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- (C) Certified labs may combine in equal parts multiple samples from the same flower lot for the purposes of the following tests after the individual samples have been tested for potency analysis.
- (c) **Moisture analysis.** The sample and related lot or batch fails quality assurance testing for moisture analysis if the results exceed the following limits:
 - (i) Moisture content more than twelve percent.
- (d) **Filth and Foreign matter screening.** A laboratory shall analyze all samples for filth and foreign material present in the sample. "Filth and foreign material" includes but is not limited to hair, insects, feces, packaging contaminants, and manufacturing waste and by-products. The sample and related lot or batch fail quality assurance testing for foreign matter screening if the results exceed the following limits:
 - (i) Five percent of stems 3mm or more in diameter; and
 - (ii) Two percent of seeds or other foreign matter.
 - (iii) Mold or foreign material
 - (iv) Mammalian Excreta
- (e) **Microbiological screening.** The sample and related lot or batch fail quality assurance testing for microbiological screening if the results exceed the following limits:
 - (i) Salmonella: P/F
 - (ii) E. Coli: 10 CFU/g;
- (f) **Mycotoxin screening.** The sample and related lot or batch fail quality assurance testing for mycotoxin screening if the results exceed the following limits:
 - (i) Total of Aflatoxin B1, B2, G1, G2: 20 μg/kg of substance; and
 - (ii) Ochratoxin A: 20 μg/kg of substance.
- (g) **Residual solvent screening.** Except as otherwise provided in this subsection, a sample and related lot or batch fail quality assurance testing for residual solvents if the results exceed the limits provided in the table below.

| Solvent* | ppm |
|-----------------|-------|
| Acetone | 5,000 |
| Benzene | 2 |
| Butanes | 5,000 |
| Cyclohexane | 3,880 |
| Chloroform | 2 |
| Dichloromethane | 600 |
| Ethyl acetate | 5,000 |
| Heptanes | 5,000 |



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| Solvent* | ppm |
|-----------------------------|-------|
| Hexanes | 290 |
| Isopropanol (2-propanol) | 5,000 |
| Methanol | 3,000 |
| Pentanes | 5,000 |
| Propane | 5,000 |
| Toluene | 890 |
| Xylene** | 2,170 |

^{*}And isomers thereof.

(h) **Pesticides.** A sample and related lot or test batch fail quality assurance testing for pesticides if the results exceed the limits provided in the table below.

| Pesticides | | | |
|----------------------|--|--|---------------------------|
| Analyte | Chemical Abstract Services (CAS) Registry Number | Action Level ppm; Unprocessed/Dry Flower | Action Level ppm; Extract |
| Abamectin | 71751-41-2 | 0.5 | 2.5 |
| Acequinocyl | 57960-19-7 | 2 | 10 |
| Bifenazate | 149877-41-8 | 0.2 | 1 |
| Bifenthrin | 82657-04-3 | 0.2 | 1 |
| Chlormequat chloride | 999-81-5 | 1 | 5 |
| Cyfluthrin | 68359-37-5 | 1 | 5 |
| Daminozide | 1596-84-5 | 1 | 5 |
| Etoxazole | 153233-91-1 | 0.2 | 1 |
| Fenoxycarb | 72490-01-8 | 0.2 | 1 |
| Imazalil | 35554-44-0 | 0.2 | 1 |
| Imidacloprid | 138261-41-3 | 0.4 | 2 |
| Myclobutanil | 88671-89-0 | 0.2 | 0.6 |
| Paclobutrazol | 76738-62-0 | 0.4 | 2 |
| Permethrins † | 52645-53-1 | 0.2 | 1 |
| Spinosad | 168316-95-8 | 0.2 | 1 |

^{**}Usually 60% *m*-xylene, 14% *p*-xylene, 9% *o*-xylene with 17% ethyl benzene.



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| Spiromesifen | 283594-90-1 | 0.2 | 1 |
|-----------------|-------------|-----|---|
| Spirotetramat | 203313-25-1 | 0.2 | 1 |
| Trifloxystrobin | 141517-21-7 | 0.2 | 1 |

^{*} Permethrins should be measured as cumulative residue of cis- and trans-permethrin isomers (CAS numbers 54774-45-7 and 51877-74-8).

