NEVADA CANNABIS ASSOCIATION

January 30, 2024

Cannabis Compliance Board
700 Warm Springs Road, Suite 100
Las Vegas, NV 89119

Via email to: *regulations@ccb.nv.gov*

Subject: Solicitation of Input on Regulations

Dear Cannabis Compliance Board Members and Director Humm,

On behalf of the Nevada Cannabis Association, thank you for this opportunity to submit comments in response to the Solicitation of Input on the Nevada Cannabis Compliance Regulations (NCCR).

Regulation 1. Issuance of Regulations; Construction; Definitions

Lot sizes are defined in NCCR 1.125 as five pounds of flower and 15 pounds of trim. Nevada's lot sizes were adopted nearly a decade ago and are ripe for review.

As an early state to legalize medical marijuana, Nevada set the maximum lot size for flower in 2014 at a very conservative five pounds. Notably, of the dozens of states to legalize cannabis after Nevada, almost none of them have adopted Nevada's five-pound lot size. Yet, it is without question that other states are providing customers with safe, accurately tested cannabis products.

Now, with a body of data from other states and advances in testing over the past ten years, it warrants review whether the current limits for flower and trim are overly restrictive. Maryland, for example, recently increased its flower lot sizes from 10 pounds to 20 pounds, and in doing so provided technical guidance for laboratories on procedures for increasing sampling to accommodate the larger lots. Having larger lot sizes greatly simplifies inventory management for cultivators, production, and retail licensees. Even if labs do not decrease their testing costs, the increases in efficiency would have an impact across the supply chain.

The discussion of lot sizes, testing requirements, and sampling protocols could be assigned to a workgroup or committee, similar to the Science and Policy Workgroup that Colorado's MED created in 2018. Such a workgroup could involve stakeholders across the industry, including CCB staff, independent testing laboratories, cultivation, production, and retail licensees, policymakers, and public health officials.

Regulation 4. Disciplinary and Other Proceedings Before the Board

Unlicensed Activities

The entire foundation of the legal market is weakened by unlicensed businesses selling cannabis and intoxicating hemp products. In Senate Bill 328, the Legislature directed the CCB to adopt new regulations related to unlicensed cannabis sales. The Legislature expanded the Board's powers under NRS 678A.440 to include, "Imposing penalties against persons who engage in unlicensed cannabis activities in accordance with the regulations."

Further, the Legislature directed that:

> The Board shall adopt regulations providing for the investigation of unlicensed cannabis activities and the imposition of penalties against persons who engage in such activities. Such regulations must, without limitation:
> (a) Establish penalties to be imposed for unlicensed cannabis activities, which may include, without limitation, the issuance of a cease and desist order or citation, the imposition of an administrative fine or civil penalty and other similar penalties.
> (b) Set forth the procedures by which the Board may impose a penalty against a person for engaging in unlicensed cannabis activities.
> (c) Set forth the circumstances under which the Board is required to refer matters concerning unlicensed cannabis activities to an appropriate state or local law enforcement agency.

Senate Bill 328, Sec. 1.7 (2023).

Before any new violations are added for licensees, we would like to see the CCB adopt disciplinary violations for the production and sale of unlicensed cannabis and intoxicating hemp products. Further, California's innovative Cannabis Administrative Prosecutor Program (CAPP) could be a model for state and local partnerships in Nevada that strengthen the administrative enforcement of unlicensed commercial cannabis activity.

Adjudicating Contested Cases

To the extent that the removal of the exemption from the Administrative Procedure Act (APA) results in some uncertainty in adjudicating contested cases, it would be beneficial for the Board to clarify the regulations where necessary. For example, under NCCR 4.110, licensees previously had fewer rights with respect to discovery and depositions than they would have had under NRS Chapter 233B. A thorough review of the disciplinary hearing process under NCCR 4 should be undertaken to ensure that the regulations align with the APA.

Regulation 5. Licensing, Background Checks, and Registration

Agent Cards

We would encourage streamlining the agent card application process for holders of multiple cards. Currently, full separate applications and renewals must be completed for each card. Additionally, the requirement for multiple physical cards should be removed to allow for a single card with multiple endorsements. Additionally, the Board should consider extending the agent card expiration from two years to five years. Sheriff's cards, for example, are valid for five years.

Regulation 6. Production and Distribution of Cannabis

Education

NCCR 6.072 requires a cannabis establishment to provide training in the basic fundamentals of possession, sales, security, recognizing overconsumption, and product knowledge. It would be

excellent for this training to be standardized and offered by the CCB (online and asynchronously) to new agent card holders.

Education is fundamental to a compliant industry, and we would like to see additional training provided by the CCB for licensees and employees. The Audit and Inspections team already does an excellent job responding to questions, providing written guidance, and helping to clarify ambiguities. Written guidance, webinars, pre-recorded videos, and in-person meetings are all helpful in conveying important compliance information and updates to thousands of front-line employees. In this area, more is always better.

Senate Bill 328 stated that the Board may adopt regulations related to education and outreach. These would include implementing training and certification procedures for employees of the Board to complete before conducting an inspection or audit. Although the Legislature stopped short of *requiring* that the CCB adopt regulations related to education and outreach, the language reflects a desire to increase educational opportunities for both staff and licensees.

Regulation 7. Cannabis Sales Facility

Delivery

With the increase in sales and possession limits and the merger of adult use and medical licenses, it would be timely to review the amount that delivery drivers may carry in a single trip, as set forth in NCCR 7.050. Currently, the maximum is five ounces for adult use customers and 10 ounces for medical customers. If a per-trip limit is adopted at all, it should be at least 10 ounces. Increasing the amount of cannabis a retail store may deliver in one trip is much more economical and environmentally friendly because it decreases the number of return trips to the store. This is especially relevant in rural areas, where the distance between deliveries can be significant.

Incident Reporting Requirements

Incident reporting times across the NCCRs should be reviewed for practicability and updated as necessary. One such requirement is to report a vehicle crash during delivery within 12 hours of the occurrence (NCCR 7.050(9)). Such a quick turnaround time for reporting is overly burdensome on the licensee. The licensee's priority should be in ensuring the safety of the employees and the safe handling of the product. As long as prompt action by the licensee follows identification of the incident, the licensee should be granted a reasonable time in which to process, document, and then report back to the CCB.

Thank you for providing this opportunity to discuss potential revisions to the regulations. We appreciate your consideration of these comments.

Respectfully,

Layke A. Martin, Esq.
Executive Director, Nevada Cannabis Association

From:	Sherman Hom
To:	CCB Regulations
Subject:	Recommendations for the modification of cannabis microbial testing rules
Date:	Tuesday, January 30, 2024 3:53:19 PM
Attachments:	Recommendation letter 1-2024 to NV CCB - Modifying Micro testing rules.pdf Sherman Hom Cannabis Experience 10-3-23.pdf

---

Chair Fralick
I would like to take this opportunity to commend you, the other members of the Cannabis Compliance Board, and the Board staff in the implementation and continuous improvement of your state's Adult Use and Medical Cannabis Programs.

I have attached our recommendations for the modification of your state's microbial testing rules.

I have also attached a brief document describing my 13+ years of experience in the Cannabis testing and Cannabis testing regulations sectors.

If you or anyone else at the CCB have any questions, please contact me.
Respectfully,
Dr. Hom

--
Sherman Hom, PhD
Director of Regulatory Affairs
Medicinal Genomics

Direct: Cell: [redacted]
Web: www.medicinalgenomics.com | www.kannapedia.net | www.psilocydia.net |
E-mail: [redacted]

100 Cummings Center - Suite 406L | Beverly, MA 01915

January 30, 2024

Adriana Guzmán Fralick
Chair
Nevada Cannabis Compliance Board

Dear Chair Fralick
As industry leaders in cannabis and pathogen genomics, we have spent decades working with quantitative polymerase chain reaction (qPCR) and culture-based methods for the detection of microorganisms. We are experts in the field with over 40 patents related to PCR and DNA sequencing based methods for detecting microorganisms. Kevin McKernan, Chief Scientific Officer at Medicinal Genomics Corporation (MGC) managed the Research and Development team for the Human Genome Project at the Whitehead Institute of MIT. He has over 60,425 citations related to his work in this field. Our scientists recommend microbial testing specifications that will ensure that medical and adult use cannabis plant material and manufactured products are safe for patients and consumers. Due to concerns for public health and consumer safety, the Cannabis Compliance Board should consider modifying the required microbial testing rules to reflect ongoing efforts at AOAC International, ASTM International, the United States Pharmacopeia (USP), the Centers of Disease Control and Prevention (CDC), and the United States Food and Drug Administration (FDA) that are consistent with our findings at MGC.

