



Patients enrolled in the Vermont Medical Marijuana program are invited to submit samples of their *Cannabis* flowers to CVD and SVW to assess the concentrations of eight different cannabinoids. Using Ultra-High Performance Liquid Chromatography (UHPLC) we can provide patients with potency levels for the **dominant cannabinoids** (1-4) or the **full suite** of the following eight analytes:

1. **THC** (Δ^9 -Tetrahydrocannabinol)
2. **THCa** (Δ^9 -Tetrahydrocannabinolic acid)
3. **CBD** (Cannabidiol)
4. **CBDa** (Cannabidiolic acid)
5. **CBG** (Cannabigerol)
6. **CBGa** (Cannabigerolic acid)
7. **CBN** (Cannabinol)
8. **THCV** (Tetrahydrocannabivarin)

Pricing

	<u>Standard Pricing</u>	<u>Patient Pricing</u>
Dominant cannabinoid test (1-4):	\$75.00	\$67.50
Full suite cannabinoid test (1-8):	\$125.00	\$112.50

One-Time Special Offer: Buy 7 clones at one appointment and receive one free dominant cannabinoid potency test.

Sample Submission

Samples must be submitted at your designated dispensary (as indicated on your VMR ID card) by appointment only. Appointments can be made by using our online scheduling system by selecting the **Lab Sample Submission Appointment** or by calling your dispensary directly and speaking to a customer service representative. Web addresses and phone numbers are listed below. *Clones, seeds and products can be purchased during your Lab Sample Submission Appointment.*

Champlain Valley Dispensary

1 Steele Street; Suite 125
Burlington, VT 05401
cvdvt.org
844-283-9333

Southern Vermont Wellness

1222 Putney RD; Suite 201
Brattleboro, VT 05301
svwvt.org
844-789-9333

What To Bring When You Drop-off Your Sample

- REQUIRED**
1. Your Vermont Medical Marijuana identification card;
 2. Your *Cannabis* sample to be tested – 1.5 g for each *dry* flower potency test. All samples must be labeled and transported in a locked container;
 3. A completed **Sample Submission Form**;
 4. The full testing fee (cash only).

Results

CVD will email or post an analytical report to you within 14 days of receiving your sample. Answers to questions regarding results can be found by referencing our **Potency Testing FAQs** or by contacting our lab directly: lab@cvdvt.org.



Name: _____

VMP ID #: _____

Mailing Address: _____

Telephone: _____

Email: _____

SAMPLE #	HARVEST #	DATE SAMPLED	STRAIN NAME	SAMPLE MASS (grams)	TEST REQUESTED	
					DOMINANT	FULL SUITE

Submission Requirements

Each sample submitted should be at a minimum mass for the sample type as indicated by the table below.

Test Requested	Mass Required
Cannabinoids (dry flower)	1.5 grams

Mass ensures a representative sample of the harvest and includes triplicate potency tests and a moisture analysis test.

Receipt

Date of Submission: _____

Payment Made: Yes No

Client Signature: _____

Date: _____

Staff Signature: _____

Date: _____

Please follow the attached form titled **Submission Instructions** to make sure you have everything you need to submit a sample at one of our dispensaries. **Samples will not be accepted without a completed Submission Form and payment.**



- **What analyses can CVD perform on my homegrown Cannabis?**

CVD uses UHPLC technology in conjunction with ultraviolet spectroscopy to determine levels of eight different cannabinoids (THC, THCa, CBD, CBDa, CBG, CBGa, CBN, and THCV) present in your samples. The first four are the major compounds generally found in *Cannabis*, but the other four also provide important therapeutic effects. A moisture analysis is also performed on each sample to evaluate how much of the sample weight is accounted for by moisture.

- **What is UHPLC?**

Ultra-High Performance Liquid Chromatography (UHPLC) is an analytical technique that separates samples into their different components, which can then be identified and accurately quantified. This method can analyze the acidic forms of certain cannabinoids (THCa, CBDa and CBGa), where Gas Chromatography (GC) cannot.

- **How are my results reported?**

REPLICATES: Each flower sample will be divided into three sub-samples, where each sub-sample is tested for potency. The reported values will be an average of the three sub-sample results.

TOTAL THEORETICAL VALUES: Results include “total theoretical” results, which are calculated values that combine the concentrations of neutral cannabinoids (e.g., THC) and their respective acidic compounds from which they convert (e.g., THCa). In fresh cannabis plant material, tetrahydrocannabinol (THC) is mostly present in the form of its acidic precursor – tetrahydrocannabinolic acid (THCa). During exposure to heat, light, or over time during storage, THCa can be converted into its neutral counterpart – THC. There is an acidic precursor for CBD, CBG, CBC and THCV as well. In this conversion process, called decarboxylation, CO₂ is released from the acidic form of the molecule. The calculated “theoretical” value accounts for how much of the acidic compound can be converted to its neutral form combined with the amount of neutral cannabinoid already present. For example:

$$\text{total theoretical \% THC} = (\% \text{ THC}) + [0.877 * (\% \text{THCa})]$$

MOISTURE CONTENT: Results are not corrected for moisture content and are a percentage of the weight of the sample at the particular moisture level determined during the testing period. This moisture level is the percent of the sample’s weight that is due to moisture. Dry-weight results are a percentage of the weight of a sample if it was completely dried out with no moisture left and is of higher value than the “as-is” results. To convert results to a “dry-weight basis”, the following equation is used:

$$\% \text{ cannabinoid DRY-WEIGHT} = (\% \text{ cannabinoid}) \div [100\% - (\% \text{ moisture})]$$

- **What is the best way to sample my product?**

Each sample should be a 1.5 gram composite of small portions of flower chosen randomly throughout the batch in order to be representative of the harvest as a whole. Only flower buds should be included. Fan leaves, seeds and/or stems should not be included, but if present, should not contribute to the 1.5 gram weight.

- **What do you need in order to test my medicine?**

The form titled **Sample Submission Instructions** gives an overview of how to prepare and drop-off samples as well as information on testing fees and turnaround times on results.

- **How should I transport my samples to the dispensary for drop-off?**

A small, dry, labeled container for each individual sample is required. For instance: a clean, sealed plastic bag or jar. Please label each sample with your VMR ID# and the sample # listed on the **Sample Submission Form**. All samples must be transported and received by staff in a locked box or bag per state law (you can have your box or bag back immediately following the sample intake process).

- **What is a VMR ID# and what if I don't have one?**

The Vermont Marijuana Registry (VMR) is the regulatory agency that oversees the medical *Cannabis* program in Vermont and issues permits and identification cards to patients and caregivers who are part of the program. You must have a valid VMR ID to possess medical *Cannabis* and to submit samples for testing (no exceptions).