

Green Buddha Grow Guide

Introduction

Here at Green Buddha we have a lot of patients frequently asking us for grow tips of advice. There for we have started to compile a little bit of the basics for people that are new but, want to grow. Starting to grow is something that takes time and patients. A lot of what you learn will be from trial and error. This is a good thing because, what works for some one else in their garden may not work for your garden. Even though it looks of so beautiful and you are excited to see your babies growing re frame from touching or messing with it to much. This can cause a plant to stress or even die if handled to much. Its a good idea to put your lights on a timer to ensure that the amount of light received each day remains constant. consistency is need for your plants photo period. Don't wake up your garden when the lights are off. Most of all have fun! Get passionate about your work and read up. The more knowledge you have the better your product is in the end! Peace and Love!

The Basics

First is a list of items that are a must to have to start a grow

- Cuttings/Clones
- Medium to grow in (soil, rock wool, etc...)
- Lights
- Pots/containers
- Ventilation
- Thermometer/Hydrometer
- Ph testing equipment
- Nutrients/Supplements
- Watering

Cuttings/Clones

Seeds are a way of the past. Here at Green Buddha we prefer using cuttings because they have a higher success rate and are already proven to be female. The female plant is what we want. It produces buds where males do not. When you receive a cutting from us make sure that you are ready to dive into this and that you have your room pretty much dialed in.



Medium

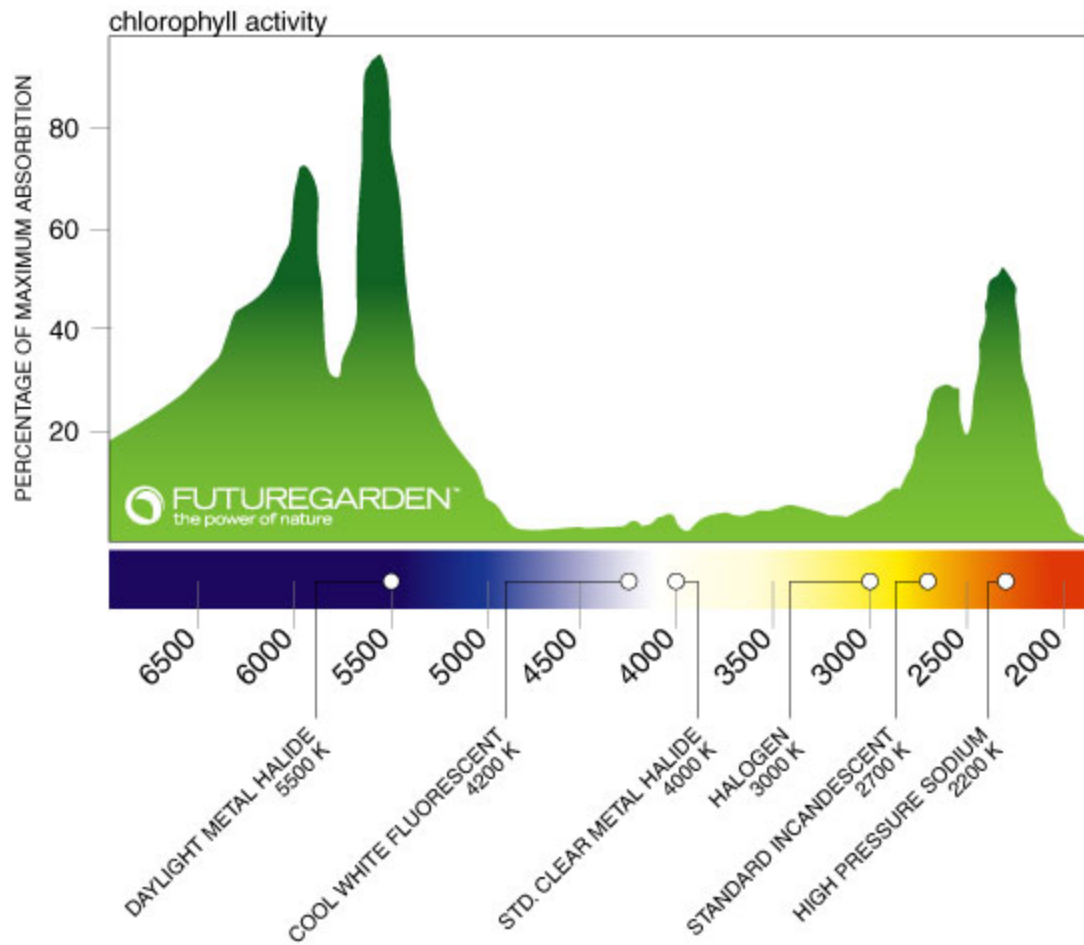
First you need to decide whether or not you are going to be going with soil or hydroponics. Then choosing a Growing Mediums to grow your plant in. It can be anything from soil to rock wool cubes. For beginners I would recommend an organic soil, you do not want to use Pre-ferted soil mixes, as this can cause many problems down the road. Organic soil can be found at any hydroponics supply store. I would also re-frame from buying soil from home depot or lows because they generally do not carry an organic soil. Next is hydroponics, pretty self explanatory, but a little on the advanced side of growing. Soil is very forgiving as to hydroponics if your mess something up a little your babies could be dead in a matter of minutes. Here are a few examples