The presence of microorganisms is common on plants, such as cannabis. One must be able to differentiate between harmless & beneficial microbes (bacteria, yeasts, and fungi [molds]) ubiquitous in nature and those that are human pathogens that have contaminated the cannabis plant material and/or manufactured products. Examples of pathogens that have caused human illness affiliated with cannabis use are *Salmonella* species, Shiga toxin producing *E. coli* (STEC), and the four *Aspergillus* species (*A. flavus, A. fumigatus*, *A. niger*, and *A. terreus*) [1-25].

Current required tests for microbial contamination in states that have medical cannabis programs vary among the states. Some states require different combinations of total count tests, such as Total Aerobic Count (TAC), Total Yeast & Mold (TYM), Total Coliforms (TC), and Total Enterobacteriaceae (TE) along with the six human pathogens listed above with various action levels for each test and each cannabis product type. On the other hand, some states, such as California, Montana, and Vermont only require tests for detecting the human pathogens *Salmonella* spp., STEC, *A. flavus*, *A. fumigatus*, *A. niger*, and *A. terreus* for inhalable products. **NOTE:** Total count tests have action levels as colony forming units (cfu/g), which is the number of colonies that grow on the surface of an agar medium plate. Specific pathogen tests have an action level of either " <1 cfu/g or Not detected".

REGULATION 11 CANNABIS INDEPENDENT TESTING LABORATORY, 11.050 Required quality assurance tests; submission of wet cannabis for testing, 2. The tests required pursuant to subsection 1 by a cannabis independent testing laboratory are as follows: [26]

Microbial Test	Sample type (see under the table)
Total Enterobacteriaceae	<1,000 colony forming units/gram
Total Coliforms	<1,000 colony forming units/gram
Total Yeast and Mold	<10,000 colony forming units/gram
Salmonella spp.	None detected per gram
Pathogenic *E. coli*	None detected per gram
Aspergillus flavus	None detected per gram
Aspergillus fumigatus	None detected per gram
Aspergillus niger	None detected per gram
Aspergillus terreus	None detected per gram

Sample type: Usable cannabis, infused pre-rolls and crude collected resins, as received, and wet cannabis, as received, which is destined for extraction.

Microbial Test	Sample type (see under the table)
Total Enterobacteriaceae	<100 colony forming units/gram
Total Yeast and Mold	<1,000 colony forming units/gram
Salmonella spp.	None detected per gram
Pathogenic *E. coli*	None detected per gram
Aspergillus flavus	None detected per gram
Aspergillus fumigatus	None detected per gram
Aspergillus niger	None detected per gram
Aspergillus terreus	None detected per gram

Sample type: Extract of cannabis (nonsolvent) like hashish, bubble hash, infused dairy butter, mixtures of extracted products or oils or fats derived from natural sources, including concentrated cannabis extracted with ethanol or CO2; Extract of cannabis (solvent-based) made with any approved solvent, including concentrated cannabis extracted by means other than with ethanol or CO2

Microbial Test	Sample type (see under the table)
Total Enterobacteriaceae	<1,000 colony forming units/gram
Total Aerobic Count	<100,000 colony forming units/gram
Salmonella spp.	None detected per gram
Pathogenic *E. coli*	None detected per gram

Sample type: Edible cannabis product, including a product which contains concentrated cannabis

Our first recommendation: Total microbial count tests ("indicator tests"), such as TE, TC, TYM, and TAC must be **removed**, because these tests **do not** test directly for the presence of any human pathogens that may cause illness to individuals handling or inhaling cannabis. The American Herbal Pharmacopoeia's *Cannabis* Inflorescence *Cannabis* spp. monograph [27] states that total microbial count tests **must never** be used to pass or fail a cannabis sample. In other words, total count test results **do not** provide any information about the presence of any pathogenic microorganisms in the cannabis sample, which may cause harm to patients or consumers. Moreover, there are approximately 33 commercially available biological pesticides, where the primary ingredient is either a bacterial, yeast, or mold strain that are approved for use in cannabis cultivation in 22 states, (Alabama, Alaska, Arizona, California, Colorado, Florida, Illinois, Maine, Maryland, Michigan, Minnesota, Montana, Nevada, New Hampshire, Ohio, Oregon, Pennsylvania, South Dakota, Utah, Vermont, Washington, and West Virginia). The required total count tests may cause cultivators to use toxic chemical pesticides instead of harmless biological pesticides.

Our second recommendation: Shiga-toxin producing *Escherichia coli* (STEC) **must** replace Pathogenic *E. coli*, because 1) STEC is the most pathogenic of the six pathotypes that has a minimum infection rate (MIR) of <10 cells, 2) the other 5 pathotypes have MIR that are orders of magnitude higher than STEC (*e.g.,* ~1,000,000 cells), and 3) there is no test using any technology at this time that can detect and/or identify all six pathotypes.

MGC would like to commend the Cannabis Compliance Board for including four pathogenic *Aspergillus* species (*A. flavus*, *A. fumigatus*, *A. niger*, and *A. terreus*). The United States Pharmacopeia (USP) said that "Many states with legalized cannabis markets now require that all cannabis goods intended for consumption by inhalation be tested for the four pathogenic *Aspergillus* species (*A. flavus, A. fumigatus, A. niger,* and *A. terreus*). The cannabis flowers will be used as a feedstock to make cannabis concentrates that will subsequently be used as ingredients in manufactured products that will be inhaled. When inhaled, all four of these species are known to cause a variety of immune lung disorders, ranging from asthma, allergic bronchopulmonary aspergillosis, and hypersensitivity pneumonitis to invasive and life-threatening systemic fungal infections in immunocompromised hosts." [28]

The number of states and territories that require microbial testing rules for inhaled cannabis products (flower, pre-rolls, *etc*) was 26 in 2019 [29] and 39 in 2023 [30]. A comparative analysis of the required microbial testing rules for all jurisdictions with legal cannabis programs in 2019 and in 2023 showed that the percentage of states and territory that require the detection of the pathogens listed above has increased during this 4 year period (see table below).

Microorganism ('19)	# (%)	Microorganism ('23)	# (%)	% Increase
Salmonella species	22 (85%)	*Salmonella* species	38 (97%)	12%
Pathogenic *E. coli*	12 (46%)	Pathogenic *E. coli*	11 (28%)	-18%
STEC	4 (15%)	STEC	18 (46%)	31%
Aspergillus species	8 (30%)	*Aspergillus* species	23 (59%)	29%

NOTE #1: States & territory that require STEC testing are AK, CA, CO, CT, FL, IA, MI, MS, MT, NM, NJ, NY, OK, OR, SD, VT, WA, and Guam
NOTE #2: States & territory that require pathogenic *Aspergillus* species testing are AK, AL, AZ, CA, CO, CT, DE, FL, HI, IA, MI, MO, MS, MT, NM, NJ, NV, NY, OK, SD, UT, VT, and Guam

Since other states and territories with legal cannabis programs are in the process of modifying or drafting their microbial testing rules and new states & territories will legalize medical and/or adult use cannabis in the future, we predict that the percentage of jurisdictions requiring the detection of microbial pathogens for cannabis products will continue to increase.

Our third recommendation: For the pathogens, such as *Salmonella* spp., STEC, and the four *Aspergillus* pathogens, the present action level of None detected per gram should be replaced with <1 colony forming units per gram in any situations where the sample size for testing is greater than one gram.

Since the testing regulations do not specify what methods are allowed for microbial testing, our fourth recommendation is:

"The allowable methods to detect the presence of the pathogens described earlier should be**:** An AOAC Certified Performance Test Method (PTM) that has an enrichment step with a minimum of sixteen hours (16 hrs) of incubation."

The reasons for this recommendation are outlined below.
The AOAC Cannabis Analytical Science Program (CASP) is a forum, where the science of cannabis analysis is discussed and cannabis standards and methods developed. To date, AOAC has released three (3) Standard Method Performance Requirements (SMPRs) for the six human pathogens that we have recommended for testing (see #1-3 below).

1. Detection of *Aspergillus* in Cannabis and Cannabis Products
   https://www.aoac.org/wp-content/uploads/2019/10/SMPR-2019_001.pdf
2. Detection of *Salmonella* species in Cannabis and Cannabis Products
   https://www.aoac.org/wp-content/uploads/2020/07/SMPR-2020_002.pdf
3. Detection of Shiga toxin-producing *Escherihia coli* in Cannabis and Cannabis Products
   https://www.aoac.org/wp-content/uploads/2021/02/SMPR-2020_012.pdf

Medicinal Genomics is a member of **AOAC's CASP Microbial Contaminants Working Group**. The goal and objectives of this working group are to:

- Develop Standard Method Performance Requirements (SMPR) for cannabis and hemp
- Extend a Call for Methods for each of the completed SMPRs
- Form an Expert Review Panel to review candidate methods
- Deliver consensus-based validated Performance Test Methods (PTMs) & Final Action Official Methods for the cannabis industry

Medicinal Genomics has a single AOAC Certified qPCR PTM for the detection of the 4 *Aspergillus* species in one test and has a single AOAC Certified qPCR PTM for the detection of *Salmonella* spp. & STEC in one test. The sample types for the 4 *Aspergillus* species test are flower, infused products, oils & concentrates, and hemp. Moreover, the sample types for the Sal/STEC test are flowers, oils, chocolates, and hemp. Each of these two multiplex qPCR assays were validated by an independent 3rd party cannabis testing laboratory using the various cannabis sample types.

