**Section 1300.700 Laboratory Testing**

a) Immediately prior to manufacturing or natural processing of any cannabis or cannabis-infused product or packaging cannabis for sale to a dispensary, each batch shall be made available at the cultivation center, craft grower, or infuser, for an employee of an approved laboratory to select a random sample, which shall be tested by the approved laboratory for:

1) Microbiological contaminants;

2) Mycotoxins;

3) Pesticide active ingredients;

4) Residual solvent;

5) Heavy metals; and

6) An active ingredient analysis.

b) The Department may select a random sample that, for the purposes of conducting an active ingredient analysis, shall be tested by the Department for verification of label information.

c) A representative sample must be a minimum sample volume of not less than 7 grams, but is not required to be more than 15 grams per batch, and must consist of different parts of the batch to ensure proportionate representation.

d) Batch limits for cured flower are limited to a maximum of 20 pounds.

e) A representative sample shall be taken from each final batch of product and must pass all testing requirements before offered for sale to the public.

f) A laboratory shall immediately return or dispose of any cannabis upon the completion of any testing, use or research. If cannabis is disposed of, it shall be done in compliance with 8 Ill. Adm. Code 100.460.

g) If a sample of cannabis does not pass the microbiological, mycotoxin, pesticide chemical residue, heavy metals, or solvent residue test, based on the standards set forth in this Section, the following shall apply:

1) If the sample failed the pesticide chemical residue test, the entire batch from which the sample was taken shall be recalled, as provided for in the cannabis business organization's Operations and Management Plan, if applicable, and disposed of in accordance with Subpart I (Destruction of Cannabis).

2) If the sample failed any other test, the batch may be used to make a CO2 or solvent based extract. After processing, the CO2 or solvent based extract must still pass all required tests.

h) Microbiological Test

1) For purposes of the microbiological test, a cannabis sample shall be deemed to have passed if it satisfies the recommended microbial and fungal limits for cannabis products in colony forming units per gram (CFU/g) set out in the American Herbal Pharmocopoeia Monograph Table, as follows:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Total viable aerobic bacteria** | **Total yeast and mold** | **Total coliforms** | **Bile-tolerant gram-negative bacteria** | **E. coli (pathogenic strains) and Salmonella spp.** |
| **CO2 and solvent based extracts** | 104 | 103 | 102 | 102 | Not detected in 1 g |

2) Unprocessed materials include minimally processed crude cannabis preparations, such as inflorescences, accumulated resin glands (kief), and compressed resin glands (hashish). Processed materials include various solid or liquid infused edible preparations, oils, topical preparations, and water-processed resin glands (bubble hash).

i) Mycotoxin Test. For purposes of the mycotoxin test, a cannabis sample shall be deemed to have passed if it meets the following standards:

|  |  |
| --- | --- |
| **Test** | **Specification** |
| Aflatoxin B1 | <20 µg/kg of substance |
| Aflatoxin B2 | <20 µg/kg of substance |
| Aflatoxin G1 | <20 µg/kg of substance |
| Aflatoxin G2 | <20 µg/kg of substance |
| Ochratoxin A | <20 µg/kg of substance |

j) Heavy Metals Test. For the purposes of the heavy metals test, a cannabis sample shall be deemed to have passed if it meets the following standards:

**Heavy Metal Specification**

Lead <1.0 ppm for all products

Inorganic Arsenic <0.4 ppm for inhaled products

<1.5 ppm for other products

Mercury <0.2 ppm for inhaled products

<3.0 ppm for other products

Cadmium <0.2 ppm for inhaled products

 <0.5 ppm for other products

Chromium <0.6 ppm for inhaled products

 <2.0 ppm for other products

k) Pesticide Chemical Residue Test. For purposes of the pesticide chemical residue test, a cannabis sample shall be deemed to have passed if it satisfies the most stringent acceptable standard for a pesticide chemical residue in any food item, as set forth in subpart C of USEPA's regulations for Tolerances and Exemptions for Pesticide Chemical Residues in Food (40 CFR 180 (2014)).

l) Residue Solvent Test. For purposes of the residue solvent test, a cannabis sample shall be below the following limits.

|  |  |  |
| --- | --- | --- |
|  | Intended for Inhalation | Not Intended for Inhalation |
| Acetone | 750 ppm | 5000 ppm |
| Butane | 800 ppm | 5000 ppm |
| Ethanol | 1000 ppm | 5000 ppm |
| Ethyl Acetate | 400 ppm | 5000 ppm |
| Ethyl Ether | 500 ppm | 5000 ppm |
| Ethylene Oxide | 5 ppm | 50 ppm |
| Heptane | 500 ppm | 5000 ppm |
| Hexane | 50 ppm | 290 ppm |
| Isopropyl Alcohol | 500 ppm | 5000 ppm |
| Methanol | 250 ppm | 3000 ppm |
| Methylene Chloride | 125 ppm | 600 ppm |
| Pentane | 750 ppm | 5000 ppm |
| Petroleum Ether | 400 ppm | 400 ppm |
| Propane | 2100 ppm | 5000 ppm |
| Trichloroethylene | 25 ppm | 80 ppm |
| Toluene | 150 ppm | 890 ppm |
| Total Xylenes | 150 ppm | 2170 ppm |

m) The laboratory shall file with the Department an electronic copy, at the same time that it transmits those results to the cultivation center, of each laboratory test result for any batch that does not pass the microbiological, mycotoxin, heavy metals, or pesticide chemical residue test. In addition, the laboratory shall maintain the laboratory test results for at least 5 years and make them available at the Department's request.

n) A cultivation center shall provide to a dispensary organization the laboratory test results for each batch of cannabis product purchased by the dispensary organization, if sampled. Each dispensary organization shall have those laboratory results available upon request from purchasers of cannabis and cannabis products.