Lights

The rule of thumb is 100 watts per plant or a minimum of 3500-5000 lumen at maturity (about 2 weeks old). There are 2 main type of lights to grow with besides sunlight, & they

are: HID (High Intensity Discharge) lights, which come in 4 major types: Metal Halide (MH) & High Pressure Sodium (HPS), Ceramic Metal Halide (CMH), & Hybrid - Dual Arc, which are MH & HPS in one bulb. MH lights are used for the vegetation cycle. HPS are used for the flowering cycle, all though HPS can be used for the entire grow cycle. The 2nd type of light to use is fluorescent lighting, weather it's the tube type or the screw in type also know as CFL (compact fluorescent light), keep your fluorescent lighting between 2-4" away from plants. Also when buying CFL's you want to look at the actual watts NOT equivalent watts, eg: 15w CFL (actual) = 60w incandescent (equivalent). CFL's also can be found as clamp lights, you can use Y splitters to double your lighting off 1 socket. This is where you need to pay the most attention to when buying fluorescent lights. Plants photosynthesis happens best at the color spectrum 6500k & 5500k for vegetation cycle & 2700k & 2200k for flowering cycle. When buying fluorescent lighting you want to look for these #'s on the package also known as Kelvin. 6500k & 5500k can be called "full spectrum or daylight" bulbs & 2700k are called "warm white" bulbs, 2100k is found in HPS bulbs, not fluorescent lighting.



solarMAX

Notice the spikes at 6500k, 5500k & 2700k & 2200k.

Pots/containers

The rule of thumb is 1 gallon pot per foot of plant, eg: 2ft tall plant = 2 gallon pot. It is

recommended to start your seeds/plants in small pots/containers & work up to bigger pots as the plants grow. Starting in small pots & working up as the plant grows allows the roots to fill up the pot/container & use up all the soils nutrients & space will help prevent voids in the soil, & bigger root balls/mass = bigger yields. Keep in mind that once a plant is put into flower they can double or triple in size, so keep that in mind when doing your final transplant. Container size for hydroponics is related to the method of hydroponic growing, & # of plants.



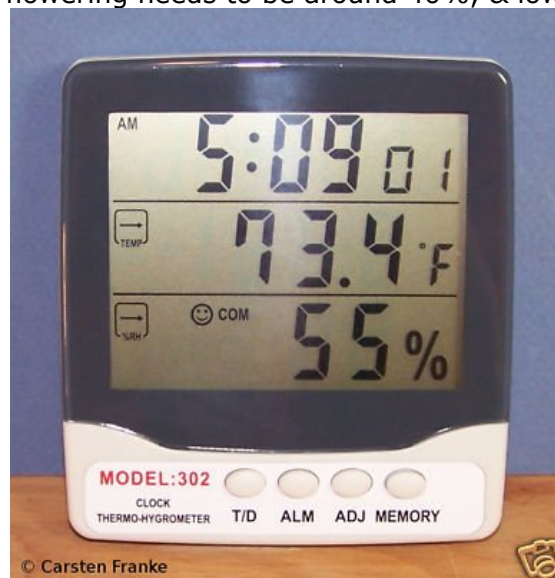
Ventilation

This includes air movement, exhaust & intake fans. Air movement in the grow room is important for many reasons. You want preferable a oscillating fan blowing on your plants & lights to help keep them cool, & for the plants it helps to strengthen their stems & overall health. Exhaust & intake fans are used to keep the environment in the grow room & optimal levels, by exchanging out the old O₂ for fresh CO₂ & to cool down lights.



