



Minnesota Industrial Hemp Plan

March 18, 2021 - Revision

Minnesota Department of Agriculture
625 Robert Street North
St. Paul, MN 55401

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Minnesota Industrial Hemp Plan

In accordance with the Agriculture Improvement Act of 2018, the Minnesota Department of Agriculture has prepared this plan for regulation of hemp production in Minnesota. The elements of this plan describe how Minnesota will address each of the requirements laid out by USDA for hemp plans. This plan is effective when the State's Industrial Hemp pilot program authorized under the 2014 Farm Bill and extended by the 2018 Farm Bill is ended by the State of Minnesota.

[Commitment from the Department](#)

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This letter from the Commissioner of Agriculture demonstrates the Department's commitment to regulate hemp production in Minnesota.

[Draft Rule for Hemp Production and Processing](#)

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This draft rule will form much of the legal basis at the State level for regulation of hemp production and processing by the MDA. Once an agreement has been reached between the USDA and MDA on a State Hemp Plan, the MDA will work through the process to have this rule promulgated.

Appendix 1. [Hemp Inspection, Sampling, and Testing Protocol](#)

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This section describes the procedures that the Department will use to collect samples, including the timing of sample collection and number of plants to sample.

Appendix 2. [Data Sharing Protocol](#)

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This section describes the process that the Department will use to share current data with USDA on a regular basis.

Appendix 3. [Enforcement Authority](#)

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[Minnesota Statute 18K](#) provides a State authorization for the Department to regulate the production of hemp in Minnesota. Authority for inspection and enforcement provisions of 18K, as well as any rules adopted under 18K, is provided through [Minnesota Statute 18J](#).

Appendix 4. [THC Test Results Data by Variety- All Samples 2016-2020](#)

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This section describes the process that the Department will use to share current data with USDA on a regular basis.



March 18, 2021

Bill Richmond, Chief, U.S. Domestic Hemp Production Program
United States Department of Agriculture
1400 Independence Avenue SW, Stop 0237
Washington, D.C. 20250-0237

Mr. Richmond,

The Minnesota Department of Agriculture is committed to the regulation of Minnesota's industrial hemp industry in partnership with the USDA. The Department is authorized to regulate hemp production under the Minnesota Industrial Hemp Development Act (Minnesota Statutes, Chapter 18K) that was established in 2015 as a result of Section 7606 of the 2014 Federal Farm Bill. This act authorizes the Department to collect fees to operate its hemp program through required licensure of both growers and processors. Minnesota had 444 licensed growers during 2020 and we anticipate that number to be maintained in 2021 as many applications continue to be received. We have staff dedicated to running our Industrial Hemp Program as well as the ability to utilize staff from other programs when the hemp workload increases. Our staff have years of experience with hemp regulation through our state pilot program that has seen significant growth and change in the industry over those years. They have also provided national leadership to other states developing hemp pilot programs and have developed relationships with federal, state and international regulators and law enforcement agencies involved with cannabis management.

Our hemp program is entering its sixth year of operation and fifth growing season. The first hemp crops were planted on 38 acres in Minnesota during 2016 by 6 licensed growers. Most of this acreage was planted for grain with a small fraction grown for fiber. In 2017, interest in hemp production expanded greatly with 33 growers producing hemp on over 1,000 acres. While grain continued to be the primary purpose for production, a small portion was planted for fiber and the first acres designated for cannabidiol (CBD) extraction were planted in Minnesota. In 2018, there was a modest increase in growers to 43, though a decline in overall acreage planted to approximately 700. Grain production continued to occupy the majority of acres, although CBD extraction grew to 10% of the acreage planted. Interest in hemp grew exponentially after the 2018 Farm Bill granted it legal status as a crop and the number of licensed growers increased to 343 in 2019. The change in legal status coincided with a burgeoning interest in CBD products by consumers and during 2019, nearly 80% of the 8,000 acres planted to hemp in Minnesota were intended for CBD extraction.

During the past four years of hemp production in the state, we have dealt with many challenges associated with regulating this crop. In 2020, about 10% of the hemp lots grown in Minnesota surpassed legal concentrations of THC and were required to be destroyed by the Department. When the number of acres needing sampling grew from 700 in 2018 to 8,000 in 2019, we pulled staff away from other work in order to sample 100% of the hemp lots produced in Minnesota. We have developed protocols for obtaining and submitting samples so that growers are treated equitably, and sample identity and integrity is maintained. Through those experiences we have learned that some varieties merit greater scrutiny than others. We have also learned that spiking THC levels during flowering make sample timing very difficult and have dealt with situations where a grower received an acceptable THC result from a department sample but then had a crop test hot at harvest, thus losing access to processing opportunities.

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In accordance with the Americans with Disabilities Act, this information is available in alternative forms of communication upon request by calling 651-201-6000. TTY users can call the Minnesota Relay Service at 711. The MDA is an equal opportunity employer and provider.

We have worked closely with Minnesota law enforcement agencies to provide information on hemp production areas, and licensed growers regarding citizen complaints, burglaries and traffic stops. We have also worked with the same agencies to create legal frameworks for the production and transportation of CBD so that the growing processing market in Minnesota can be fairly regulated. We have had situations where licenses have been denied or revoked due to alleged criminal activity or convictions and have defended our policies and procedures in federal and district courts.

These experiences have helped to shape the approach to regulating the Minnesota hemp industry that is outlined in this plan. We feel that the procedures that are detailed in this plan are the most practical and equitable means to regulate the hemp industry in Minnesota in alignment with the vision set forward by USDA, while allowing the hemp industry an opportunity to grow and flourish. Communication and cooperation with law enforcement and local government officials has been a top priority for our hemp program in order to provide accurate and timely information so that illegal activities associated with cannabis production are prevented. We are committed to working with the USDA to develop a hemp regulatory program that is agreeable to both agencies and are open to feedback on this plan.

Sincerely,

A handwritten signature in black ink that reads "Thom Petersen". The signature is written in a cursive, flowing style.

Thom Petersen
Commissioner

XL.01 Purpose

The purpose of these rules is to establish the requirements for persons to commercially produce hemp as provided under Chapter 18K. Licensing is required for persons to grow and process hemp in Minnesota.

XL.02 Definitions

“Acceptable hemp THC level” means when the application of the measurement of uncertainty to the reported delta-9 tetrahydrocannabinol content concentration level on a dry weight basis produces a distribution or range that includes 0.30% or less as defined in 7 Code of Federal Regulations part 990.1.

“Applicant” means a person who submits an application for a license as required under this chapter. If the applicant is an entity, the applicant should be the owner or most responsible individual in charge.

“Authorized representative” means any individual authorized by the licensee to make changes to the license and share data on behalf of the licensee. The licensee remains responsible for compliance with the license requirements irrespective of the acts or omissions of an authorized representative.

“Cannabis” means a genus of flowering plants in the family Cannabaceae of which *Cannabis sativa* is a species, and *Cannabis ruderalis* and *C. indica* are subspecies thereof. Cannabis also refers to any form of the plant in which the delta-9 tetrahydrocannabinol concentration on a dry weight basis has not yet been determined.

“Certified seed” means a hemp seed variety that has been bred to comprise satisfactory genetic purity and varietal identity and has been accepted by the Association of Seed Certifying Agencies (AOSCA), Organization of Economic Cooperation and Development (OECD) or other certifying entity as determined by the department.

“Certificate of Analysis” means a document issued by a Department approved laboratory which documents the Total THC content of the Lot that it accompanies.

“Commissioner” means the commissioner of agriculture.

“Controlled Substances Act” is the statute codified in 21 U.S.C. 801-971.

“Conviction” Means any plea of guilty or nolo contendere, or any finding of guilt, except when the finding of guilt is subsequently overturned on appeal, pardoned, or expunged. For purposes of this part, a conviction is expunged when the conviction is removed from the individual's criminal history record and there are no legal disabilities or restrictions associated with the expunged conviction, other than the fact that the conviction may be used for sentencing purposes for subsequent convictions. In addition, where an individual is allowed to withdraw an original plea of guilty or nolo contendere and enter a plea of not guilty and the case is subsequently dismissed, the individual is no longer considered to have a conviction for purposes of this part.

“Corrective Action Plan” means a plan proposed by a licensed hemp producer and approved by the Department to correct a negligent violation of or noncompliance with a United States Department of Agriculture approved state hemp production plan, Minnesota Statutes, or any other provision of this chapter.

“Criminal History Report” means the Federal Bureau of Investigation’s Identity History Summary.

“Culpable mental state greater than negligence” means to act intentionally, knowingly, willfully, recklessly or with criminal negligence.

“Decarboxylated” means the completion of the chemical reaction that converts THC-acid (THC-A) into delta-9-THC, the intoxicating component of cannabis. The decarboxylated value is also calculated using a conversion formula that sums delta 9-THC and eighty-seven and seven tenths (87.7) percent of THC-acid.

“Delta-9 tetrahydrocannabinol or THC” means the primary psychoactive component of cannabis. For the purposes of this rule, the terms “delta-9 THC” and “THC” are interchangeable.

“Department” means the Minnesota Department of Agriculture.

“Destruction” means the same as disposal.

“Disposal” means an activity that transitions the non-compliant product into a non-retrievable or non-ingestible form. Such activities include plowing, tilling, or disking plant material into the soil; mulching, composting, chopping, or bush mowing plant material into green manure; burning plant material; burying plant material into the earth and covering with soil.

“Drug Enforcement Administration or DEA” means the United States Drug Enforcement Administration.

“Dry weight basis” refers to a method of determining the percentage of a chemical in a substance after removing the moisture from the substance. Percentage of THC on a dry weight basis means the percentage of THC, by weight, in a cannabis item (plant, extract, or other derivative), after excluding moisture from the item.

“Dwelling” means any residential building or portion thereof intended or built for occupancy by one of more persons with facilities for living, sleeping, cooking and eating, including apartments, townhomes, and any other multi-family structures.

“Entity” means a corporation, joint stock company, association, limited partnership, limited liability partnership, limited liability company, irrevocable trust, estate, charitable organization, or other similar organization, including any such organization participating in the hemp production as a partner in a general partnership, a participant in a joint venture, or a participant in a similar organization.

“Farm Service Agency or FSA” means an agency of the United States Department of Agriculture.

“Fit for Commerce” means a document issued by the Department attesting that the raw hemp plant material has been tested for total THC concentration and complies with this chapter.

“Geospatial location” means a location designated through a global system of navigational satellites used to determine the precise ground position of a place or object.

“Grow location” means a contiguous land area, or greenhouses, hoop houses, or buildings for indoor cultivation, registered with the Department, on which a licensee or applicant will conduct licensed hemp cultivation activities. Each non-contiguous grow location must be registered separately.

“Grower” means any individual who grows hemp in order to harvest plants, plant parts, grain or seed.

“Genuine grower’s declaration” means a statement signed by the grower which gives for a Lot of hemp propagules, the Lot number, kind, variety, origin, quantity, year of production, date of shipment, and to whom it was sold, shipped, or delivered.

“Immature plant” means a cannabis plant that is not flowering.

“Key Participants” means a sole proprietor, a partner in a partnership, or a person with executive managerial control in a corporation or persons who have a direct or indirect financial interest in the entity producing hemp. A person with executive managerial control includes persons such as a chief executive officer, chief operating officer and chief financial officer. This does not include such management as farm, field or shift managers. This definition also does not include a member of the leadership of a Tribal government who is acting in their capacity as a Tribal leader except when that member exercises executive managerial control over hemp production.

“Licensee” means any person who holds a license from the Department to grow, produce, or, process, hemp.

“Lot” means a contiguous area in a field, greenhouse, or indoor growing structure containing the same variety or strain of cannabis throughout, and all hemp plants, plant parts, extracts and derivatives from a common source. The term Lot also means the terms “farm,” “tract,” “field,” and “subfield” as these are terms used by FSA in 7 CFR 718.2 to define Lot.

“Marketable hemp product” means a hemp product that does not contain any living hemp plant parts or viable seeds or does not contain THC above the acceptable hemp THC level.

“Measurement of Uncertainty” means the parameter, associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to measurement. Measurement uncertainty includes uncertainty due to sampling.

“Negligence” means failure to exercise the level of care that a reasonably prudent person would exercise in complying with the regulations set forth under this part.

“Person” includes individuals, firms, associations, joint ventures, partnerships, estates, trusts, business trusts, corporations, or businesses.

“Processing” means rendering hemp plants or plant parts from their natural or original state after harvest by refinement, such as, but not limited to, decortication, devitalization, chopping, crushing, extraction or packaging. Typical farm operations such as, but not limited to, sorting, grading, baling, and harvesting, are not considered processing for purposes of this definition.

“Processing location” means any area, building, plant, or facility registered with and approved by the Department in which a licensee will convert raw hemp into a marketable product.

“Processor” means a person or business that converts raw hemp into a product.

“Propagule” means seeds, clones, transplants and any other propagative hemp material.

“Raw hemp” means whole plants, whether growing or not, or the stalks, viable seeds, unaltered flowers or leaves, or any unprocessed plant pieces or parts.

“Remediation” means the process of rendering non-compliant cannabis, compliant. Remediation can occur by removing and destroying flower material, while retaining stalk, stems, leaf material, and seeds. Remediation can also occur by shredding the entire plant into a biomass like material, then retesting the shredded biomass material for compliance.

“Sampling Agent” means a person trained on applicable USDA, State or Tribal procedures to collect hemp samples. A sampling agent must have approval and certification from the Department in order to collect regulatory samples for the Department.

“Sell; sale” means keeping, offering, or exposing for sale, use, transporting, transferring, negotiating, soliciting, or exchanging hemp; having in possession with intent to sell, use transport, negotiate, solicit, or exchange hemp; storing, manufacturing, producing, processing, packing, and holding of hemp for sale; dispensing or giving hemp; or supplying or applying hemp in the conduct of any hemp operation or carrying hemp in aid of traffic in hemp whether done or permitted in person or through others.

“Territory of the Indian Tribe” 1) All land within the limits of any Indian reservation under the jurisdiction of the United States Government, notwithstanding the issuance of any patent, including rights-of-way running through the reservation;
2) All dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a State;
3) All Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same; and
4) Any lands title to which is either held in trust by the United States for the benefit of any Indian Tribe or individual or held by any Indian Tribe or individual subject to restriction by the United States against alienation and over which an Indian Tribe exercises jurisdiction.

