



Grow Guide

A Complete and Comprehensive Guide
to Successfully Growing at Home



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Welcome to the **Grow Guide**

Greetings and welcome to our complete comprehensive guide for growing cannabis. This guide will help new growers understand the principle basics of growing cannabis in the safety and comfort of their own home. While this guide is meant to help beginners and first time growers, this also acts as a full resource for those who have experience and simply require a second resource.

As grow experts in California, we have been able to give beginners the opportunity to learn how to grow. We now help some of California's top leading cannabis medical schools. The advice that we have learned along the way is meant to give a full, in-depth guide so that you have no issues from germination to harvest.

This guide is designed to help you succeed for both medical and recreational purposes in the most fun and enjoyable way. We hope what you learn from this will help you develop the required skills and knowledge so you can thrive in the DIY cannabis space.





Growing at Home & Legality in the United States

As states continually move away from the green prohibition, the prospect of cultivating from home is becoming increasingly popular. Each state has their own laws and restrictions surrounding cannabis. It's imperative to understand and adhere to the specific laws and regulations where you are. We encourage everyone who is looking to start a home grow to understand their state's guidelines before beginning the process!

Cannabis is an extremely durable plant, able to grow in diverse climates which give them the natural ability to grow without human intervention. However, if you're looking for optimal results, your plant should be grown in optimal conditions. While mother nature gives us little control over the environment, setting up your grow indoors gives you complete control over your cycle, as well as the conditions your plant will grow in. Fortunately, our kits allow you to adjust every variable of the equation, such as temperature, humidity, light cycle, and pH levels. Not only this, but your plant will also be protected from animals, pests, and other contaminants, such as spores of mold.

In order to effectively grow from home, you need a pretty good set up. It can be difficult to source your supplies online or even locally. Luckily, we do have full growing kits to help you begin and successfully complete your grow, perfectly, from seed to harvest!



Types of Cannabis

Cannabis is extremely versatile. For large scale, industrial development, the use of the male plant, also known as hemp, can be used for textiles, ropes, and many other resources. Not only is hemp good for production purposes, but can also contain CBD which has many therapeutic properties.

The female plant is preferred for smoking and ingestion. Much higher concentrations of THC found in female plants are responsible for the psychoactive effects associated with cannabis. THC is one of many molecules found in cannabis, known as cannabinoids. Female plants have both recreational and medical qualities; typically the reason why someone would choose these to grow in their home.

Generally, the different strains of cannabis will have different qualities, depending on the profile of cannabinoids present in the flower. With this in mind, you'll want to find a strain that has a profile which is complimentary to your needs, whether it be a specific sensation or quality that will alleviate a specific medical symptom.





Indica – Indica plants are more sedative in nature. They provide users with relaxation, pain relief, and are widely used for anti-anxiety. This will relax the muscles, alleviate pain as well as it helps with sleep and can create a full body high. These qualities often make Indica strains a popular choice amongst those who are using cannabis medically.

Sativa – This strain works to stimulate the brain, generally associated with an uplifting effect; good for those who are looking to have energy throughout the day or maybe boost creativity. Users will often experience increased sociability and clear headedness, often referred to as a “head high.”

Hybrids – Hybrids are created by mixing two strains together. They are often found to be a good center point – not too head high, not too body high – and act as a good middle ground. Depending on the hybrid, the spectrum can sway to one side or the other, but most try to find that happy medium.



Sativa

light Green
tall and lean
long and narrow fan leaves



Indica

dark green
short and dense
short and wide fan leaves



The THC Levels in each plant will be different. For many, medium-strength levels of THC (usually between 18-25%) can be the best option. For others who are looking to max out their experience you will find THC levels 30% or more.

The human body has thousands of THC receptors – and not everyone's the same. A strain that you like might not be favorable to someone else and vice-versa.

It's also key to keep your plant unpollinated. This results in a larger yield and will produce more potent buds. Our kits provide the optimal conditions to grow high quality 100% organic buds.

AutoFlowers are the best choice for beginners.