Thermometer/Hydrometer

These are necessary so you can help control your grow rooms environment. For the vegetation cycle optimal temperatures & humidity levels are: 75-78F (lights on) & 5-10 degrees lower when lights off, & 50-70% RH. For Flowering the optimal temperatures are 75-78F during early flowering, & 80-83F for mid-late flowering to help stimulate trich production, & The RH for flowering needs to be around 40%, & lower as you near harvest.



© Carsten Franke

Ph testing equipment

This is a must have item if you want to grow nice healthy plants. There are several different kinds of ph testing kits out there, but if plan to continue to grow you need to invest in a DIGITAL ph meter. Meters can run between 15\$ to several 100\$. Youll also need some ph up & down to regulate the proper ph of your grow. Tap water can be used but, you should let it sit out for 24 hours to let the chlorine and other minerals (not good for your plant) to air out.



Nutrients/Supplements

This will have to do with your budget & access to these items but, you could go any way which your wallet desires. For all beginners i recommend keeping it simple until you get a harvest under your belt. For the vegetation cycle you want a Vegetation/all purpose fert with a N-P-K like 20-20-20 or 6-2-4. You want the NPK values to be equal or close to equal, & in vegetation you want the N & K levels higher or equal to P. In the flowering cycle you want a Bloom/Flowering fert with a N-P-K value like 15-30-15, or 5-15-10, where the N values is always lower than P &K, & you want your P values the highest or equal to K. Some good recommended Nutrient Companies: Advanced Nutrients, Fox Farm, General Hydroponics, to name a few. A really cheap, easy, & good quality Nutrient program is the General Hydroponics Grow, Micro, Bloom. Start your ferts out at a low dose of ¼ strength & work up slowly feeding every other watering.



Watering

When to water your plants. When they are new sprouts I keep the medium moist at all times for the 1st week or two. After the plant/s are established, water when the top 2-3" of soil is dry, by sticking your finger in the soil. Another way is to do the Pot/Container weight test; this is done by "feeling" how heavy or light the pot/container is. To do this, water your plants till you get 30% runoff, then "feel" how heavy the pot/container is, then as days pass & you notice that it might be time to water, "feel" how light the pot/container is, if it is as light as when you 1st planted & filled pot/container its time to water. In general you will need to water about every 3-4 days, but this also depends on the medium, & growing environment, & other factors. You can buy a soil moisture meter from Home Depot, Lowes, etc for around 5-10\$. Always water till you get a 30% runoff, this will help prevent salt build-ups in the soil, & will insure all the soil gets wet. You also need to collect this 30% runoff water to test its Ph, which will tell you your soils Ph.

Growing Terms/Slang

18/6: Time normally associated with the vegetative stage of growth i.e. 18 hours of light to 6 of darkness.

12/12: Timing used to initiate the flowering stage of the plant i.e. 12 hours light to 12 hours darkness.

Abiotic stress: Non-living environmental factors such as frost, drought, excessive heat, etc. that can have harmful effects on plants.

Abscisic acid: mediates stress tolerance responses in higher plants, is a key signal compound that regulates stomatal aperture and, in concert with other plant signaling compounds, is implicated in mediating responses to pathogens and wounding.