The primary advantage of using qPCR detection assays are that these molecular tests are designed to identify unique specific DNA sequences either shared by an entire "group" of bacteria, such as all *Salmonella* species or a specific genus and species, such as STEC or the 4 different pathogenic *Aspergillus* species. If the unique DNA sequences are present, then the qPCR test will detect it. Therefore, a qPCR test is very specific, very sensitive, and possesses a rapid turnaround time (24-36 hours) *vs.* plating methods that are less specific, less sensitive, and has a very slow turnaround time of days for colonies to form on a plate. Moreover, MGC has developed a method to remove the DNA from dead cells by using a DNA nuclease enzyme, incubation, & nuclease inactivation step before amplification to detect any DNA from live pathogens [31].

Moreover, there are several major disadvantages of using plating methods to detect species specific bacterial and fungal pathogens.

- Cannabinoids, which can represent up to 30% of a cannabis flower's weight, have been shown to have antibiotic activity. Antibiotics inhibit the growth of bacteria. *Salmonella* & STEC bacteria are very sensitive to antibiotics, which may lead to a false negative result using a plating system *vs.* a positive result using a qPCR method. [32-33]
- Concerning the four *Aspergillus* species pathogens, the USP stated "Detection of pathogenic *Aspergillus* species using culture based methods is very difficult, requiring a highly trained and experienced mycologist to correctly identify these pathogens by colony appearance and morphology, as there are many nonpathogenic species of *Aspergillus* that may be indistinguishable from those that are pathogenic [28].
- Plating methods cannot detect bacterial and fungal endophytes [34-35] that live a part or all of their life cycle **inside** a plant. Examples of endophytes are the *Aspergillus* pathogens. Methods to break open the plant cells to access these endophytes for plating methods also lyse these bacterial and mold cells (killing these cells in the process). Therefore, these endophytes will never form colonies, which will lead to a false negative result using a plating system *vs.* a positive result using a qPCR method.

- Selective media for mold plating methods, such as Dichloran Rose-Bengal Chloramphenicol (DRBC) reduces mold growth; especially *Aspergillus* by 5-fold. This may lead to a false negative result for this human pathogen. In other words, although DRBC medium is typically used to reduce bacteria; it comes at the cost of missing 5 fold more molds than molecular methods. These observations were derived from study results of the AOAC emergency response validation [36].

I thank you for your time and consideration. If you have any questions, please feel free to contact me.

Respectfully,

Sherman Hom, PhD
Director of Regulatory Affairs
Medicinal Genomics Corporation

References

1. M.J. Chusid, J.A. Gelfand, C. Nutter, and A.S. Fauci, *Letter: Pulmonary aspergillosis, inhalation of contaminated marijuana smoke, chronic granulomatous disease. Annals of Internal Medicine* 82(5), 682-683 (1975). https://pubmed.ncbi.nlm.nih.gov/1094876/
2. R. Llamas, D.R. Hart, and N.S. Schneider, *Allergic bronchopulmonary aspergillosis associated with smoking moldy marihuana*. *Chest* 73 (6), 871-872 (1978). https://journal.chestnet.org/article/S0012-3692(16)61841-X/pdf
3. S. Sutton, B.L.Lum, and F.M. Torti, *Possible risk of invasive aspergillosis with marijuana use during chemotherapy for small cell lung cancer. Drug Intelligence & Clinical Pharmacy* 20(4), 289–291 (1986).
4. R. Hamadeh, A. Ardehali, R.M. Locksley, and M.K. York, *Fatal Aspergillosis associated with smoking contaminated marijuana in a marrow transplant recipient. Chest* 94(2), 432–433 (1988).
5. D.W. Denning, S.E. Follansbee, M. Scolaro, S. Norris, H. Edelstein, and D.A. Stevens, *Pulmonary aspergillosis in the Acquired Immunodeficiency Syndrome. The New England Journal of Medicine* 324(10), 652–664 (1991).
6. W.H. Marks, L. Florence, J. Lieberman, P. Chapman, D. Howard, and P. Roberts, et. al., *Successfully treated invasive pulmonary aspergillosis associated with smoking marijuana in a renal transplant recipient. Transplantation* 61(12), 1771–1774 (1996).
7. M. Szyper-Kravitz, R. Lang, Y. Manor, and M. Lahav, *Early invasive pulmonary aspergillosis in a Leukemia patient linked to Aspergillus contaminated marijuana smoking. Leukemia & Lymphoma* 42(6), 1433–1437 (2001).
8. R. Ruchlemer, M. Amit-Kohn, and D. Raveh, et. al., *Inhaled medicinal cannabis and the immunocompromised patient. Support Care Cancer* 23(3), 819–822 (2015).
9. D.W. Cescon, A.V. Page, S. Richardson, M.J. Moore, S. Boerner, and W.L., *Invasive pulmonary aspergillosis with marijuana use in a man with colorectal cancer. Journal of Clinical oncology.* 26(13), 2214–2215 (2008).
10. A. Bal, A.N. Agarwal, A. Das, S. Vikas, and S.C. Varma, *Chronic necrotising pulmonary aspergillosis*
in a marijuana addict: a new cause of amyloidosis. *Pathology* 42(2), 197–200 (2010).
11. Y. Gargani, P. Bishop, and D.W. Denning, *Too many moldy joints - marijuana and chronic pulmonary aspergillosis*. *Mediterranean Journal of Hematology and Infectious Diseases* 3, 2035-3006. Open Journal System (2011).
12. S.L. Kagen, M.D. Viswanath, P. Kurup, P.G. Sohnie, and J.N. Fink, *Marijuana smoking & fungal sensitization. The Journal of Allergy and Clinical Immunology* 71(4), 389–393 (1983).
13. S.L. Kagen, *Aspergillus: An inhalable contaminant of marihuana. The New England Journal of Medicine* 304(8), 483–484 (1981).
14. J.L. Pauly and G. Paszkiewicz, *Cigarette Smoke, Bacteria, Mold, Microbial Toxins, and Chronic Lung Inflammation. Journal of Oncology* 819129, 1-13 (2011).

15. T. L. Remington, J. Fuller, and I. Chiu. *Chronic necrotizing pulmonary aspergillosis in a patient with diabetes and marijuana use. Canadian Medical Association Journal* 187 (17), 1305-1308 (2015) DOI: https://doi.org/10.1503/cmaj.141412
16. D. Vethanayagam, E. Saad, and J. Yehya, *Aspergillosis spores and medical marijuana*. *Canadian Medical Association Journal (CMAJ) Letters* 188(3), 217 (2016). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4754188/pdf/1880217a.pdf
17. S. M. Levitz, R. D Diamond, *Aspergillosis and marijuana*. *Annals of Internal Medicine* 115(7), 578-579 (1991). https://www.acpjournals.org/doi/epdf/10.7326/0003-4819-115-7-578_2
18. B. R. Waisglass, *Aspergillosis spores and medical marijuana*. *Canadian Medical Association Journal* (CMAJ) Letters 187(14), 1077 (2015). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4592303/pdf/1871077.pdf
19. E. Faccioli, F. Pezzuto, A. D. Amore, F. Lunardi, C. Giraudo, M. Mammana, M. Schiavon, A. Cirnelli, M. Loy, F. Calabrese, and F. Rea, *Fatal Early-Onset Aspergillosis in a Recipient Receiving Lungs From a Marijuana-Smoking Donor: A Word of Caution*. *Transplant International* 35 (2022). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8883434/pdf/ti-35-10070.pdf
20. A. P, Salam and A. L. Pozniak, *Disseminated aspergillosis in an HIV-positive cannabis user taking steroid treatment*. *The Lancet Infectious Diseases* 17(8), 882 (2017). https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(17)30438-3/fulltext
21. T. E. Johnson, R. R. Casiano, J. W. Kronish, D. T. Tse, M. Meldrum, and W. Chang, *Sino-orbital aspergillosis in acquired immunodeficiency syndrome*. *JAMA Ophthalmology* 117(1), 57-64 (1999). https://jamanetwork.com/journals/jamaophthalmology/fullarticle/411373
22. K. Benedict, G. R. Thompson, and B. R. Jackson, *Cannabis Use and Fungal Infections in a Commercially Insured Population*, *United States, 2016*. *Emerging Infectious Diseases* 26(6), 1308-1310 (2020). https://wwwnc.cdc.gov/eid/article/26/6/19-1570_article
23. M. I. Shafi, S. Liaquat, and D. Auckley, *Up in smoke: An unusual case of diffuse alveolar hemorrhage from marijuana*. *Respiratory Medicine Case Reports* 25, 22-24 (2018). https://www.sciencedirect.com/science/article/pii/S221300711830008X?via%3Dihub
24. D.N. Taylor, I.K. Wachsmuth, Y.H. Shangkuan, E.V. Schmidt, T.J. Barrett, and J.S. Schrader, et. al., *Salmonellosis associated with marijuana - A multistate outbreak traced by plasmid fingerprinting. The New England Journal of Medicine* 306(21), 1249–1253 (1982).
25. *Salmonellosis traced to marijuana--Ohio, Michigan*. *Morbidity and Mortality Weekly Report* 30(7), 77-9 (1981). https://pubmed.ncbi.nlm.nih.gov/6789127/
26. REGULATION 11 CANNABIS INDEPENDENT TESTING LABORATORY https://ccb.nv.gov/wp-content/uploads/2023/03/Reg-11_v031023.pdf
27. American Herbal Pharmacopoeia's *Cannabis* Inflorescence *Cannabis* spp. Monograph https://herbal-ahp.org/online-ordering-cannabis-inflorescence-qc-monograph/