Finding the right seeds might take some time. The best type of seeds for beginners is something called "Autoflowers." These are great due to their ability to grow in a short amount of time. Another reason so many beginners choose autoflowers is their ease of grow. While many other types of seeds require a little more effort, the auto flower seed can pretty much take care of itself.





There are two main stages in the cannabis lifecycle. Both of which we will go into later. The first is Vegetative and the last is Flowering (or Bloom). With autoflowering seeds – it's just that. These plants will automatically start to flower. While regular seeds require more time, these seeds are the “Speed Queens” of cannabis.

Now, there is a downside to these seeds, which is the level of production. While they have the fastest grow times, they obviously do not produce the same levels as regular feminized seeds. Still, they will provide enough for your personal grow and gives you the core knowledge of growing on your own.

In the end, the principle remains. Autoflower seeds are the best way for beginner growers to learn the core value and knowledge to grow. Once you solidify the basic growing methods, you will be able to move into more complex growing techniques.





Grow Tent

Our tents come in a range of sizes, made from the highest possible quality materials available. No matter which size you received with your kit, assembly is quick and painless! The interior of the tent is a silver 1360D Mylar reflective material which works to boost the light output for your plants. The reflective lining works to hit every part of the plant during the growth cycle, instead of just the top.

The exterior is built to last; durable, military grade canvas, with hand-stitched corners and zipper linings. A quality tent is crucial for a home grow as it will insulate your plant's habitat and prevent precious light leaking from your tent.



Each tent is equipped with ventilation panels and openings for your convenience, giving you options to customize your set up. You can run any filtration systems, fans, and cords through openings of your choosing that will best accommodate your setup.

Velcro panels at the bottom of the tent protect the interior with a mesh covering which can be opened to relieve any negative pressure that might be caused by your filtration system, as well as allowing fresh air from the room to enter the tent regularly. You'll want to keep any unused ports closed in order to keep your tent insulated and prevent the temperature and humidity from fluctuating too much.

Tent Sizes

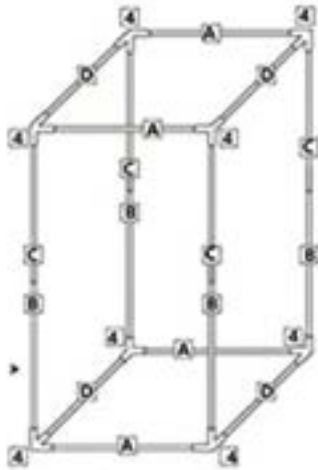


24" x 24" x 60"

24" x 48" x 60"

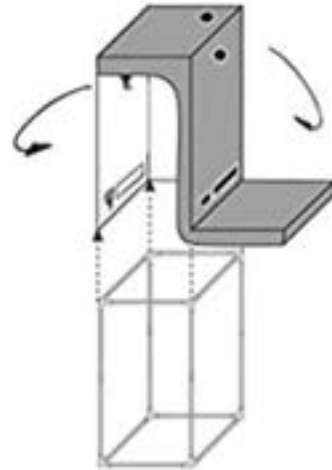
48" x 48" x 80"

Putting Your Grow Tent Together



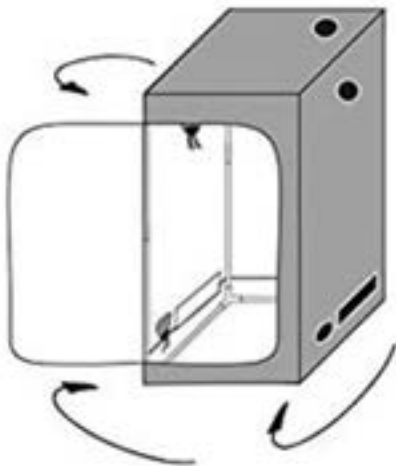
STEP 1

Check the components and build up the metal frame.



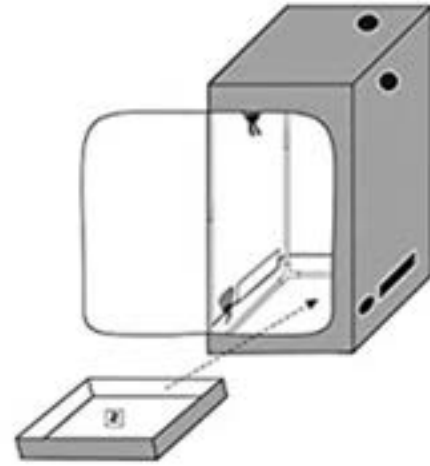
STEP 2

Unzip all zipper of the tent and pull up the tent shell on the frame.



