

**Indicas** 

When you need to de-stress and relax, an indica strain will lend a hand. Known for their intense heavy-body effects, you'll quickly feel your muscles relax and pain ebb away. Indicas are best for nighttime use and are well-suited for indoor growers. These tend to be short, stocky plants native to cooler climates.



**Sativas** 

Looking for some energy? Sativa strains provide uplifting, clear-headed, and energizing effects. Like a strong cup of coffee, pick up a sativa when you need daytime focus and inspiration. These plants are tall, wispy, and generally well-adapted to warm climates.

Expect late flowering times from these cerebral strains.



Hybrid

Hybrids provide the best of both worlds. A hybrid is a mix of both indica and sativa cannabis varieties. Their effects vary from strain to strain. While the strain may feature traits from both cannabis species, the effects will either be slightly more mental or more physical. The overall high and growth patterns depend on each strain's unique lineage.



**Edibles** 

Edibles are cannabis-infused foods and drinks. Eating infused foods produces a stronger and longer-lasting high than any other consumption method. Be warned, though. It may take a while for your treat to kick in. Expect to wait 30 minutes to 2 hours to feel the effects of an edible. A standard dose of any infused good is 10-15mg of THC.

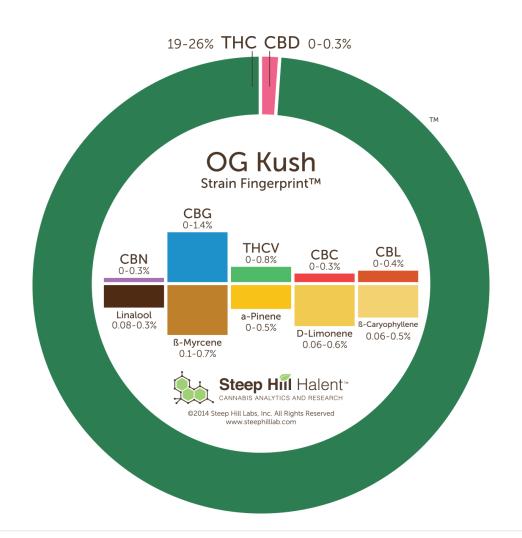


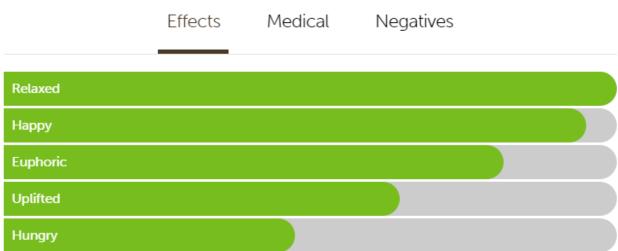


# Strain Highlights

OG Kush makes up the genetic backbone of West Coast cannabis varieties, but in spite of its ubiquity, its genetic origins remain a mystery. Popular myth maintains that <a href="Chemdawg">Chemdawg</a> and <a href="Hindu Kush">Hindu Kush</a> parented OG Kush, passing on the distinct "kush" bud structure we see in many strains today. However, we can't be sure because OG Kush first came from bag seed in the early 90s. The earliest propagators (now known as Imperial Genetics) are said to have brought the seeds out of Florida to Colorado and southern California, where it now flourishes. There are many different <a href="phenotypes">phenotypes</a> of OG Kush, some of which include Tahoe OG, SFV OG, and Alpha OG.

OG Kush is cherished for its ability to crush stress under the weight of its heavy euphoria. It carries an earthy pine and sour lemon scent with woody undertones, an aroma that has become the signature of OG Kush varieties and descendants. With OG Kush, patients most commonly cite improvements in <u>migraines</u>, <u>ADD/ADHD</u>, and stress disorders.





	Effects	Medical	Negatives	
Stress				
Depression				
Pain				
Insomnia				
Headaches				
	Effects	Medical	Negatives	
Dry Mouth				
Dry Eyes				
Dizzy				
Paranoid				
Anxious				

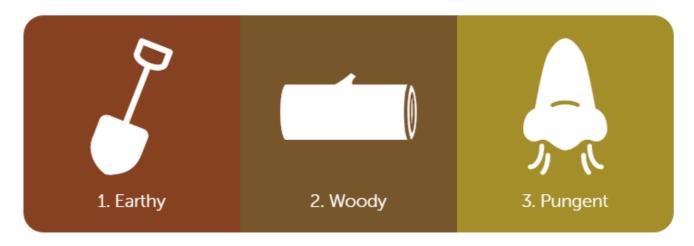


#### PARENTS OF CRITICAL KUSH





# **Flavors**



Critical Kush from Barney's Farm is a mostly <u>indica</u> strain that blends together two famed cannabis staples, <u>Critical Mass</u> and <u>OG Kush</u>. Aromatic notes of <u>earthiness</u> and <u>spice</u> usher in a calming sensation that <u>relaxes</u> the mind and body. Critical Kush pairs a staggeringly high THC content with a moderate dose of <u>CBD</u>, making this strain a perfect nighttime medication for<u>pain</u>, <u>stress</u>, insomnia, and <u>muscle spasms</u>. Growers cultivating this strain indoors will wait 50 to 60 days for Critical Kush to complete its flowering cycle.

	Effects	Medical	Negatives
Relaxed			
Sleepy			
Нарру			
Euphoric			
Dry Mouth			
	Effects	Medical	Negatives
Stress			
Pain			
Insomnia			
Depression			
Headaches			
	Effects	Medical	Negatives
Dry Mouth			
Dry Eyes			
Dizzy			
Anxious			
Headache			











Among the most famous strains worldwide is White Widow, a balanced <a href="https://hybrid.com/hybrid">hybrid</a> first bred in the Netherlands by Green House Seeds. A cross between a <a href="https://hybrid.com/Brazilian\_sativa">Brazilian\_sativa landrace</a> and a resin-heavy <a href="https://hybrid.com/South Indian\_indica">South Indian\_indica</a>, White Widow has blessed every Dutch coffee shop menu since its birth in the 1990s. Its buds are white with crystal resin, warning you of the potent effects to come. A powerful burst of <a href="https://euphoria.com/euphoria">euphoria</a> and <a href="https://energy.com/energy.com/energy">euphoria</a> and <a href="https://energy.com/energy.

