Questions to consider before starting in cannabis extraction

There are a number of key aspects to cannabis extraction (equipment, starting material, testing and marketing) and each involves several options. Potential operators should therefore do their homework before setting up a business. **Thomas Walker** asked **Jeff Verlinden**, of equipment and extraction company Separations, for his advice to new operators.

Separations (separations.co.za) is a South African company that supplies the pharmaceutical and cannabis industries with testing and extraction equipment. I recently asked Jeff Verlinden, a sales representative at the company, about the main processes involved in cannabis extraction and his recommedations for entrepreneurs exploring opportunities in the industry.

• What, in your opinion, is the most effective extraction method?
The best platform for extraction depends on the product you are producing. Niche extractors might prefer a solventless approach, such as a rosin press, which uses heat and pressure to extract the cannabinoids. Commercial operators generally prefer a solvent-based method, as it can improve extraction yield.

A butane/propane mix makes a good recreational product, but concerns remain about the safety of residues and the potentially explosive nature of the solvent used for extraction.

Chilled ethanol extraction is popular in licensed facilities and good at producing a cannabinoid-rich distillate or isolate product.

Carbon dioxide stands out. It's safe to use, and efficient at extracting the terpene profiles in the plant.

• What are the requirements for establishing an extraction business?
If you intend producing a medical-grade cannabis product, it's vital to have a team member with a pharmaceutical or a regulatory compliance background.

Ultimately, the route to market needs to be well defined with a solid network of sale agreements in place.

• What methods are used by successful operators?
Any commercial operation wants to have as much flexibility and capacity to scale as possible. Increasingly, a combination of carbon dioxide (for terpene pulls) and primary ethanol extraction centrifuges for distillate oil production is seen as the optimal solution.

• What tests is a cannabis extractor expected to carry out?
Quality control is crucial to long-term success in the sector. Initial flowers/buds need to be checked for micro-organisms and potential contaminants such as pesticides and heavy metals from the soil.

When it comes to extraction, testing for solvent residuals is necessary to reduce exposure to a potential patient or user.

• From where do processors currently obtain their starting material?
A processor can focus on vertical integration (owning both the cultivation and extraction facilities) or become a contract extractor, which involves extracting available biomass for a fee.

• How does the starting material affect the end-product?
The saying 'quality in, quality out' is particularly true of cannabis extraction. Extraction is not only for B-grade flowers; many clients with a thorough understanding of commercialisation of final products see the value in producing a high-quality finished product, starting with high-quality input biomass.

Quality control is crucial; inital buds should be checked for micro-organisms and contaminants

• What recommendations do you have for would-be operators?
Research is essential. Read up or take part in webinars that go into specifics on cultivation, extraction and commercialisation within the cannabis and hemp industry.

If you're an extractor, focus on safety first and engage with knowledgeable people in the industry. The hemp and cannabis industry is on a fast track to full formalisation and with a bit of research, you'll be able to find the right person or company to take your organisation to the next level.

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