“Total THC” means the value determined after the process of decarboxylation, or the application of a conversion factor if the testing methodology does not include decarboxylation, that expresses the potential total delta-9 tetrahydrocannabinol content derived from the sum of the THC and THCA content and reported on a dry weight basis. This post- decarboxylation value of THC can be calculated by using a chromatograph technique using heat, such as gas chromatography, through which THCA is converted from its acid form to its neutral form, delta-9 THC. Thus, this test calculates the total potential THC in a given sample. The total THC can also be calculated by using a liquid chromatograph technique, which keeps the THCA intact. This technique requires the use of the following conversion: $[\text{Total THC} = (0.877 \times \text{THCA}) + \text{delta-9 THC}]$ which calculates the potential total THC in a given sample [SD(1)].

“Volunteer plant” means a hemp plant that grows from seed resulting from a previous crop.

“Variety” means a subdivision of a kind that is distinct, uniform, and stable; “distinct” in the sense that the variety can be differentiated by one or more identifiable morphological, genetic, physiological, or other characteristics from all other varieties of public knowledge; “uniform” in the sense that variations in essential and distinctive characteristics are describable; and “stable” in the sense that the variety will remain unchanged in its essential and distinctive characteristics and its uniformity when reproduced or reconstituted

as required by the different categories of varieties.

XL.03 Application Process

Subpart 1. Each applicant for a hemp grower or processor license must pay a nonrefundable registration and inspection fee as well as submit an application which contains the following information:

- a. The applicant's full name, business address, telephone number, and email address if available. For an entity, the full business name, the principal business location address, telephone number, and the full name, title, and email address, if available, of each key participant of the entity;
- b. A list of authorized representatives, to be registered under the license;
- c. The proposed acreage and indoor square footage to be planted;
- d. The legal description and geospatial location of any proposed registered grow and/or processing area;
- e. A map of the grow location, showing the boundaries and dimensions of the grow location in acres or square feet;
- f. The landowner's name, phone number, and email address, if different than the grower; and
- g. As part of a complete application, each first time applicant shall provide to the Bureau of Criminal Apprehension an official fingerprint card of the applicant, a non-refundable Criminal History Report fee, and a completed informed consent form authorizing the department to obtain a federal/state criminal history report on the applicant. The criminal history report must be dated within 60 days of application.
- h. Each annual renewal shall require the payment of nonrefundable license renewal fees.

Subpart 2. A license shall not be issued unless the application submitted for review is complete and accurate, and the Criminal History Report confirms that the applicant has not been convicted of a felony, under state or federal law, relating to a controlled substance within the past ten years unless the exception in Section 7 CFR Section 990.20(b) applies. In addition, a license shall not be issued if the applicant has not submitted all reports required under this rule or owes past inspection fees or a penalty to the Department for violating any rules under this chapter.

Subpart 3. A license shall not be issued if the Department obtains knowledge that the applicant is applying for a license as a stand-in for someone whose license has been suspended, revoked, or is otherwise ineligible to participate.

Subpart 4. An applicant has an ongoing obligation during the course of their license period to ensure that that the individual grower, authorized representative, licensed applicant, or key participant has not been convicted of a felony relating to a controlled substance, including but not limited to possession, production, sale, use or distribution of a controlled substance in any form within ten years of the date of the application. If an individual has been convicted of a felony stated above, the individual shall be ineligible, during the 10-year period following the date of the conviction, to grow hemp or participate in the hemp program under this chapter.

Subpart 5. An applicant must be in compliance with all local, state and federal laws and ordinances before a grower or processor license may be issued.

XL.04 Grower License

Subpart 1. A person must possess a hemp grower license prior to planting or growing hemp in Minnesota.

Subpart 2. The licensee must report all plantings by variety to their local FSA office pursuant to 7 Code of Federal Regulations 990.7. Growers should consult with their local FSA county office for acreage reporting requirements.

Subpart 3. The licensee must submit an FSA 578 form to the FSA no more than 10 days after planting a hemp Lot. The licensee must submit a Planting Report to the Department no more than 10 days after submission of an FSA 578 form.. The licensee must submit a Harvest Report to the Department no more than 30 days and no less than 5 days before harvest.

Subpart 4. All licenses are valid until the last day of the calendar year in which it was issued and may be renewed in successive years.

Subpart 5. Any growing plant that is not harvested during the license period in which it was planted must be destroyed unless the license has been renewed.

Subpart 6. Licensees shall not change the location of a registered grow location without first notifying the department and the FSA. The licensee must submit the proposed change to the department along with an updated legal description, geospatial location, and map specifying the proposed changes to the registered grow location(s) and pay fees, prior to planting.

Subpart 7. Licensees growing hemp for seed certification must register with and follow the requirements for certification of the Minnesota Crop Improvement Association.

XL.05 Processor License

Subpart 1. A person shall obtain a hemp processor license prior to obtaining raw hemp materials for commercial processing purposes. Hemp processing in the State of Minnesota must be conducted by a licensed processor to enter the stream of commerce.

Subpart 2. Licensees shall provide to the Department or law enforcement upon request, information documenting the source material for any hemp plants, plant parts, grain, seeds and products that they are in possession of or had processed. Documentation must include, but is not limited to, any test results from an accredited laboratory validating that plant materials, and products did not exceed the acceptable hemp THC level.

Subpart 3. Licensees shall not change the location of a registered processing location without first notifying the Department. The licensee must submit the proposed change to the Department along with an updated legal description, Geospatial location, and/or map specifying the proposed changes to the registered processing location, and if applicable, pay additional fees, prior to commencing processing at the new location.

Subpart 4. A processor must obtain hemp from a licensed Minnesota grower or from sources approved through another state or federally approved plan. The processor must obtain a copy of the Fit for Commerce certificate or Certificate of Analysis demonstrating the material tested within the acceptable hemp THC level from the grower, specific to the Lot being purchased, prior to processing the hemp.

XL.06 Supervision, Sampling, Inspection, Research and Breeding

Subpart 1. Each licensee shall agree to the following:

- A. That the licensee agrees to maintain on record any testing results of final harvested materials and any processed materials, to ensure compliance with the 0.3% Total THC requirement;
- B. That the licensee has not made any materially false statement or misrepresentations regarding the person's cultivation or processing of cannabis plants;
- C. That the licensee shall not cultivate, process, move or distribute cannabis plants other than hemp unless licensed to do so;
- D. That the licensee shall not cultivate or process hemp in an area not licensed by the Department;
- E. That they are responsible to pay any fees applicable to the licensed activities;
- F. That the licensee must have the legal right which includes, but is not limited to, a valid deed or lease, to the registered grow location, including the legal authority to grant the Department access for inspection and sampling.

Subpart 2. Sampling, Testing and Destruction

- A. Licensee is responsible for ensuring that their hemp plants are at the acceptable hemp THC level.
- B. The compliance of any Lot will be based on whether the % Total THC result determined on a dry weight basis includes a value of 0.3% within a range of values specified by plus or minus the measurement uncertainty.
- C. As a condition of obtaining a license, the licensee must agree to allow the Department or a sampling agent to conduct field surveillance and crop sampling of the licensee's growing locations as requested by the Department. A regulatory sample must be collected by the Department or a sampling agent. Licensees cannot collect regulatory samples from their own growing locations.
- D. The licensee will submit a Planting Report to the Department. The Department will determine whether they will conduct an inspection at that location based on a defined inspection plan that combines random and targeted risk-based inspections to meet the requirement of achieving 95% confidence that all failing lots are identified.
- E. Prior to harvest, the licensee will submit a Harvest Report to the Department not more than 30 days and not less than 5 days before harvest. If the location will be inspected, the Department will schedule the inspection. If the location will not be inspected, within 30 days prior to harvest the licensee is required to submit a certificate of analysis from an approved lab to demonstrate that their Lot(s) are in compliance with % Total THC requirements.
- F. The license holder or an authorized representative shall be present at the growing site during inspection and be available by phone prior to or during the inspection, if possible. The landowner on record can be an authorized representative if granted by the license holder. Authorization for entrance to and inspection of property and collection of hemp samples for testing is granted by signature of the licensee as a part of the licensing process. If neither the license holder nor an authorized agent can be present during the regulatory inspection, prior communications with the license holder will occur to assure both the licensee and the inspector are aware of the Lots to be sampled, the location of said Lots, and any other information pertinent to the inspection process.
- G. The Department, sampling agent, or any law enforcement agency shall be provided with complete and unrestricted access during business hours to all hemp and other cannabis plants, whether growing or harvested, to areas where hemp is grown and stored, and all land, buildings and other structures used for the cultivation, handling, producing, and storage of all hemp and other cannabis plants, and all locations listed in the producer's application and license.
- H. Hemp must be harvested within 30 days of being sampled.

- I. A sample collected by the Department or a sampling agent shall be deemed representative of the Lot from which the sample was obtained.
- J. Any sample test result exceeding the acceptable hemp THC level shall be conclusive evidence that the Lot represented by the sample is not in compliance with this part and shall be disposed of or remediated in accordance with 7 Code of Federal Regulations §990.27.
- K. Any test result from a sample collected by the Department or a sampling agent will be considered the official test result representing the Lot. Any test result submitted by the licensee for Lot(s) that are not selected by the Department for official sampling under the performance-based sampling plan, must be from an approved testing lab.
- L. The Department will issue a Fit for Commerce certificate for all Lots that are sampled by the Department, or when a grower not selected by the Department for official sampling under the performance-based sampling plan submits a Certificate of Analysis showing the acceptable hemp THC level. The Fit for Commerce will identify the party that sampled the Lot and the lab that tested the sample. The licensee has the responsibility for the accuracy of the test results that they submit.
- M. Harvested Lots of hemp plants shall not be commingled with other harvested Lots or other material without a proper Fit for Commerce certificate.
- N. After December 31, 2022, only laboratories registered with the DEA may conduct testing under this rule.

Subpart 3. Research and Breeding

- a. In addition to the requirements of section XL.04, those applying for a license to research or breed hemp must submit a summary to the Department outlining their objectives that demonstrates to the Commissioner's satisfaction that research or breeding of hemp is being performed, a timeline of activities and a sampling plan that demonstrates a confidence level of 95% that no more than one percent of the plants in each Lot planted will exceed the acceptable hemp THC level. Sampling plans must also demonstrate a process for collecting a representative sample that is a homogeneous composition of the Lot and provide a disposal plan for any cannabis plants that are found to exceed the acceptable hemp THC level.
- b. Research and breeding licensees must provide testing data to the Commissioner when requested and may be subject to inspection, sampling and testing by the Department.
- c. Hemp that is grown for research purposes may not be offered for sale or enter the stream of commerce.
- d. Breeders must report all new varieties to the Department prior to release for commercial sale. They must also provide documentation that shows the varieties developed have been tested through a minimum of two generations to be at or below 0.3% THC.

XXXX.067 NONCOMPLIANT CANNABIS PLANTS

Subpart 1. Cannabis plants exceeding the acceptable hemp THC level constitutes marijuana, a Schedule I controlled substance under the CSA, 21 USC 801 et seq, and must be destroyed or remediated in accordance with 7 Code of Federal Regulations 990.27.

Subpart 2. Remediation can be achieved by separating and destroying non-compliant flowers while retaining stalks, leaves, and seeds; or by shredding the entire hemp plant to create a homogenous "biomass" that can be retested for THC compliance. This biomass shall be resampled and retested to

ensure the biomass material tests within the acceptable hemp THC level before it may enter the stream of commerce. If the biomass tests above the acceptable hemp THC level it is non-compliant hemp and must be destroyed.

Subpart 3. A licensee shall provide documentation as required by the Department to verify proper destruction or remediation.

XL.08 FIT FOR COMMERCE CERTIFICATION

Subpart 1. Ownership of raw hemp may not be transferred to a processor or to the public without a Fit for Commerce certificate.

Subpart 2. No processor may acquire or process raw hemp grown within Minnesota without acquiring a copy of a Fit for Commerce certificate issued by the Department to the grower, specific to the Lot being purchased.

Subpart 3. For the purposes of this section, “processing” does not include remediation, drying or field-cleaning of hemp. The licensee must notify the Department if they are drying or field-cleaning hemp from the Lot in a location other than what is listed on the licensee’s application or license.

Subpart 4. A licensed processor using hemp which was obtained from outside of the state of Minnesota must maintain a bill of lading, certificate of analysis, and other proper documentation demonstrating that the hemp was from a source approved through another state or federally approved plan. The licensee must retain such records for three years and produce them upon request of the department, law enforcement, or other regulatory entity. Imported products must meet all applicable state and federal laws.

XL.09 TRANSPORTING HEMP

Subpart 1. During transport of any raw hemp, the transporter must have in their possession:

- a. A copy of the owner of the raw hemp’s license, and, if different, the license of the individual receiving the raw hemp, a Fit for Commerce Certificate, certificate of analysis or equivalent; and
- b. A bill of lading or other proper documentation demonstrating that the hemp was legally imported into Minnesota under applicable state and federal laws and from sources approved through another state or federally approved plan

XL.10 HEMP PROPAGULES

Subpart 1. To sell or purchase hemp propagules, the licensee must maintain the following documents on record for 3 years:

- a. Lot number or other Lot identification;
- b. a copy of the genuine grower's declaration or similar documents containing the same information;
- c. copies of invoices showing the sale of each propagule Lot, including the name of the person the Lot was sold to, the amount sold, the date of sale, the name of the variety, and the Lot number;
- d. a copy of the label that was attached to or accompanied the propagule Lot;
- e. a copy of the field and final certification documents, if applicable;
- f. a copy of each report concerning the testing of hemp seed for labeling purposes, including Total THC; and

- g. A copy of required USDA documents if importing from another country.

Subpart 2. The licensee agrees that upon suspension, revocation, expiration, or nonrenewal of a licensee's license, any hemp live cannabis plants must be destroyed without reimbursement;

Subpart 3. Any volunteer hemp plants growing in subsequent years must be destroyed or a licensee may register that grow location and cultivate and harvest the volunteer plants if they obtain permission from the Department and pay fees associated with registering the grow location. The licensee must also update the location information with the FSA.