28. N. D. Sarma, A. Waye, M. A. ElSohly, P. N. Brown, E. Sytze, H.E. Johnson, R. J. Marles, J. E. Melanson, E. Russo, L. Deyton, *et.al. Cannabis Inflorescence for Medical Purposes: USP Considerations for Quality Attributes. Journal of Natural Products* 83(4), 1334–1351 (2020)
29. S. Patel, S. Nguy, and S. Hom. *Compendium and Comparison of State Medical Cannabis Testing*. *2019 North American Cannabis Summit*. Los Angeles, CA. January 2019.
30. H. Ha, D. Nair, D. Pawar, S. Chobhe, and S. Hom. *"*Trajectory-Irrational to Rational - Online COMPENDIUM of US Cannabis Microbial Testing Regulations Speeds Identification of Issues in Developing a Consensus Set of Required Tests*". ASTM Virtual Symposium on Contaminants in Hemp & Cannabis and Its Impact on Consumer Safety.* October 2023.
31. Solving qPCR's Live-Dead Problem https://www.medicinalgenomics.com/solving-the-live-dead-problem/
32. J.A. Karas, L.J.M. Wong, O.K.A. Paulin, A.C. Mazeh, M.H. Hussei, J. Li, and T. Velkov, *The Antimicrobial Activity of Cannabinoids*. *Antibiotics 9*(7), 406 (2020). https://doi.org/10.3390/antibiotics9070406
33. L. Gildea , J. Ayariga, J. Xu , R. Villafane, R. Boakai, M. Samuel-Foo, O. Ajayi, Cannabis sativa CBD Extract Exhibits Synergy with Broad-Spectrum Antibiotics against Salmonella typhimurium. https://www.preprints.org/manuscript/202209.0143/v1
34. M. Taghinasab and S. Jabaji, Cannabis microbiome and the role of endophytes in modulating the production of secondary metabolites: an overview. *Microorganisms* 2020, 8, 355, 1-16 (2020).
35. 20. P. Kusari, S. Kusari, M. Spiteller and O. Kayser, Endophytic fungi harbored in Cannabis sativa L.: diversity and potential as biocontrol agents against host plant-specific phytopathogens. *Fungal Diversity* 60, 137–151 (2013).
36. K. McKernan, Y. Helbert, L. Kane, N. Houde, L. Zhang, and S. McLaughin, *Whole genome sequencing of colonies derived from cannabis flowers & the impact of media selection on benchmarking total yeast & mold detection tools* [version 2; peer review: 2 approved]. *F1000Research*: https://f1000research.com/articles/10-624

Dr. Sherman Hom, Director of Regulatory Affairs
Medicinal Genomics Corporation (Beverly, MA)

Dr. Hom has a B.A. in Biology from the University of California at San Diego, a Ph.D. in Microbiology from University of California at Davis, and was a Postdoctoral Fellow in Molecular Genetics at Department of Biology, The John Hopkins University (Baltimore, MD).

In 2011 at the New Jersey Department of Health Division of Public Health and Environmental Laboratories, Sherman was the Project Manager that led a team of chemists that started the first Cannabis Testing Laboratory in support of the Medicinal Marijuana Program. The group of analytical chemists validated methods for the quantitation of 8 cannabinoids using HPLC UV-DAD, of various heavy metals using ICP-MS, and of aflatoxins & ochratoxin A using affinity chromatography & HPLC MS.

From 2019 to 2021, he was the Project Manager that led the team that built out the Cannabis Microbial Testing Lab and was about to validate qPCR methods to detect shiga toxin producing *E. coli*, *Salmonella* spp., and the four pathogenic species of *Aspergillus* (*A. flavus, A. fumigatus, A. niger,* and A. *terreus*). Unfortunately, the SARS-CoV-2 pandemic caused the Cannabis Microbial Testing Lab staff to be diverted to pandemic testing and supply chain activities.

From 2017 to 2021, Dr. Hom led a team that created the first and updated (5X) the Compendium of the All States Medical Cannabis Program Required Testing of all analytes with their corresponding action levels. Comparative analyses were performed to make general observations and identify gaps & trends in the required testing rules. In 2019, a literature search identified 25 chemical pesticides that were detected in a cannabis marketed product. Of these 25 pesticides, nine pesticides were not required to be tested by any state, while the other sixteen pesticides were required to be tested by various fractions of the states. Moreover in 2019, there were 16 distinct microbial test combinations amonst the 27 states that required microbial testing.

Sherman is presently the Director of Regulatory Affairs at Medicinal Genomics Corporation (MGC), which markets genetics-based cannabis tests and breeding technologies. His primary responsibility is to make recommendations to state, territory, and country regulatory officials that are tasked with either drafting and/or modifying cannabis, hemp, and psychedelic mushroom required microbial testing regulations to ensure safe products for patients and consumers. Another major task is to update MGC's Compendium of the All States Cannabis Microbial Testing Rules in real time (updated to October 2023) [https://www.medicinalgenomics.com/cannabis-microbial-testing-regulations-by-state/]. Comparative analyses of the microbial testing rules for the cannabis product types (plant material, concentrates, edibles, and infused-products non-edible) by state have been performed to provide information concerning general observations, identify gaps, and trends over the previous 3 years.

Lastly, Dr. Hom has proposed next steps in accumulating the genomic data to support a panel of national, region, or state subject matter experts in various fields to engage in a dialogue to propose consensus sets of cannabis microbial contaminant testing rules. The technology to obtain this genomic data has been developed by the MGC R&D team.

From:	Briana Martinez
To:	CCB Regulations
Cc:	Tiffany Rovere
Subject:	Public Input on NCCRs
Date:	Tuesday, January 30, 2024 4:06:15 PM
Attachments:	image002.png image003.png

Good Afternoon:

Briana Martinez from Kaempfer Crowell submitting comments/question on the NCCRs:

1. What happens if a proposed event is outside of the local jurisdiction the dispensary or consumption lounge is licensed in?
2. Does the CCB foresee this ever going below the minimum threshold?
3. What is the limit of event permits allowed per licensee per year?
4. What happens if multiple licensees apply for the same event?
5. Can alcohol be sold that the event?
6. The time to build out a facility under NCCR 5.085, should be longer than 12 months. This will save licensees and the CCB time and money requesting an extension.
7. Under NCCR 11.015, the fee schedule for retesting should be the same no matter the lab.

Briana

KAEMPFER
CROWELL

Briana Martinez
Kaempfer Crowell
1980 Festival Plaza Drive, Suite 650
Las Vegas, NV 89135-2958
Tel: (702) 792-7000
Fax: (702) 796-7181
Email: [redacted]

¦ BIO ¦ WEBSITE ¦ VCARD ¦

Please consider the environment before printing this email

From:	Briana Martinez
To:	CCB Regulations
Cc:	Tiffany Rovere
Subject:	RE: Public Input on NCCRs
Date:	Tuesday, January 30, 2024 4:24:21 PM
Attachments:	image002.png image003.png

Good Afternoon:

Briana Martinez from Kaempfer Crowell I have one additional comment on the NCCRs:

1. Section 4 of the NCCRs need to be revised to comply with SB195

Briana

KAEMPFER
CROWELL

Briana Martinez
Kaempfer Crowell
1980 Festival Plaza Drive, Suite 650
Las Vegas, NV 89135-2958
Tel: (702) 792-7000
Fax: (702) 796-7181
Email: [redacted]

¦ BIO ¦ WEBSITE ¦ VCARD ¦

Tina Schellinger
Email: [redacted]

January 29, 2024

Nevada Cannabis Compliance Board
700 E. Warm Springs Road, Room 150 Las Vegas, Nevada 89119

Re: Public comment on issues related to Reg 5.150 Categories of registration cards

Dear Sir or Madam,

The costs associated with obtaining Agent Cards include a $150 fee per card category payable to CCB, $65 for fingerprinting services per card, and an additional $15 for passport photos. These expenses pose significant challenges, including increased complexity due to multiple card requirements, financial burdens on employees, and limitations on job flexibility, role changes, and training. This high cost acts as a deterrent to prospective industry entrants, particularly considering starting pay rates of $12 to $15 per hour, which may barely cover the expenses incurred to obtain the cards. Proposed amendments suggest consolidating requirements into a single Cannabis Agent Card, extending the renewal period to five years, and reducing the financial burden associated with obtaining the cards. These changes aim to promote industry growth and inclusivity by facilitating the participation of individuals from lower-income backgrounds.

