

**OFTC** CONTROVERSY

## THE CONCENTRATE SCENE IS WILD, extreme and seems

misaligned with the most recent science around cannabis and the most ancient traditions for a Frenchy who has smoked Hashish for over forty years and been schooled in producing countries.

The art of collecting resin and making concentrate is possibly ten of thousands of years old, and quality has been define by taste and smell for just as long. The psychoactive property of Cannabis' resin has been what most certainly triggered a coevolution with humanity since the dawn of time; but would it have been the same if it's resin had tasted foul?

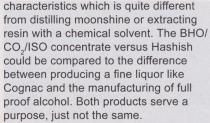
The oldest traditions from India tell us that the gods sent man the cannabis plant so that we might attain delight and that cannabis sprouted from a drop of nectar that fell from heaven; it is the most ancient ode to terpenes and terpenoids.

Beyond the realm of their biological and medicinal properties, terpenes and terpenoids regulate the effects of THC and other cannabinoids, as well as enhance the potency of THC. Terpenes also adjust the permeability of both cell membranes and the blood/brain barrier, causing THC and other active cannabinoids to have a faster onset and a more thorough absorption. Science,



traditions and even mythology show clearly the fundamental importance of terpenes, making their preservation mandatory in the production of any type of concentrate.

The manufacturing of fine wine, liquor or Hashish is based on the same concept; bring to a greater dimension a raw substance by enhancing its



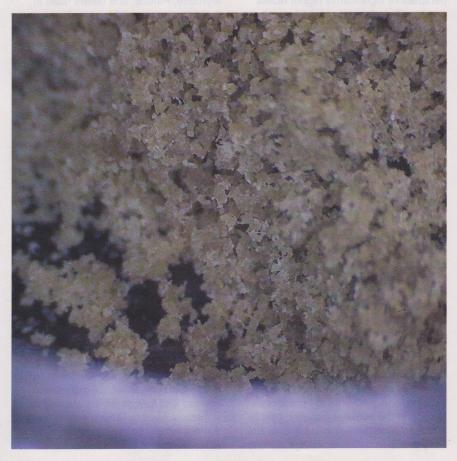
The "journey" toward well being/ altered reality is what makes each experience unique and truly satisfying; the total delight of bursting flavors and aromas on the tongue, of transforming essences and lingering aftertaste, the truly gratifying onset to well being.

As you must have guessed by now I find certain aspects of butane extraction production objectionable, mainly with the misinformation surrounding the product and with the solvent itself. Butane extraction requires the use of petrochemical solvents. The unrestrained use of petrochemical products and by-products is bringing our planet to the verge of a total ecological collapse whereas Cannabis is a plant that can remove radioactivity, metals, pesticides, solvents, crude oil, and toxins from our planet. Why would we process cannabis with petrochemical derivatives to extract cannabinoids for their medicinal and/or psychoactive properties when there exists time-tested alternative methods of extraction that do not cause any negative environmental impact such as in the traditional process of making hashish?

The advantages and overall benefits offered by a butane extract need to be significant in order to morally justify the cost to future generations and to the

While different techniques create different textured BHO products (shatter, budder, etc.), the extraction process remains the same, "blasting" butane to strip the resin heads from the plant material, purging, winterizing (freezing in alcohol to finish cleaning lipids, fats and plant waxes), using a vacuum chamber and vacuum pump to remove butane and alcohol from the dissolved resin.

Butane is flammable, explosive and contains potentially poisonous and harmful chemicals, so that a vast amount of knowledge, experience and lab equipment is mandatory to the production of a really clean extract. BHO concentrates are also a recent trend. with little scientific information around the potential negative long-term effects of exposing the body and its respiratory system to these potent solvent extracts, whereas we have thousands of years of documented history of Hashish and Charas being smoked generation after generation in producing countries to no





negative side effect.

BHO, a product whom cleanliness over sieved resin heads is one of the main given benefit, requires rigorous and hazardous cleaning to create a consumable and safe product. It is an extreme step to take just to clean the remaining microscopic plant material and the wax membranes that hold the resin, but purity is important and on that I totally agree, which is why I press my resin glands into Hashish and let it cure 10 to 12 weeks; the resin, being "corrosive", as nature intended does all the cleaning for me; but that is another story for another time.

High quality ice water or dry sieve resin has only 1 to 7% plant material and an unknown amount of wax membranes that may actually have beneficial properties, somewhat like the skin of a fruit or vegetable that hold beneficial compounds. While quantifiable BHO may be a marginally cleaner product than sieved resin, the difference is minute and the overall cost of the process is expensive and more importantly environmentally unsustainable.

The second and most enticing aspect of BHO is higher potency, which can range from 50 to 80% THC, but that should be expected when you "concentrate" resin that has a base test at 20% and above on the flower; sieved resin can test as high as 60 to 75% after all. BHO just cannot be stronger than the original resin; the resin does not get a higher THC, cannabinoids and terpenes content by being dissolved in butane and/or alcohol; it is transformed by a chemical reaction to a liquid form only to facilitate the cleaning of all remaining impurities. However, the probability of altering and affecting the natural integrity of the resin by changing its structure with butane, CO, or alcohol is real and the repercussions of changing the combining benefits of the plant unknown.

BHO has one true advantage over sieved resin and Hashish; BHO combust



instantly so that from a medicinal perspective significantly higher doses can be inhaled at a time which can be important for people suffering seizures and severe chronic pain, patients who care less for the experience than for the end result, instant relief from pain and/ or seizures.

Nevertheless, this gain of a few percent in purity and potency achieved with BHO comes too often at the highest cost of all, a loss in terpenes and other important compounds. Cannabinoids, terpenes, terpenoids, flavonoids, etc., within the Cannabis plant resin work in synergy; they work in a similar manner to the body's endocannabinoid system. All the components of the Cannabis plant (more than 480) exert some therapeutic effect, more than any single compound alone. It is called the "entourage effect", first described by Raphael Mechoulam. The Cannabis compounds work simply better together than in isolation.

The vital importance of terpenes is proven scientifically and extract providers on the cutting edge are going as far as removing the terpenes before the actual solvent extraction and then infusing them back into the product as is done in the perfume industry. This is a real solution but not an easy one; the easy one is to use in exchange common inexpensive essential oils like Limonene, Myrcene, Pinene, and others used in the manufacturing of food and beauty products, after all terpenes will still be terpenes doesn't matter the provenance, right?

Well we actually do not know that, no studies have been made on the subject but why not just keep them in the first place by simply collecting instead of extracting?

Hashish is the finest and final expression of the cannabis plant; it embodies all the plant's characteristics and takes them to a higher dimension. Hashish symbolizes this mythological divine relation between the plant and humans by the glory of its smell, aromas and flavors. Poets have praised the pleasure and the mystical experience that is smoking Hashish for the past thousand years, some Hashish have become legendary for their quality and today we are creating new myths, thanks to the amazing genetics and the dedication of a new generation of Hashishin.

I believe that unless you need to consume very high potency doses for medical purposes, where experience, aromas and flavors are supplanted by a medical need to reduce a symptom; there is simply no reason to be choosing solvent extracts over Hashish.