Salad Garden Guide

The complete guide to set up, plant and grow at least six months of organic garden salad

GARDENARY

NICOLE BURKE

IT'S TIME TO MEET

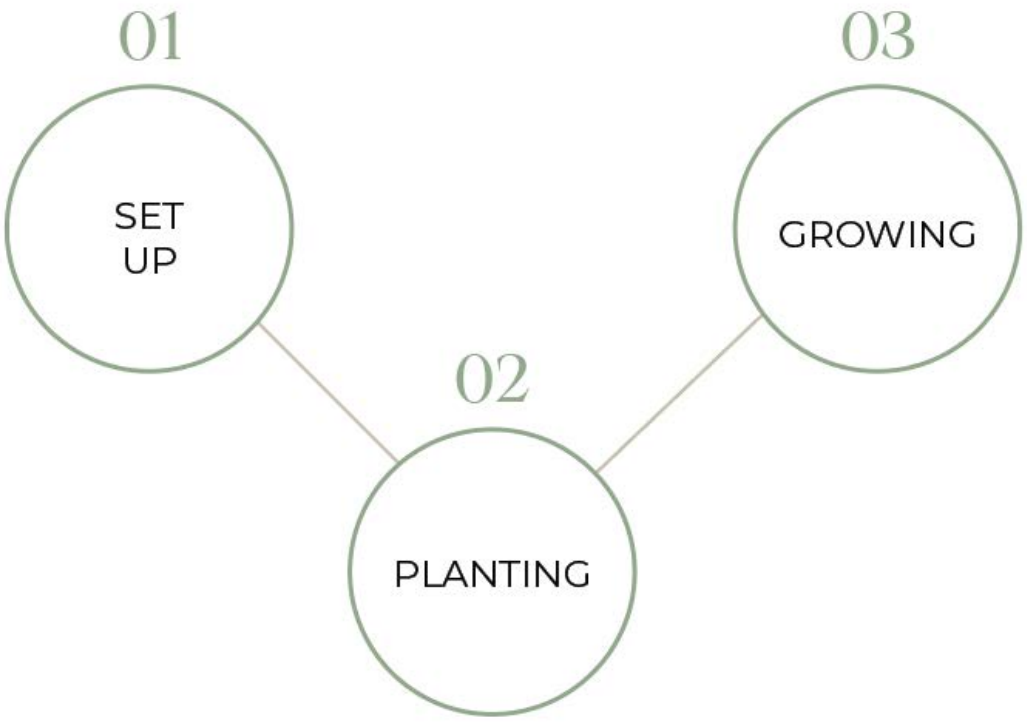
Your Garden Coach

Nicole Burke

AUTHOR OF KITCHEN GARDEN REVIVAL

Welcome to Salad School! I am owner Nicole Burke and I'm excited to share my knowledge and experience from 'plant killer' into salad growing expert. I am the founder and owner of Rooted Garden, a full service company in Houston, TX, and Gardenary Inc. an online garden coaching website, as well as the author of the book, Kitchen Garden Revival. In this e-book, I'll walk you step-by-step through the process of setting up your own salad garden. And by the end, you'll feel like a garden expert too. So, whether you feel like a 'plant killer' or you're just wanting to learn a new skill in the garden, this little e-book will turn you into an expert on the most delicious salad in town-and it will be growing in your own backyard.

Workbook Outline



First you'll learn all about garden setup. It will be just like you and I are meeting for a garden consult. You'll learn all about raised beds and find out about the best soil mix for a thriving salad garden and what steps you can take to keep it that way. Next, we'll start planting. You'll learn how to start with seed or plants and how to design and lay out your salad garden so that it's not only productive, but also beautiful. Then you'll learn about the growing process and find out all the important steps to ensure that your salad garden remains healthy and keeps feeding you delicious greens for as much of the year as possible. We'll even do some trouble-shooting to deal with pests, disease, and other challenges you might face in your salad garden. By the end of this e-book you're going to be a salad gardening pro, skipping right past those boxes and bags of salad in the grocery store and harvesting from your backyard instead. Here's to your very own garden to table experience.

Love from my kitchen garden to yours,

Nicole Burke

Nicole
Owner of Rooted Garden & Gardenary, Inc.

Salad Garden Setup

1. LOCATION

2. SIZE + SHAPE

3. MATERIALS

4. CONSTRUCTION

5. SOIL

It's time to set up your garden. There are a million ways to grow a salad garden and you'll learn quite a few in this section. In this e-book, you'll learn the detailed step-by-step to build your own 4' x 4' x 6" cedar garden. You'll see a wide variety of possible gardens, but I wanted to be sure you had all the details for this particular garden just in case you'd like me to do the deciding for you. This section is going to require some decisions on your part. I'll give you the pros and cons and then leave the choices up to you. But, if you get stuck, you can always fall back on the 4' x 4' x 6" cedar garden option. Whatever you decide, take my advice: the trick is just getting started. So, don't let the decisions slow you down.

The first decision you'll make is choosing the location. This is one of the most important decisions you'll make as you set up your salad garden. **The second choice is to consider the size and shape of your salad garden.** Together, we'll think through how many salad servings you'd like to pick each month and then consider a few different garden shapes that are possible to meet your needs. **Third, you'll take your decisions on location, size & shape and use them to help you decide on material.** I'll show you five different garden materials that are possible for your salad garden for you to consider. **Fourth, we'll go step by step through the construction of the 4' x 4' x 6" cedar garden.** You'll also learn principles that you can apply to any type of salad garden construction you might choose. **The fifth decision is about water. You'll choose your water source and prepare to link it to your garden.** Once the decisions are finished, you'll finally install your salad garden container. By the end of this chapter, you will have your salad garden container linked to a water source and completely set up and ready for soil in section two. Sound fun? It does to me!

Location

Location, location, location! It can make a million dollar difference in real estate and the same is true for the garden. I tell clients that there's no such thing as the perfect location, especially in the middle of the city. So don't be stuck thinking that just because you don't have the ideal spot, the garden is an impossibility. Nevertheless, I do want you to know the key principles for choosing a great garden spot so you can know what to prioritize as you decide.

Sunlight

Your salad garden should receive as much winter sun as possible, which means it should be on the southern side of any buildings or structures if in the northern hemisphere (and the northern side if in the southern hemisphere).

I call this 'winter sun' because during the winter-time, the sun shines less overhead and instead comes in from an angle (from the south in the N. hemisphere and the north in the S. hemisphere).

And, winter sun is important because lettuce plants thrive in cooler weather. While there are lettuce varieties that grow in both cooler and warmer weather, the majority of lettuces thrive between 45 degrees and 75 degrees.

These temperatures are generally present in the fall and spring or even the middle of winter in temperate climates. So, if your garden is able to catch the tilted sun rays during the winter season, it's more likely to grow faster and stronger.

So, choose a location with no buildings or fences in the way of your garden receiving winter sunlight. A simple goal for your garden's location is that it receives at least four hours of sunlight each day. With that understood, it's important to know that salad plants like a particular kind of light: something I like to call 'soft light'. The best way to define 'soft light' is with garden zones, time of day, and the seasons. First, soft light can be defined by different zones. If you haven't done so already, it's time to figure out which gardening zone you live in. You can do this by doing a simple online search with your zip code and the words 'plant hardiness zone'. If you live in the United States, you can do a search on the USDA plant hardiness zone site.

If you're in the lower zones, zones one through seven, then your salad garden can receive more hours of sunlight. The sunlight in these zones is not quite as harsh as that for zones closer to the equator. As you can imagine, as zone numbers increase from seven to thirteen, the sunlight becomes less soft, and thus, less hours of sunlight are more beneficial to the salad garden.

I've experienced this firsthand as I've slowly moved between different climates. When I gardened in Virginia and Chicago, the lettuce plants really could absorb a lot more sunlight hours than they can in spots like Houston or Nashville. Just as lower zones receive softer light, earlier times of day have softer light too. As you consider your garden location, see if it's possible to find a spot that receives morning sun and afternoon shade. Morning sun is perfect for a salad garden. It's very gentle, the temperatures are cooler, and the plants have had time to recover overnight. Afternoon sun is often not so soft, especially in higher gardening zones. As temperatures rise throughout the day, the afternoon sun can be a bit brutal on salad greens. Finally, the time of year can also affect the softness of the light on your garden. During the colder months, you can let your salad garden get more hours of light because the sun is further away and the temperatures are lower. But during the warmer months, soft light is harder to come by, so less sun is actually optimal.

Surroundings

Now that you've thought about sunlight, it's time to consider your surroundings. You're going to look up, down, and all around before you setup your garden.

First, look above. Check for the roof lines of your home, and also for trees. Salad plants are fragile little things, especially when they're just starting out. Because of this, water runoff from the roof and tree debris can really interfere with lettuce plants' growth. If possible, try to be a safe distance from rooflines and trees.

Secondly, look below. I encourage clients not to garden on dense concrete or patios if at all possible. If you can set up the garden on a more permeable surface like soil or gravel, that will help your garden so much. I encourage you to look down and see if you can find a space that would work. Patio gardens are always possible but if you have other options, I think you'll find more success in those spaces. Also, as you look down, be careful to not set up the garden over drainage holes or anything important like a city utility pipe.

Finally, look around. First, search out the nearest water source. A great garden spot might be not so good if it's miles away from your water spigot. Be sure that water is easily accessible for the garden. If you have a formal irrigation system, find out how you can connect that system to your garden. If you're going to use a water spigot or rain barrel, be sure there's an easy route from that source to your salad garden location. Also look around and consider the activity patterns for your household. It's best to get the salad garden as close to the kitchen as possible. This is your new grocery store, so let's make the trip as short as possible. If you've got pets or children, consider their activity patterns as well.

The one location I'd caution you against is tucking your salad garden out of sight. Some clients want to place the garden behind the garage or in an alley they rarely see. When this happens, the garden can easily be neglected when you're in the rush of everyday. So much can happen when you don't have time to check on the garden.

So, find a spot that's easily accessible, and you'll be able to see it even when you're busy. So, are your ready? It's decision time! Considering the sunlight & surroundings in your own space, choose the best possible location for your salad garden. Look for a spot that receives a lot of winter sun to ensure the garden will receive at least four hours of soft light. Then, look up, down, and all around before you settle on a spot. Once you've chosen a location, it's time to measure it and consider what shapes & sizes are possible.

Size & Shape

Now that you've chosen your salad garden spot, be sure to measure the length and width of the entire area and then consider how much space you'll need. As we determine size and shape, remember that to make things simple, you'll learn how to build a 4' x 4' x 6" garden throughout this section. First, let's consider how many salad plants can fit in a certain size garden and try to get a picture of how often you might want to be harvesting. (Did someone say, 'Everyday?'). The first question to ask yourself is this: How much for how many? In other words, 'How much salad will you need and for how many people?"

Size

First, you'll want to answer the question: 'How much?' In other words, 'How much salad do I actually need?'

This is how you'll find that out: First consider the number of servings per month you'd like of raw salads, cooked lettuce dishes, green smoothies, or any other lettuce-inspired meal or snack. Everyone's taste can be different, so you may need to do this for each individual in your family. I do it for my husband and myself and then I do it again for my kids.

Because let's be honest: they eat a little bit less green than we do.

To determine the number of servings, be sure to think beyond the salad bowl.

I use the salad garden for smoothies and warm dishes just as often as I do for simple salads. So, add up the number of servings you think you'll need each month.

The second question to ask is, "How many?"

Once you've counted up the number of salad servings each month, consider how many people will be joining in on the salad feast. Beyond your spouse or kids, you may have family in town, friends or neighbors, or special dinner parties that you might be sharing with.

Now it's time to do a little math: this is 'SCHOOL' after all.

Simply take the number of servings and multiply it by the number of people that will enjoy those servings to get your total number of monthly servings.

You'll have to do this a couple of different times if you've got a variety of people in your life who'll be eating different amounts of greens.

Here's An Example:

I aim for about 50 servings of greens a month, for both myself and my husband. So 50 servings (HOW MUCH) times 2 people (HOW MANY) equals about 100 servings per month, which would mean that I need about 100 lettuce plants.

For the second example, I'm aiming for about 12 servings (HOW MUCH) a month for my 4 kids (HOW MANY), so 12 servings times 4 people is about 48 servings a month or 48 plants.

So, for my family of six, assuming we don't share a bit of garden salad with others (which would be so mean, right?), we need about 150 salad plants each month in the garden.

So, how much space will your monthly salad servings require? Well, that all depends on what type of lettuce you'll be growing.

Nicole + Husband						4 Children						Total
50	x	2	=	100		12	x	4	=	48		150
# of servings		# of people		servings per month *also # of plants needed*		# of servings		# of people		servings per month *also # of plants needed*		Plants Needed for the fam

Lettuce Sizes

If you're growing loose leaf lettuce and harvesting often, the plants can be kept small and don't take up a great deal of room in the garden. It's safe to assume that one loose-leaf lettuce plant requires about 16 square inches, so about four inches wide and four inches long. This allows for about nine loose-leaf lettuce plants per square foot.

This tight spacing assumes that you will harvest this lettuce often. If you're wanting these plants to grow to their full size before harvest, you'd need to space them more like 4 or 5 plants per square foot.

So the tight planting assumes you'll be harvesting often. And this is the goal, right?

For head lettuce, the spacing needs are different. Head lettuce plants, like cabbage, need a longer period to grow and flourish in the garden. And obviously, these need more space. So, it's a safe bet to give each plant at least 81 to 144 square inches.

Basically, you can plant one head lettuce plant per square foot. I don't plant a lot of head lettuces because I just like to harvest more often and I find there's a higher chance of getting pests if I wait and wait and wait. But, the satisfaction you'll feel from harvesting a head of cabbage will definitely make the wait worth it.

Now that you know HOW MUCH you'd like to harvest for HOW MANY people and the space each plant requires, you can finally plan out your garden space.

For this, you've got to do a bit more math. Take your total number of plants and divide it by the number of plants possible to plant per square foot (depending on loose-leaf or head type variety).

Back to my example: If my family needs about 150 salad servings per month, then I need about 150 salad plants growing each month. If I'm focusing on loose-leaf varieties and growing about nine plants per square foot, I can fit all the plants I need into about 16 Square Feet. 150/9=16.6 To calculate the square footage of your garden, multiply the width by the length of your space. There are a wide variety of ways to get the right square footage for your garden.

Loose-leaf Lettuce

Space Needed: 16 square in.
= 4 in. wide & 4 in. long

1 loose-leaf lettuce plant per 16sq. in.

Head Lettuce

Space Needed: 81-144 square in.
= 1 ft. wide & 1 ft. long

Calculate Your Garden's Square Footage Based Off Your Desired Monthly Harvest

150	=	150	/	9	=	16.6
desired salad servings per month		salad plants growing each month		**loose-leaf** varieties per sq. ft.		square feet needed for your salad garden

How to Find Square Footage of Your Garden

_____	X	_____	=	_____
width		length		square footage of your garden

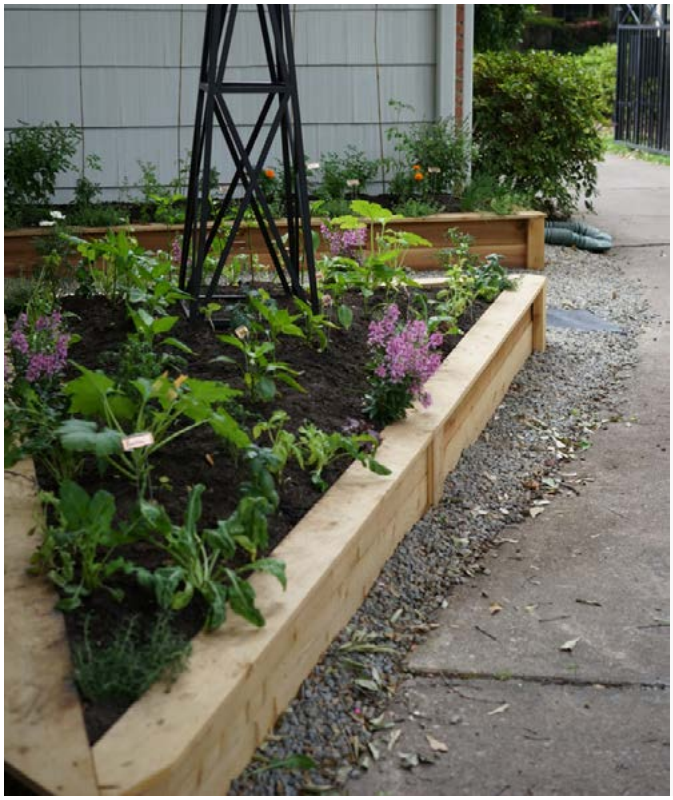
HERE ARE SOME EXAMPLES OF SIXTEEN SQUARE FEET OF GARDEN.

4’ x 4’=16 square feet

Pictured here is a common four by four 4’ x 4’ square garden. It’s the one you’ll build with me herein this book.

3’ x 5.5’

With this one, if you need a little bit less depth, you can go for a 3’ x 5.5’ foot long and that’s a little more than 16 square feet of salad garden.



2’ x 8’ Triangle

Triangles are fun. I’ve only done a few of these, but if you’ve got just this little corner in your yard that you need to squeeze them into, you can find the area of a triangle by halving the length times the height. So this is a four-by-eight and then, obviously, you divide that in half because it’s only half of the rectangle. So this gets you 16 square feet as well.

This one is great if you’re going down a driveway or if you just have a narrow little path. This is just two-feet wide by eight-feet long and it’s still 16 square feet.

Size and Shape

Now, it's time to determine the size and shape for your own garden. First, start dreaming of all those yummy dishes you're going to have with your salad greens. And then think about how many different people you'll have to share with. From there, you can determine how many salad plants you need to plant. Then, depending on your choice of loose-leaf lettuces or head lettuces, you'll decide on the size necessary.

Once you know how many square feet you'll need, it's time to return to your chosen location and find a shape that will fit perfectly. As you set up your garden shape, remember to make gardening easy. Be sure to include some good pathways and easy access. You really don't want your garden to be wider than four feet so that you are able to reach the center from all sides. More than anything, have fun! You're creating something beautiful and delicious. Enjoy the process and let's grow something beautiful together.

Materials

Now that you've determined your location and size of your garden, it's time to pick a material for your salad garden container. This is where you really get to personalize your garden. So, enjoy the process!

There are a few priorities for you to consider as you make your choice. Natural, durable, beautiful and affordable: these are the four characteristics you want to prioritize as you set up your salad garden. As mentioned earlier, you'll learn how to create a cedar garden in this section, but I want to give you the full spectrum of options so that you can either follow along with me or have enough information to make a decision to use a different type of container either now or in the future.

NATURAL **DURABLE** **BEAUTIFUL** **AFFORDABLE**

Natural

Let's first consider why we want our garden container to be natural. Obviously, the point of gardening for yourself is to know what's going into your food. You want to be sure that the container doesn't have chemicals or anything else that might affect the organic nature of the plants that you're growing. So, some keywords you want to look for are 'food grade' and 'untreated.'

Durable

Next, look for materials that are durable. Your salad containers are going to be out in the elements. They'll heat up and receive loads of rain and maybe ice and snow. Now obviously durability can be inversely related to affordability, but the goal would be to have your material last as long as possible. The more money you spend, the more likely your container is going to be more durable. Even if you go the less expensive route, try to find a container that can last at least five years and hopefully up to ten.

Beautiful

Of course you want to have a beautiful garden. With all my clients, I strive for their gardens to fit naturally within their home and other landscape. One reason some people avoid vegetable gardening is because they have this idea that it's an ugly thing and that it's going to trash up their yard. Part of the goal with doing this, is making sure that your container is really pretty and fits the style of your home. I want you to be able to take some awesome photos of your salad garden and post them proudly on Instagram.

Affordable

Finally, we need this container to be affordable. When designing your garden, we want to make sure that it fits within your budget, is sensible for you to use based on where you live, and makes sense for you to use considering the price of your home. Considering those four priorities, let's look at five different types of materials.

Wood

Now obviously wood is one of my favorites, and I think it's one of my clients' favorites too. I have more clients ask for wood gardens than anything else.

The main thing you want to consider for a wood garden is that it's rot resistant. Some examples are Cedar, Redwood, and Hemlock. The best woods and choices will differ based on your geographical location, so be sure to find the most locally sourced wood that you can.