In seeds, ABA promotes seed development, embryo maturation, synthesis of storage products (proteins and lipids), desiccation tolerance, is involved in maintenance of dormancy (inhibition of germination), and apostasies. As well, ABA affects plant architecture, including root growth and morphology, and root-to-shoot ratios

Aeroponics -- is the growing of plants in a container in which the roots are suspended in a nutrient mist rather than in a solution. The most popular container for aeroponics is an enclosed A-frame constructed of Styrofoam boards. The plants are placed in holes along the sloped sides of the frame. The nutrient mist is delivered to the roots by a vaporizer or by special attachments available with drip irrigation kits. The mist clings to the roots. Any excess runs down the inside of the frame, is collected at the bottom, and is recycled back to the nutrient reservoir.

alternating leaf- as the plant grows, in the beginning, every leaf(that is not damaged) will have another leaf growing from exactly 180 degrees around the stem. they grow in pairs. when the plants mature, the leaves will grow one at a time. that is a leaf will pop out on one side, then, up the stem/ branch, another will grow. ie alternating.

Auxins -- are plant hormones governing many biological processes in higher plants such as cell enlargement and division, differentiation of vascular tissue, apical dominance, root initiation and signaling.

Ballast: Provides current and power to the light. Here it mostly refers to the above for H.I.D. (high intensity discharge) lighting.

Blood Meal --This organic fertilizer is very high in nitrogen and is very soluble in water (unlike most other dry organic fertilizers). It also contains plant growth regulators. All this together means that its effect is strong and quick, but its power will only last a short while, especially in wet weather. When applying blood meal, take care, as it will easily burn a plant's leaves.

Buds - The reason this website exists! -The part of the flowering female plant that contains high concentrations of THC and other psychoactive ingredients.

Bud Leaves - the small leaves that grow in the buds of the plant, usually covered in trichomes when harvested.

Calyxes - "the usually green outer whorl of a flower consisting of sepals" - Merriam-Webster I was looking for a diagram to illustrate, but I haven't come across a real good one yet

Canopy - The top branches of a plant, usually shading the lower branches, except when branch training methods are used. (See LST, SCROG, and SOG)

CBD/CBN -- byproducts of the main psychoactive ingredient in pot, thc. these byproducts are created when the thc degrades, due to over exposure to heat/oxygen(some thc will naturally do this while the flowers rippen). it is believed that they are responsible for the stoney part of the high, and known to have a direct effect on the psychoactive effect thc has on the "user". it is only needed in minimal amounts, in comparison to thc.

CFM - Cubic Feet per Minute. This describes the volume of air that is displaced in 1 minute (see ventilation).

Chlorophyll -- the green pigment in leaves. Chlorophyll pigment is produced in the chloroplasts of leaf, stem and flower cells. Chlorophyll pigment dominates all other pigments present including the xanthophylls and carotenes. Chlorophyll captures the sun's energy which is used to manufacture sugar from carbon dioxide and water. Chlorophylls are constantly being "used up" and thus are continually manufacture by the plant, provided the environmental conditions are appropriate.

Cloning -- the process of replicating female plants. Cloning Guide, with pics

Colas - "The female flowers develop tightly together to form dense clusters (racemes) or buds, cones, or colas

Composting - The process by which organic materials mixed together in specific conditions create a nutrient-rich medium.

Curing Process of placing the dried harvest in tightly sealed, sterile, jar, which should be stored in a dry, dark, cool place. Then according to preference open the jar for a certain amount of time everyday to release co2 and moisture and this slowly dries the crop, thus improving taste and over all quality.

Cotyledons - small round leaves that are the first to appear on a small seedling, they are not considered 'true leaves' and often fall off of the plant early in the growth stage.

Cuttings -- Sometimes the easiest (and fastest) way to grow a new plant is not from seed, but asexually from cuttings. Cuttings are taken from roots, stems, or leaves and encouraged to regenerate by providing ideal growing conditions and (oftentimes) applying rooting hormones. Unlike plants started from seed, a plant grown from a cutting will have exactly the same characteristics of the parent plant See Also - Cloning

Decarboxylation -This occurs after buds are harvested and during the curing process. The THC loses a CO₂ molecule, which then makes the THC psychoactive. This process is why drying and curing buds after harvest is crucial to the high that the bud produces.

Feminized Seeds - seeds which have a higher likelihood of sprouting female

fish emulsion -- This is a liquid organic fertilizer with a NPK ratio of about 4-1-1 to 7-2-2. It is water soluble and thus immediately available to plants. It is valued for its high nitrogen content.

