

This is an emergency amendment to 16.8.7 NMAC amending Section 8, effective 3/10/2022.

16.8.7.8 REQUIRED TESTING OF CANNABIS PRODUCTS: A cannabis establishment shall segregate a batch of cannabis product and arrange for samples to be collected and tested by a cannabis testing laboratory if required by this section. The batch must pass all required tests prior to the sale or delivery to a qualified patient, primary caregiver or consumer.

A. Required testing: Unless an exception applies:

(1) A cannabis producer, cannabis producer microbusiness, vertically integrated cannabis establishment, or integrated cannabis microbusiness shall arrange for and pay for the testing specified in Table 1, *Required Testing of Cannabis Products*, below, of any cannabis flower and trim that it harvests prior to:

- (a) packaging for retail sale;
- (b) transfer to another cannabis establishment for the purposes of retail sale;
- (c) retail sale; or
- (d) delivery to a patient or consumer.

(2) A cannabis manufacturer, vertically integrated cannabis establishment, or integrated cannabis microbusiness shall arrange for and pay for the testing specified in Table 1 of any cannabis product, including but not limited to a concentrate or extract, that it manufactures prior to:

- (a) packaging for retail sale
- (b) transfer to another cannabis establishment for the purposes or retail sale;
- (c) retail sale; or
- (d) delivery to a qualified patient, primary caregiver or consumer.

(3) A cannabis retailer, vertically integrated cannabis establishment, or integrated cannabis microbusiness shall not sell or deliver to a patient or consumer any cannabis product unless the cannabis product has undergone all testing required by this section.

(4) Testing for homogeneity will be required beginning April 1, 2024.

Table 1, Required Testing of Cannabis Products						
Product category	Potency	Homogeneity of Batch	Visual Inspection	Microbiological	Residual Pesticides	Residual Solvents
Flower	X	X	X	X	X	
Trim	X	X	X	X	X	
Concentrate (volatile solvent)	X			X	X	X
Kief	X		X	X	X	
Pre-rolls	X			X	X	
Concentrate (non-volatile solvent)	X		X	X	X	
Extract – alcohol	X			X	X	
Extract – other liquid	X			X	X	
Topical	X			X		
Edible	X			X	*	
Other inhalable	X				*	X
Other	X			X	*	X

*Pesticide testing required unless exempted by Subsection E, below.

B. Staggered implementation:

(1) The division may within its discretion delay implementation of sample collection and testing requirements of this section, in whole or in part.

(2) In determining the start date of an individual testing requirement, the division shall consider whether a cannabis testing laboratory has validated a method for conducting the test.

(3) In determining the date on which a cannabis establishment must have its samples collected by an employee or contractor of a cannabis testing laboratory, the division shall consider the capacity of cannabis testing laboratories to collect and transport samples.

(4) The division may establish different implementation dates for sample collection requirements for:

(a) cannabis producer microbusinesses and integrated cannabis microbusinesses located up to 100 miles by automobile from the nearest licensed cannabis testing laboratory location;

(b) cannabis producers, cannabis manufacturers, and vertically integrated cannabis establishments located up to 200 miles by automobile from the nearest licensed cannabis testing laboratory location;

(c) cannabis producer microbusinesses and integrated cannabis microbusinesses located more than 100 miles by automobile from the nearest licensed cannabis testing laboratory location;

(d) cannabis producers, cannabis manufacturers, and vertically integrated cannabis establishments located more than 200 miles by automobile from the nearest licensed cannabis testing laboratory location; and

(e) cannabis establishments for which travel to a licensed cannabis testing laboratory location requires passing through a United States border patrol checkpoint.

C. Collection and transportation of samples: A cannabis testing laboratory is responsible for the collection of samples for the performance of any required test, re-test after a failing result, re-test after remediation, or test for the purposes of labeling.

(1) A cannabis testing laboratory may perform sample collection using:

(a) Laboratory employees with requisite training, as specified in 16.8.2.26 NMAC; or

(b) Contractors who have completed the sampling agent training offered by the U.S. department of agriculture's domestic hemp production program and sign an affidavit that they have no ownership interest in, and are not employed by, any cannabis establishment that produces or manufactures cannabis. The contractor shall obtain necessary training to comply with the cannabis testing laboratory's protocols, and the cannabis testing laboratory may reject any sample that it suspects was collected outside of its protocols.

(2) A cannabis testing laboratory may transport samples using:

(a) Laboratory employees with requisite training, as specified in 16.8.2.26 NMAC; or

(b) Contractors who sign an affidavit that they have no ownership interest in, and are not employed by, any cannabis establishment that produces or manufactures cannabis. Transporting cannabis for a cannabis establishment on a contractual basis does not preclude a person or entity from transporting samples in secure containers for cannabis testing laboratories.