Subpart 4. A hemp seed labeler selling seed in Minnesota must possess a current Minnesota seed permit and follow all federal and state seed laws.

Subpart 5. A person shall not sell hemp propagules to any person in the state that is not licensed by the Department. Upon request from the Department, a person selling hemp propagules shall provide records showing to whom hemp propagules were distributed.

Subpart 6. A licensee shall not acquire or grow hemp propagules of wild, landrace, or unknown origin without first obtaining written approval from the Department. Each Lot of hemp clones must have THC tested for each parental source before sale of any plants from that Lot.

XL.11 HEMP PRODUCTION

Subpart 1. Unless restricted by local ordinance or other state law, hemp can be grown in any area zoned for agriculture.

Subpart 2. Hemp cannot be grown in residential dwellings.

Subpart 3. Hemp production and processing practices must meet all federal and state pesticide, food and feed laws.

XL.12 HEMP DATA AND REPORTING REQUIREMENTS

Subpart 1. The licensee must maintain records regarding the acquiring, production, handling, selling, destruction, and remediation of all plants subject to this chapter. All records must be maintained for at least three years. Each grow location or processing area inspection may include an audit of the licensee's records and data, and all records shall be available for inspection by the Department or their designees during reasonable business hours or submitted to the Department upon request.

Subpart 2. A licensee shall notify the Department and local law enforcement within 24 hours of discovery that any of their hemp and cannabis is missing, has been stolen, or is suspected to have been modified or tampered without the licensee's approval.

Subpart 3. A copy of the license shall be provided upon request to the Department or law enforcement at any time. A copy must be given to the landowner or facility owner where hemp is grown or processed if they are different from the licensee.

Subpart 4. Any information obtained by the Department regarding a licensee's growing or production of hemp may be provided to federal, state or local law enforcement agencies by the Department without

further notice to the licensee.

Subpart 5. Laboratories approved by MDA to conduct regulatory samples of hemp for licensees shall report the results for all samples tested to the USDA pursuant to 7 Code of Federal Regulations 990.70. Informal testing conducted throughout the growing season for purposes of monitoring THC concentration do not need to be reported to USDA.

Subpart 6. The Department shall maintain information on sampling agents as required by federal law.

XL.13 DENIALS AND VIOLATIONS

Subpart 1. Applications for a license shall be denied if the applicant or key participant has been convicted of any felony related to the possession, production, sale, or distribution of a controlled substance in any form within ten years of the date of the application. If an individual outlined in XL.03 has any of the above on their Criminal History Report, they will be ineligible, during the ten-year period following the date of the conviction, to produce hemp or participate in the hemp program under this chapter.

Subpart 2. In the event of license or registration revocation, any hemp in possession of the revoked party must be destroyed by the party or it will be subject to seizure and destruction by the Department or law enforcement. Any cost of the seizure and destruction shall be at the revoked party's expense.

Subpart 3. Negligent violations. A producer shall be subject to enforcement for negligently:

- A. Failing to provide an accurate legal description of land where hemp is produced;
- B. Producing hemp without a license;
- C. Producing cannabis (marijuana) exceeding the acceptable hemp THC level. Hemp producers do not commit a negligent violation under this paragraph if they make reasonable efforts to grow hemp and the cannabis does not have a delta-9 tetrahydrocannabinol concentration exceeding the level defined in 7 Code of Federal Regulations part 990.6(b)(3).

Subpart 3a. Producers shall not receive more than one negligent violation per growing season.

Subpart 4. Corrective Actions for negligent violations. For each negligent violation, the Department will issue a Notice of Violation and require a corrective action plan for the producer. The producer shall comply with the corrective action plan to correct the negligent violation. Corrective action plans will be in place for a minimum of two years from the date of their approval. Corrective action plans will, at a minimum, include;

- A. The date by which the producer shall correct each negligent violation;
- B. Steps to correct each negligent violation; and
- C. A description of the procedures to demonstrate compliance must be submitted to the Department.
- D. A producer that negligently violates this part shall not, as a result of that violation, be subject to any criminal enforcement by any federal, state, or local government.
- E. If a subsequent violation occurs while a corrective action plan is in place, a new corrective action plan must be submitted with a heightened level of quality control, staff training, and quantifiable action measures.
- F. A producer that has three negligent violations in a five-year period shall have their license revoked and be ineligible to produce hemp for a period of five years beginning on the date of the third violation.
- G. The Department will conduct inspections to evaluate the implementation of the corrective

action plan.

Subpart 5. If the Department determines that a licensee has violated the terms of the license or of this part with a culpable mental state greater than negligence:

- A. The Department shall immediately report the violation to the United States Department of Agriculture, the U.S. Attorney General, and the chief law enforcement officer of the state.
- B. Subparts 3 and 4 do not apply to culpable violations.

XL.14 License Revocation.

Subpart 1. The Department shall immediately revoke a license from a producer if such producer;

- A. Pleads guilty to, or is convicted of, any felony related to a controlled substance; or
- B. Made any materially false statement with regard to this chapter, including the application to the Department with a culpable mental state greater than negligence; or
- C. Is found to be growing cannabis exceeding the acceptable hemp THC level with a culpable mental state greater than negligence or negligently violating this chapter three times in five years.

Subpart 2. It is unlawful to hinder or obstruct an inspector from inspecting, sampling or carrying out the duties under this section or Minnesota Statutes Chapter 18K.

XL.15 Laboratory Requirements

Subpart 1. At a minimum, analytical testing of samples for delta-9 tetrahydrocannabinol concentration levels must use post-decarboxylation or other similarly reliable methods approved by the Department and USDA. The total delta-9 tetrahydrocannabinol concentration level shall be determined and reported on a dry weight basis.

Additionally, measurement of uncertainty must be estimated and reported with test results. Laboratories shall use appropriate, validated methods and procedures for all testing activities and evaluate measurement of uncertainty.

Appendix 1. Hemp Inspection, Sampling, and Testing Protocol

Purpose

Samples are taken to obtain specimens for the measurement of tetrahydrocannabinol (THC) content, which determines whether the plants are hemp or marijuana. The measurements are intended to be representative of the THC content in a Lot of hemp crop acreage as identified by the producer. Samples are taken to obtain specimens for the measurement of tetrahydrocannabinol (THC) content, which determines whether the plants are hemp or marijuana. The measurements are intended to be representative of the THC content in a Lot of hemp crop acreage as identified by the producer. Hemp growers must submit Harvest Report to the Department no more than 30 days and no less than 5 days prior to harvest.

Scope

Samples collected according to these procedures are acceptable for submission to a qualified, Department- approved laboratory for regulatory determination of THC in hemp.

Since the THC content of hemp generally peaks as the plant ripens, the timing of when sampling occurs is important to accurately measure THC concentration and monitor compliance with the Minnesota Hemp Development Act (M.S. 18K) and the 2018 Farm Bill (7 U.S.C. 1639).

Official regulatory samples must be collected by a Department inspector or sampling agent. All official samplers must receive hemp-specific training on sample collection, provided by either the MDA or the USDA. It is the responsibility of the licensee to pay any fees associated with sampling. An official sample will be considered to represent the THC level of a Lot. Licensees must also sample according to the Department sampling protocol for Lots that MDA does not inspect.

Inspection Selection and Notification

All hemp licensees in Minnesota are subject to routine inspection of the facility, grow location, and records required by the Department, FSA, and USDA. All hemp Lots grown in Minnesota are also subject to sampling to verify that the THC concentration of the hemp planted within a registered site does not exceed the acceptable hemp THC level. The licensee must obtain confirmation from the Department that official sampling has been completed or is not required for a Lot before it is harvested.

The Department shall utilize both risk-based and random approaches to select licensees to be inspected and Lots to be sampled to meet the performance-based sampling goals. The Department shall sample the appropriate number of plants to ensure, at a confidence level of 95%, that no more than 1% of the plants in the Lot would exceed the acceptable hemp THC level.. Risk-based determinations will be based on the grower's history including those operating under a corrective action plan as well as variety testing data to prioritize sampling higher-risk varieties. The Department will update this inspection selection and sampling model as needed to ensure that we have 95% confidence in detecting non-compliant hemp in the state. Updated inspection and sampling protocols will be submitted to the USDA for approval.

The Department will use the following procedures to identify growers that will be inspected and to select hemp Lots for sampling each year:

A. GROWERS

1. MDA will compile list of all licensees. MDA will use the licensees' performance history to determine if inspection and/or sampling are necessary.

- a. Growers in the program for at least two years with no history for growing non-compliant hemp may not be selected for inspection or sampling. Growers that maintain a program to evaluate compliance prior to harvest through routine testing may only be subject to a records inspection.
 - b. New growers will always be inspected and sampled.
 - c. Growers operating under a Corrective Action Plan will be inspected and sampled.
 - d. Growers also licensed to grow for the Medical Cannabis Program will always be inspected and sampled.
2. MDA will compile a list of all registered grow locations for growers that merit inspection and sampling based on the criteria above. MDA will first inspect and sample any Lot that falls into one of the following risk factors:
 - New Variety in Minnesota
 - Variety that has had a $\geq 10\%$ failure rate previously in Minnesota, based on historical data (see Appendix 2)
 - If a variety is not approved by Health Canada, AOSCA or OECD or other organization that approves hemp varieties for seed certification, then it will be deemed high risk if it meets one of the following two criteria: The historical testing data in Minnesota (Appendix 2) shows that there have been fewer than 5 samples taken of this variety, or it has a $\geq 5\%$ failure rate
 - Lots that are from Open-Pollinated Seed Saved for Replanting
 - Lots grown next to Recreational Marijuana grows if it becomes legal in Minnesota
 3. After the risk-based analysis is completed and licensees are selected for inspection and/or sampling, each remaining unassigned grow location will be assigned a random number by using a random number generator.
 4. Additional grow locations will be selected for sampling in random numerical order, until 80% of the total registered grow locations are selected. *

*Exact percentage of grow locations to be selected will fluctuate depending on the number of hemp Lots that have risk factors. The MDA is using all historical THC testing results data from the 5 years of the Minnesota Hemp Pilot Program to determine low- and high-risk varieties (data published on the MDA website).

B. RESEARCHERS AND BREEDERS

1. MDA will conduct a facility and/or records inspection of all licensees of this type on an annual basis to determine compliance with requirements under this section.
2. Licensees are also subject to official sampling if deemed necessary as a result of the facility/records inspection.

In addition to any routine inspection and sampling, MDA may inspect and take samples from any registered site during normal business hours without advance notice if they have reason to believe a violation of the program rules is occurring.

This document provides procedures for entering a growing area and collecting the minimum number of plant specimens necessary to represent a homogeneous composition of the Lot that is to be sampled. For the purposes of these procedures, a Lot is a contiguous area in a field, greenhouse, or indoor growing structure containing the same variety or strain of cannabis throughout. A Lot is to be defined by the grower in terms of farm location, field acreage, and to be reported as such to the FSA.

The licensee must file a Planting Cycle Form with the MDA to report their planted Lots and anticipated harvest dates. Licensee must record their "FSA number" on the Planting Cycle Form, i.e. the Farm-Tract-CLU/Field Number from their completed FSA-578 form. A physical copy of the form may be submitted by mail, email, or fax, or they may submit electronically via the OnBase Planting Cycle Form. The MDA staff will select Lots for sampling and schedule inspections

based on the anticipated harvest date(s) declared on the form. Hemp growers may not harvest hemp prior to submitting a Harvest Report to the Department. Samples are taken to obtain specimens for the measurement of tetrahydrocannabinol (THC) content, which determines whether the plants are hemp or marijuana. The measurements are intended to be representative of the THC content in a Lot of hemp crop acreage as identified by the producer. Hemp growers may not harvest hemp prior to submitting a Harvest Report to the Department.

MDA will send notification by phone/email to each licensee selected for sampling of an upcoming inspection. MDA inspectors will work with the licensee to schedule the inspection for a date and time that works for both parties, however, it may not always be possible for the inspector to accommodate their schedule. For those Lots that will be sampled by the Department, harvest of the Lot must be completed no more than 30 days after, and not before, the regulatory sample collection date.

During an inspection, the licensee or an authorized representative with clear knowledge of the variety delineations should be present to direct the inspector accordingly. Inspectors must be provided complete and unrestricted access to all hemp plants, parts, and seeds within a registered site whether growing or harvested; all land, buildings and other structures used for the cultivation and storage of hemp; and all records. The licensee must label or otherwise clearly mark the field and individual Lots of hemp. The MDA inspector will verify the correct Lots are being sampled by checking the labels. The MDA inspector will take photos of the labels as part of the inspection process. If a location lacks clear boundaries for accurate sample collection, inspector will indicate as such on the Inspection Form.

A Notice of Inspection (NOI) must be issued prior to conducting each field inspection and sampling. The NOI will be emailed/mailed to the licensee prior to visiting the field, delivered by hand at the time of inspection, or emailed/ mailed after the inspection.

Sampling Timing

Within the 30- day window prior to the anticipated harvest of cannabis plants, an MDA inspector shall collect representative samples from such cannabis plants for THC concentration testing. In general, at least 75% of the female plants in the Lot must be in flower, with at least 2 inches of flower present lengthwise along the stem, for the inspector to be able to take a sample. In some cases, harvest might occur prior to, or very early in, the flowering process, such as for hemp grown for fiber production. After verifying with the grower that the harvest will indeed occur within 30 days, the inspector will collect the top 5 inches of leaf and stem material from the plants.

Sampling Equipment

1. **Clippers**- Must be cleaned and disinfected prior to and following each composite sample.
2. **Sampling Bags** (brown paper bags)- The bags should be made from material known to be free from THC.
3. **Custody Seals**- To seal the paper bag after the sample has been placed inside.
4. **Sample Stickers**- To label the sampling bag with the correct sample ID number.
5. **MDA Inspection & Sampling Form and/or OnBase Inspection Form**- To be completed by inspector on state-issued iPhone or Tablet.
6. **Camera/ Phone with camera**
7. **Disposable gloves**
8. **Lysol spray or alcohol**- For disinfecting clippers.