FIM - Acronym for "F*** I Missed!?" A variant of the topping technique, where only a portion of the growth tip is removed, causing an increase in resulting cola sites. (See topping).

Flo, Flouro, Floro's -- Fluorescent come in a wide variety of shapes and sizes. There are compacts, twist bulbs and circle bulbs. They all work the same way. They have a starter and ballast which help provide a steady and regulated amount of electricity to the light.

FLIR - Acronym for Forward-Looking Infrared, it is a thermal imaging process whereby differences in heat emission are measured and reflected on a videotape. Heat concentration is indicated on a videotape on a spectrum of light to dark, with bright white showing intense heat. Increasingly, law enforcement personnel are using FLIR thermal imaging to detect indoor marijuana growing operations. However, the Supreme Court in the U.S. has recently banned the use of FLIR to find these operations.

Flush - the act of cleansing a plant's roots of nutrients and contaminants by giving the plant large amounts of water (usually equal to 3 times the volume of soil the plant is in).

Foliar Feeding - The act of giving water and/or nutrients to the plant through the leaves instead of through the roots.

Force Flowering - Giving a female plant a photo period of 12/12 to force the plant into producing buds.

Garlic: (Apologies to any vamps out there) Planted in the same pot/area as your plants will act as a natural systemic insecticide to greenfly and blackfly the plants absorb it from the growing garlic it DOES NOT affect the plants scent or taste, can also be used for same reason with other plants.

Germinate -- To begin to sprout or grow

Gibberellic Acid --A hormone used to promote plant growth, especially that of seedlings, and obtained from the fungus *Gibberella fujikuroi* (GA) is used to reduce flowering and fruiting which maximizes growth and minimizes pollen transmitted. GA is also used in

mature plants to increase the fruiting capacity by stimulating the development of lateral shoots and spurs.

Harvesting -- The act or process of gathering a crop Harvest & Drying 101

Herbs -- Aromatic plants used for seasoning, medicinal purposes, or garnishes. Aromatic herbs are the ones that have fragrant or smelly leaves or flowers.

HID -- High Intensity Discharge (lighting)

HPS -- The best light available today for growing Marijuana. High Pressure Sodium lights are very bright and very efficient. This light has a red/orange spectrum that is ideal for the flowering phase. With enough of these kind of lights you too can grow those centerfold buds. HPS comes in a wide variety of wattages from 70 watts up to 1000 watts.

Hormone --A biochemical product of a specific cell or tissue that causes a change or activity in a cell or tissue located elsewhere in an organism.

Hydroponics -- the growing of plants without soil, instead using a medium like clay pebbles, rock wool or perlite and vermiculite mixture.

Humus -- a complicated material formed during the breakdown of organic matter. One of its components, humic acid, provides many binding sites for plant nutrients, such as calcium, iron, potassium, sulfur and phosphorus. These nutrients are stored in the humic acid molecule in a form readily available to plants, and are released when the plants require them.

Hybrid -- Often refers to a plant or variety that has been developed by interbreeding two or more varieties, species, or genera

IBL - Inbred line, a homogeneous strain that shows uniform growth characteristics from seed

Indica -- Indica is a great plant to grow indoors as well as outdoors due to its low lighting requirements and tight internode spacing, also offering resistance to fungus and pests, early maturation tendencies, and dense flower production. Indica's come from colder climates exhibiting the traits described above by acclimating to the environment from whence they came. Their stout stature and extremely wide leaflets make them easy to identify. An Indica generally produces a hard hitting, tiresome, sedative stone, and will take around 45 to 60 days to finish flowering.

Leggy --If seedlings and plants do not get enough sunlight, they grow tall and thin stalks as they seek sunlight. These "leggy" plants have a difficult time supporting the weight of the plant and is easily damaged.

Light-burn - When the heat from a light burns the plant.

Lumens -- one lumen is equal to the amount of light emitted by one candle that falls on one square foot of surface one foot away. Lamp Lumen Data

LST - Acronym for Low-Stress Training, the technique of manipulating the branches in order to reduce plant height, expose certain branches to light, and/or distribute hormones to lower branches of the plant to encourage larger buds.