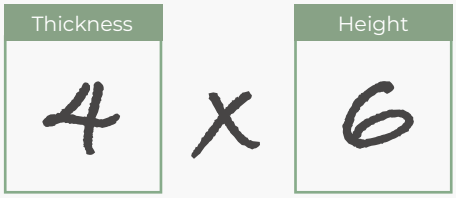
CEDAR

REDWOOD

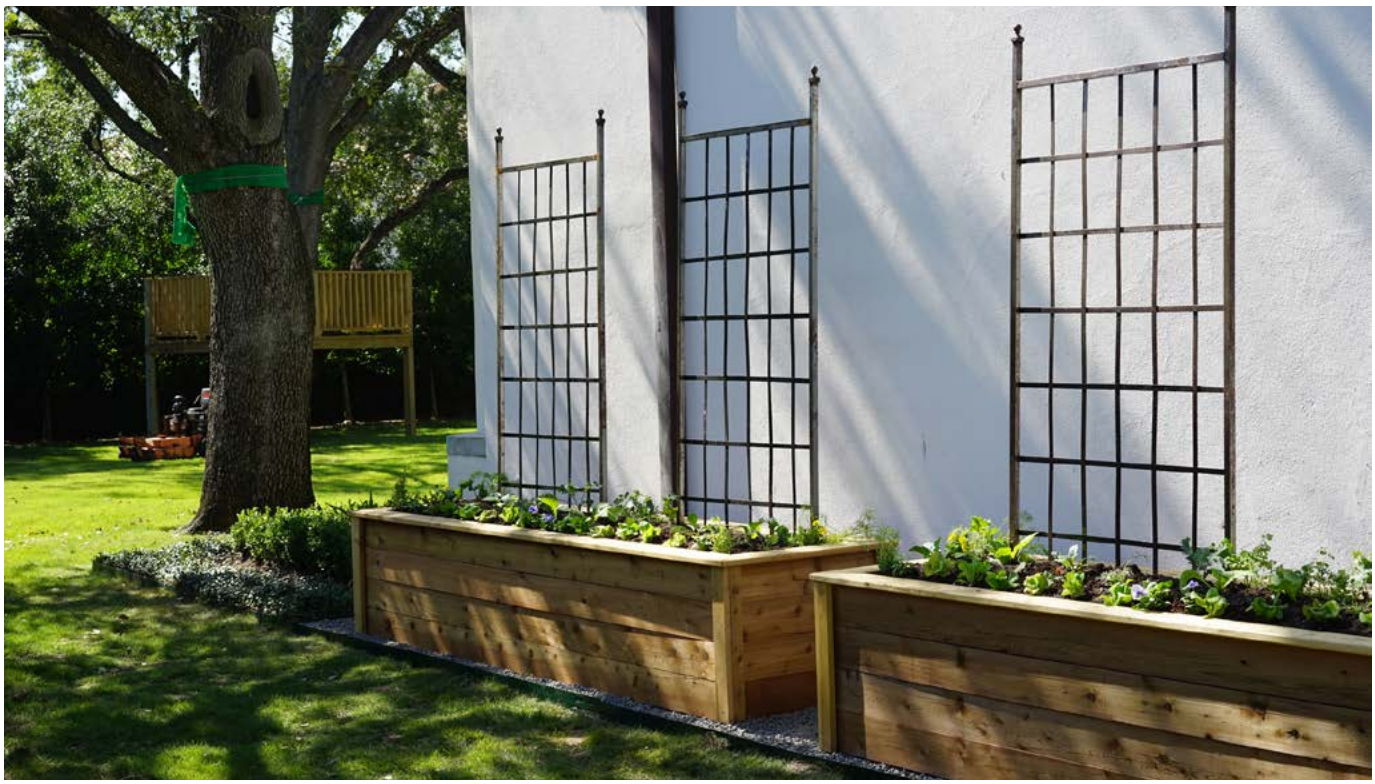
HEMLOCK

Beyond finding wood that's not treated with any chemicals, you also want to have boards that are at least two inches thick. This added thickness helps for durability even though the boards aren't treated.

If you're like me and you have no idea what all those numbers about board sizes mean, I'd love to clarify. I mean, what's the difference between a 2 x 4 and a 4 x 4 anyway? The first number you hear for the size of a piece of wood is the thickness of the board. So if you hear "4 x 6," the first number is the thickness of the piece of wood and the second number is the height of the board. So, a 4 x 6 is four inches thick and six inches tall. Okay, so now that we're clear on that, you'll want to purchase boards that are two inches thick. Ideally, you'll buy a 2 x 6 (two inches thick and six inches tall).



Below are a couple of pictures of two of my favorite clients' gardens made out of cedar. You will notice that the trim is a one inch piece of cedar and the top garden is 1' tall and the other is 2' tall.



Steel

Steel is another great, durable option. Generally, you can get steel that hasn't been treated with chemicals. I've used food grade stock tanks that you can get at tractor supply stores. You can also use simple metal bowls or bins. I've had a few clients that have opted to use Cor-Ten, a more recent type of steel that has been rusted to a point and then does not rust beyond that. Here is a picture of one of my client's gardens, using Corten. As you can see, the Corten is slightly rusted and is a nice thin material. The look is very modern and very pretty in my opinion.

Stone

Another beautiful option is stone. You can do something as basic as cement blocks, or choose bricks, landscape stone, or natural rock. When designing and building, you will want something that will raise the height of the garden and provide you an opportunity to add more soil and give depth for your lettuce plants. When working with stone, you can use some simple paving stones with a footer and grout. In addition, you can also dry lay the stone without using grout to build a raised garden.

Clay

There's also clay. Obviously, terracotta pots are pretty popular among gardeners. You want to make sure that at least the interior of the clay is unfinished and chemical free. You also want to find a wide container to accommodate more lettuce plants. This is a photo from one of my clients. As you can see, the clay pot is nice and wide and able to hold a good number of plants inside. There is a finish on the exterior of this pot, but the interior is unfinished and chemical free.

Fabric

Finally, one of the more simple ways to start a salad garden is with fabric. There are quite a few new products on the market made from wool or canvas bags. You also may have even seen some more unique containers for lettuce gardens like canvas shoe hangers, which is a really cool and affordable way to go. I haven't used a ton of fabric beds, but I did try it out recently with this little green bag and it has done well. This is obviously a very simple way to get started, but it works.

Based on these four qualities we highlighted at the outset including **naturalness**, **durability**, **beauty**, and **affordability**, I want you to explore what type of material will be best for your garden in particular. So take in all of this information and decide which type of garden will be your best fit.

Wood and stone both get some pretty high stars from me. They are both natural and durable and in my opinion, very beautiful. Unfortunately, they can tend to not be as affordable. Wood is generally the most affordable of the long-lasting products.

Steel and stone would probably be the least affordable, but both of those materials will last until your grandkids are harvesting salad out of them.

Clay and fabric are much more affordable but not quite as durable, and, in my opinion, not quite as beautiful. You may have your own thoughts on these ratings, but I wanted to let you know about my experiences from working with clients and actually building garden beds.

This is just the beginning, so you can start out with any material you want. After a couple of seasons, you can change it up or add a variety of containers depending on your landscape and desire. Whatever you do, don't stress! Just pick a material and go for it!

Construction

By this point you have chosen your location, determined the size and shape of your salad garden, and you've picked your material. Now you'll learn the step-by-step through the construction of a four foot by four foot by six-inch garden (4 x 4 x 6).

There will be principles in this lesson that you can apply to any type of garden construction you plan on doing, depending on your choice of material. The three things that I want to highlight through this lesson are shopping, prepping, and finally, assembling as you decide.

Shopping

First, no matter what type of material you've chosen, here are a few principles to remember.

Before you shop for materials, be sure to locate all the tools you'll need. If you're anything like me, you assume that you have a whole bunch of tools that you really don't. Or, you have them, but they're hidden away somewhere and you'll never find them when it comes time for construction. First, go ahead and start to pull out the things that you think you have and make a list of the things that you will need before you head to the store.

If you're ordering a prefabricated garden online, be sure to shop and order your garden at least two weeks to one month before you plan to install. This is especially important during gardening season. It is best to give the company at least a month to deliver your order. I've had the unfortunate experience of pretty extensive wait times when ordering garden kits for clients during the busy gardening seasons. As soon as you have decided on your material, go ahead and place your order, so you can start growing! If you're going directly to a local store, be sure to call ahead and check that the supplies are in stock before you get there. This is particularly important if they are a unique types of supplies.

Assembling

Finally, on assembly day, don't forget safety first! Be sure to have as much safety equipment as you need. Wear gloves, eye protection and of course, find a friend to help! Building a garden is much more fun with a partner.

GLOVES

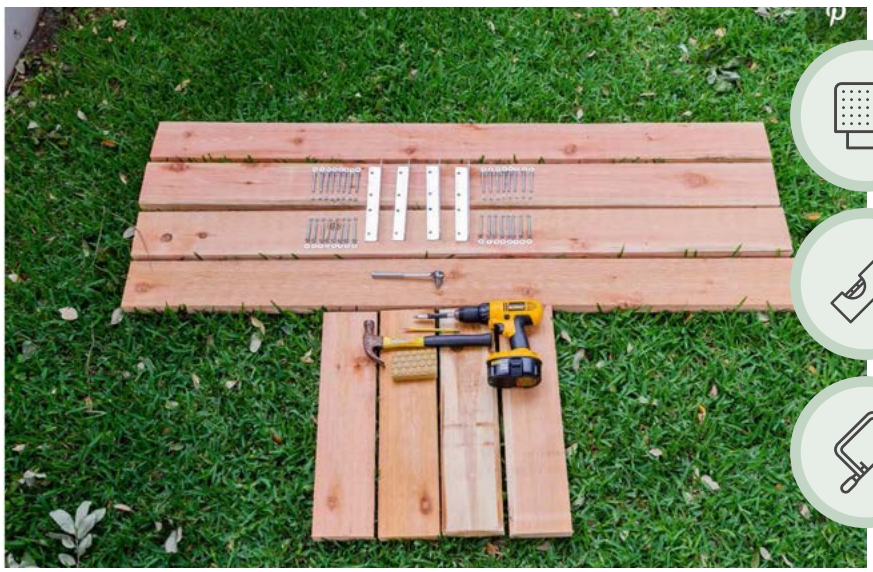
EYE PROTECTION

FIND A FRIEND!

Step by Step: Building a 4 x 4 x 6 Cedar Garden

So we're going to drill down using those principles on how to build this 4 x 4 x 6 cedar garden. If you are more of a visual learner, continue reading and there will be photos to follow that will help explain.

OK, first, let's talk through shopping for this garden. Here are the tools that you'll need for this particular style of garden: some kind of sandpaper, a level, and a saw is optional. This one is optional because I actually get my boards cut at the hardware store.

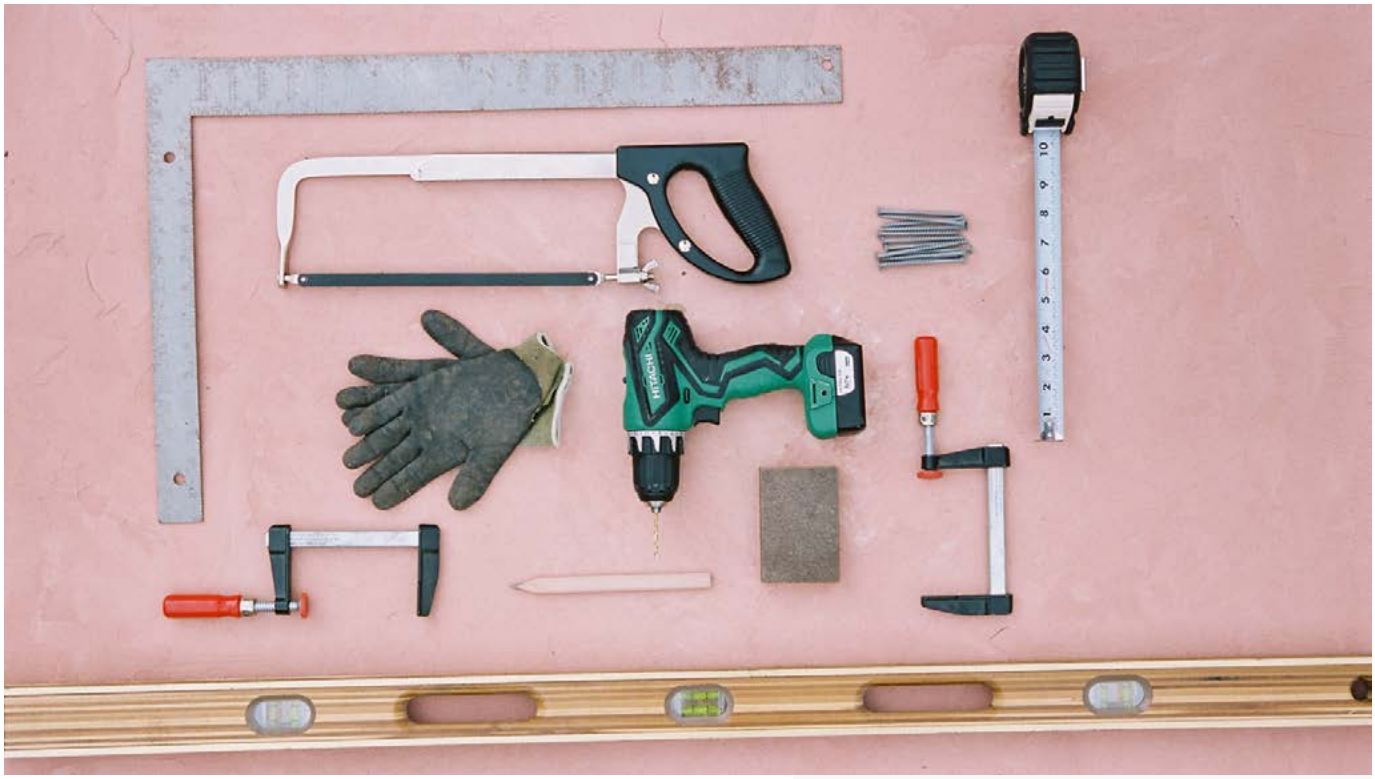


SANDPAPER

LEVEL

SAW

Tool Checklist



Here is the list of tools you need to complete the construction of your cedar garden. The asterisked items are not necessary if you'll have the hardware store cut the wood for you. But, if you want to do the cut yourself, then you're going to need a saw, a triangle, and a measuring tape. To put the boards together, you'll need a drill with a drive socket and drill bit attachment. The framing square will ensure that your edges go together well. And, of course, you need a pencil or a marker.

- [ ] **SAW**
- [ ] **TRIANGLE**
- [ ] **MEASURING TAPE**
- [ ] **DRILL W/ DRIVE SOCKET**
- [ ] **DRILL BIT ATTACHMENT**
- [ ] **DRILL BIT ATTACHMENT**
- [ ] **FRAMING SQUARE**
- [ ] **PENCIL OR MARKER**

Supply Checklist

Obviously, you're going to need cedar boards. So if you remember in previous lessons I've taught you that the first number for the wood is two inches. For this garden, you want a two-inch thick board that's at least six inches wide and eight feet long. You would call that a "2 x 6 x 8" when you go to the store. You're going to sound so fancy when you show up and ask for that! You will also need four-inch tall metal corner brackets. Depending on the type of corner bracket you choose, you need enough hex bolts to cover each of those holes on the corner brackets.

- [ ] **"2 X 6 X 8" BOARD**
- [ ] **4" TALL METAL CORNER BRACKETS**
- [ ] **HEX BOLTS** (AMOUNT DEPENDS ON TYPE OF CORNER BRACKET)
- [ ] **PROPER SIZE DRILL BIT**
- [ ] **DRIVE SOCKET**

For the particular brackets that I purchased, I needed to buy 24 hex bolts. Next, you will need the proper size drill bit and the drive socket to fit the bolts. Below is a picture of the corner brackets, bolts, the drill, and of course, the boards.

When shopping, you want to get the biggest boards available. Again, always make sure that they are not treated, check all of the boards for straightness and bad spots, and then double check that the bolt size is going to fit the bracket or the corner brackets holes, and also ensure that your drill bit is the right size for the hex bolts.

With the boards that I picked at the hardware store, I make sure to line them up and look down the center to ensure they are straight and not warped.

Supply Checklist

Generally, at big box hardware stores, they will do at least one free cut per board. For my example, I just needed each of these cut in half, so this was pretty simple. Each of these boards were cut to four feet long. After the cuts were made at the hardware store, we now have four, 2 x 6 x 4 foot boards.

In the Framing Hardware section at the hardware store, you will find the corner brackets. You will want to find a corner bracket that is suitable for the height of the boards in your bed. For my example, I went with a smaller bracket, because my board is six inches tall. If you plan to stack two of the six-inch tall boards for a bed that is one foot tall, you can use a taller bracket.

Here is a photo of the hex bolts. For this bed, you will need to purchase bolts that are one and a half inches long. It's important to get the correct size bolt so that it doesn't stick through the board.

Now it's time to prepare. We covered part of this earlier when we were talking about getting the boards cut in half at the store, but if you want to cut the boards yourself, now is the time to do so. As a reminder, you will need to cut your two boards directly in half so now you will have two four foot boards. It is really important to have a level cut, with the side of each cut very flush. When the board is level and flush, it makes it easier to attach the boards together with the corner brackets. Now it's time to sand the boards to your liking. Generally, I only sand the outside of the boards and the top. This just keeps us from getting splinters and makes the boards a little bit nicer. At this stage, you can also paint on the linseed oil. By sanding just a small amount, the grain appears more smooth and makes the bed a little bit prettier. All right, it is time to assemble.

Prepare

- **CUT BOARDS IN HALF TO MEASURE 4' LONG** (TOTAL OF 4 BOARDS THAT ARE 4' LONG EACH)
- **BE SURE TO MAKE A LEVEL CUT**
- **ASK FOR HELP IF NEEDED (I DO!)**
- **SAND OUTSIDE OF BOARDS TO YOUR LIKING**
- **WRITE DOWN THE EXACT MEASUREMENT OR MARK IT ON YOUR TAPE MEASURE**

Step 1

1. Lie boards with best side facing down
2. Measure thickness of board for exactness
3. Write down the exact measurement or mark it on your tape measure

Step 2

1. From the left side of each board, measure the thickness you found in Step One and draw a line

Step 3

1. Carefully line up the corner bracket along the measured line
2. Ensure straightness
3. Mark holes with pencil

Step 4

1. Drill holes at each mark
2. Line corner bracket up at marks

Step 5

1. Initially screw in bolt by hand
2. Use drive socket to lightly secure (wait to firmly secure until the end)
3. Repeat for each board

Step 6

1. Meet the left side of the board (with attached bracket) with the right side of another
2. Use framing square to ensure perfect corners
3. Mark new spots for corner bracket holes on right sides of board
4. Ensure markings allow the boards to meet flush

Step 7

1. Drill holes at markings on right sides of boards
2. Attach corner bracket to right side of each board
3. Ensure each connection is level and flush

Step 8

1. Continue until all boards form a square
2. Test each edge with a level
3. Tightly secure all bolts

Installation

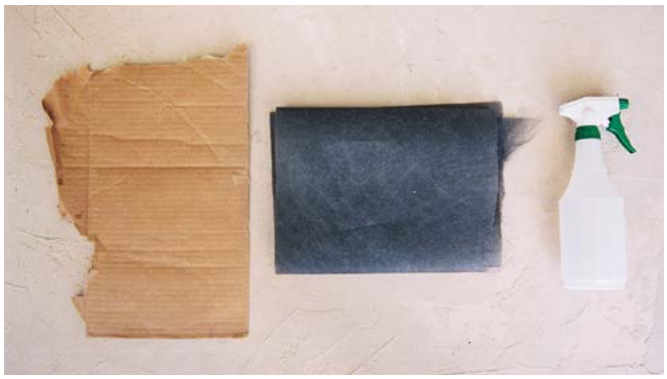
Let's talk about the tools and supplies that you'll need. You're going to want a shovel, possibly a weed eater, a hoe, a level, and a measuring tape for your supplies. You'll also want to have some type of cover so you could use a weed barrier cloth, thick brown paper, or even cardboard.