9. Steel wool- May be needed to scrub sticky plant resins off of the clipper blades.

Sampling Procedure

For sampling purposes, samples from separate Lots must be kept separate and not be come in contact with each other. Each hemp Lot and sample must consist of one variety.

1. The inspector strategically examines the growing area and establishes an approach for navigating the growing area. Inspector talks to individual present on site and tells them what they will do to collect the sample. Inspector shall check that the Lots are labeled with Lot numbers and/or variety names, and ensure they clearly understand the extent of each Lot before they begin sampling.
2. Inspector pulls next consecutive sample label off the sheet and places on a clean paper bag.
3. Inspector records sample number and variety name on Inspection form, as well as notes on the hemp Lot condition, size of the population, and number of plants sampled.
4. Inspector takes 3 pictures for each sample collected: the bag with the label; the marker with the Lot number or variety name that the grower has placed to identify the Lot; and the hemp plants representing the Lot.



5. Inspector collects individual specimens of plants in order to obtain a representative sample of the designated hemp Lot.

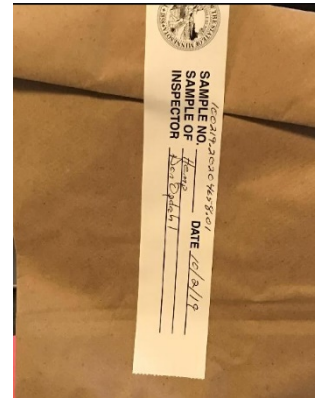
6. Inspector walks through the grow location to collect samples at random intervals. “Industrial” hemp fields, as those grown for fiber or grain, are densely planted. In those fields, the inspector walks a transect through the grow location, beginning at one point and walking towards another point on the opposite side of the field. Inspectors will walk a total of 2- 4 additional transects in perpendicular directions. For “CBD-type” hemp grows, the plants are usually widely spaced and planted in rows. The inspector may walk up and down the rows in a zigzag pattern. In either case, the inspector shall take cuttings of the appropriate number of plants at random intervals. Exact sampling pattern is ultimately at the discretion of the inspector.



7. The inspector shall cut the **top 5 inches of the female, flowering plants from the top half of the plant**. All cuttings from each Lot shall be placed in a paper bag, ensuring that each variety is in its own separate bag. The inspector will seal the bag with a chain of custody seal.

8. Inspector shall cut flowers growing on the top half of the plant. For CBD-type hemp, the inspector should cut flowers from a mixture of leading colas and side-branch flowers, while still limiting the cuttings to the top half of the plant. For grain- and fiber- type hemp, inspectors will take cuttings from the main flower/stalk.

9. Inspector shall repeat steps 1-8 for each subsequent Lot. Inspector shall complete the process for each Lot before beginning sampling of a new Lot.



Sample Size Guidelines

The number of individual cuttings for each Lot will vary based on the population size. Inspectors will use the following guidelines to determine how many plants to sample for each Lot.

For small indoor and outdoor grow locations, inspectors shall sample as such:

- 1- 10 plants—sample every plant
- 10- 50 plants—sample half the plants
- 50 + plants- take cuttings of 30 plants

For all other fields, up to 100 acres in size, 30 plants will be sampled. Individual, non-contiguous fields will be sampled separately. Each variety will be considered a separate Lot and will be sampled separately.

For fields over 100 acres: the number of samples will be 30 plants + 10 plants per additional 100 acres.

Sample Identification

Samples will be labeled with a unique number for every sample. Sample number stickers will be provided to all inspectors. Sample numbers are written in the format of initials; year collected; and number of the sample chronologically. For example, JS21001 (JS for John Sampler, 21 for 2021, and 001 for the first sample of the year). Inspectors should use stickers in chronological order. Inspector shall place sticker on outside of paper bag.

Data Collection

The inspector will verify the GPS coordinates of the growing area as compared with the GPS coordinates submitted by the licensee. The inspector shall visually scan the homogeneity of the stand to establish that the growing area is of like variety. The inspector may record notes concerning characteristics of the hemp stand, such as, the approximate density, condition of the plants, and degree of maturity of the flowering material. The inspector shall record the total number of plants and/or size in acreage or square footage for each Lot sampled, as well as the number of plants sampled.

Inspector shall also attempt to gather the following information from the grower or authorized representative present at the time of inspection: variety name(s), source of seed/plants (seller/labeler), seed label, and certificate of analysis for the varieties planted. If the information is not obtainable at the time of inspection, inspector shall indicate as such.

Inspectors will complete an OnBase Inspection Form on a state-issued iPhone or tablet for each Lot sampled.

Specimen Handling and Testing

Samples should be stored in a dry location until drop-off at the testing laboratory to maintain sample integrity. Samples should be submitted to the lab as soon as possible. If immediate lab submission is not possible, then the inspector

should shake up the plant material in the bags once a day to ensure they are not molding within the bag. Each sample is recorded on a sample chain of custody form, which must follow the sample during transport, and is submitted to the lab along with the samples. Any time the sample changes hands, the chain of custody form must be signed and dated by the inspector.

Samples may also be mailed to the lab by the inspector. Mailed samples should be overnighted and should not be sent on Fridays to ensure that they do not get stuck in the box for the weekend. Mailed samples should have a completed sample chain of custody form included in the box.

Sample drying begins immediately upon arrival at the lab in order to avoid mold or rotting. If the plants are particularly high in moisture content, they may be dried on a drying rack or in a heat dryer. The dried sample is then ground up in a grinding machine to completely homogenize the sample. The ground material is passed through a sieve with 1.5 screen size.

The delta-9 tetrahydrocannabinol is currently analyzed for regulatory samples via High Performance Liquid Chromatography (HPLC) with an Ultraviolet (UV) light detector (HPLC/UV) by the lab, but either Gas Chromatography (GC) or HPLC methods are acceptable.

THC concentration is reported to approximately 0.00200% reporting limit by weight (dependent on the exact mass of the testing sub-sample). The final number used for regulatory purposes is **delta-9 THC post-decarboxylation**, which is equal to delta-9 THC + (THCA*0.877) when analyzed via HPLC methodology. The THC concentration, after factoring in the lab's testing measure of uncertainty, may not exceed 0.3%.

Hemp Lot Certification and Failures

Upon receipt of the test results, MDA will mail a letter to the licensee. A Fit for Commerce Certificate will be mailed to those licensees whose samples tested at or below the acceptable hemp THC level. A Failure Notice is mailed to those licensees whose samples test above the acceptable hemp THC level.

Any destruction of failed hemp Lots must be entered into an MDA Disposal Report Form. The licensee, inspector, or law enforcement agent will submit the completed form to the Department.

Sampling After Remediation

Remediated biomass shall be resampled and retested to ensure compliance before entering the stream of commerce. Biomass that fails the retesting shall be destroyed.

The remediated biomass must be shredded by the grower, prior to the resampling inspection. The biomass material must be a homogenous, uniform biomass. Remediated biomass should be separated from any compliant hemp and clearly labeled and demarcated as "hemp for remediation purposes." All Lots subject to remediation should be stored, labeled, and demarcated apart from each other and from other compliant hemp Lots stored nearby.

A representative sample of the biomass should be taken for compliance purposes. When taking the resample, the inspector should take biomass material from various depths, locations, and containers in the labeled and demarcated area to collect a representative sample of the material. At minimum, about 750 milliliters (mL) or three (3) standard measuring cups of biomass material should be collected. If 750 mL of material is not available, the inspector should collect enough biomass material for a representative sample. The inspector shall label, record, handle, and submit the collected sample in the same manner as is done with regulatory samples of live hemp plants.



Remediated biomass should not leave the labeled and demarcated area until a test results showing compliance with the acceptable hemp THC level is received or until the biomass will be destroyed.

Appendix 2. Data Sharing Protocol

Purpose

To specify the data that the Minnesota Department of Agriculture (MDA) collects during the licensing, inspection, and sampling process for the Hemp Program, and indicate the procedure by which the MDA will report such data to the U.S. Department of Agriculture (USDA).

Data Collection

The MDA collects data from Hemp Program applicants during the application process. The data is entered by the applicant into an online application form and the collected data is stored in a State License Information System (LIS) and a secure, online ArcGIS map which is monitored by the MDA Hemp Program staff and State Information Technology personnel. The following data is collected from each Applicant during the license application process and maintained by the MDA:

1. Full name of each Applicant
2. Federal Employer Identification Number (EIN) of Entity Applicant
3. Physical address of individual Applicant
4. Physical address of principal business location of Entity Applicant
5. Mailing address, if different from physical address
6. Telephone Number
7. Email address, if available
8. Full name, title, and email address (if applicable) of Key Participants
9. Criminal History Report of each individual Applicant or Key Participants
10. Date of application and Date of licensing
11. Legal description of each registered land area where hemp will be grown or processed, which includes;
 - a. Street address
 - b. City and State
 - c. Zip Code
 - d. County
 - e. Latitude
 - f. Longitude
 - g. Township
 - h. Range
 - i. Section
 - j. Quarter Section
12. Geospatial location data on land area where hemp will be grown or processed

The MDA creates or assigns the following data for each licensee at the time of application:

1. License Number
2. Entity ID Number
3. License Status (i.e. In Good Standing, On Hold, Revoked, etc.)

The MDA inspects and samples a random subset of registered grow locations and submits samples to a Department-approved lab for THC analysis. Samples of hemp plants are collected for every Lot by the licensee and the samples are submitted to a Department- approved lab for THC concentration analysis. Samples collected by all entities will follow procedures as outlined in the Department's Sampling Plan. The lab reports the test results to the MDA. The MDA hemp program staff makes the determination of whether a specific hemp Lot conforms to the legal definition of hemp based on the test results. The data collected during this process are listed below. This data will be maintained by the MDA and shared with the USDA to the extent necessary to comply with 7 C.F.R. Part 990:

1. Sample number
2. Hemp variety sampled
3. Name of the grower/license holder
4. FSA Lot Number (Farm, Tract, CLU/Field number)
5. Producer's license number
6. Legal description and geospatial location of the land area where the sample was collected
7. Date of sampling
8. Date of lab submission
9. THC test results for the sample
10. Legal determination of sample (Pass/Fail)

Data Retention

The Hemp Program will maintain application, licensing, and testing information for four years.

MDA Data Reporting

Producer Report: As required by 7 C.F.R. § 990.70(a), the MDA will share a Producer Report with the USDA. The MDA will email an Excel spreadsheet to the appropriate USDA mailbox by the first of each month. The MDA will only send data on **new** licenses issued and **changes** to licenses in the 30 days since the last report was sent. After the USDA has developed an automated, online method of delivering the information, the MDA will use that new system.

Disposal and Remediation Report: In accordance with 7 C.F.R. § 990.70(b), the MDA will notify the USDA of any occurrence of cannabis plants or plant material that do not meet the definition of hemp, and attach records demonstrating the appropriate Disposal or Remediation of all of those plants and materials from the Lot from which the representative samples were taken. MDA will provide USDA a Hemp Disposal and Remediation Report every month with the information required by that subpart, including:

1. Name and address of the producer
2. Producer license number
3. Location information, such as Lot number, location type, and geospatial data, or other location descriptor for the production area subject to Disposal or Remediation, Disposal or Remediation completion date
4. Total acreage

Annual Report: MDA will provide USDA with an Annual Report by December 15 of each year, as required by 7 C.F.R. § 990.70(c), with the following information:

1. Total planted acreage.
2. Total harvested acreage.
3. Total acreage Disposed or Remediated

Minnesota Statute 18K

<https://www.revisor.mn.gov/statutes/cite/18K/full>

18K.01 SHORT TITLE.

This chapter may be referred to as the "Industrial Hemp Development Act."

History:

[1Sp2015 c 4 art 2 s 38](#)

18K.02 DEFINITIONS.

Subdivision 1. Scope.

The definitions in this section apply to this chapter.

Subd. 2. Commissioner.

"Commissioner" means the commissioner of agriculture.

Subd. 3. Industrial hemp.

"Industrial hemp" means the plant *Cannabis sativa* L. and any part of the plant, whether growing or not, including the plant's seeds, and all the plant's derivatives, extracts, cannabinoids, isomers, acids, salts, and salts of isomers, whether growing or not, with a delta-9 tetrahydrocannabinol concentration of not more than 0.3 percent on a dry weight basis. Industrial hemp is not marijuana as defined in section [152.01, subdivision 9](#).

Subd. 4. Marijuana.

"Marijuana" has the meaning given in section [152.01](#), subdivision 9.

History:

[1Sp2015 c 4 art 2 s 39](#); [1Sp2019 c 1 art 2 s 10](#)

18K.03 AGRICULTURAL CROP; POSSESSION AUTHORIZED.

Subdivision 1. Industrial hemp.

Industrial hemp is an agricultural crop in this state. A person may possess, transport, process, sell, or buy industrial hemp that is grown pursuant to this chapter or lawfully grown in another state.

Subd. 2. Sale to medical cannabis manufacturers.

A licensee under this chapter may sell hemp products derived from industrial hemp grown in this state to medical cannabis manufacturers as authorized under sections [152.22](#) to [152.37](#).

History:

[1Sp2015 c 4 art 2 s 40](#); [1Sp2019 c 1 art 2 s 11](#); [1Sp2019 c 9 art 11 s 1](#)

18K.04 LICENSING.

Subdivision 1. Requirement; issuance; presumption.

(a) A person must obtain a license from the commissioner before growing industrial hemp for commercial purposes. A person must apply to the commissioner in the form prescribed by the commissioner and must pay the annual registration and inspection fee established by the commissioner in accordance with section [16A.1285, subdivision 2](#). The license application must include the name and address of the applicant and the legal description of the land area or areas where industrial hemp will be grown by the applicant.

(b) When an applicant has paid the fee and completed the application process to the satisfaction of the commissioner, the commissioner must issue a license which is valid until December 31 of the year of application.

(c) A person licensed under this section is presumed to be growing industrial hemp for commercial purposes.

Subd. 2. Background check; data classification.

The commissioner must require each first-time applicant for a license to submit to a background investigation conducted by the Bureau of Criminal Apprehension as a condition of licensure. As part of the background investigation, the Bureau of Criminal Apprehension must conduct criminal history checks of Minnesota records and is authorized to exchange fingerprints with the United States Department of Justice, Federal Bureau of Investigation for the purpose of a criminal background check of the national files. The cost of the investigation must be paid by the applicant. Criminal history records provided to the commissioner under this section must be treated as private data on individuals, as defined in section [13.02, subdivision 12](#).