(i) **Heavy metal screening (random schedule to be determined by DPHHS).** A sample and related lot or batch fail quality assurance testing for heavy metals if the results exceed the limits provided in the table below.

| Metal | μ/daily dose (5 grams) |
|-------------------|---------------------------|
| Inorganic arsenic | 10.0 |
| Cadmium | 4.1 |
| Lead | 6.0 |
| Mercury | 2.0 |

- (2) **Quality assurance testing required.** The following quality assurance tests are the minimum required tests for each of the following marijuana end products, respectively. Licensees and certified labs may elect to do multiple quality assurance tests on the same lot or testing for mycotoxin, pesticides, or heavy metals.
 - (a) General quality assurance testing requirements for certified labs.
- (i) Certified labs must record an acknowledgment of the receipt of samples from producers or processors in the DPHHS seed to sale traceability system. Certified labs must also verify if any unused portion of the sample was destroyed or returned to the licensee after the completion of required testing.
- (ii) Certified labs must fail a sample if the results for any limit test are above allowable levels regardless of whether the limit test is required in the testing tables in this section.
- (b) **End products.** All marijuana, marijuana-infused products, marijuana concentrates, marijuana mix packaged, and marijuana mix infused end products require the following quality assurance tests:

| Product | Test(s) Required End Products |
|------------------|--|
| Marijuana Flower | Potency, Pesticide, Mycotoxin, Moisture Content, |

[†] Pyrethrins should be measured as the cumulative residues of pyrethrin 1, cinerin 1 and jasmolin 1 (CAS numbers 121-21-1, 25402-06-6, and 4466-14-2 respectively).





| Product | Test(s) Required End Products |
|---|---|
| | Microbiological, Filth and Foreign Matter Screening, Random Heavy Metals |
| Trim | Potency, Pesticide, Mycotoxin, Moisture Content, Microbiological, Filth and Foreign Matter Screening, Random Heavy Metals |
| Concentrate for edible | Potency, Pesticide, Mycotoxin, Residual Solvents, Microbiological, Random Heavy Metals |
| Infused edible | Potency |
| Infused topical | Potency |
| Marijuana mix packaged (loose or rolled) | Potency, Pesticide, Mycotoxin, Moisture Content, Microbiological, Filth and Foreign Matter Screening, Random Heavy Metals |
| Concentrate or marijuana-infused product for inhalation | Potency, Pesticide, Mycotoxin, Residual Solvents |
| Capsules | Potency |
| Tinctures | Potency |



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- (i) No lot of usable flower, batch of marijuana concentrate, or batch of marijuana-infused product may be sold or transported until the completion and successful passage of quality assurance testing as required in this section, except:
 - (4) Samples, lots, or batches that fail quality assurance testing.
- (a) **Retesting.** At the request of the licensee or lab, DPHHS may authorize a retest to validate a failed test result on a case-by-case basis. All costs of the retest will be borne by the provider or lab requesting the retest. Potency retesting will generally not be authorized.
- (b) **Remediation.** Licensees may remediate failed harvests, lots, or batches so long as the remediation method does not impart any toxic or deleterious substance to the usable marijuana, marijuana concentrates, or marijuana-infused product. The entire harvest, lot, or batch the failed sample(s) were deducted from must be remediated using the same remediation technique. No remediated harvest, lots or batches may be sold or transported until the completion and successful passage of quality assurance testing as required in this section.
- (5) Certified labs are not limited in the amount of usable marijuana and marijuana products they may have on their premises at any given time, but a certified lab must have records proving all marijuana and marijuana-infused products in the certified lab's possession are held only for the testing purposes described in this section.
- (6) Upon the request of DPHHS, a licensee or a certified lab must provide samples of marijuana or marijuana products or samples of the growing medium, soil amendments, fertilizers, crop production aids, pesticides, or water for random compliance checks. Samples may be screened for pesticides and chemical residues, unsafe levels of heavy metals, and used for other quality assurance tests deemed necessary by the DPHHS.