STEP 3

Pull the bottom of the tent shell to cover the frame base and put the hanging bar on the top of the frame.



STEP 4

Put the extra floor tray in it to keep the tent clean.

These instructions also come in a tent box. There are many sizes of tents and they all go together in a very similar way.

Grow Lights

Let's take a look at the lights. Without light, a cannabis plant cannot grow. Thus the necessity for light (like all living things) is a must.

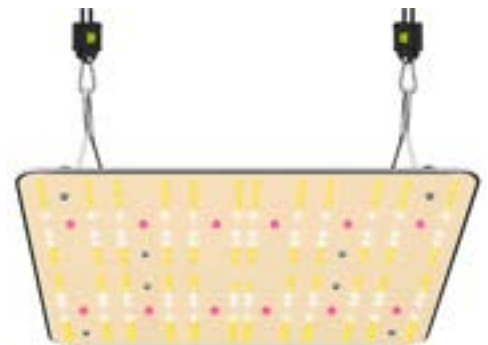
HPS light:

HPS (High Pressure Sodium) lights are common for beginner growers, they provide a moderately low energy cost and can create a solid internal temperature for your tent. The light provides an effective spectrum radius and emits a stronger orange/red light spectrum.



Quantum Board Lights:

These lights take LED to the next level with the newest tech by incorporating a multitude of small light emitting diodes on one micro board to allow for a more fine-tuned light distribution. These are quickly becoming the new hot light for growers due to their size and affordability. Most quantum board LEDs come with a dimming knob or switch that allows you to control spectrum and intensity.





Every plant is different and there is genetic diversity among plants of the same species. Your plant will generally tell you what it needs. If it's not getting enough light, it will reach and stretch toward the light. This can be corrected by adjusting intensity or distancing. Changes in pigment and light burn are signs the plant is getting too much light or too hot. This is corrected by raising the light by lowering the intensity.

Intensity settings allow you to adjust light intensity to your plant's needs. Generally enough light energy for plants is around 25-50%. 75% + can be helpful in flowering. We recommend installing an app or tool that can read Lux to PPFD conversion for optimal results. Google "PPFD calculating waveform lighting."

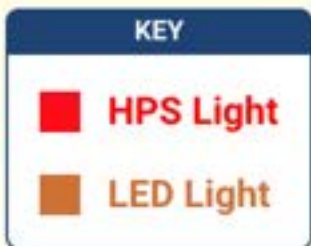
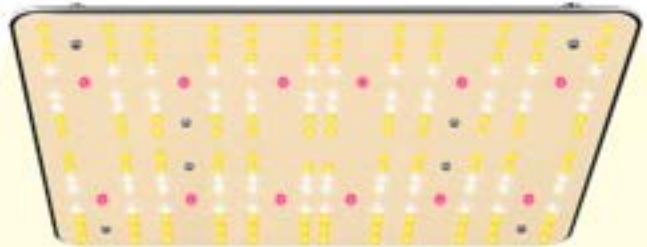


HPS Light



Fluorescent Light

Light Charts



SAPLING

Settings

25%

Distance

12" - 14"

24" - 30"

Time

18 hours on
6 hours off



VEGETATIVE

Settings

25% - 50%

Distance

8" - 12"

14" - 24"

Time

18 hours on
6 hours off



FLOWER

Settings

75%

Distance

8" - 12"

12" - 18"

Time

12 hours on
12 hours off

Soil and Nutrients

Our experience as growers has allowed us to find the right soil to help beginners on their first try. Where there are a lot of variables that come from soil nutrients – we worked and researched the best options to make it even easier to grow than ever before. Our California Super Soil provides the most nutrient enriched blend from valleys throughout California.

Where many other grow kits require you to do some research on your own – our grow kits are specifically formulated for the beginner in mind. No need to adjust pH levels or add nutrient chemicals. It's all there.



