## The Best Method for Producing an Extract

THC Safety Inc, a design consultant for cannabis extraction facilities, is often asked for our opinion as for the best extraction method. Unfortunately there has been a lot of smoke and mirrors utilized to push one method over another such as "we don't want toxic butane residue" which is a misinformed statement since butane has very low toxicity or carbon dioxide extraction doesn't produce a tasty extract.

The answer is a lot more complex than the question and to help clients make an intelligent choice we must ask them a series of questions such as:

- 1) What product would you like to produce? extract for vape, dab, butter or extract for an infusion or other consumption method?
  - **Answer:** For example, an extract produced for vape should be one that produces a smooth smoke, not harsh, it should look clear to golden in color; where as an extract produced for infusion should be optimized for maximal cannabinoid extraction and limiting contaminants that could affect taste.
- 2) What is the jurisdiction that you plan on basing the operation? **Answer:** It is extremely important to take into consideration state and local regulations before one commits to a location. Moving 5 to 10 miles down the road may save months of time trying to apply to local restrictions and additional requirements for a particular
- 3) Will the extract be sold as a medical or retail product?

method.

- **Answer:** The regulations and prices for retail vs. medical marijuana extract may be significantly different. Most states only allow medical cannabis at this time, but for those with both medical and retail, the regulations and requirements may be significantly different and these may affect the product types and the extraction method.
- 4) What is the throughput in pounds per day of cannabis plant material that should be targeted?
  - **Answer:** The throughput in pounds of dry plant matter per day is extremely important. A low volume extraction method such as a soxhlet extraction should not be used with a high throughput volume need; rather a butane or CO<sub>2</sub> method and a correctly sized machine should be selected.
- 5) Will you be using trim or bud as a starting material?
  - **Answer:** The quality of the input plant material will affect the extract output; potency and quality are dependent on material input. The selection of plant material is an economic decision and is very important. Trim is much less expensive than bud. The need for any particular type of post extraction processing will be partially affected by the starting material.
- 6) Will you be branding the product or will you be making a generic?
  - **Answer:** To optimize a process and thus make a superior product, one must limit the variables. If a consistent plant material is used then the correct parameters for that material may be dialed in to produce a more efficient and high quality extract. If the plant material to be extracted is received as on a variable schedule, one may consider using smaller batch sizes or contracting for extraction services.

7) Do you anticipate conduction extractions for your own cultivation operations or from others or both?

**Answer:** If the plant material to be extracted is received as on a variable schedule, one may consider using smaller batch sizes or contracting for extraction services.

During our day long cannabis concentrate production technology course we have the time to address these and other questions in detail but we hope that this article short answer may help perspective extraction facility operators make a somewhat informed choice.

As one can see, there are numerous variables that impact the selection of an extraction process and then the specific equipment to select to conduct the process.

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