.

Additional reasons for using containers include ease of maintenance; mobility (put them on wheels!) and availability. There are many sizes of containers – from 12" pots to buckets to barrels. Often it is possible to repurpose materials to use as growing vessels. It's fun to see what other gardeners come up with, an old wheelbarrow as a spinach bed is whimsical and useful at the same time!

There are at least two things to keep in mind:

> Containers tend to dry out faster, so you have to water more frequently, perhaps daily in hot weather.
>
> Generally, containers are smaller than a raised bed or the available space is smaller, so your choices of larger plants may be limited.

By the way, containers are also a good way to expand your garden even if you are using boxed raised beds. In the summer of 2011 I visited a most extraordinary garden, and the gardener had expanded out into his driveway using containers to grow figs and eggplants.

I used a few containers this summer and found them to be successful for tomatoes and peppers, but not so much for zucchini and cucumbers. I'll learn from that and plant only the successful crops next year, opening up the boxed raised bed for other crops.

There is a specific container known as SIPS (Sub-irrigated planters). Included in this group are Earthboxes™ and Growboxes™. You can also make you own by nesting buckets or bigger containers, typically made of plastic. These containers also work, but don't be fooled by the marketing, they also require close monitoring. I know from experience, tomato plants can suck a full reservoir dry during the course of a single hot day.

I hope I've given you something to think about and made the issue of garden style a little clearer. Based on your situation, what style(s) will you choose?

Part III – About Soil

What is soil?

Soil is a mix of eroded rock and organic matter. Over millions of years rock breaks down to tiny bits and may mix with decayed organic matter. Organic in this sense refers to anything that was once alive. Very low organic levels result in sand or gravel, at the other end of the spectrum, high levels of organic matter and low mineral content result in peat, or compressed organic matter with very little mineral content. Neither extreme is very good for growing vegetables. Fortunately for us, most gardeners' native soil falls somewhere between the two. According to Wikipedia, "On a volume basis a good quality soil is one that is 45% minerals, 25% water, 25% air, and 5% organic material, both live and dead." Notice the inclusion of air and water. I think it is easy to overlook these as intrinsic components of soil.

It's a living thing

Healthy soil is a living thing. Full of microbes, bacteria, tiny insects, and worms, healthy soil is teeming with life. It not only physically supports your plants by providing stability, it also supports your plants nutritionally with the micronutrients and trace elements your plants need for good health.

Drainage – neither too wet nor too dry

Drainage is important to good soil. It keeps plants from standing in water – a situation that can rapidly lead to root rot and plant death. You can improve the drainage of your soil by adding organic material, and by adding vermiculite / perlite. The organic material will "loosen up" the soil and the vermiculite will help retain moisture, releasing it as the surrounding soils dries out.

Improving on Nature

People can spend a small fortune and/or spend years trying to improve their garden soil. It is possible. Improving garden soil usually involves the addition of amendments. Here are the most common ones.

Compost

If you have time, you may add compost, leaf mulch or other decayed organic material to your planting beds over the course of several years. In time, you'll have rich organic soil for your vegetables to thrive in. A single truckload of compost dumped into your beds will improve them, but the real benefits won't be felt for several years of continued improvement.

Most people I know are impatient and don't want to wait several years, let alone one growing season; especially when just getting started. I recommend jump starting your garden with purchased compost and simultaneously starting a compost pile

Whole books are devoted to compost, as the joys of composting are many and include reducing the amount of waste going into landfills, improvement of garden soil, fantastic results in garden production. Good plant based compost is a great addition to your garden's soil.

I will cover composting more thoroughly in a later book.

Aged Manure

Animal dung is great for your garden in moderation. Often you can get fresh manure free for the asking, especially if there is a small stable or farm with animals nearby. They have to get rid of it or it just piles up.

There are warnings regarding manure.

Fresh manure is too "hot" to apply directly to your vegetable beds. What does this mean? It means there is too much fresh nitrogen and it can damage or kill your crops. (There is one exception that I know of – rabbit dung – which can be directly applied to your garden beds.) Thankfully the solution is easy.

Use old poo.

Old manure has had the time for beneficial bacteria to break down the nitrates into nitrites that plants can use. Make sure the manure you use has been aging for at least 6 months or until it is dark and crumbly and not identifiable as manure. Alternatively, purchase your bags of manure from the gardening center. This manure has gone through the aging process so it is less likely to burn your plants. But some plants may still be sensitive even to aged bagged manure.

Last year I added some horse manure that I thought had sufficiently composted. It stunted and "burnt" some basil plants early in the season. As the summer wore on, and more rain fell, this problem resolved itself, and the basil grew strong and healthy.

Be aware, composted manure is high in salts and over time, the salts can build up and be detrimental to plant growth. Be judicious in the use of manures.