Subd. 3. Federal requirements.

The applicant must demonstrate to the satisfaction of the commissioner that the applicant has complied with all applicable federal requirements pertaining to the production, distribution, and sale of industrial hemp.

History:

[1Sp2015 c 4 art 2 s 41](#)

18K.05 ANNUAL REPORT; SALES NOTIFICATION.

(a) Annually, a licensee must file with the commissioner:

(1) documentation demonstrating to the commissioner's satisfaction that the seeds planted by the licensee are of a type and variety that contain no more than three-tenths of one percent delta-9 tetrahydrocannabinol; and

(2) a copy of any contract to grow industrial hemp.

(b) Within 30 days, a licensee must notify the commissioner of each sale or distribution of industrial hemp grown by the licensee including, but not limited to, the name and address of the person receiving the industrial hemp and the amount of industrial hemp sold or distributed.

History:

[1Sp2015 c 4 art 2 s 42](#)

18K.06 RULEMAKING.

(a) The commissioner shall adopt rules governing the production, testing, and licensing of industrial hemp.

(b) Rules adopted under paragraph (a) must include, but not be limited to, provisions governing:

(1) the supervision and inspection of industrial hemp during its growth and harvest;

(2) the testing of industrial hemp to determine delta-9 tetrahydrocannabinol levels;

(3) the use of background check results required under section [18K.04](#) to approve or deny a license application; and

(4) any other provision or procedure necessary to carry out the purposes of this chapter.

(c) Rules issued under this section must be consistent with federal law regarding the production, distribution, and sale of industrial hemp.

History:

[1Sp2015 c 4 art 2 s 43](#)

18K.07 FEES.

Fees collected under this chapter must be credited to the industrial hemp account, which is hereby established in the agricultural fund in the state treasury. Interest earned in the account accrues to the account. Funds in the industrial hemp account are annually appropriated to the commissioner to implement and enforce this chapter.

History:

[1Sp2015 c 4 art 2 s 44](#)

18K.08 DEFENSE FOR POSSESSION OF MARIJUANA.

It is an affirmative defense to a prosecution for the possession of marijuana under chapter 152 if:

(1) the defendant possesses industrial hemp grown pursuant to this chapter; or

(2) the defendant has a valid controlled substance registration from the United States Department of Justice, Drug Enforcement Administration, if required under federal law.

History:

[1Sp2015 c 4 art 2 s 45](#)

18K.09 PILOT PROGRAM; OTHER RESEARCH AUTHORIZED.

Subdivision 1. Authorized activity.

The commissioner may grow or cultivate industrial hemp pursuant to a pilot program administered by the commissioner to study the growth, cultivation, or marketing of industrial hemp. The commissioner may: (1) authorize institutions of higher education to grow or cultivate industrial hemp as part of the commissioner's pilot program or as is necessary to perform other agricultural, renewable energy, or academic research; and (2) contract with public or private entities for testing or other activities authorized under this subdivision. Authorized activity under this section may include collecting seed from wild hemp sources.

Subd. 2. Site registration.

Before growing or cultivating industrial hemp pursuant to this section, each site must be registered with and certified by the commissioner. A person must register each site annually in the form prescribed by the commissioner and must pay the annual registration and certification fee established by the commissioner in accordance with section [16A.1285, subdivision 2](#).

Subd. 3. Rulemaking.

The commissioner may adopt rules that govern the pilot program pursuant to this section and Public Law 113-79.

Minnesota Statute 18J

<https://www.revisor.mn.gov/statutes/cite/18j/full>

18J.01 DEFINITIONS.

(a) The definitions in sections [18G.02](#), [18H.02](#), [18K.02](#), [27.01](#), [223.16](#), [231.01](#), and [232.21](#) apply to this chapter.

(b) For purposes of this chapter, "associated rules" means rules adopted under this chapter, chapter 18G, 18H, 18K, 27, 223, 231, or 232, or sections [21.80](#) to [21.92](#).

History:

[2003 c 128 art 6 s 1](#); [2012 c 244 art 1 s 15](#); [1Sp2015 c 4 art 2 s 21](#)

18J.02 DUTIES OF COMMISSIONER.

The commissioner shall administer and enforce this chapter, chapters 18G, 18H, 18K, 27, 223, 231, and 232; sections [21.80](#) to [21.92](#); and associated rules.

History:

[2003 c 128 art 6 s 2](#); [2012 c 244 art 1 s 16](#); [1Sp2015 c 4 art 2 s 22](#)

18J.03 CIVIL LIABILITY.

A person regulated by this chapter, chapter 18G, 18H, 18K, 27, 223, 231, or 232, or sections [21.80](#) to [21.92](#), is civilly liable for any violation of one of those statutes or associated rules by the person's employee or agent.

History:

[2003 c 128 art 6 s 3](#); [2012 c 244 art 1 s 17](#); [1Sp2015 c 4 art 2 s 23](#)

18J.04 INSPECTION, SAMPLING, ANALYSIS.

Subdivision 1. Access and entry.

The commissioner, upon presentation of official department credentials, must be granted immediate access at reasonable times to sites where a person manufactures, distributes, uses, handles, disposes of, stores, or transports seeds, plants, grain, household goods, general merchandise, produce, or other living or nonliving products or other objects regulated under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules.

Subd. 2. Purpose of entry.

(a) The commissioner may enter sites for:

(1) inspection of inventory and equipment for the manufacture, storage, handling, distribution, disposal, or any other process regulated under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules;

(2) sampling of sites, seeds, plants, products, grain, household goods, general merchandise, produce, or other living or nonliving objects that are manufactured, stored, distributed, handled, or disposed of at those sites and regulated under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules;

(3) inspection of records related to the manufacture, distribution, storage, handling, or disposal of seeds, plants, products, grain, household goods, general merchandise, produce, or other living or nonliving objects regulated under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules;

(4) investigating compliance with chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules; or

(5) other purposes necessary to implement chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules.

(b) The commissioner may enter any public or private premises during or after regular business hours without notice of inspection when a suspected violation of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules may threaten public health or the environment.

Subd. 3. Notice of inspection samples and analyses.

(a) The commissioner shall provide the owner, operator, or agent in charge with a receipt describing any samples obtained. If requested, the commissioner shall split any samples obtained and provide them to the owner, operator, or agent in charge. If an analysis is made of the samples, a copy of the results of the analysis must be furnished to the owner, operator, or agent in charge within 30 days after an analysis has been performed. If an analysis is not performed, the commissioner must notify the owner, operator, or agent in charge within 30 days of the decision not to perform the analysis.

(b) The sampling and analysis must be done according to methods provided for under applicable provisions of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules. In cases not covered by those sections and methods or in cases where methods are available in which improved applicability has been demonstrated the commissioner may adopt appropriate methods from other sources.

Subd. 4. Inspection requests by others.

(a) A person who believes that a violation of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules has occurred may request an inspection by giving notice to the commissioner of the violation. The notice must be in writing, state with reasonable particularity the grounds for the notice, and be signed by the person making the request.

(b) If after receiving a notice of violation the commissioner reasonably believes that a violation has occurred, the commissioner shall make a special inspection in accordance with the provisions of this section as soon as practicable, to determine if a violation has occurred.

(c) An inspection conducted pursuant to a notice under this subdivision may cover an entire site and is not limited to the portion of the site specified in the notice. If the commissioner determines that reasonable grounds to believe that a violation occurred do not exist, the commissioner must notify the person making the request in writing of the determination.

Subd. 5. Order to enter after refusal.

After a refusal, or an anticipated refusal based on a prior refusal, to allow entrance on a prior occasion by an owner, operator, or agent in charge to allow entry as specified in this section, the commissioner may apply for an order in the district court in the county where a site is located, that compels a person with authority to allow the commissioner to enter and inspect the site.

Subd. 6. Violator liable for inspection costs.

(a) The cost of reinspection and reinvestigation may be assessed by the commissioner if the person subject to an order of the commissioner does not comply with the order in a reasonable time as provided in the order.

(b) The commissioner may enter an order for recovery of the inspection and investigation costs.

Subd. 7. Investigation authority.

(a) In making inspections under this chapter, the commissioner may administer oaths, certify official acts, issue subpoenas to take and cause to be taken depositions of witnesses, and compel the attendance of witnesses and production of papers, books, documents, records, and testimony.

(b) If a person fails to comply with a subpoena, or a witness refuses to produce evidence or to testify to a matter about which the person may be lawfully questioned, the district court shall, on application of the commissioner, compel obedience proceedings for contempt, as in the case of disobedience of the requirements of a subpoena issued by the court or a refusal to testify in court.

History:

[2003 c 128 art 6 s 4](#); [2012 c 244 art 1 s 18-21](#); [1Sp2015 c 4 art 2 s 24-27](#)

18J.05 ENFORCEMENT.

Subdivision 1. Enforcement required.

(a) A violation of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or an associated rule is a violation of this chapter.

(b) Upon the request of the commissioner, county attorneys, sheriffs, and other officers having authority in the enforcement of the general criminal laws must take action to the extent of their authority necessary or proper for the enforcement of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules or valid orders, standards, stipulations, and agreements of the commissioner.

Subd. 2. Commissioner's discretion.

If minor violations of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules occur or the commissioner believes the public interest will be best served by a suitable notice of warning in writing, this section does not require the commissioner to:

- (1) report the violation for prosecution;
- (2) institute seizure proceedings; or
- (3) issue a withdrawal from distribution, stop-sale, or other order.

Subd. 3. Civil actions.

Civil judicial enforcement actions may be brought by the attorney general in the name of the state on behalf of the commissioner. A county attorney may bring a civil judicial enforcement action upon the request of the commissioner and agreement by the attorney general.

Subd. 4. Injunction.

The commissioner may apply to a court with jurisdiction for a temporary or permanent injunction to prevent, restrain, or enjoin violations of this chapter.

Subd. 5. Criminal actions.

For a criminal action, the county attorney from the county where a criminal violation occurred is responsible for prosecuting a violation of this chapter. If the county attorney refuses to prosecute, the attorney general on request of the commissioner may prosecute.

Subd. 6. Agent for service of process.

All persons licensed, permitted, registered, or certified under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules must appoint the commissioner as the agent upon whom all legal process may be served and service upon the commissioner is deemed to be service on the licensee, permittee, registrant, or certified person.

History:

[2003 c 128 art 6 s 5](#); [2012 c 244 art 1 s 22-24](#); [1Sp2015 c 4 art 2 s 28-30](#)

18J.06 FALSE STATEMENT OR RECORD.

A person must not knowingly make or offer a false statement, record, or other information as part of:

(1) an application for registration, license, certification, or permit under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules;

(2) records or reports required under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules; or

(3) an investigation of a violation of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules.

History:

[2003 c 128 art 6 s 6](#); [2012 c 244 art 1 s 25](#); [1Sp2015 c 4 art 2 s 31](#)

18J.07 ADMINISTRATIVE ACTION.

Subdivision 1. Administrative remedies.

The commissioner may seek to remedy violations by a written warning, administrative meeting, cease and desist, stop-use, stop-sale, removal, correction order, or an order, seizure, stipulation, or agreement, if the commissioner determines that the remedy is in the public interest.

Subd. 2. Revocation and suspension.

The commissioner may, after written notice and hearing, revoke, suspend, or refuse to grant or renew a registration, permit, license, or certification if a person violates this chapter or has a history within the last three years of violation of this chapter.

Subd. 3. Cancellation of registration, permit, license, certification.

The commissioner may cancel or revoke a registration, permit, license, or certification provided for under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules or refuse to register, permit, license, or certify under provisions of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules if the registrant, permittee, licensee, or certified person has used fraudulent or deceptive practices in the evasion or attempted evasion of a provision of chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules.

Subd. 4. Service of order or notice.

(a) If a person is not available for service of an order, the commissioner may attach the order to the facility, site, seed or seed container, plant or other living or nonliving object regulated under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules and notify the owner, custodian, other responsible party, or registrant.

(b) The seed, seed container, plant, or other living or nonliving object regulated under chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules may not be sold, used, tampered with, or removed until released under conditions specified by the commissioner, by an administrative law judge, or by a court.

Subd. 5. Unsatisfied judgments.

(a) An applicant for a license, permit, registration, or certification under provisions of this chapter, chapter 18G, 18H, 18K, 27, 223, 231, or 232; sections [21.80](#) to [21.92](#); or associated rules may not allow a final judgment against the applicant for damages arising from a violation of those statutes or rules to remain unsatisfied for a period of more than 30 days.

(b) Failure to satisfy, within 30 days, a final judgment resulting from a violation of this chapter results in automatic suspension of the license, permit, registration, or certification.

History:

[2003 c 128 art 6 s 7](#); [2012 c 244 art 1 s 26-28](#); [1Sp2015 c 4 art 2 s 32-34](#)

18J.08 APPEALS OF COMMISSIONER'S ORDERS.

Subdivision 1. Notice of appeal.

(a) After service of an order, a person has 45 days from receipt of the order to notify the commissioner in writing that the person intends to contest the order.

(b) If the person fails to notify the commissioner that the person intends to contest the order, the order is a final order of the commissioner and not subject to further judicial or administrative review.

Subd. 2. Administrative review.

If a person notifies the commissioner that the person intends to contest an order issued under this section, the state Office of Administrative Hearings must conduct a hearing in accordance with the applicable provisions of chapter 14 for hearings in contested cases.

Subd. 3. Judicial review.

Judicial review of a final decision in a contested case is available as provided in chapter 14.

History:

[2003 c 128 art 6 s 8](#)

18J.09 CREDITING OF PENALTIES, FEES, AND COSTS.

Penalties, cost reimbursements, fees, and other money collected under this chapter must be deposited into the state treasury and credited to the appropriate nursery and phytosanitary, industrial hemp, or seed account.

History:

[2003 c 128 art 6 s 9; 1Sp2015 c 4 art 2 s 35](#)

18J.10 CIVIL PENALTIES.

