

MINNESOTA DEPARTMENT OF PUBLIC SAFETY BUREAU OF CRIMINAL APPREHENSION

DELTA-9-TETRAHYDROCANNABINOL (THC) QUANTITATION IN PLANT MATERIAL, LIQUIDS AND CONCENTRATES

FREQUENTLY ASKED QUESTIONS

Why quantitate THC?

- Marijuana and hemp cannot be differentiated by appearance or aroma. The 2019 Minnesota Statutes (18K.02) define Industrial Hemp as:
 - "Industrial hemp" means the plant *Cannabis sativa* L. and any part of the plant, whether growing or not, including the plant's seeds, and all the plant's derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9-tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis. Industrial hemp is not marijuana as defined in section [152.01, subdivision 9](#).

What is THC quantitation?

- THC quantitation is the process used to determine the concentration of delta-9-tetrahydrocannabinol in a particular substance. The BCA FSS utilizes High Performance Liquid Chromatography (HPLC), which is a well-established technique for the separation of cannabinoids and the quantitation of THC. Quantitation is performed after the presence of THC has been confirmed using standard processes.

What types of evidence will be quantitated?

- Quantitation of delta-9-THC will be limited to plant material samples, liquid samples (e.g. oils, "vape" cartridges, etc.), and concentrates (e.g. waxes) with a written statement from the prosecuting attorney requesting quantitation for court. The jury or court trial date must be included. If delta-9-THC is not identified in the sample, quantitation will not be performed.

What types of evidence will not be quantitated?

- Quantitation of delta-9-THC will not be performed on liquid (e.g. oils, "vape" cartridges) or concentrates (e.g. waxes) if submitted without a jury or court trial date. These items may still be submitted for THC identification, but a concentration will not be reported.
- Quantitation of delta-9-THC will not be performed on residues, edibles, or paraphernalia at this time by the BCA. These items may still be submitted for THC identification, but a concentration will not be reported. Quantitation services may be available by independent laboratories. Please contact the BCA FSS for further information.

What are the case submission requirements for plant material?

- Quantitation will be performed for felony amounts (>42.5 grams) of plant material.
- **All** plant material cases (felony and non-felony) **must** have a jury or court trial date scheduled with a written statement from the prosecuting attorney requesting quantitation. The date of the jury or court trial must be included.
- Cases **must** be received a minimum of thirty (30) business days prior to the court date. **NOTE:** 30 business days still may not be sufficient notice for completion of testing in time for trial during periods of high demand for THC quantitation services.

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- Non-felony level marijuana cases (<42.5 grams) submitted as suspected marijuana will be prioritized below other felony level controlled substance cases. The cases may not be completed in time for trial if court dates are within six months of submission. Quantitation of THC may not be performed.

What are the case submission requirements for liquids (e.g. oils, “vape” cartridges) and concentrates (e.g. waxes)?

- Submission of liquid or concentrate cases does **not** require a jury or court trial date. However, the analysis of liquid or concentrate cases varies depending on if there is a trial date or not.
- Liquid or concentrate cases submitted **without** a jury or court trial date will not be quantitated, but will have the predominant cannabinoid reported. If the predominant cannabinoid identified is delta-9-THC, quantitation can be performed once a jury or court trial date is scheduled. Please note that the evidence must be returned to the laboratory with the quantitation request from the prosecuting attorney a minimum of thirty (30) business days prior to the court date.
- Liquid or concentrate cases submitted **with** a jury or court trial date and received a minimum of thirty (30) business days prior to the court date with a written statement from the prosecuting attorney requesting quantitation will include THC quantitation if delta-9-THC is identified.

What if the case submission has several items?

- If several items are submitted, analysis will generally be performed only on the number of items necessary to reach the maximum charging level. With some requests, the laboratory may coordinate with the prosecuting attorney to determine the extent of testing necessary, considering factors such as statutory thresholds, time to perform the analysis and efficient use of resources.