(3) Nothing in these rules shall be interpreted to require a cannabis testing laboratory to collect samples from or transport samples on behalf of any cannabis establishment.

(4) If the division has delayed implementation of the requirement that the cannabis testing laboratory collect the sample from a cannabis establishment, based on its distance from the nearest cannabis testing laboratory or location beyond a U.S. border patrol checkpoint, then any person collecting or transporting samples for required testing must receive training in sample collection and transportation protocols.

(a) Nothing in these rules shall be interpreted to require a cannabis testing laboratory to accept samples from a cannabis establishment.

(b) The cannabis testing laboratory may reject any sample that it suspects was collected outside of its protocols.

(5) A cannabis establishment may specify reasonable precautions prevent the contamination of batches of cannabis, except that the cannabis establishment must provide access to the entire batch of cannabis product. Precautions may include, but are not limited to:

- (a) requiring the use of gloves and other personal protective equipment
 - (b) inspecting tools and containers prior to their use;
 - (c) specifying the location within the cannabis establishment at which the samples will be collected;
 - (d) specifying locations within the cannabis establishment to which laboratory employees or contractors do not have access; and
 - (e) the right to refuse entry to any laboratory employee or contractor not in compliance with the precautions
- (6) Nothing in these rules shall be interpreted to require routine testing of cannabis products before the cannabis establishment segregates cannabis products into batches and places the batches into containers for storage while awaiting test results.
- (7) This Subsection C of 16.8.7.8 NMAC is effective March 1, 2023.

D. Compliance with all rules and applicable laws required: Passage of testing does not relieve an establishment of its obligation to comply with the Cannabis Regulation Act, the Lynn and Erin Compassionate Use Act, the Pesticide Control Act, division rules, or other local, state, and federal laws not in conflict with the Cannabis Regulation Act or the Lynn and Erin Compassionate Use Act.

- (1) A cannabis establishment shall waste and dispose of any cannabis product to which a pesticide has been applied in violation of division rules or the Pesticide Control Act or any product manufactured using an unapproved solvent.
- (2) Nothing in this rule shall be interpreted as precluding regulatory activities by other state agencies that do not conflict with the Cannabis Regulation Act or the Lynn and Erin Compassionate Use Act.

E. Exceptions to required testing:

- (1) A cannabis establishment shall not be required to have tested for pesticide residue any cannabis product made from cannabis concentrate or cannabis extract with verified pesticide residue test results, so long as the establishment can demonstrate that the resulting product will not exceed action levels for that type of cannabis product.
- (2) A cannabis establishment shall not be required to have tested a cannabis product acquired from another cannabis establishment if the batch, in present form, was previously determined to have passed the testing requirements of this rule and is accompanied by a *Certificate of Analysis* issued by a licensed cannabis testing laboratory within the previous 90 days.
- (3) If additional testing requirements take effect after a cannabis testing laboratory obtains a sample of a cannabis product for required testing, the laboratory is required to perform only those tests required at the time the sample was obtained.

F. Visual inspection: A sample shall pass visual inspection if, under a minimum of 40X magnification, laboratory personnel detect in a one gram sample:

- (1) no living or dead insects, hair, eggs, or feces; and
- (2) no more than two percent sand, soil, mold, or rocks.

G. Microbiological testing: A sample shall pass microbiological testing if the sample contains concentrations of target microbes not exceeding the action levels set forth in Table 2, *Microbiological Testing Requirements*, below.

- (1) The division may require required testing for additional microbes if quality control or inspection testing conducted by cannabis testing laboratories, NMDA, the department of health, or the division identifies their presence, in a quantity or amount that poses a threat to public health, in a cannabis product produced, manufactured, or sold by any cannabis establishment. The division shall provide written notice to licensees 30 days before requiring required testing for additional pesticide residues, except that such notice is not required when human illness is linked to contaminated cannabis products.
- (2) The cannabis testing laboratory may report a collective total of the four *Aspergillus* strains listed without distinguishing individual totals.
- (3) The test results shall be reported as “Present,” “Absent,” or in colony forming units (CFU) per one gram sample.
- (4) Testing for shiga-toxin producing *E. coli*, *Clostridium botulinum*, and *Pseudomonas aeruginosa* is effective July 1, 2022.

Table 2. Microbiological Testing Requirements	
Target Microbe	Action Level

*E. coli	100 CFU/gram
Aspergillus flavus, Aspergillus fumigatus, Aspergillus niger, or Aspergillus terreus	Present in 1 gram
Salmonella spp.	Present in 1 gram
†Shiga-toxin producing E. coli	Present in 1 gram
†Clostridium botulinum	Present in 1 gram
†Pseudomonas aeruginosa	Present in 1 gram
<p>*Cannabis product may be tested for shiga-toxin producing E. coli, rather than generic E. coli. †Testing for shiga-toxin producing E. coli, Clostridium botulinum, and Pseudomonas aeruginosa is required only for edible cannabis products manufactured from fresh cannabis with a water activity of 0.65 or greater.</p>	

H. Residual solvent testing: A sample shall pass residual solvent testing if the sample contains concentrations of residual solvents lower than the action levels set forth in Table 3, *Residual Solvent Testing Requirements*, below. The test results shall be reported as described in the notes to Table 3.