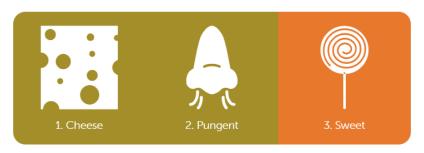
	Effects	Medical	Negatives
Нарру			
Relaxed			
Uplifted			
Euphoric			
Creative			
Stress			
Depression			
Pain			
Insomnia			
Lack of Appetite			
	Effects	Medical	Negatives
Dry Mouth			
Dry Eyes			
Dizzy			
Paranoid			
Anxious			











Super Cheese, bred by Positronics, is a throwback to the old school strains that filled the coffee shops of Amsterdam in the late 1980s. Super Cheese was created through inbreeding, crossing Cheese genetics with another select phenotype believed to be Exodus Cheese. The aroma of this indica-dominant hybrid is a mix of skunky musk and a pungent blue cheese funk that has become synonymous with Cheese varieties. The flavour is a strong, smooth blend of bittersweet herbs and cream, like an earthy buttermilk.

	Effects	Medical	Negatives
Relaxed			
Uplifted			
Hungry			
Creative			
Нарру			

	Effects	Medical	Negatives	
Pain				
Stress				
Depression				
Fatigue				
Muscle Spasms				
	Effects	Medical	Negatives	
Dizzy				
Dry Mouth				





Red Dragon is one exotic flower. A Barney's Farm cross between a West Himalayan Kush and Utopia Haze (a Brazilian sativa), this hybrid is a strain for connoisseurs. Featuring a sweet, fruity aroma, Red Dragon offers consumers a truly different cannabis experience. Slightly sativa-dominant, this strain is giggly and upbeat. Great for those suffering from depression or stress, Red Dragon has a very happy and uplifting effect. Unfortunately, this strain may cause some to feel quite paranoid. If you're prone to anxiety, Red Dragon may not be the best strain for you. This hybrid grows best indoors and has a flowering time of 8-10 weeks.

# Strain Attributes ①

	Effects	Medical	Negatives
Нарру			
Euphoric			
Relaxed			
Uplifted			
Energetic			
	Effects	Medical	Negatives
Stress			
Depression			
Pain			
Lack of Appetite			
Nausea			
	Effects	Medical	Negatives
Dry Mouth			
Dry Eyes			
Dizzy			
Paranoid			
Headache			





Jack Herer is a <u>sativa</u>-dominant cannabis strain that has gained as much renown as its namesake, the marijuana activist and author of The Emperor Wears No Clothes. Combining a <u>Haze</u> hybrid with a <u>Northern Lights #5</u> and <u>Shiva Skunk</u> cross, Sensi Seeds created Jack Herer hoping to capture both the cerebral <u>elevation</u> associated with sativas and the heavy resin production of indicas. Its rich genetic background gives rise to several different variations of Jack Herer, each <u>phenotype</u> bearing its own unique features and effects. However, consumers typically describe this 55% sativa hybrid as <u>blissful</u>, clear-headed, and <u>creative</u>.

Jack Herer was created in the Netherlands in the mid-1990s where it was later distributed by Dutch pharmacies as a recognized medical-grade strain. Since then, the <u>spicy</u>, <u>pine</u>-scented sativa has taken home numerous awards for its quality and potency. Many breeders have attempted to cultivate this staple strain themselves in sunny or Mediterranean climates, and indoor growers should wait 50 to 70 days for Jack Herer to flower.

	Effects	Medical	Negatives
Нарру			
Uplifted			
Energetic			
Euphoric			
Creative			
	Effects	Medical	Negatives
Stress			
Depression			
Pain			
Fatigue			
Headaches			
	Effects	Medical	Negatives
Dry Mouth			
Dry Eyes			
Anxious			
Paranoid			
Dizzy			

# The Complete List of Cannabis Consumption and Delivery Methods



When it comes to cannabis consumption, the second-most important consideration, after the flower itself, is the delivery method. This point is often overlooked, as evidenced by the prevalence of consumers who have limited their experimentation to only one or two methods. If you find yourself within this category but aspire to become a comprehensive cannabis aficionado, let this be your checklist. Gaining the mental and physical benefits of cannabis is largely dependent upon how it's consumed, with each method providing a unique experience and host of effects. Who knows -- you could find a new favourite. Let the exploration begin!

There are three basic delivery methods: inhalation, oral, and topical. Under these umbrella methods are various techniques that serve unique functions, each appropriate for different occasions.

#### INHALATION DELIVERY METHODS

When cannabis is inhaled, the gases enter the lungs before absorbing into the bloodstream. There are currently two prevalent types of inhalation methods: smoking and <u>vaporization</u>.

#### **Smoking**

This ancient custom is the method most commonly associated with cannabis. However, advances in <u>vaporization technology</u> have offered smokers an alternative method with <u>fewer health concerns</u>. The effects associated with smoking are widely debated, but health professionals are in agreement that smoke-free methods pose less risk and are medically preferred.

Cannabis smokers have a wide array of devices at their disposal, including hand pipes, water pipes, rolling papers, hookahs, and homemade one-time use devices. Each of these provides different experiences and influence the grade of smoke inhaled.

# **Hand Pipes**



These are probably the most common smoking device in circulation today and generally favoured for their convenience: they are small, portable, and simple to use. The device has grown into an artistic expression and is available in countless creative forms and styles, both for decoration and functionality (such as disguise pipes that imitate everyday objects). Hand pipes operate by trapping the smoke produced from burning cannabis, which is then inhaled by the user.

**Water Pipes** 



Water pipes come in slightly different variations, including but not limited to bongs and bubblers. Like hand pipes, these come in a variety of styles and designs but increase in sophistication by incorporating water. The health benefits associated with the addition of water are up for debate: water cools the smoke, but it's uncertain whether it acts as an effective filter for harmful constituents.

### **Rolling Papers**



Generally, these are used to smoke joints or blunts. Joints are cannabis rolled in a paper, the composition of which varies across an assortment of plants including but not limited to hemp, bamboo, and rice. Blunts are cannabis rolled in cigar paper made from the tobacco plant and contain nicotine. Blunt consumers often prefer the flavour and combined effects of the nicotine and cannabis; however, the medical risks linked to nicotine deter most health-conscious cannabis consumers.