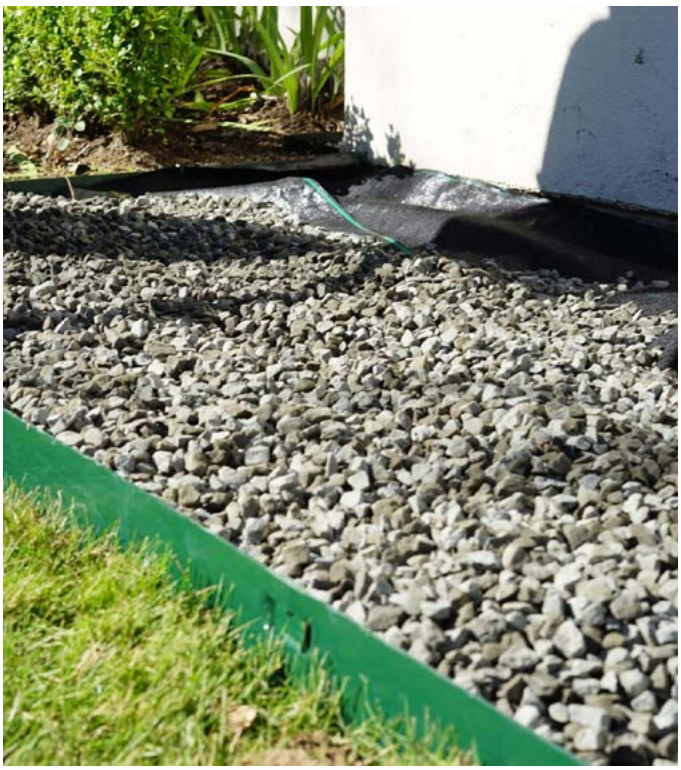
You'll also want a 20 percent vinegar solution. You can buy this from a local nursery or garden supply store. It's different from the vinegar used in your kitchen. It's a very concentrated vinegar that will kill all the weeds and finally, you'll want something to cover your weed barrier or brown paper, such as gravel mulch, pine straw.

- [ ] **SHOVEL**
- [ ] **WEED EATER**
- [ ] **HOE**
- [ ] **LEVEL**
- [ ] **MEASURING TAPE**
- [ ] **COVER** (WEED CLOTH, BROWN PAPER, CARDBOARD)
- [ ] **20% VINEGAR**
- [ ] **GRAVEL, MULCH, OR PINE STRAW**

First, we're going to clear the spot for our salad garden. If you have grass or weeds or anything growing in the spot that you've chosen for your salad garden, you will to want to completely clear the area. You can use something fancy like a sod cutter or something pretty simple like a shovel. After you've removed all the plants and growth, you want to prevent the return of those from coming back. What I do, is spray the area with a 20 percent vinegar solution. You will mix the vinegar with water as the bottle directs you, then you want to thoroughly spray the entire area where you will install your salad garden.

Installation





Here you can see what it looks like after we've cleared the entire area with a shovel. We have gotten most of the growth out of here, and this is the time when you spray with the vinegar solution to ensure that none of the unwanted plants return.

There are several different opinions about what you should use to cover, and I'm going to just tell you the different things you could use and leave the decision up to you. The main thing you want to ensure is that you're covering with something that's around two inches thick, and you want to make sure that the spot is completely covered up. You want there to be total darkness for whatever was growing underneath so that it doesn't have a chance to come back.

You can use craft paper, cardboard, or a weed barrier fabric that you can purchase at the hardware store or at your local nursery. In your hardware store, you can find one of my favorite things to use as a cover. Contractor's paper is a very thick paper that comes in bulk and works as a great barrier. I usually put on one, two or even three layers of paper down and it really covers the weeds and takes care of them. You might want to use something like steel edging or rocks or anything you desire to separate your garden area from the rest of your landscape. As you've probably seen in a lot of my clients' gardens, we almost always use steel edging but feel free to use anything to divide your garden from the rest of your landscape.

Next, you want to cover with another cover, so you're going to put at least four inches of some type of material that will help increase drainage for your garden bed and also smother anything that might start to grow from the ground. My favorite to use in my clients' gardens is gravel.

It allows the wood to dry out quickly and helps preserve the wood longer. You can also use simple things like hardwood mulch or pine straw. The goal here is to have at least four inches of coverage.

You want to level the area. This is such an important step. I cannot tell you how much time I've spent on my garden installation projects trying to level a site. It is quite a task and that's part of the reason why we cover with at least four inches of material because it really helps us level out the area. You want to use a level to check the ground and look from all angles where you will be placing your salad garden. Instead of building up a side that is low, you really want to dig down the sides that are high. I've found with experience, this is really the best way to get a level area before you place your salad container on your gravel or mulch or other type of cover.

Finally, we are at the install spot. Whatever container you're using check to make sure all the joints are tightly secured and then locate the best side of your container. I like to call this putting your best face forward. There's always the chance that one corner doesn't look that great or there's a bad spot on the wood or there's a stain on the pot. Anything that would make your container look not so lovely, you just want to place that in the least noticed position in your setup. Wherever you're least likely to see it, move your container so the bad spots are facing that direction and put the best face of your container forward.

Next, you want to level it out. Just as you've leveled the ground, you are now going to level the bed itself. Use a measuring tape to make sure the box is installed straight, then you want to use a level to check all the sides and make sure that the bed is level, and again, use gravel or other cover to lower the sides as needed. Remember to dig down rather than to build up when you're trying to level out the box.

Here you see a photo of a garden starting to be set up on gravel and then another photo of how I ensure that the bed is the same distance from the edging all along the side.

Next, place the level on all corners of the garden just making sure that from each angle that the bed is level. This is what your garden should look like if you followed along building this 4 X 4 X 6 inch cedar garden with me throughout this section. As you can see, we've got our irrigation source linked inside the garden, we have the bed completely put together and level, and we have this area covered with paper and with gravel to ensure that we don't get a lot of weeds growing inside of our garden. All right, so it is time for you to get your hands dirty and get your solid container ready to go.

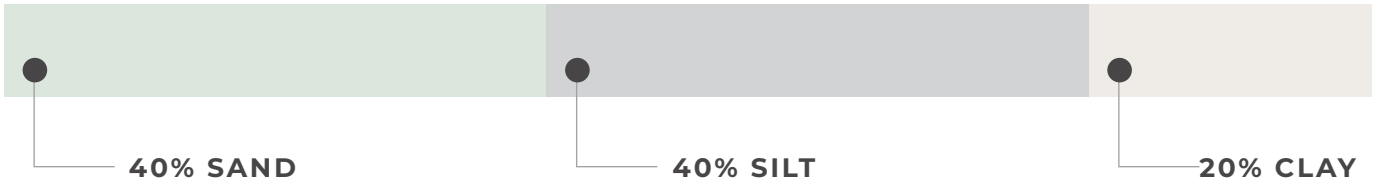
Gather your tools and supplies, clear the area, cover it, and then level it, and finally install that garden. Congratulations! You have finished section one. It has been quite a ride. I know there have been a ton of details in this section and we have not even gotten to the salad plants yet, so bear with me, we're going to get there. I can promise you that I have learned a thing or two from my business and set up is critical. That's why I've given so much time to all the details in this section, so that we can prevent trouble later on.

Soil

During this section we will focus on the ingredients of soil. We'll talk about the three major ingredients and how they can affect your salad garden. We'll talk about a few different home soil tests that you can use to constantly monitor your soil. I'll give you a few different ways that you can mix your soil if you'd like to use your existing dirt to create a great, rich garden soil for your salad garden and a few different options for installing your soil into your salad garden. And, finally, a few different amendments you can use to keep your garden soil awesome. I wanted to let you know that we will be focusing primarily on sandy loam soil. My experience has shown me that sandy loam is awesome for growing salad.

Soil - Ingredients

We're going to really drill down and learn a lot about soil throughout this module so that you are prepared to be the very best salad gardener around. We're going to address the three different main ingredients of soil, which include: clay, silt, and sand. The ideal soil that we're really going for is what I talked about in the snapshot- we call it sandy loam soil. The basic percentage breakdown is: 40% sand, 40% silt, and about 20% clay. This is pretty much the breakdown for what we call sandy loam soil. The problem is very few places have a natural dirt that has this composition. I know that in Houston, we definitely do not. We are about a hundred percent clay here. Let's talk about each of the different types.



Clay

For clay, this is really the smallest type of particle for dirt. It has a very high density and very, little organic material in it. In other words, there's not a lot of nutrients moving around in clay. It also has very slow permeability. If you were to ever pour water onto clay, you can watch it just sit there and sit there and sit there. That's part of the problem with gardening here in Houston. You have to grow in a raised bed; otherwise, your vegetable plant's roots just rot and die because the clay just stays so wet. The problem with completely clay soil is that it really holds too much water for a salad garden.

Silt

The second ingredient is silt. Now, if you know the word silt, you probably have a positive association with the word. It's a great, wonderful form of dirt. Silt has an intermediate size particle, and it can retain water, but it does release that water to the plants. It's considered to be very fertile dirt for plants. It has an easy release of water but it does have a little bit of a lack of ability to stick together. So, the particles, though they're a good size, they don't hold together as well. Because of this, it's harder for silt to really support root systems for vegetable plants. That's the issue with 100% silt soil; it just doesn't hold together as well.

Sand

Now, let's talk about sand. For sand, the particles are more intermediate sized and sand is really just really small rock fragments. Of the three different types, sand really is the largest size particle. The problem with sand is that it doesn't stick together and it retains very little water which makes it a little bit difficult to pass the nutrients to the plants. The problem with 100% sandy soil is that it drains too quickly. That's pretty much the end of this simple lesson. I just want you to have a good overview and understanding of dirt. I know it sounds silly but it really is key to becoming a great gardener.

Your assignment is to research your local soil. Find out what your dirt is primarily made of. You can find this out by talking to local gardeners, going to a nursery, or just googling your city, state, or particular geographical location and key in the words 'type of soil'. If you google Houston, you would likely find the words 'gumbo clay soil' because that's what we have here - super, super sticky, wet, and thick clay soil. Try to figure out what's going on in your local soil, and this, will educate you and get you ready to become an awesome salad gardener. That's it for this lesson, keep reading for more information on the best type of soil.

Soil Tests

In case you'd like to use the dirt from your own landscape, I want to give you a few recipes to turn that dirt into garden soil. To do this, we're going to be adding compost, sand, and fertilizer. The goal that we're heading toward for the salad garden is a sandy loam soil that also has compost in it. So, sandy loam is our goal and these are a few different ways you can mix your dirt to achieve it.

The tools you will need for this lesson are a shovel, wheelbarrow, and a container or a mixing area. Some supplies would be sandbags, some organic compost, and an organic fertilizer. This can include rock dust, meal, or manure. Here's a little bit more about fertilizer.

I really enjoy using rock dust in my salad gardens. Rock dust has minerals that are so

great for growing salad. You can get it at your local garden nursery supply. Bone meal and fish meal are both really great for salad gardens and so are rabbit and chicken manure.

Let's look at what we do if your dirt is mostly comprised of clay which is my situation in Houston and was the situation when I lived in Virginia. If you want to turn clay soil into a sandy loam soil, this is how you're going to mix it. You're going to have about 25% be your clay soil, 25% will be sand, almost 50% will be compost, and then about 1% will be fertilizer. In other words, every time you put in one shovel of your clay soil, you'll also put in one shovel of sand, and two shovels of compost, and then just a pinch of fertilizer. If you've got mostly sandy soil, you're going to want to add compost and fertilizer, and that's it. For every shovel of compost, you'll also have a shovel of sandy soil, and then a little bit more fertilizer. Here it comprises more like 2%. If you want to start with just pure compost, let's say you have a composter at your home and you want to turn that into real garden soil, you want to mix one part sand to one part compost, and then also add in a little bit of fertilizer. Finally, if you have a dark soil (this would be like the silt that we mentioned in Lesson 1) you really only need to mix one part sand to one part dirt, and then throw in a little pinch of fertilizer as well.

So, this is your assignment: If you would like to use your own yard's dirt and turn it into garden soil, you can now make your own soil mix. Gather your tools and supplies, buy the sand, compost, and fertilizer needed, and then, mix that soil.

You'll learn the quantity you'll need to fill your salad garden in the next section.

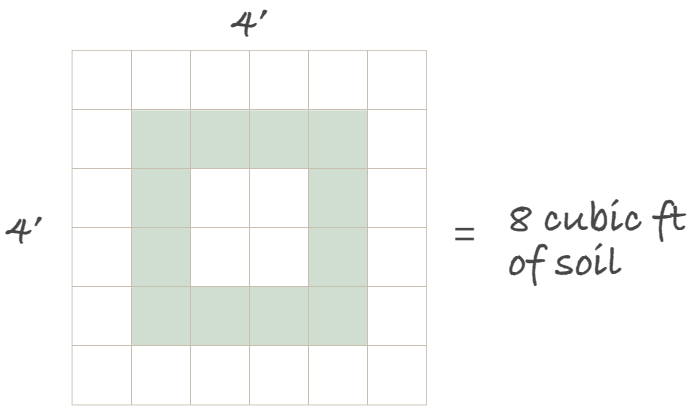
Ordering Soil

I want to talk with you in this section about the pros and cons of using bag soil or actually getting a full truck delivery of new soil to your garden. We've talked previously about how to mix your own garden soil from the dirt that exists in your landscape, but sometimes it's easiest or best to just start completely fresh.

For almost all of our garden installations, we use entirely fresh garden soil that's delivered from a wonderful, local soil yard. And, you guessed it, we use sandy loam soil. If you decide not to mix your own soil, but, instead choose to buy soil that's been crafted for you from a local or an online supplier, sandy loam is the type of soil you'll shop for.

For those of you that have chosen to make this 4 X 4 X 6 inch cedar garden with me, I wanted to let you know here that you will need eight cubic feet of soil to fill that garden. If you're ordering soil, you'll want to order the sandy loam soil mixed with organic compost. Not every soil yard that you order from will have this exact type of soil, but I want you to ask for this to make sure you get something as close as possible. If you're looking for a supplier for soil for your salad garden, I wanted to give you a few tips to help you find a place to supply your soil. You can contact your local nurseries and landscapers, talk to master gardeners or community gardeners in your city, or contact your state agricultural department, or you can simply google 'organic garden soil' plus your town's name.

If you want to get even more specific, you can just google sandy loam soil and your town's name. It might take you a little bit of time to find a great supplier, but I promise you they are somewhere out there.



If you are not able to find anything that's local, then you can go online and look for a few companies that can ship soil to you. I want to warn you that you are not going to want to do this if you're ordering any large amount of soil. Believe me, I've had a few big packages of soil sent my way before and it's a little overwhelming, plus the freight charge would be too much to make it worth your while. But, if you just need a few bags, then getting something shipped to you might be possible. Again though, I want to reiterate that I would get local soil if at all possible.

To determine the cubic feet of your garden, you need to determine the square feet of your garden.

Next, multiply the square feet by the height of your garden. This provides the total cubic feet of garden space that must be filled with soil. Just to give you a general sense, usually, if it's a typical bag of soil, one cubic foot of soil fits into one bag. Every now and then, you'll find a company that might give you two cubic feet in one bag. So, you can just ask, but generally you're going to have one to two cubic feet per bag. If you're thinking about ordering a truck of soil, it takes an entire 27 cubic feet of soil to equal one yard. This is simply the length times the width of your garden bed.

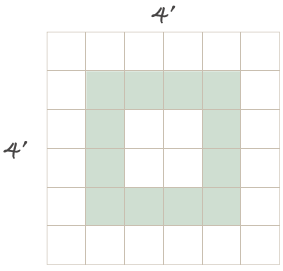
Determining the Cubic Feet of Your Garden

_____	x	_____	=	_____
square feet of garden		height of garden		total cubic feet of garden space

Here's a little bit more of the details: 27 cubic feet equals one cubic yard. Generally, a minimum truck requirement if you would like to have a dump truck bring soil to your yard, is to have two cubic yards. So, if your total garden area is going to be less than 54 cubic feet, you'll probably need to go with bag soil. But if your total garden area is going to be greater than 54 cubic feet, you can get a truck. Now, of course, if you have your own truck, you can put as little or as much soil as you need in the back of your truck. This is more directed to those of you who don't have a truck and would have to have someone else deliver the soil for you. Here's the example I mentioned earlier of our 4 X 4 X 6 inch cedar garden bed that we constructed in Module 1. Four by four is 16 square feet and then it's only a half foot tall. So that gives us eight cubic feet total in that garden. Now for our 4 X 4 garden we are definitely going to go with bags because we only need eight cubic feet. But, I want to help you know how to choose whether you should purchase bags or get a truck. Delivery of soil bags are for a smaller amount of soil; they're easier to install and picking them up in your own car is usually possible. A truck is typically needed for a larger amount. Trucks make the soil much less expensive per unit and delivery from the company is usually possible.

4 x 4 x 6 Garden

16	x	0.5	=	8
square feet		height		cubic feet



The cons for a bag, is that it's much more expensive. In my area, good sandy loam soil can run as much as $14 per cubic foot for a bag. There's also a lot more waste. As you know, each one of those bags is a big piece of plastic that's going to be thrown away. Finally, the bags can be pretty heavy for your vehicle. I've loaded as many as 30 bags into my van before and my van was definitely showing the wear and tear from it. I definitely met the weight limit by putting all that soil in there. You'll want to be sure that your car can carry that much weight depending on how many bags you'll need. For a truck delivery it can be kind of messy because it's going to dump soil all over your driveway or your yard before you can install it into your garden. It is also more difficult to install because you've got to do a lot of shoveling and there is also a chance of miscalculation. Because they are not taking it wheelbarrow by wheelbarrow into the truck to determine your yardage for the soil, I've had it happened quite a few times that I got way too much soil or way too little from a truck delivery.

This is how you can prepare for your soil pickup: first, you want to be sure that your garden is fully constructed and installed just as we've walked you through in Module 1. You also want to know that your irrigation is in place - you don't have to have your drip tubes down, but you do need to have the source connected through a pipe as we walked you through in Module 1. Finally, you want the route for installation to be clear, so you have a clear path, especially if you're using wheelbarrows to get the soil from the place it's dumped to the garden. If you're using bags, you want to have a good place to set up all those bags upon delivery. If you're picking up bags, you want to be sure and call ahead to make sure the store has an adequate supply. I can't tell you how many times I've gone to the nursery ready to grab my bags of soil and they were out of the type I wanted. You also want to make sure your vehicle can hold the weight and put some kind of protection in your vehicle like a tarp or plastic bags, something to keep that dirt out of your car.

You want to make sure that your garden requires the minimum yardage for the truck delivery. Here in Houston, most truck deliveries need to be at least two yards and some even require them to be three, so call ahead and be sure that you've got a need for as much soil as they're requiring you to get. You also want to make sure there's vertical clearance for your dump truck. These dump trucks generally are going to go up pretty high in the air to dump all that soil out. Make sure that you have a spot in your landscape where it can do so. Finally, you want to get approval to dump the soil. Depending on your neighborhood, you might have to get approval from an HOA or a club to be sure that it's okay to put soil on the street or somewhere in your landscape. Here is a photo of about two yards of soil that was dumped on the driveway.

Finally, we are ready to install our soil. The tools you will need are a box, cutter or knife, a rake, trash bag, a blower, and a water hose. For truck delivery, you might want to place a large tarp under the soil before it's dumped out. A snow shovel is really helpful to get under that soil to put it into the salad garden. To install the soil, you want to just fill your container. Be sure to protect your water source. We talked about this in Module 1, but you'll want to put something like a piece of plastic or cloth on top of the pipe that's coming up to be sure you don't get dirt down into it. As you install every four to five inches, you want to wet the soil thoroughly so that you can continue to fill it up. You will also need to turn the soil and fill the container to the very top. Finally, you want to level your soil with a rake. All right, it's time for your assignment. Before you install your soil, do your best to research the best local suppliers. Then calculate the cubic feet of your garden and determine whether you're going to order a truck delivery or pick up your own bags. Finally, install that soil and get ready to plant your lettuce.

- [ ] **BOX**
- [ ] **CUTTER OR KNIFE**
- [ ] **RAKE**
- [ ] **TRASH BAG**
- [ ] **BLOWER**
- [ ] **WATER HOSE**
- [ ] **LARGE TARP** (FOR TRUCK DELIVERY)
- [ ] **SNOW SHOVEL**
- [ ] **PIECE OF PLASTIC OR CLOTH**

Water Source

What I'm using in this lesson is a rain bird drip irrigation kit. I chose this because I could find it at almost any hardware store that I tried looking for it. So, I'm hoping that this will be easily accessible to you. Typically, if you find any kind of vegetable garden drip irrigation kit, this is what it will include.