Table 3. Residual Solvent Testing Requirements				
Target Compounds	Common Chemical Name	IUPAC Name	CAS Number	Action Level*
Propane	Propane	Propane	74-98-6	5000
Butanes	n-butane	Butane	106-97-8	5000
	Isobutane	2-methylpropane	75-28-5	5000
Pentane	n-pentane	Pentane	109-66-0	5000
Hexane	n-hexane	Hexane	110-54-3	290
Benzene	Benzene	Benzene	71-43-2	2.0
Toluene	Toluene	Methylbenzene	108-88-3	890
Heptane	n-heptane	Heptane	142-82-5	5000
Ethylbenzene and Xylenes	Ethylbenzene	Ethylbenzene	100-41-4	2170 Total
	ortho-xylene	1,2-dimethylbenzene	95-47-6	
	meta-xylene	1,3-dimethylbenzene	108-38-3	
	para-xylene	1,4-dimethylbenzene	106-42-3	
Ethanol†	ethyl alcohol	Ethanol	64-17-5	5000
Methanol	methyl alcohol	Methanol	67-56-1	3000
Isopropanol	Isopropyl alcohol	2-propanol	67-63-0	5000
Acetone	Acetone	2-propanone	67-64-1	5000

Use two significant digits when reporting residual solvent results.
 Report levels less than the Limit of Quantitation for each solvent according to the following example:
 "Benzene < 2.0 µg/g"
 *Micrograms solvent per gram (µg/g) of sample/parts per million (ppm).
 †Unless exempt from testing.

I. Potency and homogeneity testing:

(1) Potency testing requires determining the quantity of tetrahydrocannabinol (THC), tetrahydrocannabinolic acid (THCA), cannabidiol (CBD), cannabidiolic acid (CBDA) per gram of sample and the calculation of THC potency and CBD potency, according to Table 4, *Potency Testing Requirements*, below.

(2) Batch-level homogeneity testing is performed by testing for total THC potency. The number of samples to be tested shall be based on the size of the batch according to the method validated by the cannabis testing laboratory; however, the total number of samples tested shall be not less than three for any batch of material five pounds or less.

(3) Product-level homogeneity testing is performed by segregating a single retail package or an identical quantity of a solid or semi-solid and testing for total THC potency a minimum of three randomly selected increments of the product.

(4) A set of samples shall pass homogeneity testing if the relative standard deviation of total THC potency of the samples is no more than twenty percent.

Table 4. Potency Testing Requirements			
Cannabinoid	Abbreviation	CAS Number	Reporting Units
Tetrahydrocannabinolic Acid	THCA	23978-85-0	For solids: mg of analyte/gram of sample and percentage by weight
Tetrahydrocannabinol	THC	1972-08-3	
Cannabidiolic Acid	CBDA	1244-58-2	
Cannabidiol	CBD	13956-29-1	For liquids: mg/ml
Total THC Potency (solids)	THC Potency = (Percent THCA × 0.877) + Percent THC		Percentage by weight
Total CBD Potency (solids)	CBD Potency = (Percent CBDA × 0.877) + Percent CBD		
Total THC Potency (liquids)	THC Potency = (mg/ml THCA × 0.877) + mg/ml THC		mg/ml
Total CBD Potency (liquids)	CBD Potency = (mg/ml CBDA × 0.877) + mg/ml CBD		

J. Pesticide testing: A sample shall pass pesticide testing if concentrations of residues of pesticides are lower than the action levels listed in Table 5, *Pesticide Testing Requirements*, below.

(1) The division may adopt required testing for additional pesticide residues if quality control or inspection testing conducted by cannabis testing laboratories, NMDA, the Department of Health, or the division identifies their presence in a cannabis product produced or manufactured by any cannabis establishment. The division shall provide written notice to licensees 30 days before implementing required testing for additional pesticide residues.

(2) Nothing in this section shall be interpreted to waive or diminish any requirement of the Pesticide Control Act, §§76-4-1 et seq. NMSA 1978. The division, alone or in conjunction with NMDA,

may investigate any suspected use of a pesticide not registered with NMDA for use on cannabis.

(3) This Subsection J of 16.8.7.8 NMAC is effective July 1, 2022.