Subdivision 1. General penalty.

Except as provided in subdivision 2, a person who violates this chapter or an order, standard, stipulation, agreement, or schedule of compliance of the commissioner is subject to a civil penalty of up to \$7,500 per day of violation as determined by the court.

Subd. 2. Defense to civil remedies and damages.

As a defense to a civil penalty or claim for damages under subdivision 1, the defendant may prove that the violation was caused solely by an act of God, an act of war, or an act or failure to act that constitutes sabotage or vandalism, or any combination of these defenses.

Subd. 3. Actions to compel performance.

In an action to compel performance of an order of the commissioner to enforce a provision of this chapter, the court may require a defendant adjudged responsible to perform the acts within the person's power that are reasonably necessary to accomplish the purposes of the order.

Subd. 4. Recovery of penalties by civil action.

The civil penalties and payments provided for in this chapter may be recovered by a civil action brought by the county attorney or the attorney general in the name of the state.

History:

[2003 c 128 art 6 s 10](#)

18J.11 CRIMINAL PENALTIES.

Subdivision 1. General violation.

Except as provided in subdivisions 2, 3, and 4, a person is guilty of a misdemeanor if the person violates this chapter or an order, standard, stipulation, agreement, or schedule of compliance of the commissioner.

Subd. 2. Violation endangering humans.

A person is guilty of a gross misdemeanor if the person violates this chapter or an order, standard, stipulation, agreement, or schedule of compliance of the commissioner, and the violation endangers humans.

Subd. 3. Violation with knowledge.

A person is guilty of a gross misdemeanor if the person knowingly violates this chapter or an order, standard, stipulation, agreement, or schedule of compliance of the commissioner.

Subd. 4. Controlled substance offenses.

Prosecution under this section does not preclude prosecution under chapter 152.

Appendix 4: This data is a summary of all the THC Test results from all hemp samples collected in Minnesota under the pilot program, years 2016 through 2020. The MDA will use this historical data to select hemp Lots for sampling under a performance-based plan. Each year this data will change as we continue to sample hemp Lots and add new data, and our sampling plan will adjust accordingly.

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Type	Variety / Cultivar	Total Lots/Samples by the MDA for 2016-2020	Average THC across all samples	# Results ≤0.300% THC	# Results 0.301 - 0.500% THC	# Results 0.501 - 0.999%	# Results ≥ 1.000%	Minimum Recorded % THC	Maximum Recorded % THC	% of Samples Above 0.30% THC	Samples above 0.5% THC	Mandatory Testing in 2021
2	CBD	#12	1	0.075%	1	0	0	0	0.075%	0.075%	0%	--	Yes
3	CBD	#15	1	0.117%	1	0	0	0	0.117%	0.117%	0%	--	Yes
4	CBD	#19	1	0.136%	1	0	0	0	0.136%	0.136%	0%	--	Yes
5	CBD	#20	1	0.059%	1	0	0	0	0.059%	0.059%	0%	--	Yes
6	CBD	#20	1	0.096%	1	0	0	0	0.096%	0.096%	0%	--	Yes
7	CBD	#4	1	0.164%	1	0	0	0	0.164%	0.164%	0%	--	Yes
8	CBD	#4 x Lifter	1	0.089%	1	0	0	0	0.089%	0.089%	0%	--	Yes
9	CBD	#5	1	0.135%	1	0	0	0	0.135%	0.135%	0%	--	Yes
10	CBD	#8	1	0.091%	1	0	0	0	0.091%	0.091%	0%	--	Yes
11	CBD	#9	2	0.135%	2	0	0	0	0.122%	0.135%	0%	--	Yes
12	CBD	Abacus	30	0.322%	21	5	3	1	0.061%	2.050%	30%	Yes	Yes
13	CBD	Abacus 2.0	3	0.419%	1	1	1	0	0.206%	0.670%	67%	Yes	Yes
14	CBD	Abacus Cherry 2.0	1	0.441%	0	1	0	0	0.441%	0.441%	100%	--	Yes
15	CBD	Abacus Early Bird	2	0.609%	0	0	2	0	0.597%	0.621%	100%	Yes	Yes
16	CBD	Abacus Imp	1	0.215%	1	0	0	0	0.215%	0.215%	0%	--	Yes
17	CBD	Abbie	1	0.111%	1	0	0	0	0.111%	0.111%	0%	--	Yes
18	CBD	AC/DC	6	0.187%	4	2	0	0	0.074%	0.340%	33%	--	Yes
19	CBD	AC/DC x BCBS	1	0.257%	1	0	0	0	0.257%	0.257%	0%	--	Yes
20	CBD	AC/DC x Otto II	2	0.127%	2	0	0	0	0.089%	0.165%	0%	--	Yes
21	CBD	Alpen Gleaux	1	0.209%	1	0	0	0	0.209%	0.209%	0%	--	Yes
22	Fiber	Anka	14	0.070%	14	0	0	0	0.031%	0.153%	0%	--	No
23	CBD	Aqua Woman	1	0.108%	1	0	0	0	0.108%	0.108%	0%	--	Yes
24	CBD	Ashby 5	1	0.075%	1	0	0	0	0.075%	0.075%	0%	--	Yes
25	CBD	Aurora Borealis	1	0.354%	0	1	0	0	0.354%	0.354%	100%	--	Yes
26	CBD	Auto Flower	10	0.163%	8	2	0	0	0.010%	0.353%	20%	--	Yes
27	CBD	Auto Tsunami	5	0.140%	5	0	0	0	0.082%	0.237%	0%	--	No
28	CBD	B01US0	1	0.025%	1	0	0	0	0.025%	0.025%	0%	--	Yes
29	CBD	B-20	2	0.251%	1	1	0	0	0.044%	0.457%	50%	--	Yes
30	CBD	BaOx	25	0.237%	17	6	2	0	0.031%	0.778%	32%	Yes	Yes
31	CBD	BaOx x Cherry Blossom	1	0.258%	1	0	0	0	0.258%	0.258%	0%	--	Yes
32	CBD	BBCC	6	0.278%	4	2	0	0	0.082%	0.444%	33%	--	Yes
33	Fiber	Beniko	2	0.052%	2	0	0	0	0.028%	0.076%	0%	--	No

	A	B	C	D	E	F	G	H	I	J	K	L	M
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34	CBD	Berry Blossom	35	0.217%	27	5	3	0	0.040%	0.778%	23%	Yes	Yes
35	CBD	Berry Snow Cone	1	0.363%	0	1	0	0	0.363%	0.363%	100%	--	Yes
36	CBG	Black Label	2	0.656%	1	0	0	1	0.122%	1.190%	50%	Yes	Yes
37	CBD	Blackberry CBD	1	0.202%	1	0	0	0	0.202%	0.202%	0%	--	Yes
38	CBD	Blossom	1	0.229%	1	0	0	0	0.229%	0.229%	0%	--	Yes
39	CBD	Blue Genius	11	0.212%	9	1	1	0	0.076%	0.571%	18%	Yes	Yes
40	CBD	Blue Genius Auto	1	0.141%	1	0	0	0	0.141%	0.141%	0%	--	Yes
41	CBD	Blue Line	3	0.138%	3	0	0	0	0.071%	0.172%	0%	--	Yes
42	CBD	Bordeaux	1	0.137%	1	0	0	0	0.137%	0.137%	0%	--	Yes
43	CBD	Buanann	2	0.115%	2	0	0	0	0.052%	0.179%	0%	--	Yes
44	CBD	Bubba Remedy	2	0.219%	2	0	0	0	0.218%	0.219%	0%	--	Yes
45	CBD	Bubble Gum	1	0.400%	0	1	0	0	0.400%	0.400%	100%	--	Yes
46	CBG	Buffalo Soldier	3	0.063%	3	0	0	0	0.024%	0.106%	0%	--	Yes
47	CBD	C1 Nate Moon	8	0.188%	8	0	0	0	0.070%	0.264%	0%	--	No
48	CBD	C4	3	0.518%	0	2	1	0	0.354%	0.778%	100%	Yes	Yes
49	Grain	Canda	18	0.062%	17	1	0	0	0.011%	0.400%	6%	--	No
50	CBD	Candy Wine	6	0.277%	5	0	1	0	0.098%	0.755%	17%	Yes	Yes
51	CBD	CanMa	8	0.138%	7	0	1	0	0.006%	0.714%	13%	Yes	No
52	CBD	Carolina Cherry	1	0.047%	1	0	0	0	0.047%	0.047%	0%	--	Yes
53	CBD	Cat Lady	1	0.252%	1	0	0	0	0.252%	0.252%	0%	--	Yes
54	CBD	Cat's Meow	16	0.170%	13	3	0	0	0.070%	0.34%	19%	--	Yes
55	CBD	Cat's Meow x Lift	1	0.058%	1	0	0	0	0.058%	0.058%	0%	--	Yes
56	CBD	CB1	3	1.547%	0	0	0	3	1.140%	1.880%	100%	Yes	Yes
57	CBD	CBD Kush	1	3.010%	0	0	0	1	3.010%	3.010%	100%	Yes	Yes
58	CBD	CBD Therapy	1	0.083%	1	0	0	0	0.083%	0.083%	0%	--	Yes
59	CBD	CBD Yummy	1	0.083%	1	0	0	0	0.083%	0.083%	0%	--	Yes
60	CBG	CBG	5	0.124%	4	1	0	0	0.021%	0.420%	20%	--	Yes
61	CBG	CBGenius	2	0.064%	2	0	0	0	0.026%	0.102%	0%	--	Yes
62	Grain	CFX-1	11	0.060%	11	0	0	0	0.022%	0.276%	0%	--	No
63	Grain	CFX-2	32	0.080%	31	0	1	0	0.017%	0.630%	3%	Yes	No
64	CBD	Chardonnay	2	0.138%	2	0	0	0	0.110%	0.169%	0%	--	Yes
65	CBD	Chardonnay x Cherry Wine	1	0.213%	1	0	0	0	0.213%	0.213%	0%	--	Yes

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66	CBD	Charlotte's Wife	1	0.170%	1	0	0	0	0.170%	0.170%	0%	--	Yes
67	CBD	Chem Cherry	4	0.218%	4	0	0	0	0.135%	0.299%	0%	--	Yes
68	CBD	Cherry	41	0.331%	30	6	1	4	0.017%	2.050%	27%	Yes	Yes
69	CBD	Cherry 1	2	0.213%	2	0	0	0	0.213%	0.213%	0%	--	Yes
70	CBD	Cherry 2.0	3	0.183%	3	0	0	0	0.070%	0.239%	0%	--	Yes
71	CBD	Cherry 304	1	0.115%	1	0	0	0	0.115%	0.115%	0%	--	Yes
72	CBD	Cherry 308	5	0.184%	4	1	0	0	0.076%	0.306%	20%	--	Yes
73	CBD	Cherry 45	1	0.316%	0	1	0	0	0.316%	0.316%	100%	--	Yes
74	CBD	Cherry 5B	1	0.102%	1	0	0	0	0.102%	0.102%	0%	--	Yes
75	CBD	Cherry Abacus	12	0.183%	11	1	0	0	0.107%	0.311%	8%	--	Yes
76	CBD	Cherry Berry	2	0.159%	2	0	0	0	0.098%	0.220%	0%	--	Yes
77	CBD	Cherry Blossom	77	0.170%	71	5	1	0	0.034%	0.990%	8%	Yes	Yes
78	CBD	Cherry Blossom x BaOx	1	0.092%	1	0	0	0	0.092%	0.092%	0%	--	Yes
79	CBD	Cherry Blossom x Lifter	1	0.058%	1	0	0	0	0.058%	0.058%	0%	--	Yes
80	CBD	Cherry Bubble Gum	6	0.162%	5	1	0	0	0.099%	0.332%	17%	--	Yes
81	CBD	Cherry Butter	1	0.073%	1	0	0	0	0.073%	0.073%	0%	--	Yes
82	CBD	Cherry C1	1	0.134%	1	0	0	0	0.134%	0.134%	0%	--	Yes
83	CBD	Cherry C2	1	0.223%	1	0	0	0	0.223%	0.223%	0%	--	Yes
84	CBD	Cherry Candy	3	0.108%	3	0	0	0	0.084%	0.115%	0%	--	Yes
85	CBD	Cherry Cross	3	0.155%	3	0	0	0	0.090%	0.242%	0%	--	Yes
86	CBD	Cherry Diesel	3	0.284%	1	2	0	0	0.153%	0.362%	67%	--	Yes
87	CBD	Cherry Hybrid	1	0.128%	1	0	0	0	0.128%	0.128%	0%	--	Yes
88	CBD	Cherry O	3	1.031%	1	0	1	1	0.239%	2.080%	67%	Yes	Yes
89	CBD	Cherry Pheno 1	1	2.250%	0	0	0	1	2.250%	2.250%	100%	Yes	Yes
90	CBD	Cherry Pheno 2	1	0.317%	0	1	0	0	0.317%	0.317%	100%	--	Yes
91	CBD	Cherry S1	1	0.131%	1	0	0	0	0.131%	0.131%	0%	--	Yes
92	CBD	Cherry Trump	3	0.300%	2	1	0	0	0.121%	0.469%	33%	--	Yes
93	CBD	Cherry Wine	122	0.290%	86	20	13	3	0.050%	3.240%	30%	Yes	Yes