This is one of the less common methods of smoking cannabis and is generally associated with smoking shisha, the American term for wet tobacco. Cannabis is seldom smoked alone in a hookah because its low water content causes the plant to burn faster than it can be inhaled, producing an acrid taste and wasting the herb. For economically-conscious smokers, this is likely the prominent concern as large quantities of cannabis are needed to yield the same results as other smoking methods. To resolve this, cannabis is sandwiched between tobacco, introducing the same health concerns associated with blunts. However, the hookah does allow multiple people to smoke at the same time, significantly changing the smoking experience.

#### Homemade One-Time Use Devices



This method may allow for the greatest creativity and includes all cannabis smoking devices that are disposable. The most common homemade device is a pipe due to its simplicity, but skilled crafters have taken on water pipe designs as well. Health effects associated with this method are equally variable depending on the material and method used for assembly.

Vaporization



<u>Vaporizers</u> are the logical choice for moderate to experienced and/or health-conscious cannabis consumers. A vaporizer steadily heats herbs to a temperature that is high enough to extract THC, <u>CBD</u>, and other cannabinoids but too low for the potentially harmful toxins that are released during combustion; essentially, vaporization eliminates the health risks associated with smoking. This improvement comes with an equally significant reduction in odor, which is generally the first acknowledgement of first-time vaporizer users. There is a diverse landscape of vaporizer models and the market is only expanding as the technology improves.

There are multiple elements that distinguish vaporizer designs, markedly portability and product. As the market grows, so does the efficiency and quality of portable models, which generally fall short to fixed models (requiring an outlet power source) in durability and robustness. The form of cannabis product is the other primary component: many vaporizers

take <u>cannabis concentrates</u> which come in a variety of forms including <u>oil and wax</u>. These can be added manually or using cartridges, <u>depending on the design</u>. The prevalence of concentrate vapes is due to mechanical simplicity; fewer vaporizers take flower, which require a heating element to accomplish vaporization, and thus a more sophisticated design.

A younger delivery method that is a point of contention amongst the cannabis community and attentive policy makers is <u>dabbing</u>. Dabbing is a form of vaporization in which potent cannabis concentrates are dropped on a heated nail, creating vapor that is trapped in a glass globe and inhaled. Although there are obvious health benefits associated with clean concentrates over combustible flower, concerns arise from dabbing's image and the intense effects of high-THC extracts.

#### **ORAL DELIVERY METHODS**

Oral delivery includes all techniques that are administered through the mouth, including <u>tinctures</u>, ingestible oils, and infused food/drinks. We most often assume that oral delivery denotes ingestion through the digestive tract before entering the bloodstream, but this is not always the case. Tinctures are essentially a topical application that is administered through the mouth, and they are immediately absorbed into the bloodstream unlike <u>edibles</u> or drinks.



**Tinctures** 

Tinctures are a liquid cannabis extract used by consumers looking for dosage control and fast-acting effects without the health risks associated with smoking. Most commonly, alcohol is used as the solvent (any proof greater than 80 can be used effectively), but other fat-soluble liquids can be used as well, such as vinegar or glycerol. Generally, three or four drops of the tincture are placed under the tongue, where it's absorbed into the body versus swallowed and digested. When ingested, tinctures are immediately absorbed in an empty stomach but require time to process through the liver, reducing dosage control.

#### **Ingestible Oils**



Ingestible oils are a happy medium between edibles and concentrates: they are swallowed and digested like an infused product, but often have the consistency of oil. These oils can either be eaten or put in easily-ingested capsules. One popular oil is <u>Rick Simpson Oil (RSO)</u>, which originated in 2003 when Simpson used hemp to treat his skin cancer. RSO is made by extracting the therapeutic compounds of cannabis with alcohol and then evaporating the solvent, leaving behind a tar-like substance resembling oil.

**Edibles** 



Eating or drinking cannabis provides significantly different effects from delivery methods that immediately enter the bloodstream, such as smoking or vaping. Edibles can be defined as any food that contains cannabis, whether or not the cannabinoids are bioavailable. These products have longer onsets and tend to cause powerful full-body, psychoactive effects.

Infused food and drinks can be made a variety of ways depending on the dish. Most often, edibles are infused with a staple infused ingredient high in fat -- like <u>butter</u> or <u>olive oil</u> -- that enable extraction of the plant's therapeutic properties. Adding tinctures to dishes is another great option for dosage control and simplicity. Generally, cooking with cannabis flower can be difficult because of the complication associated with cannabinoid activation

(including sensitive heating temperatures and times, and sufficient solvent fat). However, as the prevalence of cannabis grows, so does the presence of flower in the kitchen.

#### **TOPICAL DELIVERY METHODS**

<u>Topical cannabis</u> administration utilizes full cannabis extract -- a thick oil that has been decarboxylated to activate cannabinoids. Once cannabinoids are activated, they can be absorbed through your skin.

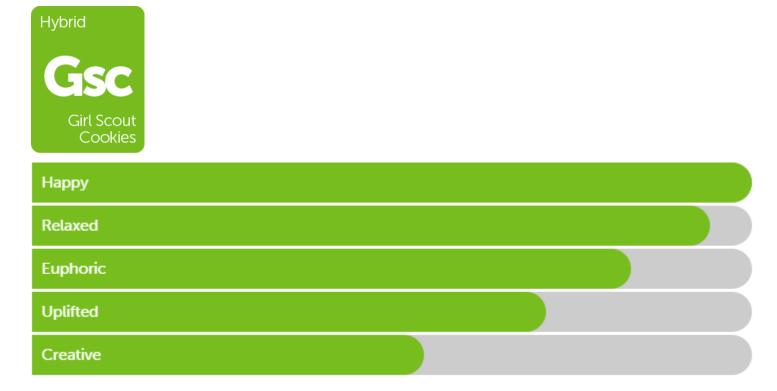


Topical effects differ from other medicating methods in that they don't provide the cerebral stimulation that users describe as "being high." Because of this, topicals are appropriate for consumers needing a clear head and localized relief (for example, muscle aches or soreness).

#### The Strongest Strains

The strongest strains are obviously those with the highest THC content. Generally speaking, anything that surpasses 20 percent could be considered pretty potent. However, let's say one grower's harvest of <u>Kosher Kush</u> tested at 22 percent THC. Due to differences in <u>environmental conditions</u>, <u>growing techniques</u>, and <u>genetic phenotypes</u>, another grower's Kosher Kush could come out wildly below the mark and test at, let's say, 15 percent.