The first thing you need to do is ensure that you have a proper connection to your water source. We outlined this in Module 1 under the lesson called Leak, but I want to just review quickly what we need to be sure it is ready and correct for us. First, you want to double check your timer, make sure that the battery is working and that it's connected to your spigot. Second, you want to be sure that you have a pressure regulator. This is so important if you're using drip or soaker hoses. You really need to change the pressure by which the water is exiting your spigot and going into your garden. Finally, you want to be certain that there are no leaks. If you didn't use the plumber's tape to start and you're having a little bit of leakage, then you can back up, disassemble the connection and add plumber's tape to make that connection a little bit tighter.

Soil Connect

Now it is time to connect your irrigation system to your garden now that you've got all of your soil in there. In this lesson, we'll ensure that the attachment to your water source is doing great. We'll connect it to your chosen watering system and finally, we will attach the watering system to the garden. I wanted to tell you again that especially for you as a Salad School Student, the system I'll be using is a spigot connected to a drip irrigation system. There will be principles here that can apply to you no matter what type of irrigation system you've chosen.

A pressure regulator is necessary and is something that you can find in the irrigation section of almost any hardware store. A timer is also necessary and can be found at the hardware store. You can also get them at specialty irrigation stores and even online.

Next, we want to connect our drip system to the main tubing or the hose. So, you may have used poly tubing or even a PVC pipe if you're being all official or you may just be using your garden hose, but this is the point where we are going to connect that system to our source. First, if you're using PVC or if you're using poly tubing, you're going to measure the height of the pipe and be sure that you cut it right at the soil level of your salad garden. Cut it with the proper tool and then you will use the connector to turn it horizontally so that you can connect your drip tubing to the pipe itself. There is a special cutter made for PVC and for poly tubing and again,

I got this at the hardware store. If you're using a water hose, obviously, you don't want to cut

it, you'll just use the typical threading that is provided for you. But you will need this to cut tubing or PVC if that is what you have chosen to use. Again, measure the height of your garden and cut it right at the soil level.

One thing that is so crazy about drip lines is that they come all curled up, and they are very difficult to uncurl. The first thing you want to do is try to straighten out your drip tubes prior to attachment. Sometimes, I lay mine flat on the driveway and put some rocks or bricks on top to flatten them out. If you lay them in the sun, they will start to straighten out a little bit and make it easier to use when you attach it to your garden. You want to connect the holes in your drip tubes to the main tube. Ensure that the ends of your drip tubes are closed off. Irrigationists sometimes call these goof plugs.

To the right is a photo of a quarter inch tubing where you can see the drip holes throughout. Also, note how curled up the tube is. These tubes can be so difficult to straighten out. Give yourself a day or two to let these straighten out before you try to put them in the garden.

Finally, here are photos showing landscape pins that you'll use to secure the tubing in the soil and also some tubing directly inserted into the salad garden.

Here's your assignment. Connect your irrigation now that you've got your garden filled with soil. First, ensure that you've got a proper connection to your water source with no leaks. Then, connect your water source to your drip system, and finally, stretch out those tubes and attach the tubing to your garden. You are now all set up and ready to water your garden. We'll talk about setting the right watering times and amounts in a later Module, but for now, your whole system is set up and ready for planting!

Soil Amendments

Amending soil is just regularly adding new minerals and nutrients throughout your growing and even in the resting period of your salad garden. I wanted to start by telling you that you'll find out a lot more about fertilizing your plants and caring for your soil. But because we're focusing on the soil in this entire Module, I wanted to go ahead and offer you some thoughts on amending your soil here at the outset.

SOIL AMENDMENTS FROM THE KITCHEN

Did you know that you have got a load of soil amendments sitting right inside your kitchen cabinets? If you drink coffee or tea, use bananas or eggs, then you already have the ingredients for some great soil amendments. Here are a few ways that I use these scraps in my garden. So, the coffee grounds I put directly onto my garden soil. These add so many nutrients to the garden and can be added directly as they are right out of the coffee maker. So, each morning after I have my coffee, I empty the grounds onto a plate and once they've cooled, I go out and spread them alongside my lettuce plants. For banana peels, I don't put the peels directly into the garden because they're still going to be breaking down and would take nutrients out of the soil as they do so, but a simple thing you can do is make a banana peel tea and if you can see in that jar to the center-left, what you do is just soak chopped banana peels in water, then strain the banana peels and pour the water directly onto your lettuce plants. You can look up lots of other ways to use banana peels, but this is the simplest way that I have found.

Finally, eggshells. These are so easy to use in the garden. They're safe to use once you've rinsed them and one way you can do it is just by crushing them and placing them right alongside your salad plants in the garden. Another way is also to make a tea as you did with the banana peels. You crush the eggshells, in a Vitamix, another type of blender, or by hand, soak the crushed eggshells in water for about two days, strain it, and then pour it over your plants. These are three super simple ways you can feed your plants regularly without having to go to the nursery or order any type of fancy fertilizer or amendment. The best part is, that it's all right inside your kitchen.

Two other ways you can work to add some nutrients to your soil is through your yard waste. A very simple one is called leaf mold. To make leaf mold, you simply just put your leaves in a plastic bag and just stack them up for the season and let them just slowly, slowly break down. It does take quite a long time for leaf mold to happen in this way naturally, maybe an entire season, but if you store your leaves each fall, then you'll typically have a great source of leaf mold compost in the spring. You can also compost your grass clippings. Obviously, you want to make sure these are fully broken down and composted entirely before you add them to your salad garden and also ensure that there aren't weeds in there.

If you have pure grass clippings, you can let them sit and break down for several months and then add them as a side dressing to your salad garden.

Two other ways to naturally build in some amendments into your soil are through composting. One of my favorites is worm composting. There is an indoor type of composting where you use red wiggler worms. There is also simple outdoor composting where you can use a bin or your home-built system to build compost.

One important part of composting is that you want to be able to regularly turn the compost. I've got a completely sealed system here in Houston because we've got issues with roaches

OTHER TYPES OF SOIL AMENDMENTS

and rodents. Having a system that can seal and turn allows me to make compost fairly quickly. The more you can turn the compost, the hotter it will be and the quicker it will turn from waste into usable compost. I keep a simple collection bin underneath my kitchen sink to store kitchen scraps until I can bring them out to the regular compost bin.

As mentioned earlier, you can also compost with an indoor worm factory. Now, I have to tell you, I don't necessarily love this system. We bought it for my daughter's science fair experiment, but I have loved watching the worms turn my kitchen scraps into beautiful composts for the salad garden. You can use red wiggler worms inside of something as simple as a Tupperware bin. I'm not going to go into all the details here, but I did want to let you know that red wiggler worm composting is awesome for your salad garden. It's also a good option for year-around composting because the bin can stay indoors all year long. You can give the worms kitchen scraps or garden waste. All of these worms then take the waste and scraps and turn them into very rich compost that I can add directly into my salad garden. Its a win for everyone.

Another thing you can use to add to the garden is manure. I have to tell you, I don't do this that often simply because I'm never 100% sure where the manure is coming from. I feel a lot safer using vegetable and fruit products directly from my kitchen. But I wanted to mention this because it is a recognized source of amendments for your soil.

Planting

1. SEEDS & STARTS

2. LAYOUT

3. DIRECT SEEDING

4. BUYING PLANTS

I want to broaden your horizons when you think about your salad garden and the plants that are possible. Next in the e-book we'll talk all about the different plant families that you can include in your salad garden. Then, we're going to talk about layout. I'll give you a few different ideas for ways that you can lay out the variety of plants you've selected from lesson one. From there we will discuss seeds. I'll give you some sources from where you can order seeds and walk you through how to start seeds indoors or outdoors in small containers before moving them into your salad garden and how to directly seed into your garden. We will walk through a great checklist to make sure you're buying the best plants for your salad garden if you choose to start from plants instead of seeds. And finally we are going to dig in and put all those big plants, small plants, and seeds right into the salad garden.

Selection

In this lesson, we are going to talk all about selection. My goal is to broaden your horizons in terms of thinking about all the different things you can plant for a salad garden. In this lesson, we're going to talk about a bunch of different types of plants that would all make your salad awesome. We're going to do this by talking about type and quantity. Based on the decisions you made in Module 1, in this lesson you will be able to determine the quantity you want to have of each different type of salad plant. I'll explain more as we go along. First, let's talk about a bunch of different types of plants that will fit in a salad garden.

Above is a chart of different lettuce varieties that we will discuss in this lesson. Of course, there are still other plants out there that could be included in the salad garden, but I think you'll find that these five different types of plants will really fill out a salad garden nicely. If you look in the left column, we just have the common name, so I tried to give the general name that you would probably recognize as for this plant family. Then the second column lists the Latin name, the third column is the space requirement, so this gives you an idea of how much space each of these plants is going to require, and then finally is the depth requirement. This is how deep the plant's roots need to go. Generally, as you can see, most of the lettuce plants really only need about six inches for their roots, but some mustards and onions may need up to twelve.

All right, the first plant family is the daisy family. I think you can recognize the word there in the name. The daisy plants can be tightly planted for frequent harvest. When I tell you that you can plant them only four inches apart, I'm assuming you're going to be harvesting them rather frequently. Daisy plants generally prefer cooler weather, so somewhere between 45 and 75 degrees is optimal. We'll talk in later lessons about how to extend the growing season for lettuce plants, but you just need to have that temperature in your mind as you think about daisy plants.

Well-known plants in the daisy family include the loose leaf lettuces, Romaine Cos, iceberg lettuces, butterhead, and bibb lettuces. Generally speaking, when you think about a lettuce garden, you most likely are thinking primarily of the daisy family. These are some of my favorite lettuce mixes and plants

in the daisy family. My all-time favorite lettuce mix is from Baker Creek seeds. They sell a mix, at least at the time of this writing, called Rocky Top Lettuce Mix. This is the mix that turned me into an avid salad gardener. It's just the perfect mix of red lettuces and speckled lettuces and green lettuces. They're all sweet and it's a beautiful mix. I talk about this mix with all my clients. It's my absolute favorite.

I also love growing Butter Crunch, Tom Thumb, and even Mascara lettuce. As you may know, Tom Thumb and Mascara are both also from Baker Creek, but I've also enjoyed getting lettuce seeds from Southern Exposure. We're going to talk more about seed selection in an upcoming lesson, but I wanted to go ahead and give you the sources of my favorites here. If you don't do anything else, I would recommend starting out with the Rocky Top Lettuce mix from Baker Creek Seeds.

Here is a photo of Romaine plants in one of my client's gardens. In the picture, you can see how closely these plants are planted together. But if you'll also observe, we'll talk more about harvesting in future lessons, but you can see how the stems have been cut on the side. These lettuce plants are harvested frequently by my client, which is necessary when planting members of the daisy family close together.

The second family is what we would like to call the mustard family. This is the Brassica plant family and it's the cruciferous vegetables, generally the most nutritious type of plant you can give your body. This family includes cabbages, mustards, and kales. It also includes broccoli, cauliflower, and those kinds of plants, but we won't talk much about them here. Mustards generally prefer cooler weather, but I do have to say that my own experience has shown me that some of these plants can withstand warmer weather better than the daisy plants can. An example of this is my kale plants. They have often made it through even a Houston summer, whereas, my daisy plants all bolt and turn to seed by May. It's not always the case, but I did want to let you know that this has been my experience. I've seen some mustard plants do really well, even through warm weather. The bigger plants in the mustard family can actually require up to one square foot each. So kale plants and mustards can get pretty large.

Here is a close up of some of the mustards that I grew last season. Pictured are purple Mizuna and Florida broadleaf mustard. Some of the plants that are found in the mustard family are all types of kale, Bok Choy, radishes, and Mizuna, which is a form of mustard. None of these lists are exhaustive, but they will get you thinking about the possibilities. Some of my favorites types of kale are Red Russian, Blue Scotch Curled and Toscano, which is also known as Dinosaur Kale. I love all three of these kales and like to harvest them young for salads and then harvest when they are more mature to make kale chips and green smoothies.

If you are having trouble with your salad garden, I would recommend starting with arugula. It's one of the easiest plants to grow from seed and it just keeps going. Some of my favorite mustards are the Purple Osaka and Mizuna Red Streaks. Mizuna is pretty peppery, but it's a gorgeous plant and it's so fun to add to your freshly picked salads. It really shows that it's a homegrown salad that's very different than one from the store. Finally, for collard greens, I love growing Vates. A favorite dish in my family is a collard green dish where we cook the greens down in butter and garlic and it's just delicious.

Now, let's talk about the spinach family. You will be surprised to know that the spinach family includes a lot more plants than just spinach.

Most spinach plants require cooler temperatures, but there are some that can withstand the heat. A good example of this is Swiss chard. Just like the kale, I've seen the Swiss chard survive in my yard throughout the warm summer. These plants are going to vary with their size. Swiss chard can take up six to nine square feet per plant. Spinach may be much smaller. Again, all of the square foot requirements really depend on how often you harvest, which hopefully, is going to be often.

This is a picture of a Swiss chard harvest from my garden. Swiss chard is so beautiful and so good for your body. A few of the plants I enjoy growing from the spinach family include, Swiss Chard, lots of spinach, beets, quinoa, Amaranth, also purslane, which you might know as a weed, but it's actually a very nutritious salad green with a unique taste that is a little bit lemony, and it actually can grow in the hot summer. Amaranth is also a plant that can survive the hotter temperatures. We will talk more about which plants grow during which parts of the year in later lessons, but I thought I'd go ahead and highlight that here now. My favorites in the spinach family include Bright Lights, Swiss Chard, Bloomsdale Spinach, perpetual spinach, and a strawberry spinach, which is really unique and tasty.

We aren't going to talk about growing carrots, but about the plants that you normally would associate as herbs that are within the carrot family. As you know, carrots go deeper into the soil, and so this is a family that might need a deeper garden, maybe up to 12 inches deep. The carrot family, even if you don't harvest it to use in your salad itself, is actually a great companion plant to salad plants. Carrot family plants have flowers that attract beneficial insects and they do a lot of good for the salad garden.

Here's a photo of parsley growing in one of my client's gardens. Clearly, this parsley is taking over. What you might not realize is that the plants that we associate with herbs, Parsley, dill, and Cilantro, actually are all are found inside the carrot family. They all have a tap root, very similar to the carrot and they grow in similar conditions.

My carrot favorites for the salad garden are flat Italian Parsley, bouquet dill, and slow bolt cilantro. In case you'd like to add a few carrots to your garden, Danvers Carrots are a shorter carrot that will grow more quickly. It might be a fun thing to also add to your salad garden.

Finally, we have the onion family. The onion family is also known as the Allium family. The onion family generally prefers temperate climates, but you can see onions that will make it through the entire winter when covered with mulch. Onions are a beneficial companion plant to the salad garden. The reason being is that the Allium family have a particular smell and this smell is so strong that it often can deter pests who are interested in munching on your salad plants. When they smell garlic or onion, they tend to stay further away than they would if those plants were not there. Here's a row of beautiful onions. Some plants you might consider in the Allium family include garlic, onions, leeks, shallots, and chives. Now, let's talk quantity.

Just a quick reminder of how much space each of these plants require. Now it's time to decide how much you'd like of each variety of lettuce. Again, consider the size of the garden that you chose in Module 1, then I want you to list each of the plant types that you've selected and would like to include in your salad garden. Now you're going to multiply the number of servings you'd like to have of each of those plants per month, and then divide them into your garden size. So for instance, if I'm interested in having one parsley harvest a week, then I would want four parsley plants in my salad garden.

Hopefully, it's starting to make sense. Now it's time for the assignment. Make a list of all the types of plants you'd like to include in your salad garden. Then refer back to the lesson in Module 1 to determine the quantity of each type of plant you've chosen and ensure that there is enough space in your garden to plant the number that you would like. Finally, it's time to make a shopping list of all the plants that you've selected for your salad garden. We'll talk more about shopping in an upcoming lesson, but now's the time to make your wish list.

Seeds & Starts

In this section, we're going to cover seed starting. We will learn to set up and grow our seeds. Throughout this lesson, I want to show you the difference between starting with seeds and plants. As a beginner gardener, I learned that it's so much better to start with plants for certain things, while other things do really well planted from seed. The things that do great from seed are the daisy plants, the mustards, and the carrots. Generally speaking, it's the plants you consider the most common lettuce and salad plants. Now, the things that do better from a plant themselves are the alliums, so we're talking onions and garlic, flowers and herbs, particularly the herbs that are in the mint family like thyme, oregano, and rosemary. If you want to include those in your salad garden, I'd encourage you to start with plants. You will be able to buy some of the more typical salad plants from your local nursery, and I'll talk to you about how to do so, but I want you to know that they're all possible to be started from seed.

All right, let's dig in. To purchase your seeds, I want you to shop locally if possible. If you can find nurseries or seed companies that are local to your geography, you have a much greater chance of those seeds doing well in your climate. I'll talk to you more about a couple of great seed companies that I love. You also want to make sure that the seeds are organic and non-GMO if possible, openly germinated, and generally, you're going to want about one packet of each type of lettuce. Here are a few of my favorites. First is Southern Exposure Seed Exchange. I love this company. They're located right out of Charlottesville, Virginia, which is where I used to live, and they grow plants that do well in the southern climates. You can see a bunch of the greens that I have from them. I also absolutely love Baker Creeks heirloom seeds. I use a huge variety of their seeds, but the Rocky Top lettuce salad mix is my absolute favorite and it's the mix I used as I started to learn to grow salad. Then finally are Johnny's Selected Seeds. I really like their seeds, but I always make sure that I'm buying non-GMO or organic from them.

Selection

Once you've ordered your seeds, you want to make sure you store them well; seeds need to stay cool. Make sure you seal them and label them well and then put them away until it's time for you to plant. Believe me, you will save yourself a lot of time if you go ahead and categorize and store them well at this point. I love a seed organizer where it allows all the seed packets to stand upright, so I can organize them by type and be ready to plant.

As you'll learn when you first open your seed packet, lettuce seeds are super tiny, and you're going to need something to help you spread out the seed as you plant. A couple of options are a seed sorter, spice shakers, condiment dispensers in the sand mix. You can buy empty containers like these from stores like Target and the dollar store. You can simply open them up, put your seeds in and it helps dispense the seeds one at a time. The condiment dispenser that would typically hold ketchup or mustard is a great salad seed dispenser as well. That opening is very small and only allows a few seeds to come out at one time. I also mentioned that you can use a sand mix. You can mix the sand with your seeds when you're directly saving them into the garden, and we'll talk about that in coming lessons.

There are three ways to plant your seeds. You can either do them in a container indoors, you can do them in a container outdoors or you can directly seed them into your raised bed garden. We'll talk about all three of these ways. Starting your seeds in a container indoors is the type of planting used to extend your growing season and it's a little bit more of a predictable way to grow. It's more predictable because you've got your seed set in a very small little space and you're able to monitor it more closely. You are also better able to protect it from pests or bad weather.

Direct seeding is easy and fast, you can do it in just a few minutes in your raised bed garden. This doesn't extend your growing season because you're only going to be able to do it when the garden is ready to grow and the temperature is right, but it is super fast, so generally you can make up for the time that you might have lost if you didn't start the seeds indoors or in a container out of doors. In a container, you're going to need some type of planting station and then you're going to plant your seeds.

Then there are really three steps to seed. Starting first is just growing them inside of their container. Second is hardening the seeds off once they've been grown, and then finally transplanting those seedlings into the garden itself. When should you start seeds indoors? You should do this in either late winter, early spring, or again in late summer or early fall. You can also continue to start seeds indoors if you liked the predictability part of it. When should you start seeds outdoors? You can start seeds and containers outdoors after there's no more threat of frost or super high temps over 80 degrees. You can also continue to start seeds outdoors and containers throughout your growing season.

There's a wide variety of seed starting containers. You can use plug trays, peat pots, containers like yogurt containers or egg or milk cartons, You can make your own planting box out of a few pieces of wood or some type of terracotta or plastic. In the photo, you can see plug trays and peat pots. I also use a homemade box, made out of cedar. This has some drainage holes on the bottom, and then it's covered with a weed barrier cloth so that the soil and water don't come out of the box. you would then fill it with soil, and plant directly in the box.

If you are just starting to grow seeds indoors I suggest using plug trays with the plastic cover. I chose this because you can find them at almost any local nursery and they're generally even available when you order your seeds from the seed companies themselves. This is one of the most straightforward ways to plant your seeds and it's very easy to monitor them. For planting in the plug trays, you're going to need the plug tray itself, and then a solid tray that goes underneath the plug tray that will hold the water to make sure that the seeds stay moist and then a cover that you'll use until the seeds germinate. The tools you'll need to start your seeds are a dibber, a seed spreader, a small rake, and water.