Macronutrients --For a plant, there are nine major elements essential for healthy growth; these are called macronutrients. They are: carbon, hydrogen, and oxygen (which are all three derived from air and water); and nitrogen, phosphorus, potassium, calcium, sulfur, and magnesium (from the soil).

Micronutrients --There are about eight nutrients essential to plant growth and health that are only present in very small quantities. These are manganese, boron, copper, iron, chlorine, cobalt, molybdenum, and zinc.

Medium -- A soil or soil-less mix used to start or re-plant houseplants, flowers, vegetables, and other plants

Mottling of Leaves -- Discoloration or spotting of leaves.

MV -- Mercury Vapor is the type of lights that were used for streetlights many years ago. Not very good for growing because it doesn't provide enough of the right kind of light spectrum. While they do provide a little of the blue spectrum, MV also produces too much heat to get very close to a plant, and are very inefficient to operate.

MH -- The Metal Halide is a very good source of the white/blue spectrum of light that is ideal for vegetative growth. Many growers use MH during the vegetative phase. MH is bright and cost efficient to operate, but not as efficient as HPS lights. Most commonly used sizes are 400 watt and 1000 watt. Works best when used in combination with HPS lights.

Necrosis - Death of parts of the plant, usually refers specifically to the leaves.

Node -- The point on a stem where a leaf is attached or has been attached; a joint

NPK -- The elemental symbol for nitrogen is N; for phosphorus it's P; for potassium it's K. All three of these elements are essential for plant growth and are considered macronutrients. N, P, and K are the three principal ingredients in most fertilizers. The NPK ratio is shown by three numbers, such as 2-1-1, that reflect the percentage of each.

Nute-burn - the result of feeding a plant an excess of fertilizer.

Organic Nutrients - Natural, non-synthetic nutrients.

Peat moss --The partially decomposed remains of mosses harvested commercially from the wild. Though difficult to wet initially, peat moss can absorb up to 25 times its own weight in water and is therefore valued as an organic soil amendment. Peat moss is acidic --with a pH of about 3 or 4.0-- and should only be used around acid-loving plants or to help lower the pH of alkaline soils.

Perlite -- a unique volcanic mineral which expands from four to twenty times its original volume when it is quickly heated to a temperature of approximately 1600-1700 degrees F. This expansion is due to the presence of two to six percent combined water in the crude perlite rock which causes the perlite to pop in a manner similar to that of popcorn.

When expanded, each granular, snow-white particle of perlite is sterile with a neutral pH and contains many tiny, closed cells or bubbles. The surface of each particle is covered with tiny cavities which provide an extremely large surface area. These surfaces hold moisture and nutrients and make them available to plant roots. In addition, because of the physical shape of each particle, air passages are formed which provide optimum aeration and drainage. Because perlite is sterile, it is free of disease, seeds, and insects.

Perlite has been used for many years throughout the world for soil conditioning and as a component of growing mixes with materials such as peat moss or bark. Extensive studies have shown that the unique capillary action of perlite makes it a superior growing media for hydroponic cultures.

Among the many uses of perlite today are propagation and seed cultivation, plug production and transplants, interiorscape and planter growing, composting,

PH -- the measure of soil's acidity or alkalinity, measured on a scale of 1 to 14. Water is considered neutral at PH 7. PH levels below 7 are classified as acidic, or "sour". Levels above 7 are basic, alkaline or "sweet". Most plants prefer a slightly acidic soil pH of 6.0 to 6.5.

Phenotype - generally the characteristics the plant shows, mostly sativa or mostly indica traits, although theres quite alot more that i cant think of off the top of my head (stuff like tall/short, wide/skinny leaves, high/low THC content percentage (or something like that))

Phloem: Nutrient conducting tissue.

Photoperiod - AKA lighting schedule, it is the number of hours of light and darkness the plant is exposed to. Usually expressed as a fraction. Ex: 18/6 = 18 hours of light, and 6 hours of darkness

Photosynthesis: Biochemical process in which light energy is absorbed by chlorophyll, and is used to fuel the building of sugar molecules.

Pistil - a hair-like protrusion from the nodes/buds of a female plant, also a precursor to the buds themselves. Pistils turn from white to brown as the buds mature.