For further elaboration on my arguments, please refer to the following.

Costs Associated with Agent Cards:

- $150 payable to CCB for each agent card per category.
- $65 for fingerprinting services per card.
- $15 to have passport photos taken.

Challenges:

- The proliferation of various cards increases complexity.
- Financial burden on employees due to multiple card requirements.
- Impediment to job flexibility, role changes, and training.
-Difficulty getting hired

This is a very high cost to someone starting in the industry and a deterrent to those that may be interested. With starting pay rates typically ranging between $12 to $15 per hour in cultivation and production facilities, employees may only earn $480 - $600 on a 40-hour workweek. Consequently, they are required to pay most of what they
earn in a week just to have a job. The cost seems unfair to the employee. Most facilities mandate employees possession of both Cultivation and Production cards, rendering financial incapacity a potential cause for termination, with no exceptions.

Proposed Amendments:
- Consolidate all requirements into a single Cannabis Agent Card applicable across departments and positions.
- Extend the renewal period for Agent Cards to five years, akin to the practice in Oregon.
- Reduce the financial burden associated with obtaining Agent cards.

These proposed changes aim to foster industry growth while facilitating the participation of individuals from lower-income backgrounds, thereby promoting a more inclusive and stable workforce.

I appreciate your attention to the points discussed in this document. Please feel free to reach out if you have any questions or require further clarification.

Sincerely,

Tina Schellinger
Board Member of Chamber of Cannabis

Tina Schellinger
Email: [redacted]

January 29, 2024

Nevada Cannabis Compliance Board
700 E. Warm Springs Road, Room 150 Las Vegas, Nevada 89119

Re: Public comment on Lab Test and Remediation

Dear Sir or Madam,

I started my career in the cannabis industry in March 2016. I have primarily worked in the cultivation department, primarily handling compliance, Metrc transaction, and post harvest procedures. I am considered as a person of high integrity both personally and professionally. I'm known for my strict adherence to policy and procedures. But currently I am seeing an issue with what is becoming a common practice in the cannabis industry. The remediation processes that companies are using can be harmful to people and the industry. Using remediation processes on product before lab testing, not allowing the lab results to show the true quality of the product. If remediation processes are permitted to be used prior to lab testing moldy or severely contaminated flowers will pass a lab test. This is the selling point for these machines, they'll make all of your flowers pass. Even if there could very well be contaminates physically present.

To expand upon my previous comment,

> NRS 678B.520
>
> (h) Are labeled with:
> (1) The words "Keep out of reach of children";
> (2) A list of all ingredients used in the cannabis product;
> (3) A list of all major food allergens in the cannabis product; and
> (4) Any other information the Board may require by regulation.
>
> *This product may test positive for aspergillus.

With this proposed change to the labeling there is a lot that can change with it. Currently there are remediation procedures that enable cannabis that does have mold / fungus contamination and growth to pass lab tests. Companies are using these irradiation machines to get bad production that should not be packaged for consumption to pass lab tests.

The fact is that state-regulated cannabis often has been blasted by gamma radiation for hours – or by electron beam radiation, or, the preferred method by U.S. cultivators, x-ray radiation – to kill bad microbes. “In the short term, a cultivator can recover failed products (by remediation). But in the long term, it’s a crutch – and it’s not really solving the underlying issues.”

(2) If a facility is repeatedly failing for the same issue there is most likely a SOP issue at the facility. These are the same facilities that don’t want to let their customers know they are treating cannabis with radiation. Although internationally fruits, vegetables, and meats are marked showing they have undergone treatment. Why are we leaving this consumable product not to be labeled properly? Consumers deserve the right to know how the product has been processed.

The biggest issue with this process is when it involves cannabis flower even if there is physical mold / fungus in the flower any of the irradiation processes can allow the flower to pass a lab test.

Unlike with produce and meat that the irradiation treatment is used on, if there is physical mold/fungus on the product it can not be sold for human consumption. It can be further processed to be used in another product. Such as grapes for jelly, or apples for applesauce, meat for pet foods. You can’t sell moldy fruit or meat in a grocery store, so why should we sell moldy flowers to consumers?

I think this is just bad for the business, especially for those facilities that do not use any irradiation treatments. Producing a better cleaner quality of product. Not to mention the reputation of the industry. Companies that produce poor quality and do not practice cleaning routines to prevent these issues are the only ones benefiting from not marking irradiated products. Not to mention that the cost of the equipment to irradiate the cannabis flower is astronomical, over $500,000. At this cost many small cultivation and/or production facilities can not afford such a business expense.

If we allow these largest companies that just want to push ‘bad’ flowers on to the consumer, taking advantage of the consumer's lack of knowledge. It's bad business, bad for the consumer. I see it not much different then the way the auto industry for many years took advantage of a consumer's lack of knowledge, selling lemons and reaping the benefits.

The Consumer Information Act from 1978 prevents companies from giving false or misleading information about products. Cannabis companies should make their processes noted on their products.

Consider marking cannabis that tests positive for aspergillus. Aspergillus is literally everywhere. Although there are various forms of aspergillus , for the majority of the population it is harmless.

Aspergillus can be harmful to those that have lung cancer, undergoing chemotherapy and/or any condition that severely reduces a person's immune system. This number is about 200,000 people worldwide. A very, very small percentage of the general population. With this proposal, it could lessen the likelihood of use of irradiation on cannabis flowers. Be sure that flower is clearly labeled whether or not irradiation treatment has been used. It could also lower business costs for those using the remediation process strictly for flower testing positive for aspergillus. Products testing positive for mold and fungus should never be packaged for consumption 'as is'. It should only be approved for the extraction process. This would eliminate the possibility of consumers purchasing moldy flowers.

There are several types of procedures available that can be used:

Inside the WillowPure system, oxygen's two atoms release and recombine to form ozone with three oxygen atoms. Ozone effectively attacks the bacteria and mold that it encounters because the newly bonded, unstable third atom releases and breaks down cell walls. The cells eventually die as this process repeats itself.[1] After ozone destroys bacteria and mold cells, only oxygen remains, so no residue, chemicals, or solvents are left behind on the cannabis product.
This organic process allows us to effectively decontaminate the product without altering potency, cannabinoid concentrations, or terpene profiles on Cannabis.

I appreciate your attention to the points discussed in this document. Please feel free to reach out if you have any questions or require further clarification.

Sincerely,

Tina Schellinger
Board Member of Chamber of Cannabis

---

[1] https://willowindustries.com/willowpure-systems/#how-it-works

Silver State Government Relations

Principals
Will Adler – [redacted]
Sarah Adler – [redacted]

Associates
Morgan Biaselli – [redacted]
Alex Tanchek – [redacted]

January 30, 2024

Members of the Cannabis Compliance Board:

On behalf of GTI Nevada, I am pleased to see the Board's willingness to seek industry and stakeholder input on updates to Nevada's cannabis regulations, especially regarding Nevada's cannabis testing requirements. Accountability measures are important in assuring the products that Nevada's cannabis consumers enjoy are safe for consumption, but the Board needs to also be cognizant of the economic hardships regulations can place on cannabis businesses.

One method the Board can consider for easing the economic burden on cannabis businesses is to adjust the cannabis lot sizes defined in NCCR 1.125. For example, increasing the lot size from five-pounds for flower and 15-pounds for trim will help alleviate the various labor costs required in breaking down single batches into multiple lots, separately bagging each lot, and testing each lot. Since the five-pound lot size for flower and 15-pound lot size for trim was set in 2014, Nevada's lot sizes continue to be arbitrarily lower compared to other states with legal cannabis. Increased lot sizes, as already exist in other jurisdictions, will not lower any safety standards of cannabis products based on what has been seen in those states. Nevada should join the country's other regulated cannabis markets in reviewing whether the state's current weight limits on how much cannabis can be tested at one time continue to make sense.

My message and goals have remained consistent for nearly two years, even prior to my submitted petition in November 2022: alleviate the core economic issues with Nevada's current cannabis regulatory structure. I have re-submitted to the Board through public comment details about Washington State's alleviation efforts through recent updates to their laboratory process, including updates to lot sizes. Similar to the recent changes in the State of Oregon, cannabis testing requirements are being adjusted state-by-state as each of those cannabis regulatory systems mature with their industry.