- [ ] **SEEDS**
- [ ] **SEED STARTING CONTAINER**
- [ ] **DIBBER**
- [ ] **SEED SPREADER**
- [ ] **SMALL RAKE**
- [ ] **WATER**

This is my favorite tool for the salad garden, and I highly recommend it. This is called a dibber, and as you can see there is a mark at every inch on the dibber itself. This is going to really help you as you plant your seeds to know what depth you need to dig a hole, and as you plant larger plants you can always tell the inch to which you've dug. I highly recommend using a dibber. I love using a Hori Hori as my garden knife, a watering can to evenly disperse the water, and then my seed spreader of choice is a spice shaker.

The supplies checklist for starting seeds is having a container, a soil and compost mixture, seeds, a label of some sort, and then of course a light source. I wanted to speak a little bit about the soil you'd like to choose. We talked all about soil earlier, so I know you're well schooled on that. You honestly can just use the same soil mix that you made for your garden for starting your seeds, or if you'd like something special, when you go to the nursery, you can ask them for the best organic seed starting medium that they have. Generally, you want something that drains well but does allow moisture to stay around the seed until it germinates. This is how to set up your seed starting station: first, find a flat surface and set up your container, fill it as high as you can with soil mix and water the soil well before you start to plant, finally, set up your light source. You will either want your station near a window or you'll need a grow light on top of it. If you're outdoors, there's no need to worry, your plants will get plenty of light. If you are outdoors, you actually want a shade cloth of some type to put over the seeds so that they don't get too much sun on such a small planting space.

- [ ] **CONTAINER**
- [ ] **SOIL & COMPOST MIXTURE**
- [ ] **SEEDS**
- [ ] **LABEL**
- [ ] **LIGHT SOURCE**

When your plug trays are ready to be planted, you will fill them with your soil and then you're going to make a small indention that's about two to three times the width of the seed. Then you're going to plant the seed to the specified depth, cover it with soil and lightly water it.

Finally, place it under the lights or outdoors under a shade cloth. After you have planted, you may also want to label your seeds to help remind you of what you're growing.

You want to make sure you label your seeds because as they start to pop up, you're honestly going to forget what you put in those spots, so do yourself a favor, and label them from the start. When I plant, I try to put two seeds in each hole. You really don't want more than two because it's going to be a lot of work to thin out those plants when they start to grow. Next, you will want to lightly cover them with soil and then gently water them. You will want to cover them until germination occurs. You will know that germination has happened when the seed breaks the surface of the soil and pops out a little bit of green. After that happens, you will want to take off the top and let the plant continued to grow. Be sure to check the moisture daily, make sure it's not too wet, and also not top dry, and also provide about four to six hours of light.

If you're growing indoors, once the plants have germinated, you will want to make sure they are getting plenty of airflow. You can either have a fan blowing near your starts or you can walk by and give them a little brush with your hand. Plants really need to move around, which helps to strengthen the plant and roots. In addition, the movement also prevents mold and mildew from growing on the starts.

Before transplanting, you need to harden off the seedlings that have grown indoors. You are going to slowly move your seedlings outdoors. You will begin as you did with your containers. If you don't begin them under a shade cloth, then you will gradually move them into the sun each day. You will want to give them about one hour more of sunlight each day until they're receiving four to five hours of sun per day. Once you've hardened the plants off, you can move them to full sun exposure for another day or two before you're ready to put them directly into the garden. If you have grown your starts outdoors in the container, but under a shade cloth, the only way you have to harden them is by gradually removing the shade cloth for a few more hours every day.

Finally, you're going to transplant your seedlings. First, you'll refer to your layout plan that we developed earlier. You first want to water the root system of your seedlings very thoroughly and water the soil before you put them in. Then you will want to monitor your transplants for the first week, as they adjust to their new home. Here are transplants that I took directly from plug trays and put them right into my salad garden, you can see how it is more predictable when you grow from a plug tray; I was able to space them and design them a little bit more clearly than you can when you direct seed into the garden. Now it's time for your assignment. Purchase your seeds, and be sure to find the best source that you can for your area, categorize your seeds and store them, then get ready to plant and grow them. After that, you will need to decide if you are going to grow them indoors or outdoors in containers, or if you'll just wait to direct seed. I'll teach you how to do that in the next lesson. Finally, prepare to transplant those seedlings and again, I'll be showing you that in an upcoming lesson.

Layout

From the very beginning, my philosophy about growing any kind of edible garden is to pack in the plants. If you've ever visited a farm, you know that typically they plant rows and rows and rows of the same plant with big spaces in between to walk through each row. Well, we are growing in raised beds in small spaces, and we don't have to use that type of layout because we've got squares and rectangles and triangles to work with. My goal is to squeeze as many plants into that space as possible and generally, my philosophy is that if a weed can grow in a space, then there should be something edible growing there instead.

I just wanted to clear that up from the outset. We're not just doing rows of the same kind of plant over and over again. I want to teach you what I use with my clients growing a wide variety of plants in a small space, so let's get started. The way we'll do this is by categorizing and then designing our plant layout. To categorize your plants, we're just going to consider all the plants that you selected in lesson one and then put them into particular categories.

This is a chart I want you to fill out based on the plants you selected in lesson one. In the left-hand column you'll list each plant type. So for instance, if I chose to plant kale, kale would be my first plant type. If I also wanted to plant buttercrunch lettuce, that would be my second plant type, and if I wanted to add in some parsley, that would be my third plant type.

In the first category, we're going to be considering the size, so you will decide whether this is a large or small plant. Secondly, we're going to consider the duration of growth for each plant, whether it's called a long season or a short season plant. Finally, we'll decide upon the placement of the plant. Should it be on the border of the garden as an interrupter or down the main row? You'll see what I mean in coming slides.

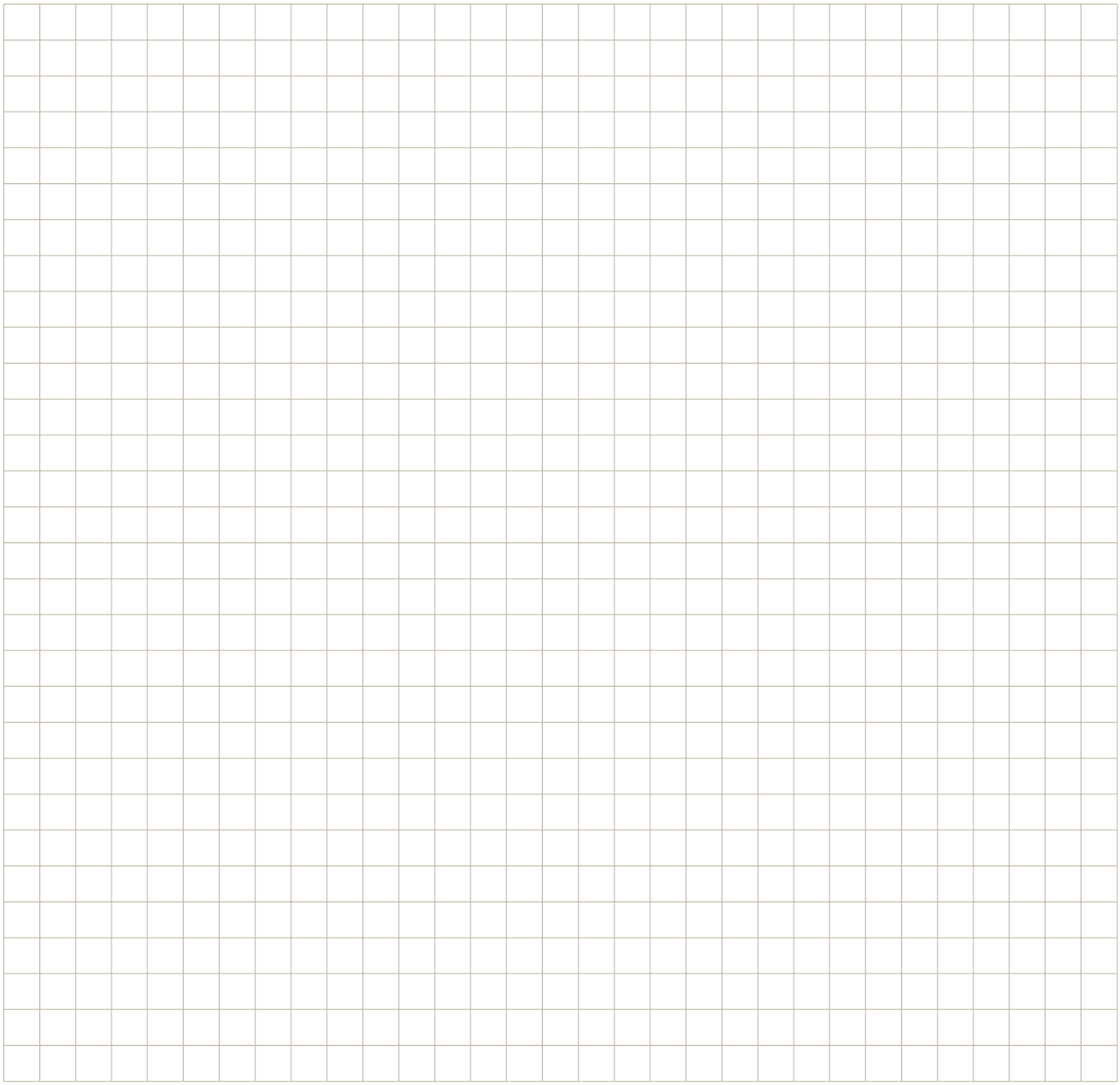
First, let's consider size. I like to simply divide salad plants into large and small plants. Large plants are typically six to twelve square inches. These are mostly the mustard family, so if you're thinking kale, collards, mustards, any plant like that, it has the potential to get pretty big. Head lettuces also need more space and some in the spinach family, I'm particularly thinking of Swiss Chard, which could spread out and take up a lot of space if allowed to do so. In the allium family, I'm considering bulb onions and also green onions that could spread and take up a large space.

Small plants only require three to six square inches each. These are mainly the daisy family, the spinach family, the carrot family, and the allium family. The daisy family includes all the loose-leaf lettuces. The spinach family are mostly just the greens, the spinach that you know from the grocery store. The carrot family would be parsley, dill, cilantro and small carrots, and then the allium family would be green onions or garlic chives. Go through each one of your plants and determine whether it's a large plant or a small plant. Now, we want to consider the duration of the plant's growth. The duration can obviously be impacted by the climate that you live in and whether or not you decide to cover your garden when it gets cold or hot. We'll talk more about doing that in coming lessons. But for now, I just want you to know the growth potential of your plants. Typically long season plants can grow more than three months. My experience has shown that mustards, spinach (I'm again thinking of Swiss chard here), and alliums can stay in the garden for more than three months at a time, so can any of the kales and collards. The Swiss chard and the garlic and onions and others can remain for a long time. The short season plants are the daisies, spinach and carrots; as a reminder, those are the loose leaf lettuces, green spinach and parsley, dill and cilantro.

Now, after we've considered their size and their duration, it's time to think about their placement in the garden. I've divided it into three categories. We have borders, interrupters, and the main rows. Borders would be plants that fit nicely in the corners and along the edges of your raised bed. All of the daisy plants fit borders very well. Spinach plants do well on the borders, as do flowers. I like to tuck edible flowers into my salad garden. It makes it prettier and it's always fun to throw some flowers into the salad. Interrupters are plants that aid the salad garden by interrupting pests if they start to attack your plants. The idea here is that if a pest is starting to munch on your lettuce plants, they will eventually hit a plant that they don't like as well. These include any of the allium plants, so garlics and onions and chives, and then also some of the carrot families, parsley, dill and cilantro, are hosts to insects that actually will help your garden. I like to call these two categories of plants interrupters because they help the garden and they look a little bit like an interruption when you look at the rows of plants. Finally, there's the main row. We have mustards and head lettuces in the main row. Again, those are the larger plants that will endure longer in the garden and would take up to twelve square inches of space.

PLANT	SIZE	DURATION	PLACEMENT
Kale	Large	3 months	Main row

PLAN OUT YOUR LAYOUT



Now that we've categorized our plants, we're going to design them. Here is just a little reminder of how much space generally each of these plants requires. All of the mustard family generally needs about one square foot each. The other plants, the alliums, flowers, daisies and carrots need about four square inches, generally speaking. The first step is to lay out your borders. Whenever I'm planting a client's garden, I love to plant the borders first. They kind of frame out the picture for me and gives me a guide for filling in afterward. At this point, you're just going to sketch out where you want to put your border plants. Here I have purple Mizuna, which is actually a mustard, but I trim it to keep it small on the borders. I also have marigolds, nasturtiums, and then loose leaf lettuce. In the second step you want to place your large plants and your long season plants in the main rows. This is where I will plant kale. At this point it's pretty small, but in a few weeks and in a month these plants and leaves are going to be huge and requiring all the space necessary in the main row.

Third, you want to place your small plants around these large plants. So as you see, I have larger arugula plants in the two main rows, then I planted smaller loose-leaf plants around the arugula. I also started seeds for short-season plants on the outside of the arugula plants. The fourth step is to add interrupters where needed. Remember, these plants are there to interrupt pests in the case that they start to attack your garden. By the way, we will be talking more about pest management coming up. Here you can see how I like to mix up my plant varieties. Planted here is a variety of lettuces, kale, chives, and herbs.

Finally, at the end, you're going to add the short season plants that you haven't found a place for yet. So here's some loose-leaf lettuce that I tucked into the border in an open spot after I've planted everything else, and here are little seedlings that have come up from seed. As my salad garden continues to grow, I regularly go back and add more seeds for short-season plants. As the garden matures, we'll talk more about succession planting in coming lessons, but I wanted to show you a picture of it here.

Now it's time for your assignment. Go back and grab the list of plants that you selected in lesson one, then categorize the plants that you chose, based on their size and their type and their duration. Finally, be sure that you remember how much room each of these plants will need to grow to their full maturity. Finally, create your plant layout. I know this is a unique way to plan a salad garden, but after seeing this plan played out again and again in my client's gardens, I can promise you that you're going to have a very productive garden and also a beautiful one. I love seeing the wide variety of plants in a salad garden rather than just a few rows of the same plant again and again. Now, if in your plant selection you really only wanted one or two things, then you're free to go back and make it a simple plan just like a farmer would. But in this lesson, I wanted to give you all the knowledge you needed to step it up, if you're ready to.

I can't wait to see pictures of your salad garden in the weeks to come, so keep me posted and tag #saladschool on social media.

Direct Seeding

Earlier I taught you the different ways that you can start seeds for your salad garden. The two that were covered in the previous lesson were: how to grow seeds indoors or outdoors but in a smaller container that would then be transplanted directly into your salad garden.

Next, we're going to talk about direct seeding. What I mean by this is taking your seeds and planting them directly into the garden itself. In this lesson, we will learn how to prepare the garden for planting and then to plant it.

There are times when it's right to direct seed. These would be early spring or late summer, or at any time during the winter when the ground is warm enough to be worked, and you have escaped the threat of snow and frost.

Generally, you want to be direct seeding when the temperatures are ranging from 45 to 75 degrees Fahrenheit. You're going to want to use the seed spreaders that we discussed in the last lesson. You can use a seed sorter that you would get from a seeding company, a spice shaker (which is my favorite), a condiment dispenser, or a sand mix. To use a sand mix you'll just take a little bit of carpenter sand and mix it in with your seeds. If you are just widely dispersing the seed, the sand mixed in will show you where the seed has landed and where it hasn't. I used to use this method a lot when I allowed my children to just directly throw the seed anywhere on the salad garden.

Earlier in this lesson, I showed a photo of a spice shaker and condiment dispenser. These are my two favorite ways to spread seeds. Let's get further into direct seeding. The tools you are going to need are: some kind of ruler or straight board, a dibber (my favorite tool), a seed spreader, a small rake, and some kind of watering can or water mister. I do love using some kind of ruler or measuring tape to make sure that I'm spacing my seeds correctly and also that I'm doing so in a straight line. Additional supplies you will need are seeds, the seed spreader, and labels.

I have seeds for lettuce, Bella Rosa, and Black-Seeded Simpson. The Black-Seeded Simpson is a super fast and easy one to grow. For direct seeding you are going to prepare your soil (refer back to the planting layout that you made in earlier lessons in this Module), mark your planting spots, then plant your seeds, water them lightly, and then monitor. To prepare the soil you want to gently turn it and lightly water the soil surface. Finally, you want to make sure that the soil is nice and even. You don't want there to be hills, and mounds, or valleys in your garden; you really want a good, flat surface. I use a simple rake to level out the soil and make sure there are no high or low points. Then, you are going to locate the spots for your seeds by marking them, either using a ruler or a long stick, something that you can use to make a straight line. With your dibber, you will then mark all the different intervals where you want to plant the seeds. After you've marked your spot, you can create a small trough or you can just do one single hole at each spot where you are going to plant the seed.

Again, we only want to plant the seed two to three times the width of the seed. Lettuce seeds are generally less then a half-inch wide, so, you are only going to go a half to three-quarters or at the most an inch deep. Here, I have just used my measuring tape to figure out how far I should space each of my seeds and then I used my dibber at each interval. Here, I am planting every four inches.

Then you are going to plant your seeds in the appropriate spot. Again, remember the right depth. Lightly cover with compost and soil mix. Here you can see I've got two little seeds at the eight inch mark and two at the one foot mark. And I'm going spread them and then I'll cover them up. After you've covered them with soil you want to cover the whole thing with tulle or some kind of row cover. Check moisture daily and monitor the growth. Lettuce seeds can not dry out in the garden or they will not germinate. Checking the moisture daily is really important until the plants pop up from the ground. You don't have to cover your plants with tulle or row cover, but I have found the most predictable growth when I do cover them.

Sometimes, it doesn't always happen but pests will get in the garden, like a squirrel or a dog or cat, and dig in the soil when it is nice and loose. I've found that when I cover the soil, I get really predictable growth. Here are arugula seeds that have just started to germinate; they have just started to put on their first pair of true leaves. You can see that in some places I over-planted, like on the left I have about five seedlings that have popped up. But in the center I have only two, which means I did good and only dropped about two seeds. These plants look small but they will grow big.

Below are red lettuce starts. It looks like I dropped about three seeds in this little spot, and they are all growing, but they could be thinned. We will talk about thinning in up-coming lessons.

Below is the tulle that I use. I honestly just bought tulle fabric from the local fabric store. You can buy something more sophisticated like shade cloth or row cover, but I found tulle is pretty inexpensive, very easy to use, and I just continue to use it season after season.

After you've direct seeded, I want you to double check a few things. You will want to make sure your seeds are spaced at least three to four inches apart, and that they are about three-quarters of an inch underground. The seed should also be completely covered with compost or soil and lightly watered. Also, make sure your seeds are covered or protected from pests, if you think that's necessary.

Here's your assignment. If you want to start seeds directly in the garden first, make sure that it's the right time of year and that the weather is adequate. Then you will need to prepare your soil, mark your garden according to your plan, and then plant and grow your seeds. At this point, monitoring is super important. You want to make sure that your soil is staying moist and that your seedlings aren't wilting, or suffering in any way. I've really enjoyed this lesson with you. This is the way that I have grown almost all of my lettuce plants. I do sometimes start with containers, but honestly, I've found the most success and satisfaction in seeing plants grow quickly and easily directly in the garden. If you're looking for a quick and easy way to start, start with direct seeding and you won't be sorry.

Buying Plants

Buying locally grown, organic plant starts is easier and faster than direct seeding in many cases. It is important to research, shop, and protect your new plants, before you plant them in the salad garden.

Before you go out and run to the local big box store, I wanted to encourage you to first search local nurseries in your area. If you aren't familiar with the best nurseries in your town, you can simply google local organic plants. You can also check the farmers market and ask them for advice. Anything to search out the best nurseries and local sources for plants. It doesn't have to be a big commercial nursery for you to be able to get some of the best plants around. You want to make sure that your plants are non-GMO and organic, if possible. Generally, I found that the best way to ensure that is by going local and avoiding the big box stores. I have at times had to buy things from the big box stores, but I always doubt the methods that they have been grown and I just don't know their history as well as I would from a local nursery.

When you do talk to the nursery or even if you're talking to a grower at the farmers market, you want to ask them about their growing method. You would want to ask if they use any fertilizer on the plants and what type, if they have. Also you want to ask them if they have used any kind of herbicide or fungicide or pesticide on the stalks as they are grown. This is a really important question to make sure you ask your source, since the goal of growing your own greens is to be growing as naturally and as organically as possible. We really don't want to pollute our garden with any of the chemicals that are unfortunately out there.