Even with this variability, there are strains that tend to express higher levels of THC thanks to <u>strong genetics and selective breeding</u>. Let's take a look at some of the champion THC heavyweights that have earned awards for their potency as well as some user reviews that testify to their strength.

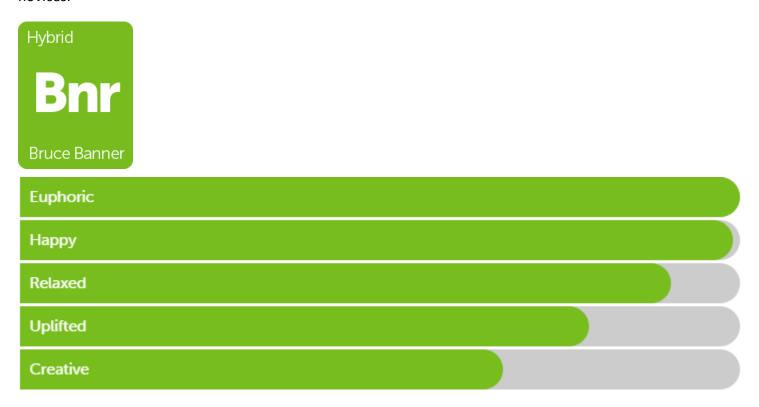


<u>Girl Scout Cookies</u> hauled its way up the ladder of fame in recent years, and it isn't hard to see why. The genetics in this hybrid are strong: according to Steep Hill's lab data, Girl Scout Cookies typically tests upwards to 28 percent THC, and even the low end of its average is a decently impressive 17 percent. The Girl Scout Cookies experience begins with a crushing wave of blissful euphoria, one that enshrouds both mind and body with warm relaxation for hours.



Relaxed	
Sleepy	
Нарру	
Euphoric	
Hungry	

Kosher Kush first blessed the world with its presence in 2010 and has been nabbing Cannabis Cup awards ever since. Its genetic background may be a mystery, but this indica's keepers at DNA Genetics have refined a champion strain that consistently breaches 20 percent THC. Wrapped in a thick blanket of crystalline resin, you'll hardly need a closer look to see that this tranquilizing indica is not one for the novices.

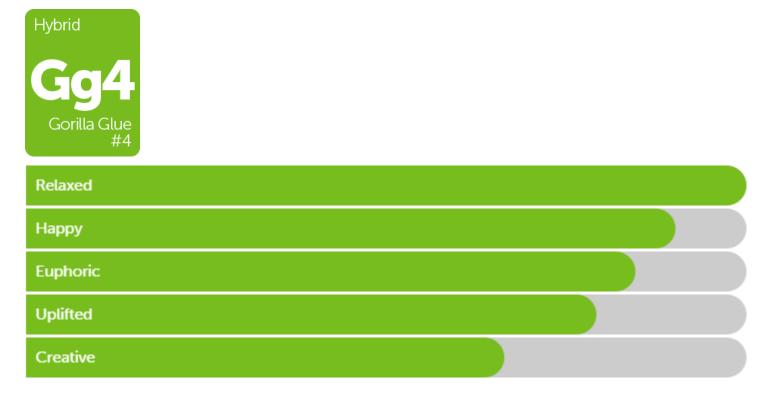


<u>Bruce Banner</u>, appropriately named after the Hulk's alter ego, is a heavy-duty hybrid with a THC high-water mark of almost 29 percent. Rated the strongest strain in 2014 by High Times following its victory in the 2013 Denver Cannabis Cup, Bruce Banner has since carved itself quite the reputation. Powered by <u>OG Kush</u> and <u>Strawberry Diesel</u> genetics, Bruce Banner delivers a dizzying punch of euphoria that anchors your body in deep relaxation.



Нарру	
Energetic	
Focused	
Euphoric	
Uplifted	

In the last few years, the Cannabis Cup leaderboards saw a new rising star: the lively and vigorous sativa known as <a href="Month of any 2011 Cannabis Cup">Ghost Train Haze</a>. Bred by Rare Dankness Seeds, Ghost Train Haze had the highest THC content of any 2011 Cannabis Cup submissions, weighing in at a staggering 25.5 percent THC. Inheriting genetics from <a href="Ghost OG">Ghost OG</a> and <a href="Moving Neville's Wreck">Neville's Wreck</a>, this sativa's potency takes form in a jolt of euphoric energy that goes straight to the head, feeding focus and creativity.

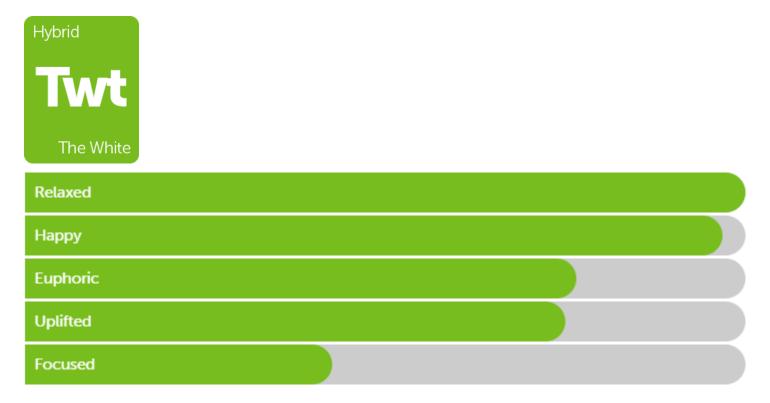


Gorilla Glue is named for the stickiness of its resinous buds, and this hybrid certainly lives up to her name. It isn't rare for Gorilla Glue to hit the mid- to upper-twenties in a potency analysis, and she's got multiple Cannabis Cup awards to back that claim up. But we doubt you'll need the proof when this hybrid's got you gorilla-glued to the couch in stupefied contentment.



Нарру	
Uplifted	
Euphoric	
Relaxed	
Energetic	

What smells like a bushel of fresh strawberries and has a THC content that'll make even the most seasoned veteran cough? It's <u>Strawberry Cough</u>, winner of numerous Cannabis Cups and the hearts of cannabis enthusiasts around the world. The story goes that Kyle Kushman inherited a really sad-looking mystery clone from a friend's garden and polished it into the sweet-smelling THC engine that now boasts heights of 25 to 26 percent.