It is our greatest hope the Board will take those same steps and address the whole of Nevada's cannabis testing regulations, including what is being tested for and how much can be tested for in a single lot. Ultimately, providing greater efficiency to any and all aspects of Nevada's cannabis regulatory operations will benefit Nevada cannabis businesses, consumers, and the State as a whole.

Additionally, the Board should also take this opportunity to review and amend NCCR 7.050 relating to cannabis delivery limits. Following the passage of SB 277 (2023) and the increased consumer purchase limits, the amount of cannabis that may be carried by a delivery driver at one time or be delivered to a consumer in one calendar day should be raised to an amount at least commensurate to the purchase limit rate increase as was approved by the Legislature.

When looking at Nevada's long anticipated cannabis lounge businesses, I would encourage the CCB to try and streamline the processes by which products can be dispensed to and retained by customers. Having a positive customer experience focus when approaching regulating cannabis lounges, will be essential for the long-term success of Nevada's cannabis industry.

Sincerely,

Will Adler
Principal
Silver State Government Relations
On behalf of GTI Nevada LLC

REGULATION 1
ISSUANCE OF REGULATIONS; CONSTRUCTION; DEFINITIONS

1.125 "Lot" defined.

1.125 "Lot" defined. "Lot" means:
1. The flowers from one or more cannabis plants of the same batch, in a quantity that weighs ~~[5]~~ ***50*** pounds (~~[2,268]~~ ***22,680*** grams) or less;
2. The leaves or other plant matter from one or more cannabis plants of the same batch, other than full female flowers, in a quantity that weighs ~~[15]~~ ***50*** pounds (~~[6,804]~~ ***22,680*** grams) or less; or
3. The wet flower, leaves or other plant matter from one or more cannabis plants of the same batch used only for extraction, in a quantity that weighs 125 pounds (56,700 grams) or less within 2 hours of harvest.

REGULATION 7
CANNABIS SALES FACILITY

7.050 Delivery to consumer: Restrictions; duties of cannabis establishment agent making delivery.

7.050 Delivery to consumer: Restrictions; duties of cannabis establishment agent making delivery.
1. A cannabis sales facility shall not deliver more than ~~[5]~~ ***12.5*** ounces (~~[141.75]~~ ***354.38*** grams) of cannabis or an equivalent amount of cannabis products to any combination of consumers within a single trip.
2. A medical cannabis sales facility shall not deliver more than 10 ounces (283.5 grams) of cannabis, edible cannabis products or cannabis-infused products, or any combination thereof when making a sales delivery exclusively to persons who hold a valid registry identification card or designated as a primary caregiver.
3. A cannabis sales facility shall not deliver cannabis or cannabis products to a consumer at any location that has been issued a gaming license, as defined in NRS 463.0159.
4. A cannabis sales facility shall not knowingly deliver more than ~~[1]~~ ***2.5*** ounce (~~[28.35]~~ ***70.88*** grams) of cannabis or cannabis products to a consumer in a private residence in one calendar day.
5. A cannabis sales facility shall not deliver cannabis or cannabis products to any person other than the consumer who ordered the cannabis or cannabis products. Before delivering cannabis or

cannabis products to a consumer, the cannabis establishment agent delivering the cannabis or cannabis products for a cannabis sales facility shall:
(a) Confirm by telephone that the consumer ordered the cannabis or cannabis products and verify the identity of the consumer; and
(b) Enter the details of such a confirmation in a log which must be made available for inspection by an appropriate law enforcement agency, the Board and Board Agents.
6. A cannabis sales facility shall not allow a cannabis establishment agent to deliver cannabis or cannabis products unless the cannabis or cannabis products are:
(a) Stored in a lockbox or locked cargo area within the vehicle being used for delivery;
(b) Not visible from outside the vehicle; and
(c) Contained in sealed packages and containers which remain unopened during delivery.
→For the purpose of this subsection, the trunk of a vehicle is not considered to be a lockbox or locked cargo area unless the trunk cannot be accessed from within the vehicle and can only be accessed using a key which is different from the key used to access and operate the vehicle.
7. A cannabis sales facility shall ensure that a cannabis establishment agent delivering cannabis or cannabis products for the cannabis sales facility has a means of communicating with the cannabis sales facility while he or she provides delivery.
8. A person shall not be present within any vehicle while it is being used for the delivery of cannabis or cannabis products unless the person is a cannabis establishment agent for the cannabis sales facility providing delivery of the cannabis or cannabis products or an independent contractor retained by the cannabis sales facility to provide delivery.
9. Each cannabis establishment agent delivering cannabis or cannabis products must:
(a) Report to a person designated by the cannabis establishment to receive such reports any motor vehicle crash that occurs during the delivery as soon as reasonably possible after the crash occurs, but in no instance shall such time to report exceed 12 hours;
(b) Report to Board Agents any unauthorized stop; and
(c) Report to a person designated by the cannabis establishment to receive such reports any loss or theft of cannabis or cannabis products that occurs during the delivery immediately after the cannabis establishment agent becomes aware of the loss or theft. A cannabis sales facility that receives a report of loss or theft pursuant to this paragraph must immediately report the loss or theft to the appropriate law enforcement agency, to the Board and to the Executive Director.

Washington State
Liquor and Cannabis Board

Quality Control Testing and Sell Down Guide

For Washington State Cannabis Licensee

Version 1.1 – April 2022

What has changed?

- Streamline licensee sample collection and storage procedures
- Revise the number of marijuana flower samples required for testing
- Increase the maximum amount of cannabis flower that may be represented by a single I-502 panel of laboratory tests from five pounds to fifty pounds
- Eliminate the of the ability of certified labs to return unused portions of samples to licensees
- Revise guidance to labs regarding when to reject or fail a sample
- Update and expand information regarding testing levels for water activity, potency analysis foreign matter inspection, microbial screening, mycotoxin screening, and residual solvent screening
- Update rule language regarding product retesting, remediation of failed lots, the expiration of certificates of analysis, and referencing of samples
- Update reporting requirements for lab proficiency testing

What Tests are required?

Reference WAC 314-55-102 for the full list of QC testing requirements and failure rates for licensed product.

The following tests will be required on all products created from cannabis harvested on or after April 02, 2022.

Cannabis Flower (Marijuana Flower):

- Water activity testing
- Potency analysis
- Foreign matter inspection
- Microbiological screening
- Mycotoxin screening
- Pesticide screening

If cannabis flower will be sold as useable flower no further testing is required.

Intermediate products:

Cannabis mix (Marijuana mix)

- Water activity testing
- Potency analysis
- Foreign matter inspection
- Microbiological screening
- Mycotoxin screening
- Pesticide screening

Concentrate or extract made with hydrocarbons, CO2 extractor, or ethanol

- Potency analysis
- Mycotoxin screening
- Residual solvent test
- Pesticide screening

Concentrate or extract made with approved food grade solvent, non-solvent extracts, or infused cooking oil or fat in solid form

- Potency analysis
- Microbiological screening
- Mycotoxin screening
- Residual solvent test
- Pesticide screening

Note: all intermediate products must be homogenized before sampling and testing.

End Products

Infused solid edibles

- Potency analysis
- Water Activity

Infused liquids, topicals, cannabis mix packaged (marijuana mix packaged), cannabis mix infused (marijuana mix infused), concentrate or infused product for inhalation

- Potency Analysis

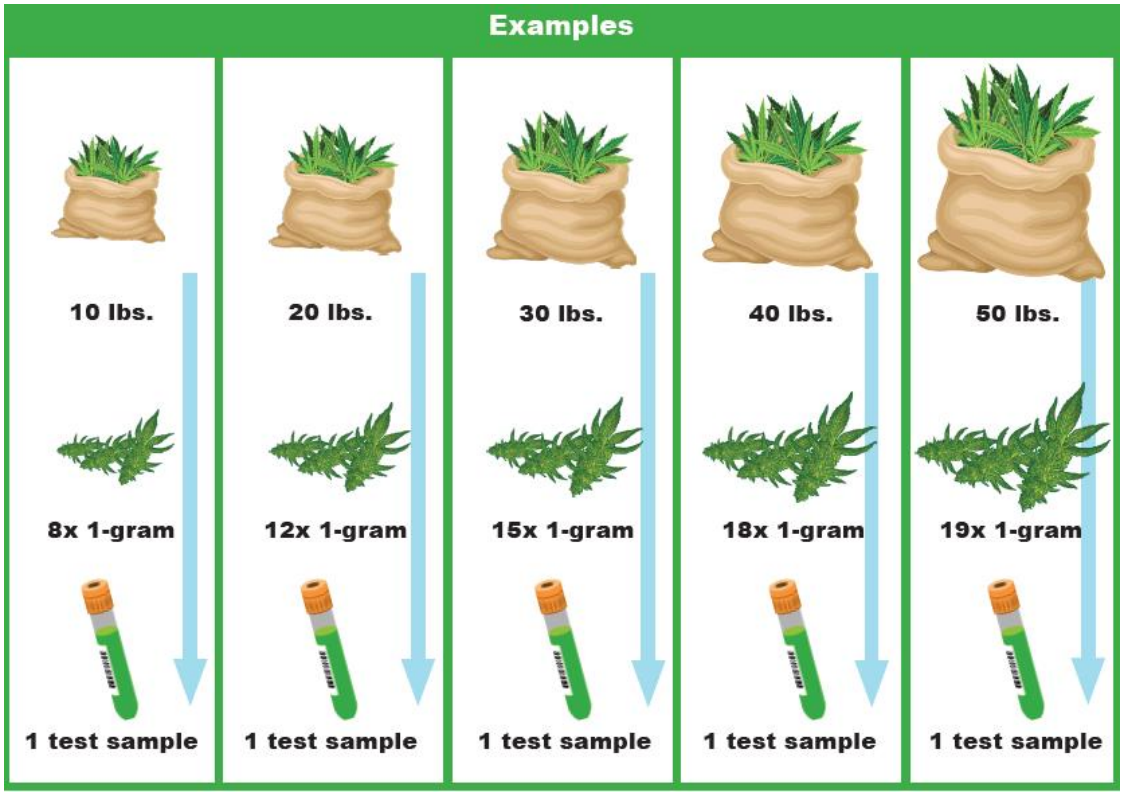
For more information on pesticide action levels please see WAC 314-55-108

