<u>Tips for Growing Cannabis Plants</u> Dutch Hemp Farms, LLC

growing, so these are simply general guidelines for the new grower. You can find books, blogs, and videos everywhere for more detailed information. Cannabis is an annual plant, meaning it grows, blooms, and is harvested once in a single season, and then it dies, or rather, it gives its life for your benefit.

Starting from Seed: In a dark, warm environment, soak seeds in a covered bowl of water for 24hrs. Some people add a couple drops of hydrogen peroxide to the water to help soften the seed shell. After 24hrs., place seeds in a damp paper towel (not soaking wet) in a sealed bowl or Ziplock bag, in a dark, warm place. Within 24hrs you should see sprouts poking out from the seed. When your



seed tails are about ½ inch, you are ready to plant. Plant seeds in separate small pots about ½ inch deep, tail down. Water moderately but don't soak them. Water from the bottom after the

initial watering so that roots will seek out water.

Starting from a Potted Plant: Plants need space to grow their root system, so if you plan to keep your cannabis plant in a pot, you will need to increase the pot size to at least a 3 - 5gal pot (or larger) through to maturity. Use a high-quality soil if you plan to keep your plant in a pot. Your plant is large and sturdy enough to be planted outside in the ground once it is about 6 to 8 inches tall and has at least five nodes (leaf pairs). Water about every 3 days (depending on the heat) and if possible, keep the pH of the water around 6.0-6.5. Cannabis is sensitive to nutrient fluctuations, so adding nutrients may be necessary: predominantly nitrogen (N) in the vegetative stage, and predominantly phosphorous (P) and potassium (K) in the flowering stage. They grow very similarly to tomatoes, so if you know how to grow tomatoes, you'll do well with cannabis.

<u>Males vs. Females</u>: Only females grow the desired buds/flowers; males provide pollen, but nothing else. Please do not grow males; their pollen will ruin all females within a 15+ mile radius. At first, you can't tell the difference, but eventually males will grow pollen sacs and

females will show white wispy pistils. Please kill male plants. You can purchase *feminized* seeds that will only grow female plants (99%).



Autoflower vs. Photosensitive: All cannabis loves sunlight; give it as much as possible! Most cannabis plants are **photosensitive**, meaning they put on height and weight during the vegetative stage with more than 12hrs of daylight, but begin to bloom (flower) when they start receiving less light (12hrs of darkness). This can be forced if grown indoors under grow lights by limiting the light to 12hrs/day and keeping them in the dark for 12hrs/day. Outdoors, this naturally occurs late in the summer and into fall when the days get shorter. During the flowering stage, "light leaks" stress the plant. Try to limit the amount of artificial light during the night (streetlights, porchlights, etc) otherwise your plants may not properly flower and your yield will be low. Your outdoor plants should be ready to harvest around October. The lifecycle of a photosensitive plant is approximately 12 - 18 weeks. Autoflower plants are bred to begin their flowering/ blooming on a time schedule rather than according to the amount of light they receive. You will need to research the particular strain you have in order to generally determine how long it takes for your plant to be ready to harvest. Autoflowering plants can be a little bit easier to grow because they do not require you to be as attentive to light and darkness on their behalf, and they are generally ready for harvest long before their photosensitive cousins. The downside of autoflower plants is that they tend to be smaller in size, and thus the yield may be less than photosensitive plants. But not always. The lifecycle of an auto-flowering plant (seed to harvest) is approximately 10 weeks.

When to Harvest: Whether you have photosensitive or autoflower plants, you will know when to harvest the flower by looking at the trichomes on the flower.

Trichomes are tiny crystal resin sacs that contain the precious oils! Unless you have extremely good eyesight,

we recommend purchasing an inexpensive jeweler's loupe or powerful magnifying glass to watch your trichomes — they are that tiny!! Try very hard to touch the plant as little as possible during flowering so you are not removing these resin generators!



You will notice that your trichomes will start out clear, then they will start to become milky/cloudy, and then they turn amber. Once they begin to turn amber, you should think about

harvesting. There are different schools of thought on when the best time to harvest is, and it depends largely on which effects you are seeking, so do some research. Most people harvest their plants when about 10%-30% of the trichomes are amber.