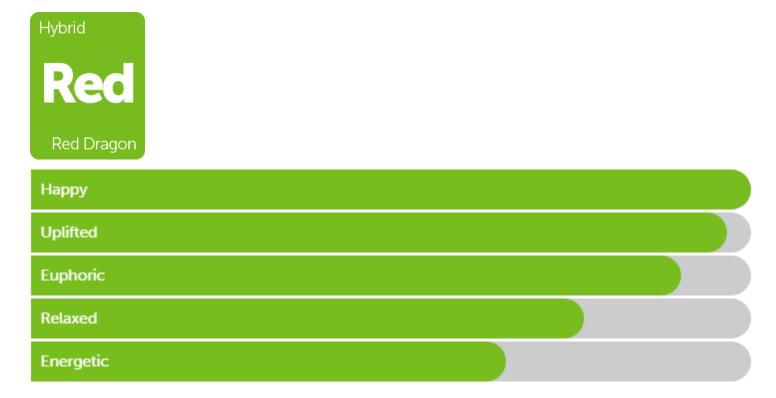


Named for the whiteout of crystal resin cloaking her buds, <u>The White</u> has become a godsend for breeders looking to improve the potency of their genetics. Routinely testing between 20 and 28 percent THC, The White delivers a disorienting blizzard of euphoric delirium that commands relaxation.



Relaxed	
Euphoric	
Sleepy	
Нарру	
Uplifted	

With a THC profile that typically dances between 20 and 24 percent, <u>Death Star</u> will surely wreak as much havoc as the Galactic Empire. Using its great psychoactive forces, this <u>Sensi Star</u> and <u>Sour Diesel</u> hybrid commands you to chill out as it imposes powerfully euphoric and sedating effects.



A Barney's Farm creation, <u>Red Dragon</u> is another familiar name among Cannabis Cup winners. Fiery red hairs shoot out from resin-packed buds, giving this strain a fierce dragon-like appearance. Accurately so, because this strain's path of destruction entails an intoxicating cerebral blast that'll knock bad moods and stress (and possibly common sense) right out.



Нарру	
Uplifted	
Relaxed	
Euphoric	
Creative	

Born from The White and Fire OG, White Fire OG (also known as WiFi OG) is a force not to be trifled with. Steep Hill's testing data shows the impressive THC potential of this hybrid, with average levels falling between 22 and 30 percent. Its uplifting effects launch your mood into the clouds, an elevated feeling that will shake creativity and happiness wide awake.



THE 21 BEST GROWROOM TIPS AND TRICKS FROM PROS

The HIGH TIMES Cultivation Department reached out to some of the cannabis world's biggest names for their expert advice on how to succeed in growing great weed. Learn weed-growing words from the wise from professional and successful cannabis farmers.

#### **Light Supplements**

One of the best uses of power when growing indoors is employing fluorescent bulbs to supplement your HID (High Intensity Discharge) lighting. Fluorescent lights, such as T-5s or CFLs (compact fluorescents) not only offer some of the best light spectrum for plants, they also are very efficient with electricity usage and emit very little heat. Additionally, fluorescents can be placed lower on side walls to better penetrate the garden canopy and effectively get light to the middle-third of your plants.

#### **Proper Genetics**

Nothing in the biology of cannabis makes sense without an understanding of 'genetics'. Nothing. Good cannabis genetics is everything. Give a grower a 1K HID and bad genetics and I will show you a grower who has fared far better with fluorescents and good genetics. Give a grower a 1K HID with good genetics and they are superman. Behind every stunning grow, breath taking bud photograph, every unbelievably gorgeous dazzling bag of bud, every memorable cannabis experience, is someone who paid for good genetics to begin with. A thousand dollar grow room is ineffective without the right DNA put into it.

#### **Transitional Feeding**

Plants don't need flowering food until you've got flowers forming. Keep plants on full strength vegetative nutes through the first week of flowering for indicas and second week for sativas. Then combine both veg and bloom for a week. Likewise, plants benefit from continued Metal Halide (MH) lighting for a week or two into the flowering stage.

#### **Green Light**

It's important to catch pests, infestations and moulds early and act immediately. Powdery mildew on foliage surfaces and insect secretions can be seen at night with a green headlight or a UVB light. Mildew and poop appear to glow under a UVB light on plant leaves. Take a look!

#### The Four P's

Plants that grow bushier with even branching can yield bigger under artificial light sources, giving consistent, dense bud quality from the top to the bottom of medicinal cannabis plants. Follow the "Four

P's" and you will succeed. Pinch: out the central growing point on established vegetative plants to promote bushier plants that yield all "tops". Do not pinch your plants if the crop is fewer than fourteen days away from beginning the bud phase. Pluck: fan leaves away ONLY if they are blocking a lot of light from other growing points; consider trimming a leaf blade or two away instead. Do so sparingly, fan leaves are the energy factories. Patience: is a virtue, and to be a good grower you have to exercise this. Prune: this is better done all at once, for example in the second week of flowering. Constant pruning creates stresses on your plants, as they are forced to keep "re-wiring" themselves.

#### **Maintaining Mother Plants**

The best production gardens (those with more than two HID grow lamps) are almost exclusively grown from clones taken from healthy mother plants. The best mother plants are never flowered – as they grow from seed, clones are taken from them and flowered out to find out their sex and the quality of what they'll produce. The corresponding vegetative mother plants are kept in large containers under metal halides or plenty of fluorescent grow lights. Feed them mild vegetative nutrient solution high in Nitrogen.

#### **Grow Organic**

The number one tip I could give to save time and money in the grow room would be "Go Organic". Not only will you save time and money but it will also help lessen your carbon footprint and provide you with higher quality cannabis that burns properly. Go green. Grow green. We already have an overdependence on petrochemicals so why pour fertilizers made of these substandard ingredients on our plants. I say no! Grow organic it won't only change your grow room it will change your life.

#### **Proper Flushing**

It does not matter what kind of medium is in use, mineral fertilizer will cause salts build up and eventually result in intoxication of the plants, if proper flushing is not applied. The purpose of flushing is to wash the medium, and as a consequence a lot of water flows through the containers down to the ground, and it is very important to drain away excess water from the grow room, so the climate stays good (too much water in the room will cause air humidity to climb fast, creating all sorts of issues). In my personal experience, flushing with up to 3 times the volume is even more effective, as long as the drainage is quick. Flushing is best done at the beginning of the light-cycle, so to favour evaporation of excess water and to let the medium begin the drying process faster after flushing.