California Super Soil

FoxFarm Potting Soil

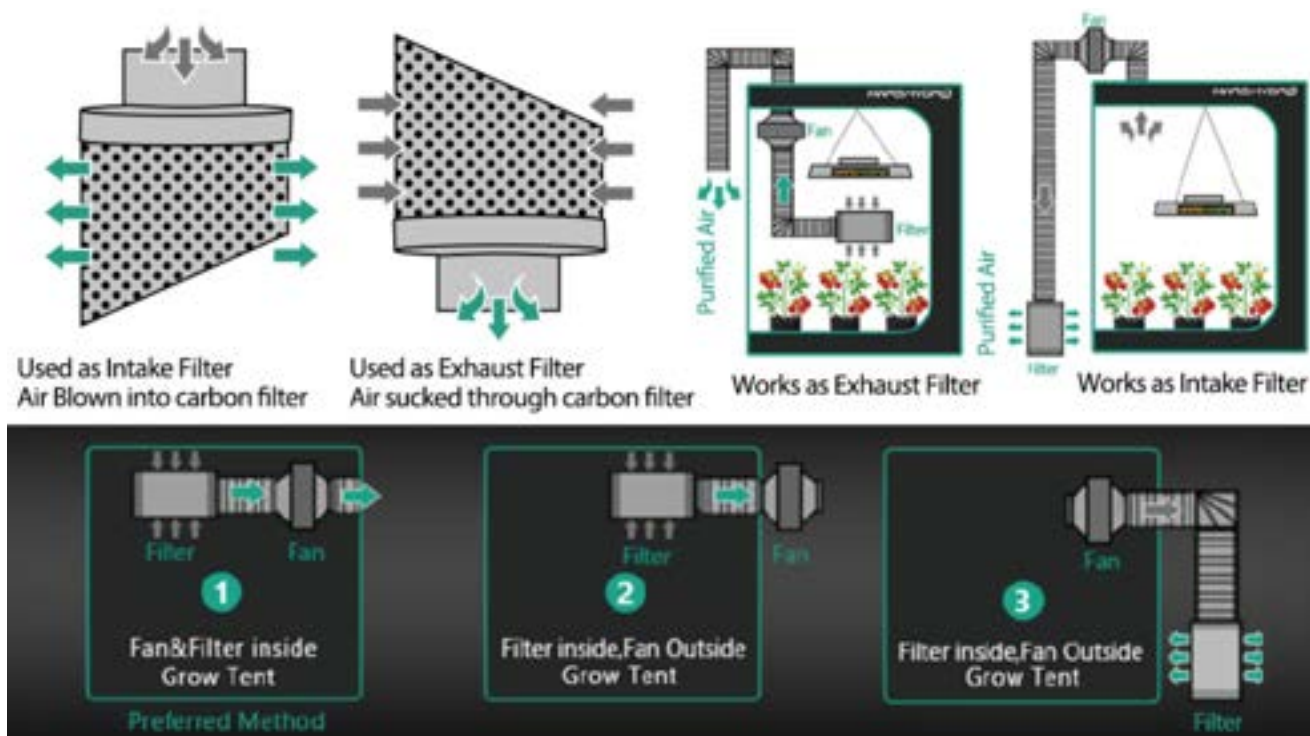
California Super Soil
Premium Concentrate

California Super Soil
Growth Shot

Filtration System

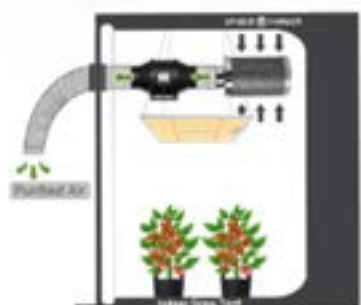
A filtration system is great for any home grow. While it is not completely necessary, it is very effective in eliminating the smell caused by plants and soils, so it doesn't disperse throughout your room and bother your roommates, friends, family, or neighbors. In addition to filtering odor particles inside the tent, the exhaust fan is a great tool for regulating your tent's environment. Running the fan will help pull air out of your tent and lower the internal temperature and relative humidity. You can run your exhaust fan on the highest setting 24/7 or not at all depending on the conditions and smell!