Also, you want to make sure it's the right season. Many times I have found things that are specifically grown in the cool season and they are available during the warm season. Just because it's on the shelf in your town it does not mean that it is the right season to be growing it. Refer back to the temperatures that we talked about during the selection of plants in previous lessons. Also, check at the farmers market and at the local nurseries to make sure it's the right season for your area for each of the plants that you are planning to purchase.

Once you get to your source, whether it's at the farmers market or the nursery, make sure you're picking the very best plants possible. Don't feel embarrassed to really inspect your plants before you take them home with you. Buying plants is quite an investment, and it's much more expensive than starting from seed. You want to make sure that you make every penny count.

First, you want to check the most obvious which is for healthy green leaves. Check that there are few yellow spots, holes, or anything on the leaves that would suggest that they are not as healthy as they can be. You also want to check the center of the plant and see if it is sending out new leaves from the center. This is where almost all salad and mustard plants grow—through the center. Just pull the leaves back and see what's going on down there in the heart of the plant. Also, just put your hand on the top of the soil and check the moisture level. Some nurseries are just much better at maintaining soil moisture for their plants.

You want to be sure that your plants haven't gotten stressed out before you take them home. If they have been over-watered or have dried out significantly, then you're going to have a weaker plant when you get home. Check the soil moisture to make sure that it has some water, but not too much. I also go ahead and remove the pot from the plant and check out the roots. What you're looking for here is healthy roots. You don't want old plants where the roots have wound themselves around again and again inside the pot. You're looking for plants that have a healthy root structure that's spreading out, but you want to be sure it hasn't been in that pot for so long that it's added roots and roots and confined itself to a small space. When you start to get really picky you can check out the plant height and shape. It's just great to see how the plant is shaping up and make sure that it is as pretty as possible and also that it's growing symmetrically. Also, you want to look right under the leaves and check to see how many main stems there are coming up out of the soil. Often times nurseries can put way too many seeds into a pot to start out. What looks like a really full plant is actually five or six plants all growing way too close together.

Some of these plants when you get them home you'll be able to separate them from each other and then you might get multiple plants. This is the case for stronger plants like kales and mustards. Swiss chard is a plant that has a thicker, stronger root system. For your more tender plants like the daisy family, the buttercrunch, and Romaine, those plants are going to be a little bit more difficult to separate from one another.

It can be a little tricky when you look at the plant that seems really full and huge. Then when you look down under the leaves, you might see five or six stems, which suggests this might not be the best plant to buy because all of those plants are too crowded and aren't going to grow to full maturity.

If you can, find lettuce starts still in their plug trays before they have been potted for a formal nursery sale. This is the best way to buy them. They are all ready at this point to go directly into the garden, they have not filled out and wound their roots up in a pot, and they have been watered very evenly. You will want to ensure that the plants are as lush and healthy as possible. I typically get these through a farmers market source. If you have a local farmers market I would recommend that as a great source for starts. Oftentimes the farmers have more starts than they can plant and if you ask, they may even bring them to the market when they bring their produce. These are all grown by someone who also grows for the farmers market, so you know that they are healthy and good quality.

Once you've gotten your plants, you want to make sure that you store them well. On too many occasions, I have brought my plants home and just placed them haphazardly and unfortunately, they got way too much sun and burnt to a crisp before I was able to get them into the garden. Don't do as I've done. You want to get those plants in some shade as quickly as possible and make sure you water them when you first get home. Keep them protected and water them daily. If it's the really hot season, you'll need to water them twice a day. Check the moisture level in the soil every time you go to water them to make sure that they are okay. Also, you really want to get these plants in the ground in the garden as soon as possible. One of the most fragile times for the plants is when they are in their small containers and not able to grab water or nutrients from a larger resource like a big garden bed. As soon as you get those plants, you really want to be ready to put them directly into your garden bed.

When you purchase starts from a local gardener, you will want to carefully examine your plants. You will want to examine them and ensure that you see only a few roots on these plants. When looking at the plants, you will see that they have started to grow their roots, but they haven't wound them up. The outer leaves are nice and green, and there are small leaves coming out from the heart of each plant.

This is really the goal that you are aiming for. You want to get them younger, rather than older and make sure that they are well-watered and taken care of before you move them over to your garden.

It's time for you to go plant shopping. First, before you buy, please research and ask a local source for your plants. You want to make sure that you are getting something that's in season, that has been grown responsibly, and that is going to produce really well in your garden. Check out your plants, and don't be embarrassed to inspect them up and down. As soon as you get them home, protect them and plant them as quickly as you're able to. Buying plants is one of my favorite past-times, and I'm sure that you're going to have a lot of fun picking out plants for your salad garden.

Digging In

We're finally going to put all those seeds and starts and plants that we have been collecting over the past few lessons directly into our salad garden. In this lesson, we will prepare, dig in, and finally document. Let's start to prepare for planting.

First, we want to gather all of our material. The tools you'll need for this lesson are a dibber, a measuring tape or yardstick, hand shovel, gloves, some type of water mister, a watering can, and a small broom.

Here are a few of the supplies that I like to use on planting day. I love my Hori Hori and dibber as I've shown you before. I also cannot do without my Bamboo Gardener gloves. And I love this little broom for quick clean-up after planting.

The supplies you will need will be the seeds and plants that you have been collecting. You can also use sand as an option when you're dispersing your seeds. We've talked about that in previous lessons. You will also want labels for all your plants and seeds. Possibly use strings or a dowel to make straight lines in a garden. You will also want tulle or some type of row cover or cloth, and then finally, a trash bag.

Here are a few of the supplies I bring out to start planting. I have some Swiss chard plants there, some dowels and strings, my labels, and a bunch of great lettuce seed packets. Finally, it's time to set up the garden.

Now, you're going to transplant your seedlings. First, you'll refer to your layout plan that we developed earlier in this Module. You first want to water the root system of your seedlings very thoroughly and water the soil before you put them in. Then you will want to monitor your transplants for the first week, as they adjust to their new home. Here are transplants that I took directly from plug trays and put them right into my salad garden. You can see how it is more predictable when you grow from a plug tray; I was able to space them and design them a little bit more clearly than you can when you direct seed into the garden. Now it's time for your assignment. Purchase your seeds, and be sure to find the best source that you can for your area, categorize your seeds and store them, then get ready to plant and grow them. After that, you will need to decide if you're going to grow them indoors or outdoors in containers, or if you'll just wait to direct seed. I'll teach you how to do that in the next lesson. Finally, prepare to transplant those seedlings and again, I'll be showing you that in an upcoming lesson.

As you prepare your garden, even if you've just recently installed your soil, you want to give your soil a little bit of a turn. Basically, we just want to aerate the soil and make sure there's a lot of air pockets down below so that the lettuce plants will have room to send their roots to receive moisture and nutrients. You also want to go ahead and lightly water the soil surface. If you have a drip irrigation system you want to go ahead and turn your system on and allow the soil to get nice and wet before you plant. Finally, you want to make sure the soil is as even as possible—that there are no big mounds or low places in the soil as you prepare to plant.

Here, I'm planting in a smaller part of a salad garden that has already been installed. I'm still turning the soil to about six inches. Then I take my hand rake and make sure that the soil is nice and even. Now you want to mark your garden for planting. You can use a yardstick or a measuring tape and mark the soil at four, six, or 12 inches intervals in rows, depending on how you're going to plant your garden. We've talked at length in previous lessons on how to space your plants and also about the plan that you have for planting. So you're just going to refer back to that and mark your rows accordingly. I've found that it helps a lot to use string and dowels to make sure my lines are nice and straight.

To get started with planting, I use simple strings and dowels to stretch across the garden to give a nice straight line. I use this among other salad plants that are already installed and use this as a line to go along and plant every four inches. Now it's time to dig in.

You're going to refer back to the planting plan that you made at the beginning of this Module. We talked at length about how to plant the variety of plants you've chosen, so now is finally the time to do it. First, you're going to plant the plants that you've chosen for your border. I like doing this because it frames out my garden for me and helps me get a sense of the space. Then you're going to plant the main rows of your long season plants, then your interrupters. If you'll remember those are the allium, onions, and garlic, and then also the carrot family—the dill, parsley, and cilantro. Then you're going to plant your short season plants. These will be those in the daisy family: your buttercrunch and red lettuces—all of the sweet lettuce plants that you typically associate with a salad garden. Then finally, you're going to plant your seeds.

Finally, at the end, you're going to add the short season plants. You may be doing a garden completely of seeds which is totally fine and something I do quite often. Even if that's the case, you still could plant in this order to make sure you have everything lined up well. Again, you're just referring back to the planting plan you made back in Lesson 2.

For large plants, you want to dig a hole twice as wide and about one and a half times as deep as the plant you're putting in. Then you want to plant up to the neck of the plant. Lightly cover with soil. And, of course, water it thoroughly.

You can see with this Swiss chard plant it's about three inches wide. So when I dug the hole, I made sure to dig about six inches wide around the plant. Then I try to dig about one and a half times the depth of the plant. Here I've planted all the way up to the neck of the plant.

Now, in a previous lesson, we talked about buying plants, how plants can come with a few too many starts in one pot. At times you may see at least three or four plants all combined to make one plant. Now, you can make the choice to either separate them out very carefully with a chance that you may break off a root or two, or keep them all as one and harvest more frequently. If you separate them out, the plants are a little bit more fragile at planting time, but they have more potential to get nice and big. If you keep them close, you have less chance of the plant dying early and being too fragile, but the plant will not be growing to its full maturity because it's a little bit crowded.

I love harvesting Swiss chard at a young small stage, so this works fine for me to keep it all together. For a small plant you want to measure at least twelve inches from your large plants. Then use a similar process for planting as we just did with the large plant. Generally, for a small plant, I don't separate the roots even if several plants are growing together because it just increases the likelihood that I'm going to lose a few of them. You also want to lightly cover the plants and water them thoroughly.

Here, I'm just measuring twelve inches from the big plant. You can see, I have a small start here, and I will plant it by making a space that's twice as wide and about one and a half times as deep.

For seeds, you want to measure at least four inches for small plants. Refer back to the direct seeding instructions that we talked about in the last lesson. You want to cover your seed with soil or compost and water them in lightly. With my seed spreader, I drop them at the eight-inch and twelve-inch mark.

Finally, it's time to clean up. If you can, recycle all of your planting containers. Make sure you discard all of your trash, sweep away the area, and just wash away the soil stains. You really want to keep your garden area as clean as possible, and once you're all cleaned up, you are ready to do one of the most fun parts—document.

Document: Now that you've got everything planted, you want to make sure it's all labeled. You not only want to mark your plants but also your seed types. One too many times I've planted an entire garden and assumed that I was going to remember where I put every single thing, and, of course, as you guessed, in just a few weeks I came back and had no idea what I planted in each and every spot. So use some good labels and mark both your plants and your seed types. This way, when things start to grow, you can tell what's what. The best thing about this, too, is in the future when you finish the season, you can remember which things did great and which things under-performed. From there, make your decisions for the next season.

Here are some of my favorite labels. They are metal and so they can hold up much better in the weather, and they often keep their marking a lot longer than those on sticks.

Next, you want to journal just a bit. You want to copy down the planting layout that you have used and you may still have all this on paper from a previous lesson. In addition, you want to write down the types of each plant that you used and also the source of where you got them, whether it's from a farmer, a local nursery, or one of the seed supply sources that we mentioned in previous lessons. Save your seed packages. If you don't use all your seeds, make sure you seal up those packages in a plastic bag or in a closeable jar, and again, make sure they are stored in a cool and dry place.

In your planting journal, you'll want to write your start date and planting times. This will help you remember how fast things grew and how much you were able to harvest from each plant during the growing season.

When I design a garden for a client, I create a simple drawing and label the plants. I may reference that we have lettuce plants on the ends, alliums dividing these crops, brassica or mustard down the center, and then a root crop like radishes in between. This helps us know where all the plants were located and provide a reference for us when things start to grow in.

Finally, you want to photograph. Take photos at regular intervals and time stamp your photos so you can remember how things grew. This is one of the most satisfying things to me in gardening: it's looking back and seeing how things progressed over time. Take the photos around the same time of day at the same spot so that you can see how one little place changes over a small period of time.

It's time for your assignment: First, I want you to refer back to your planting layout that we designed in your first few lessons of this Module. Then I want you to prepare your soil and go ahead and plant your large plants, then small plants, then seeds in your garden. Finally, have fun journaling and photographing the process.

Growing

1. WATER

2. PRUNING

3. FERTILIZE

4. HARVEST

5. PROTECT

6. PLANT AGAIN

Now that your lettuce garden is planted, it's time to watch it grow!

As you maintain water balance for your salad garden, prune and thin your plants, and regularly fertilize; you'll be harvesting loads of delicious salad in just a few weeks' time.

And to be certain it's you eating your lettuce and not some other thing, you'll learn how to protect your plants, how to know when they are being attacked by pests or other problems and what to do about them.

Finally, you'll discover how to maximize your salad garden season after season by learning the salad plants that grow best in cool, warm, and hot seasons so that you can keep your salad garden producing nearly all year long.

Water

First on the list in caring for salad plants is maintaining a consistent water supply. I want to help you know how to monitor and adjust the water for your lettuce and salad garden as it grows and continues to change throughout each season.

First, I want to review the principles that we talked about earlier as we discussed what type of water system to use in your lettuce garden. I outlined these principles and now, we will quickly review them.

First, the needs of a salad garden. Lettuce seeds must stay wet to germinate, and plants need about one inch of water per week, but this amount changes depending upon the temperature and the evaporation rate of the location where you are gardening. As we have mentioned before, lettuce plants are about eighty percent water, so water is critical for successful salad gardening. That is why I put this at the top of the list for this growing module.

Lettuce plants have some particular preferences. First, they do love rainwater. If there is any way to capture rainwater whenever it occurs and then get that dispersed into your garden, you are going to have more productive lettuce plants than your neighbor who is just using water from the tap. Even if you don't have a rain barrel, just capturing some water in buckets or out of your gutters will help your garden grow well.

Also, lettuce plants love to have water directed straight to their roots. They really don't like their leaves getting wet so much and they love to be watered in the morning instead of in the evening. When you water plants in the morning, you're giving them the material they need to survive the warmth of the day, and you also give the soil time to dry out, so it doesn't welcome as many pests in the late evening. Finally, lettuce plants love consistency. There are some vegetable plants that like to get really wet and then get really dry. Lettuce plants are not those. They love consistent, even watering.

Now it's time to monitor the water in your garden day in and day out. I want to give you a little check-list of what to do at regular intervals.

First, you want to regularly check your water system. I can't tell you how many times I've had clients call and say that their garden is looking pretty bad, only for me to find out that someone turned off their water system. Don't let this happen to you. Be sure to check your water system if there is a power outage or a storm or anything that could affect it. This will ensure that your garden is getting consistent watering. Set an alarm on your phone, approximately once a month, to go out and check your system and make sure it's running properly. If you use a timer check the battery every six months to ensure that it is working properly. About once a month, stand by your garden during the time when the hose is running and just watch the watering cycles to see if it's dispersing water well and to see if there are any leaks or places that really aren't getting watered. You can also monitor the rainfall in your area with a rain gauge. This will help you know when you should turn off your system or crank it up. Sometimes I think I have a pretty good gauge on when it's raining and then before I know it, I'll look up and realize we haven't had rain for two or three weeks, and I didn't adjust our watering system accordingly. Put an alarm or note on your calendar to check things out once a month

Now, here are some signs of trouble in your garden: your soil surface looks dry, you have wilted leaves, or you have leaves that are turning yellow. These are all indicators that something is not going well in your garden. Read ahead for ways to address these issues.

If your soil surface is dry and your seeds have not germinated yet, you're going to need more water. Soil surface is not always an issue; it's really the root area that we are more concerned with. But if it's at the beginning of your planting season or even in the middle and you have seeds in the garden waiting to grow, then you're going to want to be sure the soil surface stays wet.

If your leaves are wilted, it's because more water is necessary for your plants to thrive. You will either want to turn up the length of time that your water system runs, or you will want to increase the number of days it's running on your garden.

Finally, if your leaves are turning yellow, this likely means they are getting too much water. For yellow leaves, you will want to pull back the watering time that you're putting on your salad garden and lessen the number of days.

The simplest water test is called the finger water test. Just take your finger, stick it in the soil down to your first joint. If the soil feels moist and not really wet, then the soil moisture is perfect. Obviously, if it's dry then it's too dry and if it's wet then it's too wet. I often tell clients this is the best way to just casually check on your soil regularly to see how the water is doing. It is super easy and fast and does not require any special tools. We talked about the handful test in Module 2, but I just wanted to remind you about it here. First, you just want to grab a handful of soil and make a fist. Then open your hand slowly and note whether the soil sticks together, falls apart right away or stays in shape, but slowly breaks. Below, I have a handful of soil, and I'm just opening my hand and the ideal mixture is where the soil is sticking together, but it is starting to slowly fall apart. If the soil sticks together, then your soil is likely too wet. If it's falling apart quickly, it's probably too dry, but if it slowly breaks apart, then your soil moisture is just right.

Another test that we mentioned is the porosity test, where you want to water your garden thoroughly and then test the moisture level at your fingertip mark at 30 minutes, one hour and four hours afterward. So here I'm just heavily spraying the garden and the porosity that we don't want is when the soil is not able to absorb all the water that falls on it. If the water sits on the surface, that means that the garden is to dry to absorb it. If the soil is completely soaked and holding water, then the soil is too wet, but if the soil is thoroughly wet but still drains, then it's just right based on this test. I want you to adjust your garden. You're either going to deal with the soil or with the water first. You will want to increase your water when the temperatures rise, when there's a lack of rainfall, or when the plants are showing signs of drying out. You want

to decrease your water when temperatures are dropping, when there's a lot of rainfall or when your plants are showing signs of over-watering. Obviously, this isn't rocket science, but I just wanted to make this little checklist for you so you know when you need to move your water up or turn it down. You will also want to add some compost to your soil if the soil is not absorbing the water well or if the soil is draining way too quickly.

I've worked with clients who had too much sand in their soil and no matter how much water we added to the garden, the soil just wouldn't hold it. Once we added compost, we saw a huge difference in the production of the lettuce plants and the way the soil was able to hold the water. If you have the opposite problem, you want to add sand to your soil. Do this when your soil is holding way too much water and you're seeing this as the plant roots tend to rot or mildew, or as we mentioned before, if the leaves start to turn yellow

All right, it's time for your assignment. Maintain the water in your salad garden first and be sure you remember the principles of watering your salad, then monitor the garden regularly. You can use any of the tasks that we outlined in this lesson. Finally, after you figure out what's going on, you'll want to adjust the water or the soil or both as needed. You are on your way to being a super duper salad gardening pro, and I'll see you in the next lesson.

Pruning

We have talked all about getting your lettuce garden set up and now we'll discuss pruning so you can make the most of your garden. The tools you'll need are scissors, some garden snips, a salad bowl or something to catch all the edible pieces you'll be pruning away, a compost bin, and a trash can. We're going to be talking about thinning, trimming, and removing your lettuce plants and leaves.

Thinning: First, let's learn how to thin your lettuce plants. Why should you thin your lettuce plants? First, when you thin your plants you're going to end up with fewer problems. The more airspace you can create around your lettuce plants the less chance you have of mildew or rot for your plants and also the less chance of having a pest infestation. You're also going to get more production from your lettuce plants when they are thinned out. You'll get more mature growth and a much bigger harvest.

As you can see, these little lettuce plants have all come up from seed, and they are planted pretty tightly. These lettuce leaves have very little air surrounding their leaves, and as you can see, it's a little tight in there. This is a perfect case for thinning your plants. Here, again, you can see all those tiny little arugula shoots. At this point, you would probably almost call these micro-greens. As you can see, when you look down at the stems, the stems are sometimes less than even a half an inch apart from one another—not the three to four inches that we really want to go for.

To thin a plant you want to do this about two weeks after you plant your seeds. You want to thin your plants to about one every four square inches. You're going to cut your seedlings to the soil level and you can enjoy them as micro-greens. Or, another option is to just carefully uproot your plants and replant them in a more spacious area of the garden. I'll show you what I mean.

Here, I'm thinning out some greens that were a little too close together. After I cut these as micro-greens, I let the remaining plant grow to its full size.