#### **Label Everything**

Depending on whether the plants are in pots or in beds, there may be a variance with this method. Even with natural preventive maintenance sprays such as Neem oil to combat predators, and with amazing permanent colour markers available today, the strain names eventually fade away if one doesn't pay close attention.

So, with that all said, knowing a little about insurance, I like to prepare many identical labels and place them in the containers, on the sides of the containers, under the containers, and tied to the plants (especially when the plants are in beds this method) to assure no possible mix up of strains.

As the breeder & brainchild creator of Delta-9 Labs, I have seen several so called breeding facilities over the past 15 years while living in the Netherlands that were quite disorganized, dirty and even potential fire hazards.

#### **Emulsify**

The saying goes that "oil and water do not mix". That has now been solved. To mix cold-pressed neem oil with water, first emulsify the neem oil using liquid silica. To make this emulsification mix 1 Tbsp. Dyna-Gro (TM) neem oil and 1 Tbsp. Pro-TeKt (R) silica in a glass dish. Add this oil/silica emulsification to 1 gallon of tepid water. Then add 2 Tbsp. of a surfactant, like T&J Enterprise's yucca juice, to break the surface tension. Shake the solution to activate the yucca saponins, and spray.

#### Don't Wait

I think the best tip I can offer is to be diligent in all things. Our hobby is not one that allows for procrastination and when its time to transplant, or take clones that are needed or just perform proper grow room maintenance these are task that will not wait until tomorrow. The best growers I know have a special attention to detail and tend to operate tidy clean organized work areas. I think people get caught up in the mystique of cannabis cultivation and forget that at our core good growers are simply farmers and that means getting up early and working long days. You get out of a garden what you put into it and if you mix some love and passion in with the hard work, dank is the by product.

#### Plant Lift

The best advice ever given to me was from Soma who taught me to pick up the pots to feel the weight of the plants before watering to avoid overwatering. As for what I discovered on my own, you must always listen to your plants. They'll tell you when they need more food, water or air. Treat them as the living wonderful beings that they are.

#### Stay Organized

Make your own footprints in the path of growing, but allow the wealth of knowledge that is already out there to be your guide. Don't get stuck in your own methods. Too much pride in your growing style or fear of failure will limit you. Your plants are what you make them. A perpetual harvest cycle allows you to individualize your techniques for each plant's specific nutrient and water needs. Organization lends less work, change one thing at a time and have patience. When you find something worth sharing, keep the growing community alive and don't bogart your knowledge.

#### Juicing With Enzymes

Organ soil and fertilizer will always be the preferred method for growing great herb, but without aid they release vital nutrients slowly, which can really be a drag on your flowering time. The only way to maximize your fertilizer the all-natural way is the same way our own bodies swiftly break down food into usable minerals – enzymes. These are protein catalysts that speed up the decomposition process in organic matter, unlocking the stored molecules it contains. Bat guano, which is packed high with phosphorus due to the bat's insect diet, also contains powerful enzymes to break it down quickly and prevent it from accumulating on the cave floor. Together they make a potent and fast-acting flower fertilizer. Sea bird poop is a cheaper and more sustainably harvested fertilizer with active enzymes. Psidocene, an enzyme and bio stimulant derived from sea weed helps speed the recovery of transplanted and otherwise shocked plants.

#### **Super Cropping**

Pinching, twisting, and bending the tops of plants are all forms of super-cropping. Doing this benefit your plants, garden and growing space considerably by preventing plant stretching and waste of valuable space and light. Super cropping can be performed during almost any stage of a plant's life, from well-rooted and established clones all the way into the middle stage of flowering (although bending is preferable to pinching at that time). If you haven't tried some form of super cropping, try a few of these techniques and see what works best for you and your plants.

#### Light Right

One of the common mistakes indoor growers make is not maximizing their light. Indoor gardens require a minimum 33 watts per square foot. For example, a standard 4' x 8' tray (32 sq feet) with two, 1000 watt HPS, you would achieve 62.5 watts per square foot, doubling the recommended amount of watts per square foot.

If you do not contain your light to the plants in the growing area, you waste your light by illuminating your walkways, walls, etc. You are not growing concrete or sheetrock, you are growing plants. It is extremely important that the light penetrate only the plants. The light should not escape the plant area.

The easiest and most cost effective way to contain your light is to use white plastic divider walls, leaving a 2" gap from the wall to the plants. By doing this, you should see a dramatic increase in your yields.

#### **Sparkling Clones**

I discovered the benefits of sparkling water a few years ago as another grower's tip and have never seen anyone else mention using it. Purchase yourself a bottle of sparkling mineral water for your clones. Fresh cuttings off a mother plant crave the tiny carbonated bubbles and the essential minerals. Placing your fresh cuttings in a cup of mineral water before using your cloning solution will make your clones root faster and increase survival rates. Make sure you grab the unflavoured sparkling water as its pure and clean. Bubbles are a happy sound to the plants and they will soon show their approval with quick abundant roots.

#### Wire Dryer

Instead of putting your trimmed herb onto coat hangers to dry, go out and grab some six-foot-tall square wire deer fence. Cut the fencing into six foot sections and secure the sections onto cylinders. Stand the cylinders up and use them to hang your drying herb on. Nothing works better for saving space and tackling issues related to damaged herb.

#### Stay Green

Always grow organic! It's the most conscientious for the health of our bodies and for the health of the planet. We have a responsibility for all of our actions. Grow from seeds and learn to make your own. It perpetuates the seed. Cannabis is so many things: medicine, peace and relaxation, changing consciousness, textiles, foods. It can repair the imbalance in nature and fix our environment. Fight against against GMOs (genetically-modified organisms).

#### All You Need is Patience

The thing that was hardest to learn and I wish I still had more of is patience. You can never have enough of it when you're growing. Keep it simple, keep it clean and keep it green.

It can be difficult to know exactly when your cannabis crop is ready to harvest. After harvesting the plant matter you're after, you have to process it. Curing and drying are vital steps towards getting a tasty, usable product.

Harvesting your crop can be the ultimate victory for any marijuana grower, However, the key to reaping the best marijuana lies in knowing when to harvest and how to dry your plants properly.

In this section, we'll teach you the basics of what to look for, and how to handle the harvesting process when the time is right. We will explain the drying process and give a lot of tips to produce the best buds possible. Without these steps, no one with a nose or tongue will touch your buds – so pay close attention!