Pollinate - The natural fertilization process in which as male plant breeds with a female plant during flowering. To be AVOIDED if you wish to get quality weed with no seeds.

Potash -- Broadly, potash describes any material containing potassium. More specifically, though, potash is potassium carbonate derived from wood ashes. The term potash comes from the process of extracting lye from wood ashes in iron pots

PPM - Acronym for Parts Per Million, this term is used most in hydroponics to measure the amount of nutrients given to a plant.

Rock Wool Mineral or rock wool has been used extensively in Europe and is recently finding applications in the U.S. greenhouse market. Like perlite and vermiculite, it originates from a natural mineral (alumino silicates with some calcium and magnesium) that is heated to 2,700F to form fibers that are used to make blocks or cubes as a finished product. Blocks or slabs of rock wool are used extensively by hydroponic growers of greenhouse vegetables. Rock wool typically has an alkaline pH, is sterile and chemically inert.

Regenerate - AKA re-vegging, refers to the act of putting a plant back into the growth cycle after harvesting the flowering buds off of the plant, in order to bud the plant again or to take clones off of the plant.

Root Bound --A condition where a plant or seedling's roots have grown compacted and entwined in the pot and has no room to grow. This condition results in stunting the plants growth and potential. The solution is a larger pot or transplanting outdoors.

Ruderalis -- Ruderalis is not a very good choice for flower production, indoors or out. Despite maintaining a short stature, growing only one to five feet tall, and maturing rather quickly, Ruderalis just doesn't produce the yield or quality one looks for in their flowers. A slight light cycle reduction can trigger a sprout with as little as 2 to 3 leaf sets to flower. Ruderalis spontaneously initiates flowering a few weeks after sprouting, and will not produce decent flowers unless the photoperiod provides around 18 to 19 hours of light. Even then, the yield and quality are less than desirable, incomparable to that of the Sativa or Indica sub-species.

Sativa -- Sativa is a hard plant to grow indoors due to high lighting requirements, tall stature, and late flowering traits. Sativas come from equatorial regions, thus the necessity for high amounts of lighting and a warmer tropic-subtropic climate. You can identify a Sativa by its long, slender, finger-like leaves. A Sativa will typically produce a euphoric, energetic, cerebral high. Despite the Sativa's climatic limitations, they are truly a reward to obtain, grow, and smoke. A pure Sativa will take 2 to 4 months to finish flowering.

ScrOG/ SOG -- "Screen Of Green" method. The purpose of ScrOG is to maximize your usage of the available space and lighting by training the new growth of a plant into a screen or mesh. What is ScrOG?

Seed Casing The integuments of the ovule, which are the ovule's old coverings, harden and become the seed's protective coat

Sensimilla - Spanish for 'without seed', AKA sensi, having a female plant bud without letting a male plant pollenate it, thereby preventing seeds from forming in the buds. This increases THC potency and smokable bud weight.

Sepal -- Sepals are components of the calyx. Located at the base of the flower, these modified leaves usually function as protection for the petals while in bud stage. Occasionally, sepals will be colored, but they are usually green

Sex - verb. The act of determining the gender of a plant by giving it a photoperiod of 12/12.

Stamen --This is the male reproductive organ of a plant, located in the androecium of the flower. It has two components: the filament and the anther..

Stigma: The sticky tip of a pistil.

Strain - refers to the specific genetics of the plant. Example: White Widow, Northern Lights.

Stomata: Opening in the epidermis of a leaf which permit gas exchange with the air.

Stress - Any unhealthy stimuli the plant receives. Examples: Light-burn, overwatering, nute-burn. Stress can cause slow growth, mutations, or death.

Sun Leaves - AKA fan leaves, these are the large leaves that grow off of branches, and while not rich in THC, they play an important role in photosynthesis.

Synthetic Nutrients - AKA Chemical nutrients, concentrated and industrial-made nutrients. They have a longer shelf-life than organic nutes, but are known to nute-burn a plant more quickly.