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94	CBD	Cherry Wine x Cherry Wine	5	0.264%	2	3	0	0	0.069%	0.412%	60%	--	Yes
95	CBD	Cherry X	2	0.346%	0	2	0	0	0.321%	0.370%	100%	--	Yes
96	CBD	Cherry x Cherry Abacus	1	0.146%	1	0	0	0	0.146%	0.146%	0%	--	Yes
97	CBD	CHX	1	0.298%	1	0	0	0	0.298%	0.298%	0%	--	Yes
98	CBD	Ciskiyou Gold	1	0.215%	1	0	0	0	0.215%	0.215%	0%	--	Yes
99	CBD	Cobbler	1	0.298%	1	0	0	0	0.298%	0.298%	0%	--	Yes
100	CBD	Cobbler x Cherry Wine	1	0.213%	1	0	0	0	0.213%	0.213%	0%	--	Yes
101	CBD	Colorado Cherry	2	0.417%	0	2	0	0	0.351%	0.484%	100%	--	Yes
102	CBD	Colorado Cherry x Cherry Wine	2	0.387%	0	2	0	0	0.362%	0.412%	100%	--	Yes
103	CBD	Constance R2H3E	1	0.064%	1	0	0	0	0.064%	0.064%	0%	--	Yes
104	CBD	Crossbow	1	0.086%	1	0	0	0	0.086%	0.086%	0%	--	Yes
105	Grain	CRS-1	13	0.050%	13	0	0	0	0.026%	0.134%	0%	--	No
106	Fiber	CS (Carmagnola selezionata)	3	0.099%	3	0	0	0	0.086%	0.113%	0%	--	No
107	Grain	Delores	9	0.072%	8	1	0	0	0.011%	0.400%	11%	--	No
108	CBD	Double the Cherry	1	0.139%	1	0	0	0	0.139%	0.139%	0%	--	Yes
109	CBD	Dragon Piss	1	0.130%	1	0	0	0	0.130%	0.130%	0%	--	Yes
110	CBD	Dream Tonic	6	0.121%	6	0	0	0	0.052%	0.252%	0%	--	No
111	CBD	Dream Tonic & Cherry Blossom	1	0.217%	1	0	0	0	0.217%	0.217%	0%	--	Yes
112	CBD	Driftless Dream	1	0.169%	1	0	0	0	0.169%	0.169%	0%	--	Yes
113	CBD	Early Blossom	1	0.173%	1	0	0	0	0.173%	0.173%	0%	--	Yes
114	CBD	Early Cherry	2	0.185%	2	0	0	0	0.133%	0.236%	0%	--	Yes
115	CBD	Early Flower	1	0.673%	0	0	1	0	0.673%	0.673%	100%	Yes	Yes
116	CBD	Early Frost	1	0.232%	1	0	0	0	0.232%	0.232%	0%	--	Yes
117	CBD	Early Nueve	2	0.141%	2	0	0	0	0.081%	0.200%	0%	--	Yes
118	CBD	Early Pearly	5	0.167%	5	0	0	0	0.106%	0.239%	0%	--	No

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119	CBD	Early Remedy	3	0.156%	3	0	0	0	0.099%	0.269%	0%	--	Yes
120	CBD	Early Riser	1	0.184%	1	0	0	0	0.184%	0.184%	0%	--	Yes
121	CBD	Early Spectrum	2	0.236%	2	0	0	0	0.201%	0.271%	0%	--	Yes
122	CBD	Early Wife	2	0.279%	1	1	0	0	0.163%	0.395%	50%	--	Yes
123	CBD	EC11	4	0.153%	4	0	0	0	0.076%	0.190%	0%	--	Yes
124	CBD	Eclipse	11	0.148%	10	1	0	0	0.053%	0.396%	9%	--	Yes
125	CBD	Elektra	4	0.238%	3	0	1	0	0.060%	0.569%	25%	Yes	Yes
126	CBD	Emerald Nova	6	0.162%	5	1	0	0	0.099%	0.332%	17%	--	Yes
127	CBG	Eva's Gift	3	0.047%	3	0	0	0	0.036%	0.068%	0%	--	Yes
128	CBD	Fedora 17	1	0.047%	1	0	0	0	0.047%	0.047%	0%	--	Yes
129	Fiber	Felina 32	3	0.052%	3	0	0	0	0.028%	0.076%	0%	--	No
130	CBD	Feral	2	0.095%	2	0	0	0	0.047%	0.142%	0%	--	Yes
131	CBD	Ferimon	1	0.05%	1	0	0	0	0.05%	0.05%	0%	--	No
132	Fiber	Fibror 79	2	0.045%	2	0	0	0	0.043%	0.046%	0%	--	Yes
133	Grain	FINOLA	84	0.120%	81	2	1	0	0.018%	0.665%	4%	Yes	No
134	CBD	First Lady	1	1.510%	0	0	0	1	1.510%	1.510%	100%	Yes	Yes
135	CBD	First Light (FL)	4	0.158%	4	0	0	0	0.054%	0.241%	0%	--	Yes
136	CBD	First Light (FL) 45	5	0.227%	4	0	1	0	0.076%	0.531%	20%	Yes	Yes
137	CBD	First Light (FL) 58	5	0.299%	3	1	1	0	0.076%	0.699%	40%	Yes	Yes
138	CBD	First Light (FL) 70	7	0.203%	5	2	0	0	0.076%	0.449%	29%	--	Yes
139	CBD	First Light (FL) 71	5	0.336%	4	0	0	1	0.076%	1.230%	20%	Yes	Yes
140	CBD	First Light (FL) 80	9	0.224%	7	1	1	0	0.076%	0.568%	22%	Yes	Yes
141	CBD	Fortune	1	0.064%	1	0	0	0	0.064%	0.064%	0%	--	Yes
142	CBD	Frosted Lime	1	0.181%	1	0	0	0	0.181%	0.181%	0%	--	Yes
143	Fiber	Futura 75	6	0.244%	4	1	1	0	0.028%	0.647%	33%	Yes	No
144	CBD	Galactic I.V.	1	0.137%	1	0	0	0	0.137%	0.137%	0%	--	Yes
145	CBD	Galactic x Illinois	1	0.271%	1	0	0	0	0.271%	0.271%	0%	--	Yes
146	CBD	Gatsby	1	0.186%	1	0	0	0	0.186%	0.186%	0%	--	Yes
147	CBD	GNO	1	0.105%	1	0	0	0	0.105%	0.105%	0%	--	Yes
148	CBD	Gold Hill	2	0.344%	1	0	1	0	0.134%	0.553%	50%	Yes	Yes
149	CBD	Golden Cherry	3	0.345%	0	3	0	0	0.333%	0.353%	100%	--	Yes
150	CBD	Gonzo	1	0.14%	1	0	0	0	0.14%	0.14%	0%	--	Yes
151	CBD	Gooney Louie	2	0.353%	0	2	0	0	0.353%	0.353%	100%	--	Yes

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152	Grain	Grandi	14	0.204%	11	1	2	0	0.018%	0.768%	21%	Yes	No
153	CBD	Grapefruit	2	0.159%	2	0	0	0	0.098%	0.220%	0%	--	Yes
154	CBD	Green Lightning	2	0.137%	2	0	0	0	0.054%	0.220%	0%	--	Yes
155	CBD	H4	3	1.547%	0	0	0	3	1.140%	1.880%	100%	Yes	Yes
156	CBG	H5 CBG	3	0.220%	2	1	0	0	0.127%	0.338%	33%	--	Yes
157	Fiber	HanMa	2	0.716%	0	0	2	0	0.650%	0.782%	100%	Yes	Yes
158	CBD	Harley Tsu	4	2.656%	1	0	0	3	0.294%	4.770%	75%	Yes	Yes
159	CBD	Harley Tsu x Pheno 2	1	0.798%	0	0	1	0	0.798%	0.798%	100%	Yes	Yes
160	CBD	Harley Tsu x Sour Tsu 29	1	0.316%	0	1	0	0	0.316%	0.316%	100%	--	Yes
161	CBD	Haute Wife	1	0.070%	1	0	0	0	0.070%	0.070%	0%	--	Yes
162	CBD	Hawaiian Haze	17	0.209%	13	2	2	0	0.040%	0.750%	24%	Yes	Yes
163	CBD	Lawthorne Expre	2	0.378%	0	1	1	0	0.308%	0.447%	100%	--	Yes
164	CBD	Heavenly	5	0.104%	5	0	0	0	0.057%	0.190%	0%	--	No
165	Fiber	Helena	4	0.045%	4	0	0	0	0.028%	0.076%	0%	--	No
166	CBD	Hempress II	8	0.379%	3	4	1	0	0.114%	0.781%	63%	Yes	Yes
167	Grain	Henola	1	0.023%	1	0	0	0	0.023%	0.023%	0%	--	No
168	CBD	HH	1	0.149%	1	0	0	0	0.149%	0.149%	0%	--	Yes
169	CBD	Hot Blonde	13	0.165%	11	2	0	0	0.034%	0.336%	15%	--	Yes
170	CBD	Hybrid #2	1	0.239%	1	0	0	0	0.239%	0.239%	0%	--	Yes
171	CBD	Hybrid #5	2	0.239%	2	0	0	0	0.239%	0.239%	0%	--	Yes
172	CBD	Hybrid #9	1	0.239%	1	0	0	0	0.239%	0.239%	0%	--	Yes
173	CBG	Janet	2	0.370%	1	0	1	0	0.047%	0.692%	50%	Yes	Yes
174	Grain	Joey	13	0.034%	13	0	0	0	0.011%	0.061%	0%	--	No
175	CBD	Juicy Fruit	4	0.187%	4	0	0	0	0.153%	0.257%	0%	--	Yes
176	CBD	Jupiter Midwest	23	0.220%	18	3	2	0	0.071%	0.568%	22%	Yes	Yes
177	CBD	Jupiter x Lifter	1	0.055%	1	0	0	0	0.055%	0.055%	0%	--	Yes
178	Grain	Katani	16	0.081%	16	0	0	0	0.013%	0.213%	0%	--	No
179	CBD	KIR	1	0.298%	1	0	0	0	0.298%	0.298%	0%	--	Yes
180	CBD	Kiva Rock	1	0.243%	1	0	0	0	0.243%	0.243%	0%	--	Yes
181	CBD	KLR #3	1	0.141%	1	0	0	0	0.141%	0.141%	0%	--	Yes
182	CBD	KLR#1	1	0.168%	1	0	0	0	0.168%	0.168%	0%	--	Yes
183	CBD	KLR#5	1	0.277%	1	0	0	0	0.277%	0.277%	0%	--	Yes

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184	CBD	Kris Kringle	1	0.158%	1	0	0	0	0.158%	0.158%	0%	--	Yes
185	CBD	LAF1	1	0.040%	1	0	0	0	0.040%	0.040%	0%	--	Yes
186	CBD	LAF2	1	0.300%	1	0	0	0	0.300%	0.300%	0%	--	Yes
187	CBD	LAF3	1	0.248%	1	0	0	0	0.248%	0.248%	0%	--	Yes
188	CBD	LAF4	3	0.111%	3	0	0	0	0.085%	0.145%	0%	--	Yes
189	CBG	Lavender	1	0.137%	1	0	0	0	0.137%	0.137%	0%	--	Yes
190	CBD	Libido	1	0.160%	1	0	0	0	0.160%	0.160%	0%	--	Yes
191	CBD	Lifter	43	0.260%	32	6	4	1	0.057%	1.170%	26%	Yes	Yes
192	CBD	Lifter x Lifter	1	0.054%	1	0	0	0	0.054%	0.054%	0%	--	Yes
193	CBD	Lime	3	1.547%	0	0	0	3	1.140%	1.880%	100%	Yes	Yes
194	CBD	Line A	1	5.497%	0	0	0	1	5.497%	5.497%	100%	Yes	Yes
195	CBD	Line B	1	2.623%	0	0	0	1	2.623%	2.623%	100%	Yes	Yes
196	CBD	Line C	1	0.277%	1	0	0	0	0.277%	0.277%	0%	--	Yes
197	CBD	Line D	1	2.780%	0	0	0	1	2.780%	2.780%	100%	Yes	Yes
198	CBD	Line E	1	1.976%	0	0	0	1	1.976%	1.976%	100%	Yes	Yes
199	CBD	M1	1	0.044%	1	0	0	0	0.044%	0.044%	0%	--	Yes
200	CBD	Magic Bullet	7	0.154%	7	0	0	0	0.072%	0.294%	0%	--	No
201	CBD	Mahkato	27	0.095%	25	2	0	0	0.025%	0.432%	7%	--	Yes
202	CBD	Master Kush	1	0.032%	1	0	0	0	0.032%	0.032%	0%	--	Yes
203	CBG	Matterhorn	15	0.032%	15	0	0	0	0.003%	0.144%	0%	--	No
204	CBD	Maverick	1	0.28%	1	0	0	0	0.28%	0.28%	0%	--	Yes
205	CBD	Merlot	5	0.152%	5	0	0	0	0.133%	0.202%	0%	--	No
206	CBD	Midwest	3	0.242%	2	1	0	0	0.160%	0.355%	33%	--	Yes
207	CBD	Midwest Mothe	3	0.246%	2	0	1	0	0.096%	0.536%	33%	Yes	Yes
208	CBD	MinneCherry	1	0.084%	1	0	0	0	0.084%	0.084%	0%	--	Yes
209	CBD	Minnesota Moth	8	0.176%	7	1	0	0	0.039%	0.363%	13%	--	Yes
210	CBD	Minnesota Prairi	8	0.100%	8	0	0	0	0.048%	0.214%	0%	--	No
211	CBD	Int Blueberry Ku	2	0.146%	2	0	0	0	0.093%	0.198%	0%	--	Yes
212	CBD	MN Cherry	2	0.304%	1	1	0	0	0.293%	0.314%	50%	--	Yes
213	CBD	Monica	1	0.030%	1	0	0	0	0.030%	0.030%	0%	--	Yes
214	CBD	Mother	1	0.350%	0	1	0	0	0.350%	0.350%	100%	--	Yes
215	CBG	Mountain Blizzar	3	0.270%	1	2	0	0	0.128%	0.368%	67%	--	Yes
216	CBD	Mountain Mang	44	0.133%	39	5	0	0	0.025%	0.402%	11%	--	Yes
217	CBD	Multiple	1	1.380%	0	0	0	1	1.380%	1.380%	100%	Yes	Yes