When to harvest

After your plant has gone through its flowering phase, it will begin to slide into a decline in health. There are a number of different symptoms which can flag this for you. You'll notice that the pistils of the cannabis plant are turning red. The stem might begin to broaden. Any resin on the buds will begin to brown and darken, and the leaves of the plant will start to yellow and die back. If your plant has flowered and you begin to notice any of these symptoms occur, chances are good that you are ready to harvest!

There's some contention between growers on the precise 'best' time to harvest your cannabis. It depends in part on your own personal tastes. It's not so different from harvesting other plants, even fruits or vegetables.

The best way to be able to properly see if your plants are ready for harvest is to use a magnifying tool of some sort. You should be looking for trichomes in your buds that are glittery and filled with resin. If you are seeing them this way, you will be able to harvest at the perfect time.

#### Magnifying Tools

There are a number of different kinds of <u>magnifying tools</u> you can use to look more closely at your plants. Each will get the job done, but like with any aspect of growing and harvesting your marijuana plants, you need to understand what they all do and what the best tool for you is.

#### Jewelers Loupe

A Jewelers Loupe is perfect for someone working on a budget. It's not very high-tech, making it the least helpful in seeing the details for the stage of life your buds are in. That being said, it should give you enough information to identify if it is harvest time yet or not.

#### Handheld Magnifier

More powerful than a jewelers loupe, a handheld magnifier of some sort will zoom in enough to give you an even better idea of your buds' status. Such high magnification can cause some problems, however, since sometimes it makes it difficult for you to focus.

#### Digital Microscope

If you're someone who likes state-of-the-art technology, this might be the route for you. It's more expensive, as these types of technologies always are, but it will give you a black-and-white answer to your question: Are my plants ready for harvest? You just need to connect it to your laptop to see the information at hand. You should read up on the methods of using it before purchasing one of these.

The latest possible harvest will net you the best results, but with cannabis, that can mean an overpowering and unpleasant flavor if you wait too long. The color of the pistils is the most common way for growers to determine when they want to harvest their plants and begin processing them for use.

Some growers harvest as soon as the pistils begin to turn red. Others wait until the pistils are almost entirely red and the resin of the plant is dark. In general, the later you harvest, the more you will get, but it is also likely to have a stronger flavor. If you wait too long, you could see decreased effectiveness of the active ingredients.

Besides the color of the pistils, examining the resin on your flowering plants is probably the best way to know if they're ready for harvest. You will notice that the glands covered in resin become enlarged when the plant is mature, and they will also start to swell and look deformed. The resin will darken from transparent to opaque amber as it becomes more mature. When the resin is still sticky and transparent, the plant is ready to be harvest. Once that resin darkens and becomes more amber-hued, you should make sure to harvest quickly because the plant will go through a deterioration of active ingredients.



Red pistils

The pistils of the cannabis plant will be white before the flowering phase. When they begin to turn red, you'll know you've entered the period of time during which you can harvest your crop. If all of the pistils are white, it's too soon: don't try to harvest. A safe bet is when anywhere from 25-75% of the pistils have turned red or are beginning to turn red. Although it's not a bad idea to remain patient during this harvesting phase, you don't want to wait too long. If you let the plant go too far, you'll end up with a lower quality product. If the plant goes too long without being harvested, the entire crop could actually be ruined.

Download my free marijuana grow guide at this link for more harvesting tips

When you choose to harvest will also affect the qualities of the bud. Harvesting earlier will give the plant a more stimulating effect when the ingredients are activated, while harvesting at peak ripeness will offer a more numbing hazy effect. This is another area where it comes down to personal taste. To figure out where you stand on the matter, a good bet is to harvest some of your plants early and some late. That way you can decide for yourself which is a better fit for your style as a grower.

#### Watch the trichomes



There is a second method of identifying whether your plants are ready to be harvested or not, in case the pistil method isn't quite working for you. The trichome method is actually considered the more accurate one, so read carefully for it to truly benefit your judgment around harvest time.

The concept is simple: you simply need to take a look at the <u>trichomes</u> on your plants' buds to be able to establish whether or not they are ready for harvest. Trichomes are the growths that resemble mushrooms in shape. Some trichomes are known as resin glands, which have a crystalline structure or appear frosty as they grow on the leaves and buds of your plants. If you have ever noticed the stickiness of weed, this is also responsible for that texture.

The trichomes you need to be paying close attention to are the ones that have a little ball on top of them since that is where much of the THC and other fun chemicals are housed. The key is being able to determine when they are at their highest THC level, so when is the peak time for harvesting them. Since it's difficult to see with the naked eye, you should use one of the magnifying tools listed above to get a closer look.

So when do you know that the trichomes are ready? You need to compare them with the following color and texture rules:

#### Clear, White Hairs

This is definitely not the time to harvest. If the trichomes are clear, they won't be potent enough for harvest, and your final yield will suffer because of it. You should wait until nearly half of the hairs are darker in color and are no longer sticking out so straight.

#### Half Clear or Cloudy Trichomes

It is still rather early for a harvest. The buds have not reached their full-size potential, although they will still produce a high if you harvest them now. This type of high will most likely be more energetic or "speedy." The strain's odor will develop further if you wait to harvest.

#### **Mostly Cloudy Trichomes**

Congratulations, you have reached the perfect stage for harvesting your buds! This is the point when they have the highest levels of THC, so if you want to maximize your yield outcome then you have to act fast. You will know your plants have reached this stage when 50 to 70 percent of the hairs have darkened from their original white color. Because of this peak amount of potency, the high that comes with the buds harvested at this time will give you some serious euphoria and will even relieve pain. This can be considered the most "intense" high you can get.

#### **Amber and Cloudy Trichomes**

This is a bit later than the absolute peak time for the greatest amount of potency, but only because the buds have slightly less <u>THC</u> and more <u>CBN</u>. If you are looking for a more relaxing, anxiety-reducing high, then this could actually be the perfect time for you to harvest. This high is more narcotic and often results in a "couchlock" result. You will be able to identify this stage when 70 to 90 percent of all the hairs have darkened.

You can look even more into the effects of harvesting your buds slightly earlier and later, depending on the exact type of high you are looking for. You can even harvest some during the peak time and some later, giving you a variety of options. Just make sure to label correctly so you don't find yourself extremely relaxed when you were looking for a more energetic effect.