Our filtration system incorporates a charcoal filter with an attached cotton pullover that traps the smell, then pulls through the charcoal and leaves your home smelling fresh!



Setting Up Your Filtration System

Filtration Diagram



1. Works as exhaust filter

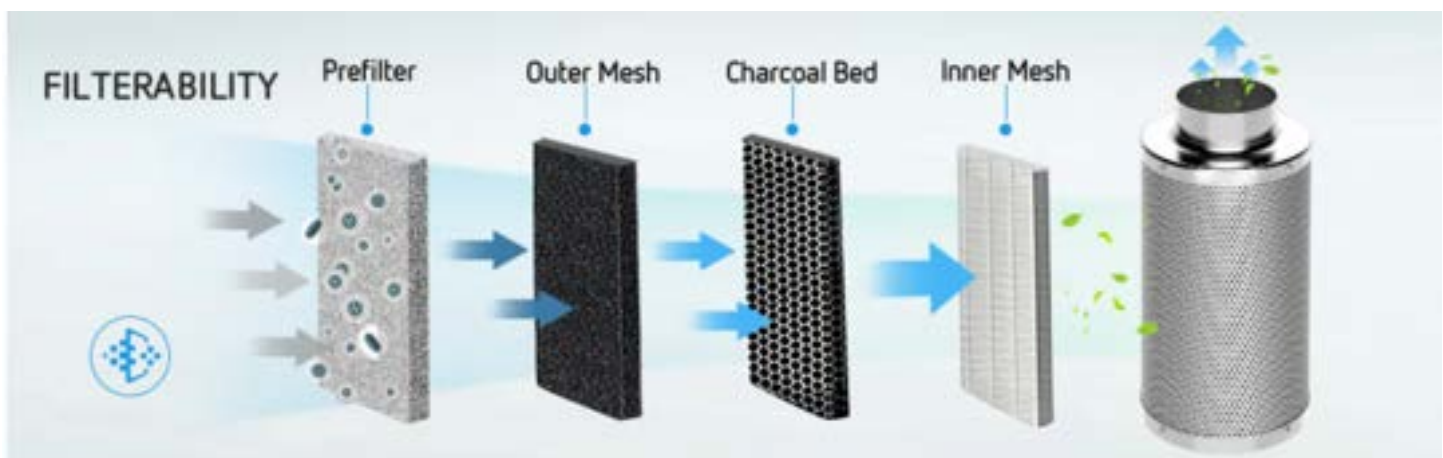


2. Works as exhaust filter



3. Works as intake filter

Filter Functions



Germination

So now that you understand your kit, it's time to go through the growers process!

The first step is to germinate your seeds. Now, there are a couple ways that you can do this and we will go through them both.

The first way is the paper towel method. This involves placing your seeds into a wet paper towel and letting it sit in a warm dark place, temperature recommended to be about 75%. The process can take up to 7 days, but you will notice your seeds starting to crack and split open to unveil a taproot.

The second is the jar of water method. In this method you simply leave your seeds in water until you notice the taproot forming.





What is the taproot? The taproot is the part of every seed that sprouts and will immediately search for the nearest source of nutrients. Once you notice that the taproot is starting to poke out of the seed, then you know that it's time to start planting! From here, all you need to do is insert your seed into the rapid rooter.

*Important note – place the seed into the rooter TAPROOT FIRST.

Again, the seed wants to find the most nutrient rich area to grow – in the natural world, this is DOWN.

Once that is done, simply put the rapid rooter in your germination dome COVERED and under the lights 24/7. Make sure that there is water setting in the grow dome so that the rapid rooter stays moist.

This process will then take another 4-7 days OR until you notice roots sticking out of the rooter approximately 2-3 CM.

You will also start to see a seedling start to sprout out of the top. Once these requirements are noticed, it's time to plant in your soil buckets!





Planting in Soil

So now that you've started to see your little seedling sprout it's time to plant it in the live soil!

The first thing to do is grab your 5-gallon cloth bucket and fill it 1/3 with our California Hot Soil. THEN fill the rest with the Fox Farm.

