# Cannabis Quality Control (CQC)



*Fytagoras:* Analytical Services for Quality Control and Quality Assessment of cannabidiol (CBD) in plants and cannabidiol containing products.



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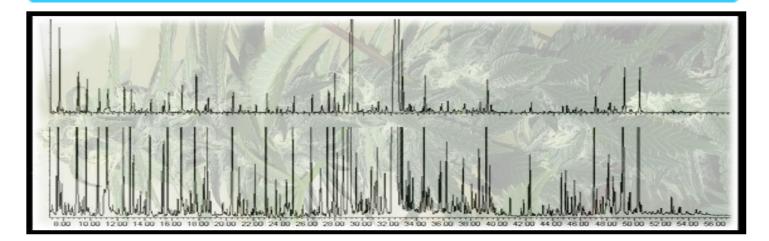
## Cannabis Quality Control

Hemp, CBD (cannabidiol) rich cannabis varieties and/or CBD containing products that enters the market as raw material or end product has to be legal and safe for use. Especially the level of the psychoactive compound THC (tetrahydrocannabinol) should not exceed the levels defined by law. In addition these products must meet a set of quality and safety criteria with respect to toxins, pesticides and heavy metals.

Fytagoras BV is a company in the Leiden BioScience Parc with more than 20 years experience in cannabis and hemp research and services and is licenced by the Dutch Opium Law. Fytagoras BV offers all required chemical analysis for quality control of your cannabis or hemp products according to the requirements of the Dutch Government and following the guidelines of the European Pharmacopoeia. Fytagoras is officially licensed and registered for the analysis of cannabis and Hemp.

### CQC services provided by Fytagoras

- Quantification of the content of  $\Delta^9$  tetrahydrocannabinol (THC) in CBD by means of HPLC
- Determination of the presence of aflatoxins G1, G2, B1 and B2 in CDB
- Determination of the presence of heavy metals (Copper, Zinc, Arsenic, Mercury, Lead, Nickel, Cadmium) in CBD
- Determination of the presence of pesticides in CBD
- Other types of analysis upon request
- Official data report



## Additional Services provided by Fytagoras (upon request)

- Safe data and sample storage service for later reference.
- Full metabolic profiling of cannabinoids, terpenoids and flavonoids,
- Monitoring plant performance and climate conditions on your growing locations
- Cannabis seed production



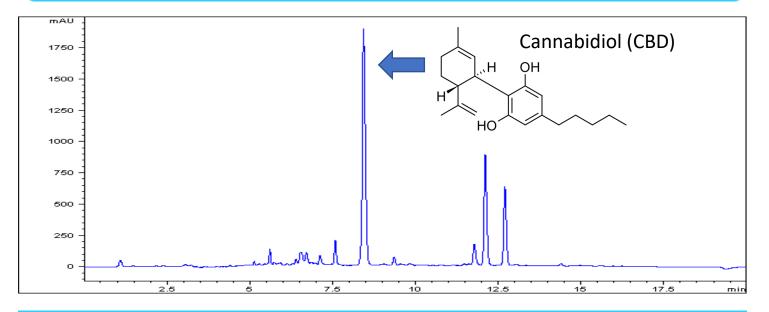
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#### **General Procedure**

- Cannabis, hemp or CBD product sample intake and documents and permits check.
- Samples must be free from germs and mould spores, otherwise it will be destroyed.
- Sample passing the intake test will be registered under an unique number.
- Samples will be prepared for analysis and next analytical tests will be done.
- All data will be linked to the unique sample number.
- The report is generated and sent to the customer.
- The report can be used for auditing authorities and also to inform the customers about the quality of their cannabis or hemp product.

#### **CBD** Analysis

The level of CBD (Cannabidiol) is one of the major quality hallmarks for consumers. CBD is responsible for therapheutical effects with no hallucinating side effects. Nowadays a broad spectrum of cannabis and hemp varieties are available with a broad variety in the level of CBD. Both from consumers and regulatory perspective it is important to monitor the quality level of CBD of your product.



#### **Aflatoxins Analysis**

Aflatoxins are poisonous and carcinogenic. There are legal provisions for the maximum safe levels of these compounds in the product. The amount of aflatoxins is partly determined by processing and storage. While fungi in the product contribute to the presence of aflatoxins, cannabis or hemp itself also produces various aflatoxins. It is very important that the concentration does not exceed the limits as established by the Food and Consumer Product Safety Authority (NVWA).



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#### **Heavy Metals Analysis**

Heavy metals is a collective term for metals such as cadmium, mercury, lead, arsenic, nickel and zinc. They can enter your body when carried by cannabis or hemp products. High concentrations of heavy metals are harmful to health. It is important that the concentration does not exceed the limits as established by the Food and Consumer Product Safety Authority (NVWA)

#### **Pesticides Analysis**

Pesticides is a collective name for chemical compounds that are used to protect plant and plant products against harmful organisms (fungi, insects etc.). The compounds can be present as residues on the cannabis or hemp plants and flower tops. A high of a concentration of these residues are harmful to health. It is important that the concentrations of pesticides remain as low as possible and does not exceed the limits as established by the Food and Consumer Product Safety Authority (NVWA). In addition, pesticides that are illegal for use in plant cultivation must be absent.

#### Report

After finishing all analysis, a final report referring to the unique sample numbers will be generated and reviewed. The final version will be signed and send to the customer.

Upon request Fytagoras offers a safe data and sample storage service for later reference.

### Fytagoras' other expertise in Cannabis and Hemp

- Production and sales of cannabinoid reference compounds
- Development of purification protocols for cannabis and hemp ingredients (phenols, cannabinoid terpenes, etc)
- Valorisation of cannabis waste flows
- In vivo and in vitro tests to determine the bioactivity and medicinal application of cannabis or hemp extracts and purified substances
- Cannabis or hemp breeding and breeding programmes (producing doubled haploids homozygous plants)
- Risk analysis in legal matters

The specifications provided are correct to the best of our knowledge and while we endevour to keep up-to-date and correct according the state of art, we make no representations or warranties of any kind.



Cannabis QC CB D