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218	CBD	Nepalese Tonic	1	0.168%	1	0	0	0	0.168%	0.168%	0%	--	Yes
219	CBD	New Cherry	1	0.106%	1	0	0	0	0.106%	0.106%	0%	--	Yes
220	CBD	Nightingale	10	0.953%	5	1	1	3	0.045%	3.160%	50%	Yes	Yes
221	CBD	Northern Pipeline	2	0.137%	2	0	0	0	0.080%	0.193%	0%	--	Yes
222	CBD	Nuclear Tsunami	1	0.104%	1	0	0	0	0.104%	0.104%	0%	--	Yes
223	CBD	Nueva	1	0.322%	0	1	0	0	0.322%	0.322%	100%	--	Yes
224	CBD	OGCS1	2	0.251%	1	1	0	0	0.160%	0.341%	50%	--	Yes
225	CBG	Opulent	2	0.207%	1	1	0	0	0.034%	0.379%	50%	--	Yes
226	CBD	Orange Peel	1	0.254%	1	0	0	0	0.254%	0.254%	0%	--	Yes
227	CBD	Oregon CBD	3	0.165%	2	1	0	0	0.046%	0.362%	33%	--	Yes
228	CBG	Oregon CBG	1	0.090%	1	0	0	0	0.090%	0.090%	0%	--	Yes
229	CBD	Oregon Cherry	21	0.850%	6	1	8	6	0.080%	3.160%	71%	Yes	Yes
230	CBD	Oregon Cherry x Abacus	2	0.399%	1	0	1	0	0.235%	0.562%	50%	Yes	Yes
231	CBD	Oregon Cherry x Littlefield	1	0.060%	1	0	0	0	0.060%	0.060%	0%	--	Yes
232	CBD	Other	2	0.064%	2	0	0	0	0.060%	0.068%	0%	--	Yes
233	CBD	Otto Cherry Sweetened	1	0.088%	1	0	0	0	0.088%	0.088%	0%	--	Yes
234	CBD	Otto Franklin	3	0.096%	3	0	0	0	0.090%	0.103%	0%	--	Yes
235	CBD	Otto II	11	0.589%	5	3	0	3	0.111%	1.880%	55%	Yes	Yes
236	CBD	Otto II Stout	4	0.130%	4	0	0	0	0.06%	0.20%	0%	--	Yes
237	CBD	Otto II x BaOx	4	0.120%	4	0	0	0	0.012%	0.263%	0%	--	Yes
238	CBD	Otto II x Cherry	1	0.155%	1	0	0	0	0.155%	0.155%	0%	--	Yes
239	CBD	Otto Stout	4	0.181%	3	0	1	0	0.049%	0.553%	25%	Yes	Yes
240	CBD	Patriot	1	0.070%	1	0	0	0	0.070%	0.070%	0%	--	Yes
241	Grain	Piccolo	5	0.051%	5	0	0	0	0.023%	0.081%	0%	--	No
242	CBD	Pine Berry	1	0.075%	1	0	0	0	0.075%	0.075%	0%	--	Yes
243	CBD	Plain Jane	1	0.137%	1	0	0	0	0.137%	0.137%	0%	--	Yes
244	CBD	Prairie Delight	1	0.116%	1	0	0	0	0.116%	0.116%	0%	--	Yes
245	CBD	Purple Cherry	1	0.184%	1	0	0	0	0.184%	0.184%	0%	--	Yes
246	CBD	Purple Cowboy	2	0.279%	1	1	0	0	0.169%	0.388%	50%	--	Yes
247	CBD	Purple Oregon Cherry	1	0.191%	1	0	0	0	0.191%	0.191%	0%	--	Yes
248	CBD	Queen Dream	12	0.183%	10	1	1	0	0.073%	0.628%	17%	Yes	Yes

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249	CBD	Quick Kush	11	0.140%	10	1	0	0	0.040%	0.330%	9%	--	Yes
250	CBD	Randy	1	0.099%	1	0	0	0	0.099%	0.099%	0%	--	Yes
251	CBD	Red Bordeaux	2	0.100%	2	0	0	0	0.090%	0.110%	0%	--	Yes
252	CBD	Red Kross	2	0.413%	0	2	0	0	0.376%	0.45%	100%	--	Yes
253	CBD	Red Robin	1	0.183%	1	0	0	0	0.183%	0.183%	0%	--	Yes
254	CBD	Remedy	1	0.095%	1	0	0	0	0.095%	0.095%	0%	--	Yes
255	CBD	Remission	6	0.120%	6	0	0	0	0.076%	0.135%	0%	--	No
256	CBD	Rhubarb Pie	10	0.153%	9	1	0	0	0.067%	0.364%	10%	--	Yes
257	CBD	Ringo's Gift	3	0.347%	2	0	1	0	0.179%	0.587%	33%	Yes	Yes
258	CBD	Ringo's Rock	1	0.295%	1	0	0	0	0.295%	0.295%	0%	--	Yes
259	CBD	RN13	1	0.302%	0	1	0	0	0.302%	0.302%	100%	--	Yes
260	CBD	Rocket Fuel	1	0.144%	1	0	0	0	0.144%	0.144%	0%	--	Yes
261	CBD	Rosella	2	0.339%	1	1	0	0	0.272%	0.405%	50%	--	Yes
262	CBD	Row 1	1	0.337%	0	1	0	0	0.337%	0.337%	100%	--	Yes
263	CBD	Row 2	1	0.367%	0	1	0	0	0.367%	0.367%	100%	--	Yes
264	CBD	Row 3	1	0.436%	0	1	0	0	0.436%	0.436%	100%	--	Yes
265	CBD	Row 4	1	0.429%	0	1	0	0	0.429%	0.429%	100%	--	Yes
266	CBD	Row 5	1	0.345%	0	1	0	0	0.345%	0.345%	100%	--	Yes
267	CBD	Row 6	1	0.315%	0	1	0	0	0.315%	0.315%	100%	--	Yes
268	CBD	Sangria S1	1	0.127%	1	0	0	0	0.127%	0.127%	0%	--	Yes
269	CBD	Serendipity	1	0.288%	1	0	0	0	0.288%	0.288%	0%	--	Yes
270	CBD	Shasta Candy	2	0.315%	1	0	1	0	0.089%	0.542%	50%	Yes	Yes
271	CBD	Shooting Star	2	0.349%	1	1	0	0	0.212%	0.486%	50%	--	Yes
272	CBG	Snowa	1	0.051%	1	0	0	0	0.051%	0.051%	0%	--	Yes
273	CBD	Socati T2	6	0.080%	6	0	0	0	0.058%	0.123%	0%	--	No
274	CBD	ur Blueberry Ku	1	0.100%	1	0	0	0	0.100%	0.100%	0%	--	Yes
275	CBD	Sour Citral	2	0.179%	2	0	0	0	0.092%	0.266%	0%	--	Yes
276	CBD	our Space Cand	19	0.407%	10	5	3	1	0.098%	2.440%	47%	Yes	Yes
277	CBD	Sour Tang A	1	0.079%	1	0	0	0	0.079%	0.079%	0%	--	Yes
278	CBD	Spec 7	1	0.526%	0	0	1	0	0.526%	0.526%	100%	Yes	Yes
279	CBD	Special Sauce	13	0.244%	9	3	1	0	0.027%	0.532%	31%	Yes	Yes
280	CBD	Spectrum	4	0.181%	3	1	0	0	0.085%	0.301%	25%	--	Yes
281	CBD	SR1	1	0.109%	1	0	0	0	0.109%	0.109%	0%	--	Yes
282	CBD	SSC	1	0.170%	1	0	0	0	0.170%	0.170%	0%	--	Yes

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283	CBG	Stem Cell	10	0.064%	10	0	0	0	0.014%	0.122%	0%	--	No
284	CBD	Stormy Daniels	16	0.172%	14	2	0	0	0.034%	0.396%	13%	--	Yes
285	CBD	Strain B	4	0.469%	1	1	2	0	0.263%	0.614%	75%	Yes	Yes
286	CBD	Sunrise X	1	0.076%	1	0	0	0	0.076%	0.076%	0%	--	Yes
287	CBD	Super CBD	1	0.008%	1	0	0	0	0.008%	0.008%	0%	--	Yes
288	CBD	Super Cherry	1	0.197%	1	0	0	0	0.197%	0.197%	0%	--	Yes
289	CBD	Super Rich	2	0.309%	1	1	0	0	0.198%	0.419%	50%	--	Yes
290	CBD	Superwoman	1	0.106%	1	0	0	0	0.106%	0.106%	0%	--	Yes
291	CBD	Susie Q	2	0.110%	2	0	0	0	0.056%	0.163%	0%	--	Yes
292	CBD	Suver Haze	26	0.195%	20	4	2	0	0.020%	0.823%	23%	Yes	Yes
293	CBD	Sweet Cherry Otto	1	0.118%	1	0	0	0	0.118%	0.118%	0%	--	Yes
294	CBD	Sweet Cherry Wife	2	0.237%	1	1	0	0	0.089%	0.385%	50%	--	Yes
295	CBD	Sweet Rainbow	2	0.250%	1	1	0	0	0.120%	0.389%	50%	--	Yes
296	CBD	Sweet Wife	2	0.103%	2	0	0	0	0.062%	0.143%	0%	--	Yes
297	CBD	Sweetened	1	0.064%	1	0	0	0	0.064%	0.064%	0%	--	Yes
298	CBD	T1	45	0.209%	35	5	5	0	0.060%	0.778%	22%	Yes	Yes
299	CBD	T2	54	0.154%	50	2	2	0	0.040%	0.778%	7%	Yes	Yes
300	CBD	T2 x Lifter	1	0.069%	1	0	0	0	0.069%	0.069%	0%	--	Yes
301	CBD	Tangerine	1	0.123%	1	0	0	0	0.123%	0.123%	0%	--	Yes
302	CBD	Tangi	1	0.122%	1	0	0	0	0.122%	0.122%	0%	--	Yes
303	CBD	atanka Pure CB	1	0.175%	1	0	0	0	0.175%	0.175%	0%	--	Yes
304	CBD	TBBS1	1	0.195%	1	0	0	0	0.195%	0.195%	0%	--	Yes
305	CBD	TCB S1	1	0.309%	0	1	0	0	0.309%	0.309%	100%	--	Yes
306	CBD	Terp Town	5	0.118%	5	0	0	0	0.066%	0.159%	0%	--	No
307	CBD	Terra Italia	1	0.238%	1	0	0	0	0.238%	0.238%	0%	--	Yes
308	CBD	The 45	1	0.368%	0	1	0	0	0.368%	0.368%	100%	--	Yes
309	CBD	The Grand	1	0.465%	0	1	0	0	0.465%	0.465%	100%	--	Yes
310	CBD	The Sauce	1	0.096%	1	0	0	0	0.096%	0.096%	0%	--	Yes
311	CBD	The Wife	24	0.242%	17	6	1	0	0.003%	0.611%	29%	Yes	Yes
312	CBD	Trophy Wife	4	0.101%	4	0	0	0	0.083%	0.131%	0%	--	Yes
313	CBD	Trump	9	0.188%	7	2	0	0	0.061%	0.444%	22%	--	Yes
314	CBD	Trump Cherry	1	0.146%	1	0	0	0	0.146%	0.146%	0%	--	Yes
315	CBD	Trump X	3	0.299%	2	0	1	0	0.118%	0.571%	33%	Yes	Yes
316	CBD	Trump x Trump	4	0.049%	4	0	0	0	0.010%	0.079%	0%	--	Yes

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317	CBD	TTRAZ	1	0.327%	0	1	0	0	0.327%	0.327%	100%	--	Yes
318	Fiber	Tygra	3	0.086%	3	0	0	0	0.028%	0.154%	0%	--	No
319	CBD	Ultra Cherry	4	0.135%	4	0	0	0	0.050%	0.258%	0%	--	Yes
320	CBD	Ultra Violet	2	0.221%	1	1	0	0	0.064%	0.378%	50%	--	Yes
321	CBD	Umqua	1	0.327%	0	1	0	0	0.327%	0.327%	100%	--	No
322	CBD	Unilateral	1	0.110%	1	0	0	0	0.110%	0.110%	0%	--	Yes
323	CBD	Unknown CBD	17	0.171%	15	1	1	0	0.039%	0.518%	12%	Yes	Yes
324	CBG	Unknown CBG	1	0.045%	1	0	0	0	0.045%	0.045%	0%	--	Yes
325	CBD	Uno Cinco	1	0.141%	1	0	0	0	0.141%	0.141%	0%	--	Yes
326	CBD	Valley Kush	1	0.199%	1	0	0	0	0.199%	0.199%	0%	--	Yes
327	CBD	Variety Not Stated from Hemp Depot	9	0.127%	9	0	0	0	0.076%	0.179%	0%	--	No
328	CBD	Various	7	0.329%	5	1	0	1	0.031%	1.380%	29%	Yes	Yes
329	CBD	Vortex	1	0.098%	1	0	0	0	0.098%	0.098%	0%	--	Yes
330	CBD	W-98 x La Crema	1	0.116%	1	0	0	0	0.116%	0.116%	0%	--	Yes
331	CBD	Wacko	5	0.105%	5	0	0	0	0.063%	0.190%	0%	--	No
332	CBD	Watermelon	1	0.089%	1	0	0	0	0.089%	0.089%	0%	--	Yes
333	CBD	Watermelon Dream Sauce	1	0.134%	1	0	0	0	0.134%	0.134%	0%	--	Yes
334	CBD	West 98	1	0.572%	0	0	1	0	0.572%	0.572%	100%	Yes	Yes
335	CBD	West Slope Kush	2	0.230%	2	0	0	0	0.207%	0.252%	0%	--	Yes
336	CBG	White	29	0.077%	28	1	0	0	0.010%	0.456%	3%	--	No
337	CBD	Wife x Tres	3	0.092%	3	0	0	0	0.038%	0.166%	0%	--	Yes
338	CBD	Wild Bourbon	1	0.252%	1	0	0	0	0.252%	0.252%	0%	--	Yes
339	CBD	Willy G's Lebanese	1	0.543%	0	0	1	0	0.543%	0.543%	100%	Yes	Yes
340	CBD	Winter Lake	8	0.180%	6	2	0	0	0.057%	0.443%	25%	--	Yes
341	CBD	Wu2 Remission	2	0.136%	2	0	0	0	0.061%	0.211%	0%	--	Yes
342	CBD	Wu5 x Lifter	1	0.056%	1	0	0	0	0.056%	0.056%	0%	--	Yes
343	Grain	X-59	65	0.041%	65	0	0	0	0.009%	0.132%	0%	--	No
344	CBD	YoungSim 10	27	0.321%	15	9	3	0	0.054%	0.926%	44%	Yes	Yes
345	Fiber	Zolotonosha 15	1	0.004%	1	0	0	0	0.004%	0.004%	0%	--	No