How to harvest

When you're ready to harvest, you'll carefully cut off all the sticky buds from your plant so that you can finish the cultivation process that you started months ago. You'll want a heavy duty shears or scissors to handle the thickness of the plant matter, and a dish of isopropyl alcohol on hand so that you can clean sticky resin off of your scissors and hands. You're best off wearing gloves for the cutting process, it can get pretty gooey.

Take off any of the biggest leaves that don't have any resin: you can dispose of these. Remove small leaves and leaves which are curled up around the buds. These will usually have a lot of resin, and if you're being thrifty, you'll want to keep them.

Then simply remove the remaining buds from the plant and continue with the drying process.



How to dry marijuana

Finally! You're almost done with the cultivation process. You've got a bunch of buds sitting there, just waiting to be dried and processed. Don't breathe a sigh of relief yet, though. The drying process is the most

important part of making sure your Cannabis product has a good taste. It's easy to ruin your product with poor practice, so dry your buds with care.

Right after you harvest, the plant matter will still be chock full of chlorophyll. Remember that you want as much chlorophyll as possible to be changed into glucose. It will taste bitter, and it definitely isn't ready to be used. You still need to activate the tetrahydrocannabinols (THC) in the plant. This only takes a few days of drying, but it's absolutely vital that it's done right if you want a smokable bud.

During the first phase of drying, you will need to make sure that your buds are drying out fairly slowly – between 4 and 10 days. The key thing to look out for, during this process, is preventing mould from developing while you are drying them.

It's very important to put the same amount of care and effort into drying and curing your Cannabis buds that you did into growing them. This is where you can have the most control over what the plant actually tastes like. If the process isn't done properly, you can easily ruin all of your hard work thus far. Right after you harvest the plant, it will still be full of chlorophyll, and activating the THC only takes a few days, so remember to stay patient until the whole project is complete. The light is at the end of the tunnel.

You'll want to stop photosynthesis from occurring in the plant after you harvest, so put the buds in a cool dark location. This will prevent transpiration from occurring due to heat and light.

Hanging the buds upside down will help you trick the plant matter into thinking that it is still alive, as long as there is still circulation inside the plant tissue. The last thing the plant will do is use up the remaining chlorophyll in its cells as energy. You want the plant to dry relatively slowly because of this, so there is time for the plant to convert all of the chlorophyll into sugar. Don't use fans or heaters to quicken the process.

The ideal temperature for drying is somewhere around 18 degrees Celsius. Keep the humidity moderately high, too (around 60%). Again, you don't want the plant matter to dry out too quickly.

During this process, always remember to treat the buds gently and with care. All that sticky resin will stick to anything it touches, and will pick up dust, so don't forget about the importance of the environment. Stay mindful!



Harvesting leaves

Within a few days, the leaves of your <u>Cannabis</u> plants will have bent around the buds, curling up over them. Some growers advocate removing these leaves before drying the plant, but there are a number of disadvantages to doing this.

If the big leaves have been removed, the plant will have less mass and a smaller quantity of chlorophyll. Having less mass means it will dry more quickly. Again, just because you want the plant to dry doesn't mean you want it to dry quickly.

When the leaves are present over the buds, moisture has to evaporate through them. In addition to slowing the evaporation process, this will help lower the risk of mould developing on the buds. Plus, it will help protect against dust and other negative factors.

After a couple weeks, the leaves will be totally dry, and the buds and stem should still be a little bit flexible (and likely very sticky). Keep handling them carefully so that you don't lose any of the precious resin. If the plant matter has become brittle or easily crushed into powder, it's too dry. The bud should be sticky and have a sweet fruity flavour.



Fast drying buds

If your final product is bitter, it's very likely that it was dried too quickly. Keeping humidity up in the drying room will help prevent this. It's important to remember this. Sometimes it can be tempting to use fans or ventilators or dehumidifiers to speed the process along, but you'll only do yourself a disservice by doing this.

The one time you are ok using these extra tools is if the environment you're drying is naturally too moist. Also, if you're in desperate need of accelerating the drying process, you're better off using a dehumidifier than a heater.

Throughout the drying process, make sure that you're keeping a weather eye out for mould. Don't let the plants touch or crowd each other during the drying process. If some of the buds are just too big to dry at the center, cut them up into smaller pieces and dry them on a sieve or filter which allows air to circulate.



How to cure cannabis

There are a number of reasons why you should cure the buds right after you've harvested them. There are even more (and more important reasons) for why you should make absolutely certain that you're curing them the correctly.

Curing is the best way to make your buds taste good. It's as simple as that. This is because curing them breaks down the chlorophyll. It allows the most subtle flavours that make your harvested buds taste unique to come out. The smoke itself will be smoother and less likely to cause you to cough or have a headache.

Curing even makes your buds smell better. Instead of smelling like fresh hay or newly cut grass (which is typical in buds that have just been harvested), they will have a more unique and enjoyable scent. They even will have a better smell and taste for turning into edibles, in case that is what you would like to use some of them for.

Enjoyment aside, curing your buds is useful from a purely practical perspective. When you cure your buds, they are less likely to develop mold. Their potency increases, giving you "more bang for your buck," and the response to them will even be different – you probably won't feel as anxious or paranoid, nor will you develop racing thoughts. All in all, curing your buds just makes them better.

If you are still not convinced, you should try it out for yourself. Smoke some weed that comes straight from the plant, then compare it to smoking a cured or dried version of the same harvest. You will certainly see a distinct difference, and this is all it will take to convince you.



How to store buds

The final step is safely storing your cannabis harvest after it's been dried and cured and processed. Above all else, remember that it will keep longer if it isn't exposed to oxygen, heat, or light.

Before you put the buds away and seal them, make sure that they haven't gotten too dry. It should remain flexible, soft and supple. Without a little moisture, it will crumble into an unpleasant dust.

The best bet for storage is air-tight jars. Some growers favor vacuum sealing the end product in plastic, but the jars are sturdier and less susceptible to being torn open or letting pressure be applied to the plant matter itself.

Check the buds 24 hours after you first store them and make sure everything still looks and smells right. If it smells strange, let it air out. Repeat this step as many times as necessary until the cannabis has a pleasant smell, rather than smelling of leaves/freshly mowed lawn.

Using smaller jars will help the buds last longer since they won't be exposed to as much oxygen over the long term. If you're trying to maximize the amount of time you store the buds, you can also use a freezer.