I like to leave a small hole in the center where I will be putting my rapid rooter approximately 4 inches down. The top of the rapid rooter should be just below the soil line.

Congratulations! You have now entered the **Vegetative Stage**.





Hydroponic Complete Guide

Hydroponic growing is one of the most effective ways to produce far more amounts than ever before! There are many different ways to grow, but the best method for beginner growers has always been the Deep Water Culture method (DWC).

What is Hydroponic Cannabis?

Hydroponic Cannabis is when a plant is grown in a water-based system that contains nutrient-enriched water. It can be grown in a variety of mediums such as clay, air, or even “aquaponics” which utilize a fertilized ecosystem.

The Difference Between Soil and Hydroponics

Soil is made up of organic materials found throughout Earth’s surface. Most of these come from falling leaves, insects, and any biodegradable material.





In the natural world, plants rely on the nutrients from these decomposing materials to help them grow. In most cases, the soil is made up of millions of years of decomposing matter!

With a hydroponic setup, the nutrients are manually added into specific quantities. These are much more accessible which allows the plants to send more energy from the main stem throughout the rest of the plant.

How To Grow With Hydroponics

This process requires a few extra steps in the setup process. You are no longer taking a pot full of soil, throwing seeds in, and praying for rain. On top of that, there are a number of different hydroponic systems available to fit your needs! The one that you will utilize is called the “Deep Water Culture” system and requires a large bucket of water that becomes churned by the use of air stones. This is the easiest method and the perfect system for beginner growers!





What Is The Best Grow Medium?

Air: Plant roots are typically meant to be covered in soil, fortunately, technology has advanced to the point where growth doesn't necessarily require it. In this process, the root system is sprayed with water that has the appropriate mixture of nutrients involved. This method is not for someone starting out, but it can give you an idea to further your education.

Clay Pebbles: Clay is often used due to its ability to deliver large swaths of oxygen to the root structure and can retain large levels of nutrients and water. Once that is done, its porous nature helps to cycle through this process effortlessly.

Coco Coir: This medium utilizes crushed and ground-up coconut bits. As this can naturally occur in soil, the process is similar. As the coconut husk evolved to protect the inner layer of coconut from external elements, this works as a perfect system for germinating your seeds!

Perlite: Perlite is infused with volcanic materials and air. Combine these two and you have a porous glass that retains high levels of oxygen. These components are often added to soil in order to increase aeration. The only downside is that perlite has absolutely zero water retention properties.

Rockwool: This is by far the most common use for germination. While other components might specialize in one or two areas, Rockwool provides the perfect medium for developing your seeds into strong and durable plants.



Analyzing Deep Water Culture

A deep water culture system utilizes a large reservoir that is designed to hold a large level of water. The larger the volume of water, the more abundant your plant will become. This also helps relieve some of the stress of accurately checking your pH levels consistently. This requires the majority of your root ball to be submerged in water at all times. This method is the easiest method for beginner growers!

Using The Right Nutrients

When you are searching for the correct nutrients, a good rule of thumb is to select boosters that are meant specifically for hydroponics. There are a lot of bottles on the market, and many of them are specifically tailored for soils such as guano and blood meal. These nutrients can undo the balance that has already been implemented into the hydroponic process.

Hydroponic Nutrients provide the right minerals that are “chelated”. This means that they are specifically designed for your plant roots to absorb more easily. When searching for the right nutrients, you’ll want to use a 2-1-6 balance to adequately grow your plants.





The Vegetative Stage

The vegetative stage is where your plant wants to become big, tall and strong. Again, your light cycle should be 18 hours on, 6 hours off and watering should be 16 ounces every other day. Refer to the previous light distancing chart on page 17.

The fundamental basics for you to look out for are as follows:

Light Time: 18 hours on, 6 hours off

Temp: 75-85 degrees Fahrenheit

Humidity: Between 40-70% - gradually lower humidity toward flowering

Watering: 16 oz. every other day – adjust as needed.