Peat

For many years, people used peat as a soil amendment or conditioner to loosen up clay, or clumpy soil, or to add moisture and air retaining properties to garden soil. Peat is decomposed, compressed sphagnum moss. Peat is readily available and very effective as a soil conditioner. But there is a problem. Peat takes a long time to form, making it a resource that while renewable, may not be sustainable in the long term. It has been estimated that two-thirds of all peat consumed is by amateur gardeners! Recently there has been more awareness of this and suppliers are working on alternatives. ***Coir*** or the husk fibers from coconuts hold promise as a sphagnum peat replacement, but as yet have not achieved wide spread use. It is however, what I will be using in the future.

Coarse Sand

Add coarse sand (.5mm- 1mm) to heavy clay to improve drainage. This works by adding open spaces, allowing air and water to flow more freely.

DIY or "make your own soil"

Some people will choose to amend the soil they have on site by adding materiel, that is manure, compost, or coarse sand as mentioned above. In a boxed raised bed, if you choose, you can create your own soil!

Mel's Mix™

Squarefoot Gardening instructs you to mix 1/3 by volume each peat moss, vermiculite, and manure. This is known as "Mel's Mix."™ Use care when choosing your manure as discussed above. Mel suggests you use five different kinds! This might be possible but I had a bit of difficulty finding five different kinds of manure. I used three with good result. I suggest letting this mix be a starting point, especially for beginners because it does work, and takes the guesswork out of ratios.

As I continue gardening, I suspect the composition of the soil in my beds will tilt towards homemade compost and coir “peat”. I do have some coarse vermiculite left so that may go in as well. I also have access to horse stall muck, as well as chicken coop muck.

Soil Testing

If you want to be sure about your garden soil and the nutrients it holds (remember plants drink, so water soluble minerals and micronutrients are sucked up along with the water in the soil) you can test it. I have never tested my soil and have had good results. That is not to say testing your soil is not worthwhile. Knowledge is power and if through testing, you find that your soil is grossly lacking in proper plant nutrition, then you can, (ahem), make amends.

There are two basic ways to test. One is to buy a kit and test it yourself. The other would be to send in soil samples to your local university agricultural extension for testing.

Kits

I’ve seen kits at the local growing centers and in the gardening aisles of the big box stores. A little on-line research will give you some idea of their usefulness. That is - they are not very useful. Other gardeners and researchers have used the home testing kits and compared against lab testing and the results are different enough that I would not bother with a test kit. You may have better luck.

Local University extension

You can of course take and send samples off to your university agricultural extension. They will test it for either free or for a nominal cost.

For a list of university extension offices in the U.S. go to: http://www.csrees.usda.gov/Extension/

Bottom line

Soil is the basis of a productive garden. Fortunately, you can improve on what nature gave you or even create your own from scratch! Take care of this basic and most important element and you'll be greatly rewarded!

Part IV What to grow?

You've situated your site to maximize light, water and easy access. You've picked a garden style, and have the beds prepared so the next question is what to grow?

The answer to that is quite simple. Grow what you and your family like to eat! While obvious, you'd be surprised at the number of folks who make the mistake of growing vegetables and then not eating them because they don't care for what they grew. Or they grow too much of a good thing. My first year, I planted many radishes. Radishes are great because they grow very quickly, and can be started very early in the year. But I didn't need hundreds of them! My colleagues at work were happy to take the overflow but I learned my lesson. Truthfully, I'm still learning it. I do not think I needed 32 lbs (14 kg) of hot chillis last year!

Make a list of the vegetables your family likes or eats the most. In my family the list looks like this:
-lettuce
-onions
-chillies (peppers)
- tomatoes
- green beans

Maybe you could start with a small "Salsa Garden." Tomatoes, jalapeño's, cilantro are all easy to grow and turn into delicious homemade salsa.

It's also a good idea to start with relatively "easy plants" to grow, especially when you are just starting up. By growing what you enjoy eating you're more likely to stay enthusiastic and keep up with the maintenance of the garden.

As this book is merely about planning your garden we'll stop here, but start thinking about what you want to grow!

You can do it!

Starting a vegetable garden isn't difficult. Just remember the basics:

-Light, as much as possible
-Access to water, you need to be able to water during times of little rain
-Competition, remove the competition and give your vegetables the best chance for success
-Size, start small and increase once you know you want to expand
-Ease of access, put the garden where you can see it, and tend to it easily
-Plant what you like to eat

Do that, and you will be on your way to vegetable garden success!

About the Author

David P. Offutt also known as “The Gastronomic Gardener” is an enthusiastic vegetable gardener and home cook. He got his start gardening more than a decade ago when he researched and installed a perennial garden in his little lot in the suburbs of Chicago, Illinois.

Once he turned his attention to vegetable gardening, and started cooking with his own-grown produce he was hooked!

He’s now on a mission to spread the joy of veggie gardening, and cooking from the garden and reaches thousands of readers between his facebook page www.facebook/Gastronomicgardener.com and his website www.gastronomicgardener.com .