What are the sampling requirements?

Reference WAC 314-55-101 for the full rules on collecting samples of cannabis products

Sampling sizes for cannabis (marijuana) flower lots:

- 0-10 lb lot 8 one gram samples
- 10-20 lb lot 12 one gram samples
- 20-30 lb lot 15 one gram samples
- 30-40 lb lot 18 one gram samples
- 40-50 lb lot 19 one gram samples



Selling down product tested under previous testing requirements

Producer Processor licensees

I am a licensed cannabis producer/processor, and have existing inventory that was harvested prior to April 02, 2022.

How long can this product be sold to retailers?

- With the existing passing COA, the product can be sold to licensed retailers until September 30, 2022
- This will include product with COAs that are older than 12-months.

Does this product have to pass pesticide testing to be sold after April 02, 2022?

- No, but it can only be sold to retailers until September 30, 2022 without the mandatory pesticide test.
- After September 30, 2022, all products sold to retailers must have been tested for pesticides.

Can I test my previous product for pesticide only, or do I have to test for everything again?

- Licensees may conduct a test for pesticides on existing inventory from before April 02, 2022, which can be included as an addendum to previous quality control testing.
- Product that fails the pesticide testing is subject to destruction in accordance with board rules.

If I conduct pesticide testing on product previously holding a valid COA, does that fully renew the existing COA?

- No, if only pesticide testing is conducted on product passing previous standards, it will be considered an addendum to the existing COA, and will continue to have the same expiration date.

If I choose to have my existing inventory completely retested to the new standards effective April 02, 2022, does that restart the time on the COA?

- Yes, if existing product is tested, undergoes the full suite of quality control standards effective April 02, 2022, then a new COA would be in effect with a new 12-month expiration.

What product can I have retested?

- Existing inventory that has not been sold to retailers.
- Any product currently in the retail market will not be eligible for retesting.

If a retailer wants to return existing product, can we allow the return?

This is situational:

- Yes, packaged product will be able to be returned, but not for retesting or reselling.
- Producer/Processors may offer an exchange of product, but this is at the discretion of the producer/processor, and returned product must follow existing destruction rules.
- Producer/Processors are not obligated to provide exchanges to retailers

What happens if a retailer does not want to purchase my existing inventory?

- This is a business decision for the retailer, and they are not obligated to purchase any specific product.

Which types of products have the new requirements?

- All cannabis product types are included under the rules effective April 02, 2022.

What about medically compliant product, does this need to be retested?

- No, any medically compliant product meeting the Department of Health medical cannabis program standards will not need to be retested for pesticides, but will still be subject to COA expiration standards after September 30, 2022.

Which labs are allowed to do these new tests?

- Those that are certified for the tests they are conducting.

- A list of certified labs can be found on the “Frequently Requested List” on the LCB website.

Are labs allowed to conduct a new test for my existing product that was previously tested before April 02, 2022?

Yes

- If the testing is for the full suite of quality control, a new COA can be issued for the product.

- If only pesticide tests are added to previously tested product, then the test results will be an addendum to the existing COA, and the original expiration will not change.

Retail Licensees

I am a licensed cannabis retailer, and have existing inventory that was harvested prior to April 02, 2022.

How long can I sell this existing inventory?

- Retailers can continue selling product purchased on or before September 30, 2022 until December 31, 2022, regardless of the COA expiration so long as the COA was valid at the time the retailer purchased it.

Which types of products have the new requirements?

- All cannabis product types are included under the rules effective April 02, 2022.

If I buy product from a producer/processor, am I responsible to ensure the COA is compliant with all testing standards?

- Retailers have the general responsibility of purchasing product from producer/processors that is not past the COA expiration date, but are not required to assess the COA for technical testing compliance standards.

- Retailers will be allowed to sell pre-April 02, 2022 inventory without an updated COA through December 31, 2022.

- After December 31, 2022, retailers may only sell product that has passed quality control standards under the rules effective April 02, 2022.

Can I ask a producer/process to take product back where the COA is expired?

- After December 31, 2022, the expiration date for the COA only applies to product sold by producer/processors to retailers.

- Once purchased by the retailer, this product (meeting post April 02, 2022 standards,) may continue to be sold even if the COA expired.

- Retailers may request an exchange, but the producer/processors are not obligated to grant the request.

How long will I have to sell through product I have in inventory?

- Product that has a valid COA, but predates April 02, 2022, may be sold to consumers through December 31, 2022.

- Product that has a valid COA that was issued after April 02, 2022 may continue to be sold, so long as the COA was not expired when the retailer purchased the product from the producer/processor.

If I place an order for product, do I need to accept product that does not met standards effective April 02, 2022?

- No, but we encourage retailers to work with producer/processors to assist with a smooth transition

- This is a business decision which each retailer must decide related to their inventory management and sell through timeframes.

Resources

Rules

Sampling

- WAC 314-55-101

Quality Control

- WAC 314-55-102

Pesticides

- WAC 314-55-108

Contact your consultant or officer with any questions regarding new quality control rules or sell off of inventory questions.

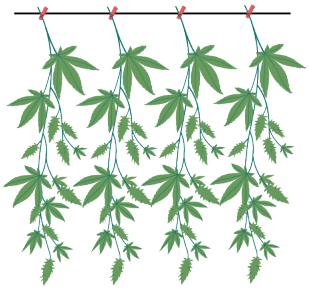
If you do not know who your Consultant or Officer is, you can call Enforcement Customer Service at **360-664-9878** or email at **EnfCustomerService@lcb.wa.gov**

Washington State
Liquor and Cannabis Board

Previous Testing Requirements

1. Cannabis plant grows
(indoor/ outdoor/ greenhouse)

2. Cannabis is cut down at harvest

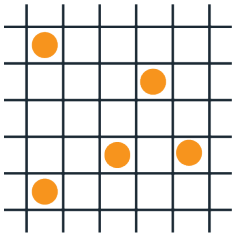


3. Plant is dried

4. Plant is trimmed for bud
(parts of plant that will be prepared for retail)

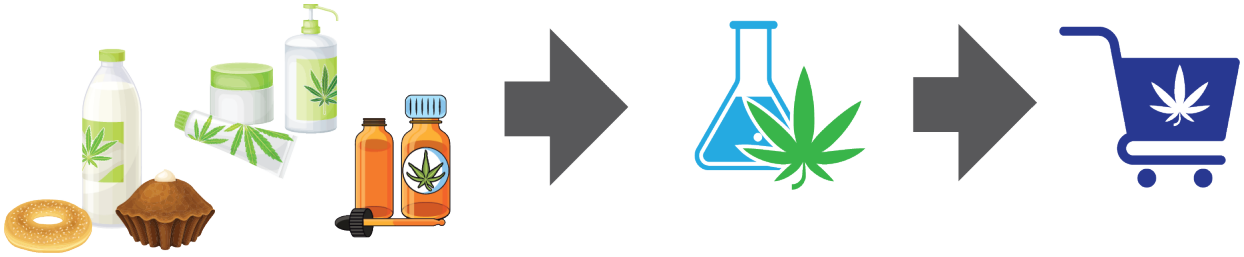
5. Products are tested by private labs
(80% of cannabis only requires testing at this stage because of product type) for the established suite of tests (microbial, mycotoxins, moisture, potency, etc.)

a. Flower
b. Mix
c. Concentrate



6. If product passed lab tests it is ready to go to retail - if it will remain in its current form.

7. After doing step 5 and after passing lab test, a product that is turned into new form (concentrate, edible cookie, topical, infused, etc.) must be tested again for potency.