The process should take between 2-6 weeks before moving into the flowering stage to ensure that your plants are big and strong. At this stage, there will be no flowering and only stems and leaves. Continue to check on your plants and make sure they are not wilting, browning or yellowing. If they are, they could be experiencing an oxygen deficiency.

When your plant is ready to bloom, you can now switch the light times from 18 hours on, 6 hours off to 12/12. This will let your plant know that it is time to flower!

Blooming/Flowering Stage

The blooming stage is the phase where you start to notice your buds growing. You can feel a moment of success that you have done everything right! When your plant is ready to start growing those lovely buds, simply continue the process from vegetative but change the light times.

Light Time: 12/12

Temp: 75-85 degrees Fahrenheit

Humidity: 25-50% - make sure below 60%

Watering: 16 oz. every other day – adjust as needed.

The process will take place during week 8 – week 12.

Typically, by week 12, your plants should be ready to harvest!





Harvesting

Harvesting is yet another exciting moment for you as a grower. Your patience, dedication, and hard work are paying off as you are now able to successfully harvest your first plant(s). This final step also requires those attributes, it's easier knowing that the light at the end of the tunnel is real close.

The first step in knowing when to harvest is taking a look at your trichomes. The trichomes are the small sticky hairs that grow on the cannabis plant. They also contain high levels of THC. A good eye will catch that your plant will have amber trichomes versus the clear and or milky white trichomes. When you notice the amber high on top of your plant, you know it's time to harvest.



Harvesting Tools

Disposable Gloves - In order to keep your hands from getting sticky, it's a good idea to keep a pair of latex or rubber gloves available. Also by having gloves your hand will not absorb the THC that is on the buds. You want to save it for later!

Garden Shears - These will help you not only cut the plants off of their bases but also help in the trimming process which we will get to later!

Isopropyl Alcohol - A 90% or higher alcohol will do the trick. This is to help sterilize your trimmers and keep them from "gunking" up. No need to spread unwanted bacteria to your plants!

Drying Rack - Some of our kits come with a drying/curing rack which will be a big help in the later stage process. This will be where you place your trimmings to dry out. Not necessary, but convenient.



Garden Shears



Drying Rack

Cutting The Bases

The first step is to cut down those large and tall trees! Take your cutters and cut them off at the base. Don't worry, you're not hurting your precious plant! In fact, we bet you're eager to do so! Once this is completed all you need to do is hang them upside down in a dry environment.

The Harvesting Process: Drying

This is one of the more time-consuming parts of this section. But don't worry, it's nowhere near the time it takes to actually grow your plants! After you have axed those trees like Paul Bunyan, simply grab a piece of string and hang them upside down in your tent. If you have one, a dehumidifier works great and keeps the moisture out. If not, that is okay too! Simply keep your tent in an area that has little to no moisture. Stay away from your attic or basement as that is where a lot of moisture resides in your house.

Keep the plants strung upside down until you notice that the branches are brittle and frail like kindling. It's just a matter of waiting! The overall time will be 7-12 days!

Check out more information on the drying process.





Trimming

Trimming is the rewarding process of finally getting to see the end results. All you need to do is carefully cut all the buds from the stem of the plant. It's best to go from largest to smaller so that you put the best parts of the plant first. Start from the top - that is where the largest buds have developed on the plant. From there, move down to the small buds. Every bud is special so you don't want to skip over any goodness!

Curing

The curing process is a little more tricky to navigate. We're not going to sit here and stress you out by saying it's "hard" so don't sweat it! Once you have trimmed your buds and put them in jars, make sure the jars stay humid. This is where walking the lines can be difficult. If you make it too humid in the jar, you risk black mold. If you keep your buds too dry then, well, they'll dry out and lose their aromatic properties.

The best practice is to *burp* your jars a couple of times a day. To keep things well regulated, a good rule of thumb is to take a damp paper towel and place it over the opening of the jar. Then simply tighten the lid over it!



It's Time to Enjoy **Your Plants!**

Harvesting is the last step in order to enjoy your first ever home grow! Congratulations!

You've followed all the steps and are ready to kick back, relax, and enjoy the fruits of your labor!

You earned it!

If you have any questions, feel free to call or text our customer service team at **800-889-0366** or email at **support@thebudgrower.com**.





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