How will the results be reported?

- Reports will include a weight and volume for each item/sub-item that is tested.
- **Plant material items greater than 42.5 grams identified as cannabis containing delta-9-THC** will be reported as one of the following (concentration dependent):
 - cannabis containing delta-9-tetrahydrocannabinol (not detected above the quantitative reporting limit of 0.13%)
 - cannabis containing delta-9-tetrahydrocannabinol ($X \pm y\%$)
 - cannabis containing delta-9-tetrahydrocannabinol (greater than 10%)
 - **NOTE:** Quantitative results for plant material samples are reported on a dry weight basis.
- **Plant material items greater than 42.5 grams identified as cannabis not containing delta-9-THC** will not be quantitated and will be reported as:
 - cannabis containing [*insert predominant cannabinoid*]
- **Non-felony plant material items (less than 42.5 grams) identified as cannabis** will be prioritized below other felony level controlled substance cases. If a report is issued without quantitation, the wording will be one of the following:
 - cannabis containing [*insert predominant cannabinoid*]

FREQUENTLY ASKED QUESTIONS

- cannabis containing delta-9-tetrahydrocannabinol (Quantitation not performed at this time. If quantitation is needed, please resubmit the evidence with a request from the County Attorney's Office.)
- **Liquid items submitted with a jury or court trial date and containing delta-9-THC** will be reported as one of the following (concentration dependent):
 - containing delta-9-tetrahydrocannabinol (not detected above the quantitative reporting limit of 0.13%)
 - containing delta-9-tetrahydrocannabinol ($X \pm y\%$)
 - containing delta-9-tetrahydrocannabinol (greater than 10%)
 - **NOTE:** Quantitative results for liquids/oils are reported "as received."
- **Liquid items submitted without a jury or court trial date and containing delta-9-THC** will be reported as:
 - containing delta-9-tetrahydrocannabinol (Quantitation not performed at this time. If quantitation is needed, please resubmit the evidence a minimum of thirty (30) business days prior to the court date with a request from the County Attorney's Office.)
- **Liquid items in which delta-9-THC is not identified** will not be quantitated and will be reported as:
 - containing [*insert predominant cannabinoid, if applicable*]
- **Concentrate items submitted with a jury or court trial date and containing delta-9-THC** will be reported as one of the following (concentration dependent):
 - containing delta-9-tetrahydrocannabinol (not detected above the quantitative reporting limit of 0.13%)
 - containing delta-9-tetrahydrocannabinol (greater than 0.5%)
 - containing delta-9-tetrahydrocannabinol (less than 0.5%) (unable to confirm a delta-9-tetrahydrocannabinol concentration greater than 0.3%)
- **Concentrate items submitted without a jury or court trial date and containing delta-9-THC** will be reported as:
 - containing delta-9-tetrahydrocannabinol (Quantitation not performed at this time. If quantitation is needed, please resubmit the evidence a minimum of thirty (30) business days prior to the court date with a request from the County Attorney's Office.)
- **Concentrate items in which delta-9-THC is not identified** will not be quantitated and will be reported as:
 - containing [*insert predominant cannabinoid, if applicable*]
- **Edible/Other items containing delta-9-THC** will not be quantitated and will be reported as:
 - containing delta-9-tetrahydrocannabinol (quantitation not available at this time)

FREQUENTLY ASKED QUESTIONS

- **Edible/Other** items in which delta-9-THC is not identified will not be quantitated and will be reported as:
 - containing [*insert predominant cannabinoid, if applicable*]

If you have additional questions relating to THC quantitation, please contact the BCA FSS Chemistry Management Team.

Allison Hursh, Assistant Laboratory Director

Allison.Hursh@state.mn.us or 651-793-2873

Eric Grunwald, Chemistry Supervisor

Eric.Grunwald@state.mn.us or 651-793-2871

Violet Stephens, Chemistry Supervisor

Violet.Stephens@state.mn.us or 651-793-2862