Table 5. Pesticide Testing Requirements			
Targeted Pesticide	CAS Number	Action Level: Inhalable*	Action Level: Non-Inhalable*
†Abamectin	71751-41-2	0.1	0.15
†Acequinocyl	57960-19-7	2.0	2.0
†Bifenazate	149877-41-8	0.2	0.2
†Bifenthrin	82657-04-3	0.1	0.1
†Etoxazole	153233-91-1	0.1	1.0
†Imazalil	35554-44-0	0.1	0.1
†Imidacloprid	138261-41-3	0.1	3.0
†Myclobutanil	88671-89-0	0.1	0.4
†Paclobutrazol	76738-62-0	0.04	0.04
Piperonyl butoxide	51-03-6	3.0	8.0
†Pyrethrins (cumulative total)	121-21-1 25402-06-6 4466-14-2	0.5	1.0
†Spinosyn A, D (cumulative total)	131929-60-7 131929-63-0	0.1	3.0
†Spiromesifen	283594-90-1	0.1	0.2
†Spirotetramat	203313-25-1	0.1	0.2
†Trifloxystrobin	141517-21-7	0.02	0.02
Other pesticide not registered with NMDA for use on cannabis	Varies	0.02	0.02
*Micrograms of pesticide per gram ($\mu\text{g/g}$) of sample/parts per million (ppm). Report levels less than the Limit of Quantitation for each pesticide residue according to the following example: "Paclobitrazol < 0.4 $\mu\text{g/g}$ " †Not registered with NMDA for use on cannabis.			

K. Release of batch after testing: A cannabis establishment may release an entire batch of cannabis product for immediate manufacture, sale, or other use, provided that the sample taken from the batch passes the tests required in this section.

L. Procedures for testing: A cannabis establishment shall adhere to the following procedures:
 (1) After collection of samples, a batch of cannabis product shall be segregated in a secure container and stored under controlled environmental conditions (temperature, humidity, light) designed to limit microbial growth or other spoilage until the cannabis establishment receives a certificate of analysis indicating the batch meets the testing requirements of this rule.

(2) The secured container shall be labeled with the identification number used in the track and trace system, the name of the cannabis testing laboratory, the date on which the samples were taken, and, in minimum 12-point font, all capital letters, "AWAITING TEST RESULTS. DO NOT TRANSFER."

(3) The cannabis testing laboratory and the cannabis establishment submitting samples each shall appropriately document in the track and trace system the sampling and testing of cannabis product.

(4) A cannabis establishment shall maintain all results of laboratory tests conducted on cannabis products produced or manufactured by the cannabis establishment for a period of at least two years and shall make those results available to consumers or cannabis retailers upon request.

M. Re-testing: If a sample fails any test, the cannabis establishment may request re-testing by the

same cannabis testing laboratory or another cannabis testing laboratory. If the repeated test is within acceptable limits, then the batch may be sold, transferred, or further manufactured.

N. Remediation: Within 120 days of a failed test, a cannabis establishment may remediate and retest the batch according to the procedures described in this subsection. A cannabis establishment shall adopt and maintain on the premises protocols regarding remediation consistent with this rule.

(1) A cannabis establishment may remediate dried cannabis or cannabis concentrates that fail microbiological testing by means of extraction using an approved volatile solvent. Other products that fail microbiological testing may not be remediated.

(2) A cannabis establishment may remediate any cannabis product that fails homogeneity testing through any approved manufacturing process, including extraction, chopping, melting, mixing, infusing, or otherwise combining the batch.

(3) A cannabis establishment may remediate any cannabis product that fails residual solvent testing by evaporating solvent using heat, vacuum pressure, or a combination of methods.

(4) A cannabis establishment may remediate cannabis that fails visual inspection for the presence of mold by means of extraction using an approved volatile solvent.

(5) A cannabis establishment may remediate cannabis that fails visual inspection for the presence of insects, hair, eggs, or feces by removing the contaminants, followed by extraction using an approved volatile solvent.

(6) A cannabis establishment may remediate cannabis that fails visual inspection for the presence of soil or rocks by removing the contaminants.

(7) Cannabis product that has been remediated must undergo any test that was previously failed.

(8) Cannabis product that has been remediated with the use of volatile solvents must additionally undergo residual solvent testing.

O. Notice and destruction: Any cannabis product that fails a test and cannot be remediated, including any remediated cannabis product that fails any test after remediation, is subject to destruction in accordance with the wastage requirements of 16.8.2.15 NMAC. The cannabis establishment shall notify the division within 24 hours and shall confirm the wastage and disposal of the usable cannabis in accordance with this rule. The wasted product shall be removed from inventory, and the removal from inventory shall be noted in the track and trace system.

P. Interpretation of differing results: Results produced by a cannabis testing laboratory are valid only for the sample tested. A differing result produced by quality control or inspection testing of a different sample pursuant to 16.8.2.16 NMAC is not grounds for action against the cannabis testing laboratory that produced the original testing result.

[16.8.7.8 NMAC – N, 3/1/2022; A/E, 03/10/2022]