THC -- a. Tetrahydrocannabinol A compound, C-21 H-30 O-2, obtained from cannabis or made synthetically, that is the primary intoxicant in marijuana and hashish.
b. The main physcoactive ingredient in pot. this is what gets you "high!". it is often(not totally accurately) measured by the trichomes(fairy dust) visible on pot.

Topping Method used to increase yield and maximize space, by trimming off the top bud. Traditionally, topping your plant causes two shoots to grow back in place of the one pruned off, thus increasing the number of top/main buds

Transplanting Shock -- When transplanting seedlings from one place to another, the roots are often disturbed and occasionally the change in climate can cause the plant to slow down or appear to stop growing. This is transplant shock. It is really redirecting it's energy to re-grow lost roots and to get accustomed to a change in temperature that it hadn't experienced before.

Trichomes - AKA crystals or sugar, they are tiny, mushroom-shaped capitulate glands full of THC that form on the flowering buds and bud leaves of cannabis.

Vascular: Refers to the xylem and phloem tissues, which conduct water and nutrients through the plant body.

Vermiculite -- is sterile and light in weight (5 to 8 lbs/ft³). The pH of vermiculite will vary depending on where it is mined. Most U.S. sources are neutral to slightly alkaline, whereas vermiculite from Africa can be quite alkaline (pH = 9). Vermiculite is used extensively in the greenhouse industry as a component of mixes or in propagation. It is usually sold in four size grades: #1 is the coarsest and #4 the smallest. The finer grades are used extensively for seed germination or to topdress seed flats. Expanded vermiculite should not be pressed or compacted, especially when wet, as this will destroy the desirable physical properties.

Ventilation - Circulating air in order to provide the plant with fresh air and/or to reduce the temperature in the grow area. Air movement also encourages strong stems.

Watering Schedule - term referring to how often and how much water a plant is given, usually measured in days and gallons. Ex: 1 gallon every 4 days.

Watts -- A measure of the amount of electricity flowing through a wire. Watt hours measure the amount of watts used in one hour. A kilowatt/hour (KWH) is 1000 watt/hours.

Worm Casting -- (Vermiconversion) or using earthworms to convert waste into soil additives, is a biologically active mound containing thousands of bacteria, enzymes, and remnants of plant materials and animal manures that were not digested by the earthworm. The composting process continues after a worm casting has been deposited. In fact, the bacterial population of a cast is much greater than the bacterial population of either ingested soil, or the earthworm's gut. An important component of this dark mass is humus.

Xylem: Water-conducting tissue.

Helpful sites/ Forums

*All of these Sites are equally reputable but, remember when using a forum site you will get a lot of different advice from people so use your best judgment/trial and error to see what

works and what dose not.

- **<http://norml.org>**
 - The National Organization for the Reform of Marijuana Laws... Are you a member yet? If not check it out!
- **<http://forum.grasscity.com>**
 - This site can be used to get more in-depth help from people all over the world. Post a thread of your problem and someone will get back to you within a day or so. Any one from first time growers to seasoned vets can use this site
- **<http://www.rollitup.org>**
 - Great forum site with a lot of helpful people that are just into helping people get the plants growing. Any one from first time growers to seasoned vets can use this site.
- **<http://www.greenmanspage.com/guides/>**
 - Green Man's marijuana growing guide free library helps patients grow some of the most potent marijuana plants legally possible.
- **<http://www.weedfarmer.com/cannabis/>**
- **<http://www.concept420.com/>**
 - good grow guide and also medical marijuana news
- **<http://howtogrowmarijuana.com>**

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<http://forum.grasscity.com/absolute-beginners/382585-beginners-guide-get-you-started-growing-cannabis.html>

<http://forum.grasscity.com/absolute-beginners/55127-vocabulary-growing-terms-slang.html>

www.foxfarmfertilizer.com/

http://bestbudsgreenhousesupplies.com/images/rw127_1.jpg

http://futuregarden.com/lighting/PAR_chart.jpg

<https://www.jollygreenhydro.com/onlinestore/image.php?id=16842&type=P>

www.generalhydroponics.com

www.hydroponiconline.com/store/img-hydroponics/digital-thermometer-humidity-meter-hygrometer-air-hy302_310184375249.jpg

http://www.ninjagardens.com/Site/images/digital_ph_meter.jpg

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