Trimming

Trimming: Now the next thing we want to cover is trimming your plant. Why should you trim your lettuce plants? Well, the most obvious reason is that you will want to trim them so you can eat them. I know that sometimes, time can get away from you, and you can let your plants grow a little too big and not get outside to harvest as often as you should. I want to encourage you to trim them at least every few weeks. When you do so, you increase the growth of your plants. When you trim your plants, they are encouraged to push new growth from the center, so you end up getting a greater harvest, and you also slow the bolting of your plants, which we will talk more about. When you trim, you also allow more room for the other plants. Trimming a plant allow the surrounding plants an opportunity to thrive as well, so that all those plants can get the sunlight that they need.

As you can see in this kale garden, it is super-duper packed. If you can imagine just a few months prior, these were just small plants, but because they haven't been regularly trimmed they have all gotten humongous, and there is very little space for growth. Also, this garden has a much higher chance of having a pest or disease infestation because there's really not a lot of air flow.

This picture shows you how growth comes straight up through the center of your lettuce plants. When you trim the outside of your underneath leaves, you encourage the plant to push more from the inside, so you get more of those tender sweet leaves for your salad.

The picture to the right helps you to see what bolting looks like. As you can see, this plant has started to create a very strong thick center stalk. The leaves are getting smaller and it's growing quite tall. This is the final stage of the lettuce plant before it produces its flower so that it can continue in the next season. We're going to talk about the life cycle of the lettuce plant in the coming lesson. If at all possible, you want to prevent this from happening with your lettuces.

To the bottom right is a photo of flowering.

Once your lettuce plants start to bolt, their flavor is going to be compromised. You'll start to see a milky substance when you harvest the leaves and they are going to get quite bitter. When you trim your lettuce plants, you encourage them to slow down and not bolt quite as quickly. In this particular instance, if you test the leaves and they still taste okay, you'll want to cut off the center stalk and encourage the plant to spread out and give you more lettuce leaves, rather than growing straight up and flowering.

Romaine leaves do the same thing. As you can imagine, they are growing taller, not wider, and pretty soon the leaves are probably going to lose most of their flavor. The more you trim and enjoy these leaves, the longer you'll get to enjoy the taste.

Another reason I mentioned for trimming your plants regularly is to make room for other plants. As you learned through Salad School, succession planting is super-important. This is continuing to plant lettuce seeds again and again throughout your season.

Often in the garden, you may have some small lettuce stalks that are trying to get off the ground, but other huge leaves may be shading them. If I'm not in the garden pretty regularly trimming these leaves back, the little seedlings really have very little chance of reaching their full potential. That's another good reason to keep trimming lettuce leaves.

So, how do you trim? I would recommend doing so about every two weeks after planting. Hopefully, you're out in the garden trimming quite often because you are eating from your salad garden. I will have to say, unless I'm on vacation, I really don't have to remind myself to go trim my plants because I'm using them in the kitchen. If you're not though, then you will want to trim at least once or twice a week during the peak growing season and at least every two weeks when the plants have slowed down. When you go to trim your plants, you want to trim the outer and lower leaves. The only exception to this is what I just showed you: if you want to cut the bolting plant, then you want to cut the center stalk. Otherwise, you always want to trim from the outside of the plant towards the center.

The mustard family and the spinach family are really important plants to keep trimmed because their leaves are going to get quite big and will keep some of your other plants from thriving.

So how can you use trimmings? Well, obviously and hopefully, you're going to use them in your salads. You can get creative here and especially in the seasons when plants are really taking off. You could have green dishes and salads every single day. I also use green smoothies as a great catch-all for my trimmings.

Once things are all blended up with a little bit of fruit and some coconut water, I really have no idea what greens are in there. I just know that I'm drinking them all and getting them into my body. If you're trimming small cuts like micro-greens from your plant, those are great on top of salads and sandwiches and even as garnishes on a fancy dinner. And of course, if you can't find a use for them, it's a great time to share your garden with your friends and neighbors. Finally, if you can't find anyone who wants to eat these trimmings, which I'm doubting, then make sure you compost any leaves that you don't eat. This is a great way to build your soil for the next season. If the leaves are healthy, don't toss them, compost instead.

In this picture, you can see there are a few spinach leaves that have spots on them and also a few holes. Not all of the leaves have this issue. It's mostly these outer lying leaves.

In some situations, the problem may be that the plant is a little too old. You can tell by how big it is and how large the leaves are. This plant will just appear to be at the end of its life and will start to have all kinds of issues with pests and disease. When the problem is that the whole plant is starting to look bad and not just a few leaves, you will want to remove the whole thing. In these cases, if the yellow leaves and the spinach leaves were looking bad you really just want to remove those individually. But in the coming photos, I want to show you a situation where the whole plant is affected.

Considering these two issues, how do we remove leaves and plants? If you just have one leaf or two leaves that seem to have an issue, just cut off that individual or infected leaf. But if you do so, you want to make sure that you watch the plant very carefully in the coming weeks to make sure that there aren't more issues that you didn't notice at the time. If the issue seems to affect most of your plant, then you are going to need to completely uproot it.

When you do so, check around the plant in the soil; you want to check about six inches under and around the plant to make sure there aren't caterpillars or other pests or any other signs of disease surrounding that plant. You want to make sure you do this so that when you plant something new in its place it's not going to have the same issue. For these particular issues with plants, you don't want to compost these; you want to just throw them away. Especially if these have a pest infestation or any kind of disease that could spread, we don't want to put that into our compost; we want to get rid of it.

I had a situation in the past where I had a spinach plant that looked like it was starting to have issues. As I removed the plant, I noticed that there was a tiny caterpillar in the center. And as I pulled up the whole plant, I actually found three or four caterpillars all hiding in the root system of this plant, and that's what was taxing and killing it. I was able to clean out the soil around the area and put new plants in its place that are doing great. This happens sometimes when you have to say goodbye to the plant and start fresh. Don't fret about it, it's not your fault. It happens to the best of us, so just remove it and move on.

It's time for your assignment: You want to thin, trim, and remove leaves and plants from your salad garden. Make sure you thin the seedlings so that each plant has the opportunity to grow as big and lush as possible. Be sure you trim your growing plants (1) so that you can eat them, and (2) so that you can make room for new plants coming in, and keep your garden growing beautifully. Finally, you want to remove any infested leaves or plants so that disease and pests stay far from your garden. Here are our cuttings: Eat them, share them, and compost them. Make the most out of everything you take out of your garden so that the hard work is worth it.

Fertilize

The two things that I want you to remember as you fertilize your garden are to keep it **natural** and **consistent**. First, let's talk about how to keep it natural.

How to keep it natural:

There are really two ways to fertilize your plants. You can either use granular or liquid fertilizer. Granular is a fertilizer that's just a solid little pellet or a powdered type of fertilizer. The way to apply granular fertilizer is either by putting it into a planting hole before you insert the plant or seeds, side-dressing plants that are already in the garden, or amending your soil entirely before you put any plants in.

The other way to fertilize is with a liquid fertilizer. The way you apply this is by diluting the mixture of fertilizer with water and then you applying it liberally to your salad leaves. Here I wanted to just break down my comparisons of fertilizers.

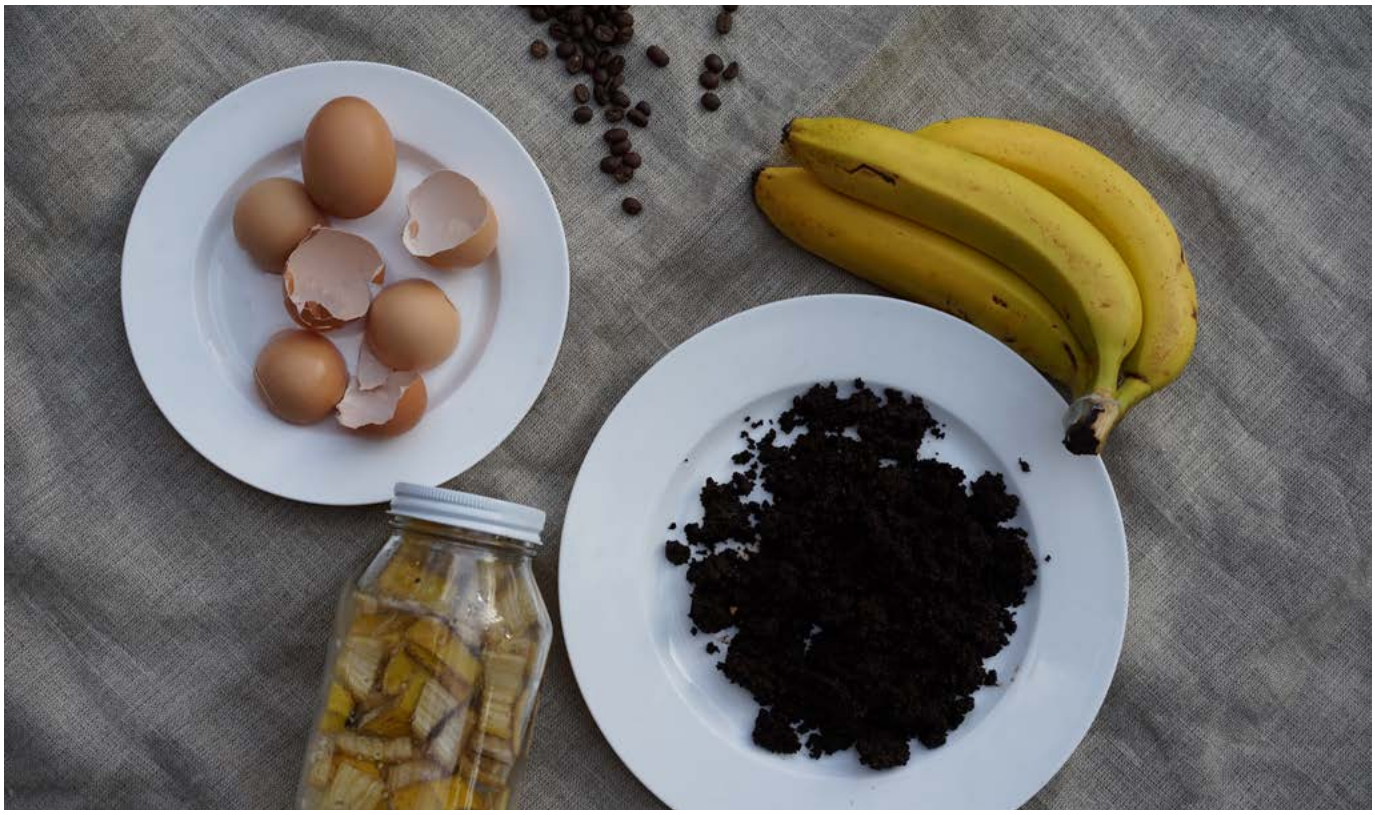
Manures and meals would both be considered granular. You have compost, emulsions and tea. Compost is obviously granular. Emulsions and tea would both be liquid. Compost, emulsions, and tea I would say are the most guaranteed natural types of fertilizers and also the easiest. Compost and emulsions are really some of the fastest forms of fertilizer. But I have to say, manures and meals sometimes are more affordable.

So, as you continue to grow your salad gardening skills, you'll start to pick the fertilizers that work best for you. I have some clients that just despise the idea of spraying something on the leaves that they are going to eat even if they know it's natural. This may be your opinion as well. I have other clients who just hate the smell of any kind of meal or manure. You are going to come up with your own opinion. You will also start to find what works best for you. In this lesson, I'm going to tell you what works best for me and give you all the options, so that you can make the best decision for yourself.

Let's talk about my absolute favorite for fertilizing the garden, which is compost. Compost is really my go-to fertilizer. I would use this over any other type of system to help my garden stay healthy and natural and growing strong.

We talked about soil amendments in previous lessons. And just a quick reminder: Catching compost is one of the easiest ways to add nutrients and life to your soil. You can do this so simply just by saving coffee grounds, tea grounds, dry banana peels, crushed egg shells, and other vegetarian wastes from your kitchen. You can also make your own worm compost using red wiggler worms. And you can make your own yard compost using yard clippings and leaf mold. One of my favorite types of compost to work into the garden here in Houston is a leaf mold compost. It's simply just leaves that have sat for a year or two and completely broken down; they add so much richness to the soil for the lettuce plants.

Here are just a few things that you can use day in and day out in your soil to help build its nutrients. Here is a picture from my worm factory. You can see a strawberry top or two and some newspaper and then some lettuce leaves in the background that these worms break down and make worm compost for us to add into the salad garden. One of the richest things that you can add to your garden are these worm factories.



One of my most favorite things of all is my backyard composter. I love the fact that my composter closes up completely and it flips around, so you can do a mix of yard clippings and kitchen compost in here, turn it quite often and it will heat up and break those things down into soil. I regularly use this to amend my soil and just pull the compost straight form this bin and put it directly into the garden once it's finished.

Now let's talk about a few granular fertilizers. If you go to a nursery or garden center, you'll find some aging manures available in bags. One of my favorites is rabbit manure, but I have also used chicken manure with great success. The number one thing you want to make sure is that these are as natural as can be and that they're fully aged and finished. You don't want to be putting manure into your garden that hasn't fully composted. So don't put any fresh new poop in there. Another granular fertilizer type are meals, such as blood meal, cottonseed meal, and fishmeal. These granular forms will come in a bag and you'll see numbers on them that indicate their nitrogen, phosphorus, and potassium count in peak. Generally when you're fertilizing your lettuce plants, you want to use one that has a high first number. That first nitrogen number is the most important. So all these have a good nitrogen count. You just want to make sure that they're organic and natural and that they're made for food grade plants. One time in my eagerness, I bought some cottonseed meal only to find out on the bag it said don't use on food, and I was like, what? Make sure that you fully read the label and that is organic and safe for your lettuce plants.

A few foliar spray fertilizers include fish emulsion and seaweed, and also compost tea. Compost tea is just a process where you take your compost and you place it in a bag, like a burlap bag or a muslin bag and soak it in water and you let that sit for a period of time and then remove the compost out of the water. From that

you have very, very rich nutrients for your plants in your salad garden.

I have worked for many years using fish emulsion on my plants. I don't use it a lot on my salad garden, but I do use it on more flowering things and vining plants, so you can decide whether or not you'd like to use these on your plants. I've talked with gardeners who almost see these liquid foliar spray fertilizers as a protectant from pest and from disease. A lot of people see this as a little coating that keeps the bad guys away and when you're ready to eat them, the spray easily comes off with a good water rinse.

So now that we've covered the natural forms of fertilizer, let's talk about how to keep it consistent. The tools you're going to need for fertilizing your plants are a spade and some type of granular spreader if you're going to be evenly spreading them without using your hands. Then, some type of liquid fertilizer. This can be as simple as a little spray bottle, or you can get a little bit more fancy with a spray bottle and pump from the nursery. The supplies you'll need will be based on the fertilizer type you choose. So either your granular fertilizer, the liquid, or a compost.

Let's talk about how to apply the granular fertilizer. There are three forms. The first and easiest is when you're amending your soil. This is going to happen at the change of each season. Let's say you've pulled up your plants, and you're ready to get the garden ready to re-plant again. If you have your granular fertilizer, you want to read the suggested rate of applications. The directions will generally tell you how much fertilizer you need to put per square feet of garden. You want to thoroughly mix that correct amount into the soil with your spade, water the soil thoroughly, and then you are ready to plant. This is one of the easiest ways to amend your soil at the start of each new season because the garden is clear anyway and as a result, it's much easier to turn the soil.

Another way to use granular fertilizer is just to apply it to the individual plants. Again, you want to make sure that you read the suggested rate of application and then you want to dig a hole twice as wide as the plant you're putting in and thoroughly mix the correct amount of your fertilizer into the soil with the spade, water that area very thoroughly to make sure the amendment gets worked in, and then install your plant.

Finally, and this is one of my favorite ways to continue to add nutrients and health to my salad garden, is side dressing. Side dressing is where you come along the sides of your plants and put a little bit of granular fertilizer next to it for the roots to soak up and help them as they continue to grow. All you want to do is dig a small trench. If you have a nice row of lettuce, then you could literally just dig a trench right alongside them. You want to be sure not to disturb the roots of your plants, but go about three to four inches deep, and apply the recommended amount of granular fertilizer in that trench. Again, you want to water it thoroughly and cover the soil. What will happen over time is this fertilizer will slowly make its way over to the roots of your plants and give them a little boost of nutrients to keep them growing. Now, let's talk about how to apply liquid fertilizer.

So for a fertilizer spray, you want to dilute your mixture according to the directions. However you buy your fertilizer, there will be directions on the container for how much water you need to add before you apply it to your plants. You want to use an applicator that's going to help you evenly distribute the spray. I have purchased a number of different sprayers from the local nursery, and I've even re-used an old spray bottle from the kitchen. This really tires out your hand, so I wouldn't recommend it. Any kind of sprayer that will get the fertilizer to spray all over the leaves will do. I want to encourage you to make sure that you spray the leaves early in the morning or late in the afternoon. You really don't want the spray on the leaves in the heat of the day or when they're going to be receiving a lot of sunshine.

After you do the fertilizer spray, you want to wait several days before you harvest and eat them. You also obviously want to make sure that you rinse them thoroughly. The goal here was to keep the fertilizer natural and organic, so hopefully you're not going to be putting anything gross into your body, but you probably don't want to taste fish when you're eating your garden salad. At least that's my opinion.

All right, so it is time for you guys to get out there and fertilize that salad garden and choose a fertilizing routine. First, pick the natural means that you want to use to fertilize. I would recommend my favorite, which is just simply composting. I continue to make my own compost, and every two to four weeks, I can add some compost to the sides of all of my plants. If I really want to do a leaf spray, I can turn my compost into a compost tea.

That's my recommendation, but you are free to make your own decision. Once you decide what you'd like to use, you want to set a regular schedule for fertilizing. I would recommend at least once a month, if not every two weeks. Then you want to make sure you're monitoring your growth after you fertilize to see what works best. Be sure to take a bunch of pictures, I would love to hear what works best for you. So please let us know what you're using and what you think about it.

Harvest

Can you believe it has taken us this long to finally get to the salad bowl? Well, the fun is just about to start. This is my absolute favorite part of salad gardening. Of course, because it's so delicious and so beautiful it's going to totally convince you that you just can't buy salad from the store anymore. So, here is one of my overflowing bowls of arugula. Arugula and its cousins are one of the fastest growing salad plants, and honestly, I just can't keep up. I came out and did a harvest of these leaves and honestly looked at the plants, and they didn't seem like they were trimmed at all. Good news for you: you're going to be harvesting quite a lot in the upcoming days.

Let's talk about when and how you should harvest. The supplies you're going to need for this lesson are some scissors and a salad spinner, a sealable container, and some paper towels. First, let's address when you should harvest.

When you should harvest: All salad plants are best harvested in the early morning. After a full night of sleep the lettuce plants really are their sweetest. They are holding on to their sugars and are going to taste best if you get out there and cut them first thing. One of my favorite rituals is having a cup of coffee and then heading out with my salad spinner to do a little bit of cutting before the kids wake up. Leaves are edible at each stage of growth, so you can eat the leaves when they are just tiny little micro-greens, and you can eat them, obviously, when they are really big. Smaller leaves are going to be sweeter and softer, and the larger leaves are going to be crunchier.

Here is a harvest of Swiss chard. I actually used this to cook up a Swiss chard lasagna that I got from Martha Stewart. So just because I'm harvesting salad plants, it doesn't mean I'm just going to eat a salad. We covered this in the first Module, but there are so many different ways

to use your salad plants, and I really hope as your garden starts to grow that you start to get creative in the kitchen and use them in a variety of ways. Let's talk about how to harvest your lettuce plants.

How to harvest your lettuce plants: In almost every situation, you are going to harvest your lower and outer leaves first. We talked about this in the pruning lesson, but I just wanted to remind you. Almost all of the lettuce plants that we have covered throughout this course need to be harvested from the outside and the lower leaves. There is only one exception, and that is when you have a plant that is starting to bolt, and you need to cut the center stalk.

Here is not the best picture, but you can see I'm just cutting the outside leaf of this little Red Sails plant, and here I'm cutting the outer, lower leaves of a Red Russian Kale plant.

Let's talk about how to harvest loose leaf lettuce. My favorite way to do this is to harvest a little bit of each plant rather than harvesting a lot and making one plant look sad and small and then keeping the other plants huge. To keep my gardens looking pretty I really try to harvest just a little bit from each plant, and then when you look at the garden from far away, it really looks like the plants are all consistently growing. As you cut from each plant, you want to cut the outside leaves and then allow each plant to keep on growing. I'd like to encourage you to only harvest what is necessary, unless your plants are really out of control and need a big trim, or you want to give some away to your neighbors and friends. That fresh taste, the just cut taste, is really what salad gardening is all about. My opinion is you really shouldn't cut a whole week's worth of lettuce at one go. You're not always going to be able to go out there everyday, but that is my recommendation.