Drying & Curing: Once you harvest your flower, you are not guite ready to smoke it! It needs to be dried and cured. The longer it is properly cured, the smoother the smoke will be. Again, there are different ways to do this: you can cut each branch and hang to dry, harvest each bud and lay on a screen to dry, or you can cut the full plant at the base and hang the entire plant to dry. Whichever method you choose, dry your plant upside down in a cool, dark place with a fan for airflow and ventilation. Be aware that your plant will smell the strongest during this phase, so your whole house may smell of cannabis! Depending on the environment, it may take 5 to 10+ days to fully dry your buds. The buds should not be crunchy (too dry), but the stem should be dry enough to snap. Once you buds are dry, cut from the branches, trim off the leaves, and place in a Mason jar (about ¾ full), in a dark, cool place. You will need to "burp" the jars several times a day for about 1-2 weeks, then about once a day for a couple more weeks, and then just occasionally after that. Your buds should be ready to smoke now. You may consider purchasing a moisture pack (like Boveda) to place in your jar to keep the moisture level right and keep your buds fresh.

There are so many more details to growing perfect cannabis, but this information should give you a good start! Happy growing!

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Bonus Information

Cannabis Strains: Cannabis, whether with THC or not, comes in two major categories, Sativa and Indica. These days, most cannabis is a hybrid mix of these two strains, but sometimes certain strains are "sativa dominant" or "indica dominant". Its important to know where your cannabis products fall because there are different effects from each category. Please note: every person's body metabolizes cannabinoids differently, so effects may very from person to person. In general, Sativa cannabis tends to be more energizing/simulating, which in turn can increase hunger and creativity. Sativas are responsible for causing anxiety and paranoia in some users, and yet others do not have any ill-effects. On the other hand, Indica cannabis tends to be more relaxing/calming, can decrease hunger, and is used to fight anxiety and insomnia. Both can be effective in anti-inflammatory and anti-pain benefits. Smoking cannabis is a more direct pathway to the bloodstream, so the effects are felt more quickly than consuming cannabis through the digestive system. The effects of consuming cannabis orally may take hours to be felt, but may also last longer. It is easy to over-consume cannabis after not feeling any effects for several hours, but it will kick in eventually. The effects of smoking cannabis should be felt fairly quickly and is more efficacious than consuming it orally.

Checking for Males vs. Females

In the early stages of life, all cannabis looks the same. Once it begins to mature, you will be able to detect the difference between males and females. Remember, only females produce the flowers/buds that contain the

valuable cannabinoids. Please destroy any males you have since they will not produce any consumable products, and they can ruin other people's females for up to 20 miles away. As a hemp farmer, this is very important to us! Females will start to produce wispy white "hairs" (see photo) at the



intersections of the leaf and stem. They will gradually develop into small white flowers, and then clusters of flowers down the stem.





This will develop into larger, thicker buds! You will be able to see the frosty trichomes (tiny crystals of resin) forming on and around the flower.





These trichomes are tiny mushroom shaped resin sacs found only on female plants that contain all the

cannabinoids that encompass the beneficial effects of cannabis. The photo is a single trichome at 50x magnification (credit to the Instagram account "picture-fotographie"). This is where you find CBD, THC, CBG, CBN, and all the other hundreds of healing cannabinoids! When the trichomes ripen, they change from clear to milky



Liked by akshay_lalla_123 and others picture_fotografie Glandular trichome gland captured with 50X magnification... more

white, and then to amber. Once they begin to turn amber, they are at the height of potency.

Male plants will begin to form pollen sacs, little clusters of sacs or single sacs on a tiny stem that contain millions of potent pollen grains. In the beginning, they can look similar to a female calyx, but soon will distinguish themselves as a pollen sac. The female calyx is like a womb, it is the part of the flower that would hold a seed if the flower were allowed to be pollinated. Male pollen sacs are almond shaped, and the female calyx is teardrop shaped. These photos show pollen sacs and clusters of pollen sacs at the beginning stages. They will grow larger until they burst open and drop their pollen.





Below are photos of a female calyx. Note that they grow directly from the stem in a teardrop shape.





The life cycle of a cannabis plant goes from seedling to established to the growth phase of the vegetative state, and finally into the flowering stage.







Once the buds are ripe and harvested, Dutch Hemp Farms extracts the oils from the plant material and creates wellness products such as CBD Oil, CBD Topical Pain Salve, and other healthy products!



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