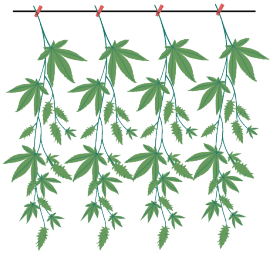
This is the simplest testing path.
There are conditions and products that would require additional rounds of “intermediate testing” as reflected at step 5

Washington State
Liquor and Cannabis Board

New Testing Requirements: Adding Pesticides

1. Cannabis plant grows
(indoor/outdoor/greenhouse)

2. Cannabis is cut down at harvest

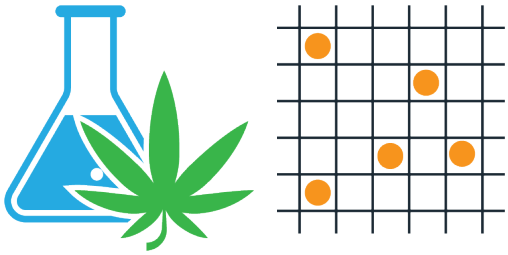


3. Plant is dried

4. Plant is trimmed for bud
(parts of plant that will be prepared for retail)

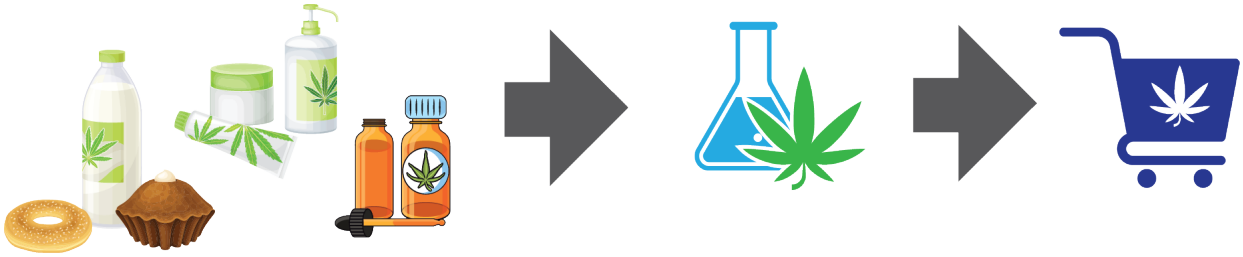
5. Third-party labs test product lots for foreign matter, microbiology, mycotoxins, potency, residual solvents, water activity, and the newly required screening of pesticides.
Flower is sampled based on the weight of the lot.

0 - <10 lbs. = 8x 1-gram sample increments
10 - <20 lbs. = 12x 1-gram sample increments
20 - <30 lbs. = 15x 1-gram sample increments
30 - <40 lbs. = 18x 1-gram sample increments
40 - <50 lbs. = 19x 1-gram sample increments



6. After passing tests, product is ready for retail.

7. After doing step 5 and after passing lab tests, a product that is turned into new form (infused solid edible – cookie, chocolate, etc.) must be tested again for potency only.



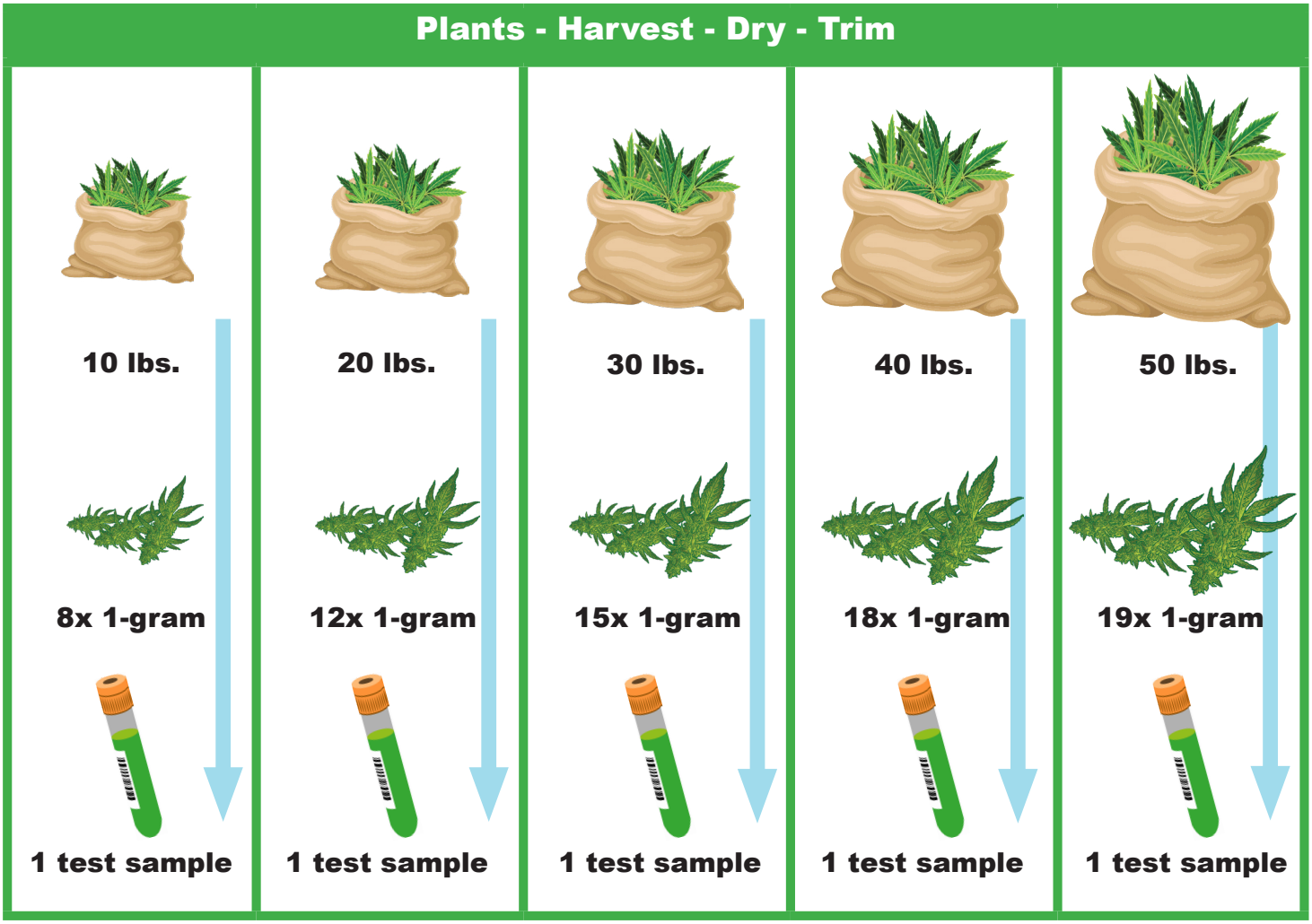
This is the simplest testing path.
There are conditions and products that would require additional rounds of "intermediate testing" as reflected at step 5

Washington State
Liquor and Cannabis Board

Sample Collection

New

The number of sample increments will increase as the lot size increases for cannabis flower. The sample increments will be combined into one test sample and tested by a private testing laboratory. This singular sample is used for pesticides, potency, microbiology, mycotoxins, water activity, and foreign matter.



Previously

1 – 4 gram samples per 5 lbs. = 4 X1 grams of micro/myco/residual solvents/moisture

Plants - Harvest - Dry - Trim

1	2
3	4

= 4 grams

Cannabis Compliance Board
700 E. Warm Springs Road
Las Vegas, NV 89119
Submitted via email: regulations@ccb.nv.gov
Subject: Support for Cannabis Event Regulations

January 30, 2024

Dear Members of the Nevada Cannabis Compliance Board,

We are pleased to express our strong support for the proposed NCCRs to allow the sale of cannabis at qualifying events. As a pioneering stakeholder in the industry, we have always adhered to the highest standards of compliance and have witnessed firsthand the positive impact of regulated cannabis sales on our community. The legalization and regulation of cannabis sales at public events can significantly enhance the experience of attendees, while simultaneously providing a safe and controlled environment for responsible consumption.

Allowing the sale of cannabis at events will boost the local economy, and help locals and visitors alike access legal products to enhance their experience. These policies will help mitigate the risks associated with unregulated and illegal sales, ensuring that consumers are purchasing tested, high-quality products. Furthermore, this has the potential to generate considerable tax revenue. We particularly applaud the proposal for affording this new sales opportunity to dispensaries as well as lounges. We agree that CCB licensees with sales experience are best positioned to execute on these new policies responsibly and safely.

Thank you for the chance to demonstrate our support and for your consideration of our perspective on this important matter. We look forward to the positive changes that will benefit our industry, the local community, and the state of Nevada. Please feel free to contact us for any further discussion.

Sincerely,

Darlene Purdy
Managing Director
Euphoria Wellness