Here are just some small lettuce leaf trimmings. I like to go ahead and bring my salad spinner or my strainer out to the garden with me so that all I have to do when I get back inside is give them a rinse.

This lettuce garden is one of my client's. You can see in this photograph that all of these plants have been pretty consistently and evenly harvested. Because of the way they are cutting them, their garden continues to look pretty, even though they are eating from it regularly. If you look closely at each of the plants, you can see that the outer lower leaves have all been harvested, and each of these plants are pushing up new growth from the center.

As soon as you harvest it, you want to put those freshly cut leaves directly into the salad spinner or strainer, and you want to rinse them thoroughly and spin them completely dry. The trick here is that you want those leaves to get fully dry. If there is just a little bit of water on those leaves and they spend any time in the refrigerator waiting for you to eat them, they can spoil. Whatever you do, before you leave those leaves alone, be sure that they are totally dry and then you can either enjoy them right away, or you can put them in a sealed container in the refrigerator. One of the easiest ways I do this is just putting it in some type of container and covering them with paper towel, again, just being sure that the leaves stay dry. So here is a simple lettuce salad. I took this right in, gave it a quick rinse and that was dinner that night.

This is a crunchier salad; here we have kale mixed in with some buttercrunch, romaine ,and also some purple basil. We have a good mix here of some tart and spicy as well as some sweet and some soft. This is one of my favorite late spring, early summer salads because of the basil and the kale.

Now, if you're harvesting head lettuce, it's a little bit different. I do want to say at the outset you can harvest head lettuce the same way you harvest loose-leaf lettuce if you want to. You can use the instructions I shared for the loose leaf lettuce and just apply it to head lettuce, as well. However, you may want to let the head lettuce grow to its full size and harvest the head all at once. Here's how to do that: You're going to wait until the head is completely formed and as big as you think it's going to get. Or if you're hitting a time period or season where you're pretty sure that the plant is either going to go to flower or it's looking like pests might show up, you might want to rush and harvest, then you might want to go ahead and remove the head. You can do this either with a sharp knife or the edge of a scissors, but basically, you want to carefully remove the head of the plant from the roots.

Depending on what type of head lettuce this is, let's say it's romaine, sometimes those plants may start to grow a new head from the roots if you leave them in the soil. This won't happen every time, but I have seen romaine do this fairly well. If it's cabbage or something like that, the likelihood of that happening is pretty slim. It's up to you, if you want to chance it and do some experimenting, you can leave the root system down there in the soil. If you want to start all over, you're going to go ahead and gently uproot the entire plant. Even if you're going to do that, you might want to go ahead and cut away the head first just so you don't get the dirt mixed in as you harvest.

Now, this isn't head lettuce, but I wanted to talk about this... With a Mizuna plant we cut almost the root entirely. We're kind of bunching all the stems together. At this point we're not really worried about preserving that center leaf; we're just going to take it all out. You could leave the roots there for it to keep growing, or if you feel like the plant is all done, you can just pull up the thing in its entirety.

When you cut cabbage, you will want to cut them right at the root. As you can see, these purple cabbages really aren't as matured as I would like them to be, but we were hitting a hotter time in the season here, and the cabbages stopped growing. I just took them as they were. I knew the likelihood of slugs and snails finding their way in there was going to go up as the days passed, so, I just went ahead and cut them and cleaned up the garden for the next round of plants and enjoyed them in the kitchen.

Once you harvest, you want to thoroughly soak the head of lettuce in water. This is to make sure that there are no slugs or snails in the interior leaves. For head lettuces, the likelihood of little pests hiding in-between the leaf layers really increases. Check before you eat so you don't end up with some escargot in your salad. If you want to chop it up, you can give it a big spin in the salad spinner. The goal here, is to find a way to get the head of lettuce as dry as possible before you store it and eat it. If you can enjoy it right away, all the better. If you aren't able to eat it immediately, you want to store it in a sealed container in your refrigerator.

Now for the assignment: It's finally time for you to cut your own home-grown salad. You have come so far, and this is so exciting. I wish I was there with you to walk out to the garden and watch you start to cut your first bowl of salad. You want to gather your harvest supplies and create a harvest schedule. You can decide if you want to cut from the garden once a week, every day, or every other day. Most importantly, you want to keep harvesting. One of the death tolls for a salad garden is someone not going out there and taking from it regularly. Whatever you do, make sure you have a schedule to get out there and enjoy the plants that you worked so hard to put in.

Of course, I want you to take some photos. I would love to see the salads that you take straight from your garden, and I would love for you to share it on social media with **#saladschool**. As this course grows in popularity I would love to see all of the gardeners out there eating fresh home-grown lettuce. I know when you share it, you will encourage other people to try gardening, too.

Protect

My main philosophy with any kind of gardening is that the best defense is a great offense. Believe it or not, throughout this book, I've really been teaching you how to protect your salad garden from pests. Honestly, having a great set up, good watering, lots of great soil, and good fertilizer is really the best way to protect your garden from pests and diseases and any kind of issues. So, in this lesson, we're going to be reviewing things that we've touched on previously. I'm also going to tell you what to do, just in case you actually do have to truly get on the offense.

The way we want to handle pests and disease in our garden is covering and controlling. First, let's talk about covering. The supplies you'll need to cover are: tulle for pest protection, shade cloth for sun protection, and a frost cloth for cold protection. You'll also want to use hoops and landscape pins.

Many garden supply stores have a great selection of hoops and cloths to provide cover for your garden. If you are looking to use hoops to provide cover for your garden, I encourage you to first look at local gardening supply stores, and if you can't find any, then look online. When should you cover your garden? Right after planting you want to cover with tulle or another lightweight material. This will allow the water or sun to get to your seed and will prevent pests, squirrels and other things from digging up that open soil until those seeds can come up and take root. When the weather starts to heat up and the day-time temperatures go over 80 degrees it's a great time to put shade cloths on your salad garden. Shade cloths can really extend your growing season into the early summer by blocking some of that hard sun that can cause lettuce plants to bolt and turn bitter.

Frost cloths can extend your growing season when it starts to get cold. You can put a frost cloth over your salad garden when there's frost or snow or when temperatures are going to be below 45 or 40 degrees This can give your plants more growth time in the cooler months.

The way you want to cover is by creating hoops over the garden or stakes on each corner. Hoops are really best because they allow the cover to not touch your plants but provide a little bit of a tent over each of the plants. Hoops can be spread from one side to the other side and then you lay your material on top of that. Once you've covered the hoops with your material, then you'll want to secure the edging with landscaping pins. Just make sure that the cover doesn't fly off during the night by a strong breeze or storm and that your plants stay protected. Here is just the simple cover of tulle that I like to put on top of my seedlings. As you can see these are all coming up very uniformly and that is because they were covered with tulle their entire germination period.

Beyond covering our garden as a great defense, we want to talk about how to control pests and disease even when the garden might be covered or problems start to arise.

HERE ARE SOME SIGNS THAT YOU HAVE **PESTS** OR **PROBLEMS** IN YOUR SALAD GARDEN:

- **HOLES IN THE LEAVES**
- **ROTTING STEMS**
- **MOLD OR MILDEW ON THE LEAVES**
- **TINY INSECTS ON THE UNDERSIDE OF YOUR LEAVES**
- **LEAVES AND STEMS DISAPPEARING ALTOGETHER**

Basically, anything that looks a bit abnormal is most likely a sign that something is going on that's not necessarily positive. This is a great reason to stay out there trimming your garden, thinning your garden, and harvesting so that you can be on top of issues before they spread.

Here are some holes. You can see them pretty clearly in the spinach leaves. They are pretty large, but as you can see they are not everywhere on the plant yet, but just on these outside leaves. I showed this plant to you in a few lessons back so you can see how there are holes, there's discoloration, and some spotting on these leaves.

So, how do we control these? Again, I want to remind you that the best offense is a great defense. We want to remember all the things we've learned in the modules in the past lessons. Keep your soil amended and full of nutrients and basically, make your plants as strong as possible, so they can fend off disease, and then they can protect themselves from pests. The stronger your soil and more nutritious it is the stronger your plants will be, and the more likely they will be able to fight off any kind of issue.

You also want to continue to monitor the water. We talked about this in previous lessons. Gardens that are too dry or too wet are a sure welcome sign to pests and disease. Again, you want to regularly fertilize your plants so that they are growing strong and tough, and then, prune and harvest. We did talk a little bit about planting companions for your garden protection, so if you intersperse allium and carrots with your salad plants, they are a great source of protection against pests and disease as well.

If you are starting to have a lot of issues, I want you to come back to this list to remind yourself of the important things you need to do to defend your garden against problems.

Another way to defend your salad garden is to introduce some fighters for you. One of our favorite things to add to our salad garden, particularly as the weather warms and we start to get aphids is by adding lady bugs. Lady bugs love to eat aphids and will clear your salad plants of aphids in no time. You can purchase lady bugs and bring them into your garden. You'll need to read more as there's more to do to make sure the lady bugs stay in your garden. You can also transplant more earthworms into your garden. These will aerate your soil and make your plants healthier and stronger. You can also introduce praying mantis to the garden. We have done this a few times, where you can buy praying mantis eggs and they will hatch and protect your garden by eating insects and other things that might be preying on your salad plants

Below is a photo of a whole bunch of brand new lady bugs we brought into our kale garden when they were starting to be affected by aphids. Lady bugs have special needs that you'll want to look into, but it's a really fun thing to add to your garden. These guys are super-powerful at helping to defend your plants from aphids.

If all these defenses have been used and you are still having issues, I want to give you my line of offense. The first thing you can do is give your plants a very powerful water spray. So if you have aphids or caterpillars—anything going on in terms of pests—you want to just spray your plants very powerfully with a hose.

The second thing that I like to use is an insect Castile soap. My favorite is Dr. Bronner's. You can dilute the soap and spray it on your plants and it will start to help protect them from pests, and sometimes get rid of pests that are giving you issues.

The next would be a garlic barrier, Neem oil, Sluggo, and Monterey BT. I've listed these in order of their powers. Generally, I start with the simplest most natural and easiest one to use which is the soap or the garlic barrier. If I continue to have problems I'll graduate up to Neem oil, Sluggo, and Monterey BT. These are all still considered natural and organic, but the Neem oil, Sluggo, and Monterey BT are definitely on the stronger side.

Finally, if I just cannot get rid of the issue I'm going to remove the affected plant. We talked about this in a previous lesson when we talked about thinning, trimming, and removing. Sometimes the best thing to do is just rid yourself of that plant and move on.

Here is a picture of my line of offense. I've got Dr. Bronner's Castile soap. It has dilution directions on the bottle for you; garlic barrier; Neem oil; slug and snail bait which the more common brand is Sluggo; and Monteray BT. All of these are marked for organic gardening. That's a very important thing to find. Be sure that it says on there it's okay to use on organic food gardens. This is my line of offense, I don't use it often because I really try to have the best defense as we have talked about. When you do have issues, which we all do at times, hopefully, this will be of help to you.

If you need to apply any of these treatments to your garden, you want to first make sure you dilute it according to the directions, and again, you're going to use a fertilizer spray type of bottle or applicator, and you want to spray it directly on your leaves. Avoid spraying before a rainfall because it's just going to be washed off as soon as the rain comes. You want to spray directly onto the affected area, and you also want to make sure you avoid spraying before rainfall. Once the rain hits it's going to wash off

all the protectant that you put on the leaves. Be sure to pray it during a dry spell, then you want to monitor your plant for about one week.

One time I had a serious, serious cabbage looper infestation in my salad garden. I had no other option but to spray Monterey BT, and, honestly, I did it every other day for a week. So, if you have a serious issue, then you're going to want to really focus on that for a few days and at least a week and make sure you're watching it. Once you've done that, and if you don't see pests re-appear within seven days, then more than likely, you've handled the issue, and you can move on. After you've applied this treatment, you want to wait three to five days before you harvest, and you definitely want to make sure you rinse the leaves thoroughly before you eat them.

One of the most important things to do when you have a pest or disease issue is to document it. This will help you learn what happened and make, hopefully make sure, it won't happen again. Try to write down the time of year it happened, what plants were affected, what the weather was like during that time, and any other circumstances that might have contributed to the issue. I have found over the years there have been a couple plants that have really attracted pests to the garden. I have learned my lessons, and over the years, I have stopped planting some of those. By documenting it, you can learn which plants are problems for you an

Now it is time for your assignment: You've got to protect your garden. One of the things you can do right away is collect some covers for your garden. You can place an order for those hoops, for a frost and shade cloth, and some tulle. Then you want to collect the pest control protection that you would like to use for your own salad garden. The easiest would be to get some Castile soap or some garlic barrier. Those are some very low key protectors that you can have on hand just in case something starts to happen. As your garden grows, you want to keep an eye out for any kind of pests and disease, and control it before it takes over your garden.

Every problem starts very small. If you're out in your garden quite often, you're never going to have a huge sprawling problem. It's when we neglect the garden and don't go out there often that problems really start to take over. The best protection, as they say, is the gardener's shadow. Keep your body out there in the garden, and I promise you your issues will be few and far between. Finally, whatever challenges come your way, make sure you document them for future seasons.

Plant Again

I wanted to talk about the life cycle of a lettuce plant. It starts with a seed and then turns into a seedling. This is right when it sprouts, and then you get the plant. This is where you're going to be doing the majority of the harvesting. Finally, at the end of the lettuce plant's life, it begins to flower and produce seed for the next season.

In this lesson we're going to talk about plants that fit all the different temperatures and seasons that you might experience. Also, you want to cover your plants as needed based on temperature change just as we talked about earlier in this Module. Finally, you will come to a part in the year when you're not going to use your salad garden, I want to encourage you to cover it or mulch it so that the soil is protected and ready when you are ready to return to the salad garden.

Let's talk about when to do what: When should you re-plant? As your lettuce plants continue to produce for you, you can really put in new plants every two to four weeks within each season. You can also replace your diseased or pest infested plants any time that you need to remove those. Finally, when you harvest head lettuces, you can replace those with new plants as well.

There are three different seasons for lettuce gardens. First, let's discuss the best which is the cool season. This is when the temperature ranges from 35 to 70 degrees. In the cool season these are the greens that grow best: dark greens like kale, collards, mustard and cabbage; your spinach plants and Swiss chard; almost all of the daisy plants like your sweet loose leaf varieties, onions, chives, and garlic, and then all of the carrot family.

Here are a few photos, in the first, you'll see spinach thriving in December and in the second are some red leaf lettuces alongside some buttercrunch. This is one of my favorite cool lettuces. It's called Tango.

The next season is the warm season. This is when it's 50 to 80 degrees outside. Some of the best greens for the warm season still include the dark greens like kale, broccoli leaves, arugula and Mizuna.

Some spinach plants like Swiss chard do well. Some of the daisy plants like the sweet loose leaf Fridays and all of the onions. Red Russian kale also does really well even when the temperature starts to rise.

Generally speaking, red leaf lettuces do better as the temperature rises. So continue to plant more red leaf lettuces as your season goes on.

This is Swiss chard and it does really well in the heat. In fact, I've even had success growing it here in Houston summer. Mizuna and Red Sails also both do well during the warm season.

The final season is the hot season: This is the most difficult season to grow lettuce, but there are still plenty of plants that you can have growing to keep your salad bowl full. Some of the hot season greens include kale, Southern mustard greens, Mizuna, and arugula—all in the dark greens family. And in the daisy family, you can look for special varieties that are made for warmer weather like Jericho romaine, Coastal Star romaine, red lettuces as well. Then you can go a little bit more creative. You have things like purslane, amaranth, and Malabar spinach that we will cover next.

Here's a photo I took showing off the hot summer greens that I use in salads. You've got amaranth, purple basil, Malabar spinach, arugula, and parsley. All of these still thrive even in the very hot summer heat here in Houston. I'm sure you will have success with them as well.

Cool Season
35° TO 70°

- KALE
- COLLARDS
- MUSTARD
- CABBAGE
- DAISY PLANTS
- ONIONS
- CHIVES
- GARLIC
- CARROTS

Warm Season
50° TO 80°

- DARK GREENS
- KALE
- BROCCOLI LEAVES
- ARUGULA
- MIZUNA
- SPINACH
- SWISS CHARD
- RED LEAF LETTUCE
- RED SAILS

Hot Season
80° AND UP

- KALE
- SOUTHERN MUSTARD GREENS
- MIZUNA
- ARUGULA
- ROMAINE
- RED LEAF LETTUCES
- PURSLANE
- AMARANTH
- MALABAR SPINACH

Some of these summer greens have a little bit different taste than you'd expect from a grocery store salad box. The freshness of these salads really makes learning to try new flavors worth it to me.

Here is the beautiful Malabar spinach. Although it's called spinach it is actually in a different family altogether. As you can see, it's a climber. It's beautiful on trellises throughout the heat of the summer. The greens are wonderful in green smoothies and braised greens dishes.

This is just fresh basil. And even if I'm using a grocery store salad box in the middle of the summer, I love throwing in fresh garden basil to make it taste like it came straight from the garden. Amaranth is another plant that I like to use. Typically, we know this plant for its grain, but you can eat the greens, too. I love using these in salads and greens dishes throughout the summer.

Let's talk about how to have a continuous harvest. When you're still in the same season, and you want to add more plants to your garden, you're simply just going to find open spaces either interspersed throughout your existing lettuce plants or in a new row entirely. You can replant seeds there if they will have time to fully mature until the season ends. Or you can replant new plants or transplants that you've started indoors. To save seeds, when your plant starts to flower, you'll want to allow a few of them to completely bolt. So we've talked previously about cutting off that center stalk when a plant starts to bolt. But when the season is coming to an end, it's great to let a few plants go ahead and flower all the way. Then you want to harvest that dried flower head. One of the best and easiest ways to do it is just drop the flower head into a brown bag and allow the flower to completely dry out and release its seed.

Pictured next is the arugula after it's flowered. First, you have the yellow bud. Then as the yellow bud drops off you end up with a seed head. So the longer you let those dry, the more you'll be able to separate the seeds and use them in the next season.

Now, when you're at the end of a season—let's say you come to end of the warm season and the cool season is coming up, then you want to remove your out-of-season plants that aren't going to do well or have bolted in the previous season. Then you want to test your soil, just as we've talked about before. Make sure the soil is nice and porous and that the pH is right. Amend your soil however necessary with compost fertilizer and then go ahead and design your new layout for the coming season. As you plant, don't forget to protect as necessary. Once you come to the end of the season, it's a great time to prepare for the next year. So, remove the out-of-season plants, turn your soil, and you can either plant a cover crop or you can cover the garden entirely.

Let's say you have come to a place where you're done for the cool season and the cold is really about to set in, so you would like to shut down the garden for winter. You can plant a cover crop that would grow throughout the winter and protect your soil and then you can turn it into the soil when you start to plant in the spring. You can find one that suits your climate perfectly. A very easy alternative is to cover your garden with mulch or newspaper or even a big piece of cardboard. The main thing you want to do is protect your soil, keep critters out, and let the soil build back up until you plant it for next year.

Here is your assignment: Basically, I want you to never stop planting. Look at your calendar and determine for your climate when you'll have cool seasons, warm seasons, and hot seasons. Pick the plants that will best suit your task and make a plan for each season. You can plant again and again within each season itself, or, you can just plant once each season. Then clear out and plant again when the new weather comes. Each time, be sure to remove the out-of-season plants and amend your soil before you replant for the coming season. Always remember to protect your garden when you're not growing in it. The bottom line is: never stop growing.

I can't wait to hear about all the different seasons you grow in in your own climate and location. And I'd love for you to **leave a comment** and let us know what climate you're growing in and what your favorite plants are for each season.

Leave a comment!

Let us know what climate you are growing in & your favorite plants for each season.

I CAN'T BELIEVE WE HAVE COME TO THE

end of this book.

Thank you so much for sticking with me and making it here to the end. I trust that there are going to be many, many bowls of fresh garden salads in your future, and I can't wait to celebrate with you. Please don't forget to post your pictures to social media and use **#saladschool** and keep me posted on your progress. I would love for you to continue with me by listening to my podcast or ordering my new book *The Kitchen Garden Revival* that can be ordered **here**.

Thank you for trusting me with learning how to plant a salad garden, and I hope this is the beginning of many, many harvests and gardens to come. Thank you again, and I will see you in the garden!

Nicole Burke